

**Title: A Qualitative Study Investigating the Similarities and Differences of Diploma
and Undergraduate Nursing (Adult) Students**

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Declaration

I, Jayne Donaldson, confirm that I as the named author conducted the research study detailed in this thesis. No portion of this work has been submitted in support of an application for another degree or qualification of this or any other university or institute.

Signature _____

Date _____

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Abbreviations

A.D.N.	Associate Degree Nurse
A.N.O.V.A.	Analysis of Variance
B.A.	Bachelor of Arts
B.M.I.	Body Mass Index
B.M.R.B.	British Market Research Bureau
B.N.	Bachelor of Nursing
B.N.F.	British National Formulary
B.S.N.	Baccalaureate Nurse
C.F.P.	Common Foundation Programme
C.L.E.S	Clinical Learning Environment Scale
C.P.C.	Clinical Placement Coordinator
d.f.	Degree of Freedom: A concept used in tests of statistical significance, referring to the number of sample values that cannot be calculated from knowledge of other values and a calculated statistic (Polit and Hungler 1987 p. 528)
Diploma	Diploma of Higher Education in Nursing
Dip.HE	Diploma of Higher Education in Nursing
D.O.H.	Department of Health
E.C.G.	Electrocardiograph
E.N.B.	National Board for Nursing, Midwifery and Health Visiting for England
F.B.C.	Full blood count
Grade D to G	Level of qualified nurse: grade D and E being junior and senior staff nurse; and F and G being junior and senior charge nurse/sister respectively
G.S.V.Q. III	General Standard Vocational Qualification Level III

H.E.	Higher Education
H.N.D.	Higher National Diploma
I.V.	Intravenous
M.E.S.	Mean Effect Size
N.B.S.	National Board for Nursing, Midwifery and Health Visiting for Scotland
N.C.Q.	Nursing Competency Questionnaire
N.E.S.	N.H.S. Education for Scotland
N.H.S	National Health Service
N.M.	Nurse Manager
N.M.C.	Nursing and Midwifery Council
R.C.N.	Royal College of Nursing
R.G.N.	Registered General Nurse
R.M.N.	Registered Mental Nurse
R.N.	Registered Nurse
S.P.S.S.	Statistical Package for Social Science
U.K.	United Kingdom
U.K.C.C.	United Kingdom Central Council for Nurses, Midwives and Health Visitors
U.S.A.	United States of America
W.H.O.	World Health Organisation
W.N.B	National Board for Nursing, Midwifery and Health Visiting for Wales

ABSTRACT

Very few research studies within the United Kingdom (U.K.) compare diploma and undergraduate nursing students (Bartlett, Simonite, Westcott, Taylor 2000; While, Fitzpatrick and Roberts 1998). With the promotion of graduate preparation within nursing (U.K.C.C. 1999) and as the debate over diploma versus degree level education continues, there is a need to research the similarities and differences between diploma and undergraduate students.

The aims of this study were to explore the preconceptions of pre-registration undergraduate and Diploma of Higher Education in Nursing (Dip.H.E.) (Adult) students have in relation to their programme and the nursing profession, and students' perceptions as their programmes progress. In addition the study aimed to explore how pre-registration undergraduate and Dip.H.E. (Adult) students perceive their preparation for the qualified role, and compare pre-registration undergraduate and diploma nursing students' actual performance in the clinical area near to qualification.

The study used grounded theory methodology (Glaser and Strauss 1967). Undergraduate (n=20) and Dip.H.E. (n=22) nursing (Adult) students from two institutions in Scotland were used. Volunteers for the study were sampled using the theoretical sampling technique (Glaser and Strauss 1967). Focus group interviews obtained data about the participants' preconceptions about their programme, from undergraduate (n=6) and diploma (n=6) participants within two months of commencing their nursing programme. Individual interviews were set up using undergraduate (n=8) and diploma (n=8) participants at the mid-point of each programme to investigate their opinions about the programmes and how they perceived their preparation for the qualified role. Undergraduate (n=6) and diploma (n=8) participants within the last two months of their programme (i.e within two months of qualifying as a Registered Nurse (Adult)), were individually interviewed to find out how they felt the educational programme had prepared them for clinical practice. Participant observation was carried out with the final year students in acute areas of practice. The researcher role was that of 'participant as observer' (Gold 1958).

Data analysis was carried out using the constant comparative analysis where data collection and coding took place simultaneously (Glaser and Strauss 1967). Data was coded and analysed using substantive (Strauss and Corbin 1990) and theoretical coding (Hutchinson 1993, Stern 1980), with the formation of a core category (Gray 1997). Subsequently a grounded theory was developed (Glaser and Strauss 1967).

Reliability and validity of the qualitative data produced was facilitated with the use of member validation (Guba and Lincoln 1981), outsider validation (Sandelowski 1986), the provision of an 'audit trail' (Leininger 1994), reflexivity of the researcher (Abbott and Sapsford 1998), and data saturation (Glaser and Strauss 1967).

Findings from the focus groups indicated that both groups were apprehensive about their first clinical placement, especially in relation to their own self-confidence and the uncertainty about their role within those placements. All students wanted to have the qualities of a 'good nurse' and expected to learn these qualities from clinical staff. Diploma level education was perceived as giving students better practical skills, while degree level education was perceived as giving students better theoretical skills.

At the mid-point of the programmes, diploma participants were more confident in their practical ability, while undergraduate participants were more confident in their theoretical ability. The clinical learning environment had a major effect, both positive and negative, on both sets of students' practical abilities. Students had experienced good and bad mentors, which had affected the integration of theory and practice, had 'shaped' their learning experience, and had resulted in different degrees of supervision and feedback. Overall, both groups of participants expressed their anxiety about their lack of practical skills, and their opportunities to link theory to practice.

In the last two months of each programme, both groups stated they felt that diploma students were more skilled in practice while undergraduate students had a better understanding and a deeper knowledge of certain areas of practice, especially when arguing the rationale for interventions (e.g. understanding drug actions and side effects). Undergraduate students stated that they were looking forward to the new challenge of being qualified staff nurses. However diploma students expressed concern and fear over the prospect of the added responsibility and accountability associated with the staff nurse's role. During the participant observation, undergraduate students demonstrated an understanding of patients' social, psychological and physical backgrounds. However, diploma students had difficulty demonstrating the same understanding of patients' problems, and found it more difficult solving clinical problems.

Role models, the clinical learning environment and their mentors influence students' competence to practice. Students' professional self-concept is developed from their knowledge, values and beliefs, and skills as the programme progresses. They feel more competent if they are exposed to good role models, have mentors who have a planned learning experience during which they are able to learn new skills, and consolidate skills already learnt. Findings from my study indicate that graduate preparation produces nurses with a higher level of theoretical and practical ability.

Chapter One

Background to the Study

Traditionally, Colleges of Nursing based within National Health Service (N.H.S.) hospitals provided nursing education. This training lead to registration as a Registered General Nurse (R.G.N.), a Mental Illness nurse, Children's nurse, or a Mental Handicap nurse, with post-registration courses and qualifications being available in Midwifery. Following the pilot and implementation of Project 2000 in England and Wales in 1986 (U.K.C.C. 1986), the Diploma of Higher Education in Nursing (Adult, or Mental Health, or Child, or Learning Disabilities, or Midwifery) replaced this system in Scotland in 1992. Thereafter, nurses were educated initially in Colleges of Nursing with Higher Education institutions validating courses, and later within Higher Education Institutions. Diplomates were also eligible to apply to the U.K.C.C. for registration as a Registered Nurse (R.N.) on the appropriate part of the Register. This method of educating nurses was the main system in use within the U.K. from 1992.

Since the late 1950s, a minority of nurses gained registration and a bachelor degree. These undergraduate programmes gradually became more popular. Opinion from the profession was divided over graduate level preparation (Chapman 1998; Murray 1997; Booth 1996; Kelly 1996; Garbett 1995; Smith 1993; Kelly 1991; Millar 1991; Oakley 1984; O'Brien 1984; Alderton 1983). Some questioned the need for nurses to be academic, while others stated that graduate nurses could not carry out the practical skills with the same level of ability as traditionally trained nurses. In fact, many felt that graduate nurses would not want to stay in practice areas and would seek promotion into areas such as management and education.

Upon qualification and registration within the U.K., graduate and diplomate nurses commence on the same grade of employment, and are expected to carry out that role to the same level of ability. Both groups meet minimum statutory requirement for competence to register (U.K.C.C. 1989). Therefore, there are a number of issues that I felt were unanswered in relation to graduate and diploma

nursing. The strengths and weaknesses of each programme were not apparent from the research available. There was a two-tier system of training nurses, but employers wanted the graduates and diplomates to carry out the same job to the same standard. There was no research evidence on the outcome of patient care or any patient satisfaction studies with graduate and diploma level prepared nurses. However, whilst graduates have a higher level of theoretical knowledge, there is very little evidence within nursing as to whether this has an effect on the practical ability of the graduate. In other words, there needs to be research evidence on whether the graduate can apply this advanced theoretical knowledge to practice, and whether this application to practice has an effect on the standard of care provided. Overall, there remains a two-tier system of nurse education, and perhaps this can be partly due to the lack of research-based evidence for and against each programme.

My own experience as an undergraduate nursing student in the early 1990s made me aware of the opinions of others towards graduate preparation in nursing. However, I was sceptical about the opinions towards graduate nurses, as I was not aware of any research evidence to prove or disprove these opinions.

The question of whether to prepare more graduate nurses was brought to the fore following a document by the Council of Deans and Heads of Departments of U.K. University Faculties for Nursing, Midwifery and Health Visiting (1998). This document advised that nursing should have a ten-year rolling programme towards an 'all-graduate profession'. I was aware of other countries, such as Canada, which were well on their way to producing an all-graduate profession. However, there was continuing debate within the nursing press in the U.K..

By 2001, the Scottish Executive (2001, p.57) aimed to produce more graduates from pre-registration programmes: "Education Providers will aim for the programmes to produce 80 per cent graduates at the point of registration, by 2005."

With other healthcare professionals within the multidisciplinary team studying to degree level, I felt it was appropriate to question the need for all nurses to be studying to this level. I was also aware of the increasing demands on nurses within the adult care areas. Technology has improved meaning nurses have to have an understanding of its uses. Clinical leadership and managerial skills were required as nurses were being made more aware of performance management. The level of clinical care provided by nurses was being scrutinised using methods such as evidence-based nursing, and clinical effectiveness. Therefore, nursing at this time not only demanded the newly-qualified to be able to carry out practical skills but also to provide a rationale for care, read and appraise research-based findings, and often defend their actions to legal, professional and multidisciplinary bodies.

In addition, the general public expectation of nurses and the N.H.S. were increasing. Health service users were becoming more aware of their rights within healthcare, and were to be consulted more in clinical decisions. Patients were more informed of their choices due the increasing access to a vast amount of information via sources such as the Internet. Nurses needed to be up-to-date knowledgeable practitioners, with a wide range of practical skills. Therefore, the nurse's role is constantly changing and education is required to meet the needs of these changes. Therefore, the nursing profession should be asking whether one programme was more effective in preparing nurses to practice safely and effectively.

Since 1992 the majority of pre-registration nurses have been educated to diploma level. Reports from the nursing press were still divided over the need for this academic level. It was well known from press reports that the diploma programme had some teething problems. However, the overall aim was to produce a 'knowledgeable doer'. In other words, a nurse who had the knowledge and could put that knowledge into practice.

I commenced this study in May 1998, having been in a lecturer post within a diploma programme in Scotland since January 1998.

Given the difference in academic levels of a diploma and undergraduate degree programme, I was keen to:

- (a) investigate why nurses chose a diploma or degree programme;
- (b) ask if students on different academic programmes have different perceptions of nursing;
- (c) understand how students rated their preparation for the qualified role; and
- (d) understand the relationship between academic level and practical ability.

Firstly, I reviewed the literature on diploma and graduate level preparation for nurses. This included the background to the development and subsequent literature of each programme. The aims of the study were then set from the literature searched.

Chapter Two

Literature Review

2.0 Introduction

To establish what was known about diploma and graduate preparation for nurses, I began reviewing the literature on the implementation of Project 2000 (1986-1995) and subsequent Diploma of Higher Education in Nursing research (1995-1998). Thereafter, literature on the undergraduate preparation of nurses, and then literature comparing undergraduate and diploma preparation was reviewed.

2.1 Diplomate preparation for nurses

In May 1986 the United Kingdom Central Council for Nurses, Midwives and Health Visitors (U.K.C.C.) published its proposals for the reform of nurse education under the title *Project 2000 – a new Preparation for Practice* (U.K.C.C. 1986). The overall terms of reference for Project 2000 were:

“To determine the education and training required in preparation for the professional practice of nursing, midwifery and health visiting in relation to the projected health care needs in the 1990s and beyond, and to make recommendations.”

(U.K.C.C. 1986, p. 3)

The Report made five major recommendations. The first recommendation was to provide a three-year programme with a common foundation programme (C.F.P.) of 18 months followed by an 18-month branch programme leading to a Diploma in Higher Education in Nursing. This type of education had been suggested by a number of reports prior to Project 2000, for example, the Report of the Committee on Nursing (Committee on Nursing 1972), the Reform of Nursing Education (Royal College of Nursing 1964), the Report of the Working Party on the Recruitment and Training of Nurses (Ministry of Health, Department of Health for Scotland, Ministry of Labour and National Service

1947). The Report also recommended that there would be midwifery, adult nursing, child nursing, learning disability nursing, and mental health nursing available as separate 18-month branch programmes. Thirdly, the second level training (i.e. Enrolled Nurses) would be phased out.

Fourthly, students were to have full student status (supernumerary), with no contribution to rostered service. “Supernumerary status meant that students could not be counted on to provide a predictable contribution to service provision.” (White, Riley, Davies and Twinn 1993, p.106). The U.K.C.C. (1986 p.54) describe supernumerary status as the ‘linchpin’ of their recommendations. The U.K.C.C. stated that before supernumerary status the learner was not free to learn due to the pressure of work. Supernumerary status had also been suggested by a number of previous reports (Royal College of Nursing 1985; the Committee on Nursing 1972; the Ministry of Health, Department of Health for Scotland, Ministry of Labour and National Service 1947; the Interdepartmental Committee on Nursing 1938; the Lancet Committee 1932). Clay (1987) suggests that the main reason supernumerary status had been rejected prior to Project 2000 was the concern over staffing levels in clinical areas as students had been included as part of the staffing numbers. A change was made to the original Project 2000 proposals regarding supernumerary status to students providing a 20% service contribution (known as rostered service) within their three-year programme. This was to give recognition for use of the services throughout the three years, and was seen as a workable compromise between service and education (Bentley 1996). Interestingly, Jowett, Walton and Payne (1994) found that students valued their rostered service as a means of easing the transition from student to staff nurse.

Finally, the recommendations stated that there was a need for improved educational facilities. This involved the development of links with the Higher Education (H.E.) sector (see Chapter 1, p.4). After consultation, the Project was launched in Scotland in 1993, when all Colleges of Nursing became part of the higher education sector. Initially courses were validated by Higher Education institutions but were provided within NHS Colleges of Nursing. Later, the

Colleges of Nursing were integrated, and programmes were provided entirely by H.E. institutions.

To emphasise the separation from service and the control of education, the students' remuneration was to be a non-means-tested training grant, or bursary. Again this had been proposed by earlier reports (e.g. Committee on Nursing 1972; Royal College of Nursing 1964).

There still appeared to be debate in the nursing profession about nurses' academic ability and some questioned the need for nurses to be educated to diploma and degree level. Judge (1986, p.31) highlighted this in pointing out public ambivalence in views on nursing. He expressed the opinion that:

“... people care a great deal about nurses, but not very much about their education and training. The popular misconception is that nurses do not need to be clever (Indeed, it might be bad for us if they were), that their training needs to be severely practical, that they work in hospitals until they marry doctors, that they are girls and women, and that they should be kind and sensible.”

However, Judge's view on the academic nature of nursing was anecdotal. Following the implementation of Project 2000, nurses in education, research and clinical practice have investigated the advantages and disadvantages of the new curriculum. The literature will be critically analysed (section 2.3, p. 11) involving findings from demonstration districts (i.e. until 1995) and from 1995 to 1998 (i.e. the start of this project).

2.2 Graduate Nursing

Graduate nursing commenced within the U.K. at the University of Edinburgh in 1956, followed by the University of Manchester, and later in other universities in the 1970s and 1980s (Altschul 1983). However most aspiring nurses did not

access degree programmes and traditional (and after 1986, diploma) programmes remained the main method of education in nursing.

The Briggs Committee (Committee on Nursing 1972) recommended that five percent of nurses should be graduates, although the justification for this percentage was not reported by the Committee. Ten years later, Altschul (1983) stated that if the community at large had been asked about graduate nurses, there would still have been surprise that anyone wanting a degree should really want to nurse, or conversely that anyone wanting to nurse should wish a degree.

Alderton (1983, p.29) wrote that her training for State Registration was “... inefficient, inadequate and inappropriate for the developing role of the nurse in the 1980s and beyond”. She went on to describe herself as a ‘worker’ not a student, where she needed to build confidence from well-supervised and constant practice. Although Alderton’s statement was anecdotal, it did reflect some of the views on the need for nursing to become more academic to keep up with the demands of the job. Thus it seems there was a view that ‘traditional’ programmes needed to be made more academic to keep pace with the changing demands of nursing. However the nursing profession has continued to debate the issue of graduate nursing. I will firstly review the literature on diploma preparation, and then review the literature on the comparison of graduate and non-graduate nurses in practice.

2.3 Literature review: Project 2000 (Dip.H.E.)

With the implementation of Project 2000 in England between 1986 and 1995, there were a number of research studies carried out in demonstration districts in which pilot studies of the programme were done. More recently, there have been reports of studies carried out in places other than the demonstration districts. This literature review will detail studies from 1986 until data collection commenced for my study (i.e. late 1998), and other contemporary literature. Research and literature opinions pointed to ten main areas: recruitment to the programme; the C.F.P.; the theory-practice gap; the role of the lecturer;

supernumerary status; preparation for professional practice; the lack of practical skills achieved during the programme; the perceptions of newly qualified diplomates; the 'threat' to traditionally trained nurses; and trained nurses' perceptions of Project 2000.

The literature was searched using databases such as OVID, CINAL, and MEDLINE. Sources were also found on the internet such as U.K.C.C. and Nursing and Midwifery Council (N.M.C.) documents. Key words such as diploma, diplomate, undergraduate, graduate, pre-registration, nursing, nurse, supernumerary status, and competence, were used to search the databases. Literature sources were also searched as a result of reading literature found via the databases. Only literature that related to pre-registration diploma or undergraduate programmes in nursing were used.

2.3.1 Recruitment to the programme

At the time of the introduction of Project 2000, there was a growing recruitment crisis within nursing. Nurse education widened the entry gate to attract recruits and increase the number of entrants (Elkan and Robinson 1995). With the emphasis on academic standards within Project 2000, some remarked that widening the entry gate seemed a stark contrast to the overall aims of the project. A mature Project 2000 student explained: "It is a strange logic that leads a profession to raise its academic standards at the same time as lowering its conditions of entry ..." (Allen (1990, p.43) cited in Elkan and Robinson (1995)). However, widening of the entry gate was done to attract people with academic qualifications of the same level (e.g. GSVQ III) as traditional qualifications (e.g. Standard Grades) or through the healthcare cadet schemes (Andalo 2003), but this has been associated with comments about lowering the entry criteria.

Recruitment to and retention in the nursing profession, is discussed later in this chapter.

2.3.2 Common Foundation Programme (C.F.P.)

All students followed a Common Foundation Programme in the first eighteen months of the programme. Research studies identified that the C.F.P. was too adult based, with the other branches virtually ignored (White, Green and Williams 1999; Jowett 1995a; Jowett, Walton and Payne 1994; White, Riley, Davies, Twinn 1993). Eaton, Williams and Green (2000) found that diploma and undergraduate Child and Mental Health Branch students were more discontented with the C.F.P. than Adult students. Questionnaires were completed by 315 students undertaking the C.F.P. at various intervals during their educational programme during 1995 to 1996. Although the authors provide details of the content of the questionnaire, they do not discuss any evidence of reliability and validity testing. Therefore the reliability and validity of the questionnaire remains questionable. Child and Mental Health students stated that the C.F.P. did not provide adequate preparation for placements, they found lecturers to be less supportive and were less satisfied with the teaching component of the C.F.P. than Adult students. Maben and MacLeod Clark (1997, p.58) recommended that the “perceived ‘adult’ bias in the content of the common foundation programme could be reduced.”

Bradby and Soothill (1993) investigated the status transition from C.F.P. to branch programme by studying the first two cohorts of students in one college of nursing and midwifery in England. The first cohort involved 53 Adult, 23 Mental Health and five Learning Disability Branch students; the second cohort involved 42 Adult, eight Mental Health and 10 Learning Disability Branch students. Self-completed questionnaires were used three months into each branch programme. A response rate of 67% for the first cohort and 78% for the second cohort was obtained.

The authors reported that students felt like ‘real nurses’ once they entered the branch programme. According to the authors this implied being useful in the ward and being accepted as part of the team. Bradby and Soothill (1993) also noted that as students became more fulfilled in the branch programme their

confidence increased as placements were longer and they could settle into the ward routines and become part of the team. Gray (1997) points out that this level of confidence could have been due to the fact that the students had already gone through the status passage into the branch programme over the three months of the study. However students (21%) also voiced concern over their lack of practical skills.

The report makes no attempt to inform the reader of the sampling strategy used which raises the question of potential bias within the sample (Polit and Hungler 1995; Polgar and Thomas 1995). The results are difficult to generalise since a small sample from only one institution was used. The authors also state that they used open questions, no samples of which are included, and the way the data were coded and analysed is not mentioned. The potential for researcher bias and false inferences drawn from the data has to make me very cautious of the reliability and validity of the findings.

In a four and a half-year longitudinal study, Jowett et al (1994) used six of the 13 demonstration districts for Project 2000. Students (n=420) were contacted, and 75% volunteered (n=317). A systematic sample produced 77 students for interview. The study used a triangulation of data sources (Polit and Hungler 1995): twenty-nine sisters/charge nurses, four teacher practitioners, 35 student supervisors, and 22 nursing personnel. Triangulation means that more than one data source has been used and the data are compared to find what the 'truth' is (Abbott and Sapsford 1998; Hammersley and Atkinson 1983). The use of triangulation adds to the reliability and validity of the findings. A random sampling strategy ensures that each subject has an equal chance of being selected and thus reduces the possibility of researcher bias (Polit and Hungler 1995). Students were interviewed three times during and once after the programme. Managers and practitioners were interviewed once at an early stage of the programme and again in third year. Educational staff were interviewed three times during the course.

Thematic analysis was used to analyse the interview data, but there was no report of the use of field notes, memos, diary/log or reflexivity. Therefore the 'audit trail' may be difficult to follow causing the data to lack credibility (Guba and Lincoln 1981). Post verification validation was achieved by disseminating a draft report to all study sites. It is the opinion of Gray (1997) that although not explicitly stated, from the statements given in the report, verification was achieved and consequently credibility and confirmability. However, I would question this as it is not clear how the authors obtained feedback from the draft report they sent to study sites, and the 'audit trail' would be difficult to follow.

In summary, Jowett et al (1994) reported that there was often a lack of logical progression of subjects within the courses, with varying degrees of involvement of staff in the planning and providing of the diploma programme. Students reported difficulty relating to some subjects, often due to the lack of sufficient background and context of the topics. Students and staff reported concern over the overall structure and the priorities of the course. Students were concerned over their lack of knowledge and skills within the C.F.P., but at the same time were relieved to get into the branch programme, reporting a sense of relief and of 'settling in' to what they perceived as more relevant material.

On their review of the literature Elkan and Robinson (1995) concluded that some students felt swamped by both the breadth and the disparate nature of the programme during the C.F.P., and struggled to see the relevance attached to various subjects, the level of direction, and the level at which the programme had been pitched.

Therefore the limited research available from the demonstration sites suggested that students had complaints about the C.F.P., and their lack of practical skills remained a concern for most students. In a later study in Scotland, the C.F.P. was described as inadequate in relation to theoretical input, practice development and branch specific preparation (May, Veitch, McIntosh, Alexander 1997). Students on the smaller branch programmes (i.e. Mental Health, Learning

Disabilities, Child) noted that the C.F.P. was disproportionately related to the Adult Branch programme.

2.3.3 Theory-Practice Gap

Pre-Project 2000 programmes identified the existence of a 'theory-practice gap' i.e. what was taught in theory was different to what was observed/carried out in practice (Hislop, Inglis, Cope, Soddart, McIntosh 1996; Ferguson and Jinks 1994; MacGuire 1966; Alexander 1983). The U.K.C.C. (1986) stressed the need for theory to relate closely to practice in the new Project 2000 programme.

However, Project 2000 students within the demonstration districts still identified a gap between theory and practice (Elkan and Robinson 1995; Elkan, Hillman and Robinson 1993; White et al 1993; Elkan and Robinson 1991). Elkan and Robinson (1994) suggested that the theory-practice gap was highlighted due to the 'research spotlight' on the new programme. Project 2000 did not bring the theory-practice gap into being, but clearly had not solved the problem (Ferguson and Jinks 1994).

During a study of nurse managers' (n=60) perceptions of Project 2000 students, individual and focus group interviews revealed that students were felt to have problems applying theory to practice (Luker, Carlisle, Stilwell, Davies, Wilson 1996). Project 2000 diplomates were viewed as having a good theoretical background with regard to professional and clinical issues. When this issue was discussed further with the managers some important points were raised. Often the managers explained that the diplomate was able to cite research papers to justify what they were saying particularly when challenging practice. However many managers felt that the diplomate frequently had difficulty applying some of this understanding to clinical issues in practice.

Parker and Carlisle (1996) conducted a study of the perceptions of final year Project 2000 students towards their educational programme. One hundred and thirty one students were invited to participate from one site, and 114 took part (a

response rate of 87%). The study used a convenience sample, which is quick and easy to use, but is open to researcher bias (Polit and Hungler 1995). Students were in their final year but were excluded if they had previous experience of another nurse training. In terms of value, relevance, intellectual potency, teaching methods and organisation, data were collected using the Hoste scale, which uses bi-polar adjectival pairs of opposite meaning (e.g. useful and useless) and then groups them into six sub-scales. The authors state that the scale has been proved to be both reliable and valid in previous nurse education research studies. However, this does not prove it is so for their population. Polit and Hungler (1987, p. 316) state that “the reliability of an instrument is not a property of the instrument, but rather of the instrument when administered to a certain sample under certain conditions.” In other words, the researchers did not prove the quality or adequacy of the scale for use on their population of students.

A statistical computer package was used for data analysis, and the mean scores for the sub-scales were calculated. The authors present the mean scores as a percentage of the maximum score, making the results easy to interpret. Analysis of variance (A.N.O.V.A.) was used to test the significance of differences between the means. This is an appropriate statistical test when the researcher is looking to test the significance of the differences between the means of three or more groups (Polit and Hungler 1999).

Findings from the study indicate that subjects appreciate the value (77%), relevance (78%) and breadth (71%) of training, which the authors conclude means that there must be a general satisfaction with the intellectual demands of the programme. The authors point out that this could have been due to the fact that these students had passed all theory assessments. However it does seem to contradict other findings that students of Project 2000 were dissatisfied with the academic component (Elkan and Robinson 1995; Jowett 1995a & 1995b; Millar 1991). Ansari (2002a) reported that student age predicted performance and showed higher levels of satisfaction with their course than younger students. He used a variety of modules from both pre and post-registration courses at one university in England. Ansari (2002b) suggests that the academic level of the

module, the mode of study used, and the qualification aim also affects the level of satisfaction with the programme. I would suggest that further studies are required to investigate the level of performance and satisfaction with the academic and practical component within diploma and undergraduate preregistration programmes. Future studies should include correlation with other factors such as age, previous work experience and previous academic performance. These factors may influence the level of satisfaction and performance of the students. A larger sample over the whole of the U.K. would improve the generalisability of the findings.

Parker and Carlisle (1996) reported that students (62%) complained about the high numbers in class which made small group work impractical. Parker and Carlisle (1996) stated that the students consistently rated practice above theory in their learning process. They suggest that students still regard theory as an abstract ideal, with the clinical areas being where most relevant learning takes place.

Overall the findings of Parker and Carlisle (1996) must be viewed cautiously due to the lack of reliability and validity testing of the scale and the sampling strategy used. Since the findings relate to students on one site rather than to the diploma programme in general, the pros and cons could be caused by institutional factors.

As part of a larger study, MacLeod Clark, Maben and Jones (1997a) examined the impact of Project 2000 on the philosophy and perception of the nature and the discipline of nursing. The authors argued that nursing was a subordinate and 'womanly' occupation, dominated by the medical profession, ruled by the medical model and had poor academic status. According to MacLeod et al (1997a) Project 2000 initiated change, by shaking off the medical profession and pushed nursing into becoming a discipline in its own right. Therefore the authors aimed to investigate how students' perceptions and philosophy of nursing changed during Project 2000 as well as exploring others' (teachers, practitioners and managers) views.

The authors gathered the data over a three-year period in two education centres in England. Data collection involved interviews and questionnaires. Project 2000 students from four cohorts within each centre completed a questionnaire. Students entered the research at different stages of their programme and were later accessed twice at nine monthly intervals within an 18-month data collection period. The questionnaire contained four-point Likert scales and open-ended questions. Each student completed the questionnaire three times during the 18-month data collection period. Four hundred and eighty nine students were recruited and 1200 questionnaires were completed. The recruitment and sampling (if any) procedure was not discussed by the authors and could have been biased. Response rates varied over the whole study from 27% to 98%. Parts of the study where response rates were poor could be subject to respondent bias (Polit and Hungler 1999). From the report, I am unsure of which findings were based on poor response rates and it is therefore impossible to gauge the reliability and validity of the findings presented.

Two cohorts from each centre qualified within the life of the study and were sent a postal questionnaire at five to six months post-qualification (i.e. they completed questionnaires at 27 and 36 months into the diploma programme, and again in this post-qualification time). Eighty-seven responded from 240 (a response rate of 33%) but the authors concluded that they felt that the response sample was representative based on the demographic characteristics of the respondents, although how this was concluded is not explained in the study report. Therefore, due to the very small sample size, the findings could be prone to bias despite the assurances of the researchers that the response sample was representative (Polit and Hungler 1995). A sub-sample of each of the four cohorts who were qualified between five and 11 months took part in in-depth interviews (n=20). The sample procedure for interviewing is not reported, and therefore could have been biased (Polit and Hungler 1999).

Overall, students' views changed over time with their perceptions broadening to include holism, health promotion, and theory and research as a basis for practice. As the course progressed research was seen as having an impact on practice

(from 70% at the end of the C.F.P. to 80% by the end of the course), especially in areas such as infection control, pre-operative care and pressure area care. Seeing nursing as caring for the sick decreased significantly over time (from 22% to 6%). Promotion of health increased as the programme progressed especially when providing holistic care to the patient, and a verbatim statement was given to support this view. The authors explain that students wanted to provide holistic nursing care and this had increased significantly (from 37% to 69%). Students valued their interpersonal skills highly. Some students highlighted negative changes in their views of nursing, which included care being resource driven and being less patient-orientated due to changes in the N.H.S., with an emphasis on the administrative role of the nurse.

MacLeod Clark et al (1997a) concluded that Project 2000 produced a different type of nurse to traditional courses. There seemed to be a shift from ritual and task orientation towards a patient-centred, research-based approach, with practitioners prepared to question colleagues and act as the patient's advocate. This is in keeping with the aim of Project 2000 which was to produce a 'knowledgeable doer', with research based practice and sound rationale for care. However, the occasional low response rates, the small interviewee sample and the failure of the researchers to detail the sampling procedure used limit the ability to generalise the findings. However, the authors do suggest further study to support/refute their claims. I would suggest that the problem with the data collection methods is that it presumes that what the participants told the researcher is what they actually do in practice. An early seminal study by Bendall (1975) discussed the difficulty in assessing research subjects as the assessment can become a " ... 'performance' laid on for the occasion" [p.66]. In other words, criteria may be used when assessing or researching an individual that may not be present in the individual's everyday work. Reliability of the findings by MacLeod Clark et al (1997a) could have been improved with the use of participant observation in the clinical areas.

2.3.4 Role of the lecturer

The Project 2000 proposal warned that teaching in the practice-setting element should not be left entirely to service practitioners (U.K.C.C. 1986). There appeared to be confusion and uncertainty regarding nurse teachers' role in the practice setting (Elkan and Robinson 1995). However during the implementation of Project 2000, practitioners continued to be used within the practice area for teaching and assessing students. White et al (1993) stated that practitioners were overwhelmed by competing demands on their time and this impacted on the quality of learning experiences provided. Preparation of practice staff for the role of practitioner/teacher/assessor was also described as inadequate.

Most nurse teachers were found not to have provided 'hands-on' teaching to students. With the responsibilities of classroom teaching and pursuit of their own academic credibility it was proving too difficult for nurse teachers to maintain a clinical input as well (Crotty 1993; Elkan, Hillman and Robinson 1993; Luker, Carlisle, Kirk 1993; White et al 1993; Jowett Walton, Payne 1992 a & b; Payne, Jowett, Walton 1991). A similar finding was more recently reported by Kirk, Carlisle and Luker (1997) and May, Veitch, McIntosh and Alexander (1997).

2.3.5 Supernumerary status

Following the implementation of Project 2000, students had supernumerary status within the clinical areas. However, in reality, supernumerary status was found to be dependant on the availability of placements, staffing levels, adequate preparation of service practitioners, and co-ordination between teachers and practitioners (Elkan and Robinson 1995).

With the inception of Project 2000, students were no longer 'pairs of hands'. Students in research studies regarded being seen to be part of the ward team as important (Jowett et al 1994; White et al 1993; Bradby and Soothill 1993). Many found that integration into the team was difficult if their role was to 'observe', which was their perception of supernumerary status (White et al 1993). From the limited literature available, it appeared that there was a lack of

clear definition of the term, especially in terms of observation and participation in care when students were in practice.

White et al (1993) recognised that practitioners did not wholly embrace supernumerary status especially when staffing levels were low. In such cases students were resentful at not having the necessary support from practitioners. White et al (1993 p. 205) pointed out that:

“... supernumerary status meant that students could not be counted on to provide a predictable contribution to service provision; the corollary was that staff could not be counted on to provide predictable educational support to students.”

Therefore support within the clinical area was often poor in quality and quantity depending on staff attitudes and staffing levels within the unit (White et al 1993). At this relatively early stage of Project 2000, students, clinical and lecturing staff had a lack of understanding of supernumerary status, both in terms of definition and in the reality of its working in practice.

Watson and Kiger (1994) undertook a grounded theory study to investigate clinical staff's perceptions of Project 2000 students. This seems an appropriate method as little was known on the subject (Benton 1996) and data collection was from the clinical staff themselves. Fourteen staff nurses from different wards in a large teaching hospital were interviewed. The authors argue that interviews were appropriate as they provided the researcher with an opportunity to “... elicit expressions of attitudes, views, impressions and the like ...”, but also point out that it is unsafe for the researcher to assume that these attitudes and views are translated into behaviour (Watson and Kiger 1994, p.459).

The participants, half of whom had recently been on a course to prepare them for being supervisors of the new students in the clinical areas, had a range of clinical experience and grades. All of them had experience of working with students, both traditionally trained and Project 2000 students. Data coding and analysis

used the constant comparative method (Strauss and Corbin 1990). Three main themes emerged, including the individual reaction to Project 2000, the practical and implied changes, and the influences affecting the student environment. The authors provided a diagram of how each theme and its sub-categories related to the other themes.

Most participants felt that Project 2000 students were too academic and did not get enough 'hands-on' experience, with supernumerary status making them almost a visitor in clinical placements. Trained staff expressed these views on supernumerary status in other research studies (Ramprogus 1995; White et al 1993; Elkan and Robinson 1991). There was also a suggestion that students would experience what Kramer (1974) described as 'reality shock' when they qualified.

Watson and Kiger (1994) note that to gain a reliable understanding of the participants' world it could be argued that there needed to be a degree of objectivity. They state that their preconceptions had to be forgotten in order to find the aspects which were important to the informants. However, there is no evidence of the authors using the process of reflexivity or keeping field notes to record hunches, feelings, insights, assumptions and even possible sources of bias (Ely, Anzul, Friedman, Garner, Steinmetz 1991). Watson noted that the research supervisor (Kiger) scrutinised the data analysis as one means of gaining additional distance from potential preconceptions (Watson and Kiger 1994). In keeping with the essence of Grounded Theory, Watson and Kiger (1994) advise against generalising the results due to the small sample size, but conclude that they do offer some illumination of the subjective world of the clinical staff who participated.

May et al (1997) completed a longitudinal study (four and a half years) of the diploma programme in Scotland. They examined the teaching and learning processes of the programme and their relationship to educational outcomes for the individual students.

The study used an illuminative evaluation approach, chosen because it was ideally suited to the study of curriculum innovations since the implementation was expected to be marked by wide variation and continuing development (May et al 1997). Six of the 12 Scottish Colleges of Nursing and Midwifery were used in the case study. The use of a purposive sample is common in qualitative research to provide a source of rich and meaningful data (Streubert and Carpenter 1999) but does make the sample susceptible to researcher bias (Polit and Hungler 1995). The overall sample included 41 principals/directors and course leaders, 62 teachers, 278 students and 113 mentors.

To improve reliability and validity of the findings, triangulation of data generation and collection methods was used: semi-structured interviews; non-participant observation; documentary analysis; and Likert-type scales. The interview questions were developed using a nominal group technique which the authors describe as a "... valuable opportunity to secure expert views on issues of relevance" [p.6]. The interview schedule became more focussed as the research progressed, and examples of this are included in the report. Non-participant observation took place in the theoretical element of the programmes, observing across a range of teaching methods most commonly used in the programmes. Documentary sources included curriculum documents and other relevant college reports. Likert-type scales were produced to investigate how prepared the student felt to practice as a qualified nurse or midwife. The authors stated that due to the unavailability of students on rostered service, little use was made of this method.

Qualitative data were transcribed and entered into a computer package, 'Hyperqual'. Inter-rater reliability in establishing categories was checked using two field researchers. To check the consistency of their categorising decisions, the project leader categorised 1000 pieces of 'blind' text and an 87% level of agreement was achieved. In addition the authors state that the use of verbatim statements, together with extracts from observation sessions, provides the reader with a direct means of identifying whether the interpretations presented within

the report are reasonable and trustworthy. The categories were condensed into eight themes.

Again a number of findings emerged, but only those relating specifically to student views and clinical areas will be discussed here. The impact of recent N.H.S. changes and further pressures on staff to act as mentors for students often resulted in limited support for students in the clinical areas. Tutors reported a lack of time to carry out their support role for students in the clinical areas, due to the emphasis on classroom teaching and research commitments. The role of students in placement-based learning was routinely compromised in order to fill the gaps in service provision, and often to the detriment of student learning. Students often contributed voluntarily or were expected to do so when staffing levels were inadequate – this frequently led to students being unable to direct their own learning and/or limited the support available. The authors concluded that in these situations the learning experience was of a lower quality.

In agreement with a finding of previous studies already discussed, May et al (1997) noted that the lack of consistent understanding of supernumerary status had led to confusion. The student observer role was not, at the outset, well understood nor was it seen to be of any educational benefit, except by a minority of students. Full participation in care was associated with rostered service, but staff in many practice settings expected this throughout the branch programme.

On a positive note, when students were exposed to areas that used up-to-date research and exemplified best practice, the authors concluded that students found this of significant educational benefit. However students noted the availability of these areas was limited. There seemed to be a difference between what students expected and what actually happened (e.g. holistic, individualised care was expected but care was task driven). Positive placement experiences were characterised by students retaining supernumerary status, being included as full members of the team, being able to identify and meet individual learning needs and having the time to learn at their own pace. Also if students had experience

of continuity of care through for example primary care team arrangements, their learning was helped.

Joyce (1999) documented similar problems and benefits of supernumerary status. The study aimed to explore the term 'supernumerary status' and explore the implementation of supernumerary learning from students', clinical staff's and nurse teachers' perspectives. Joyce also advocated a framework for implementing supernumerary status for diploma nursing students. Using a phenomenological approach, Joyce (1999) purposively sampled eight clinical nursing staff, 31 second-year diploma students and four nurse teachers. All clinical staff had been involved in supervising supernumerary students, and took part in a focus group. The student nurses (n=68) were the first to gain supernumerary status in the hospital. Thirty-one students participated and were asked to write critical incidents. Semi-structured interviews were carried out on the purposive sample of teachers (who had been involved in teaching year one of the students' programme). Joyce (1999) described how data analysis was carried out with each group of participants.

Joyce (1999) found that a number of meanings existed for the term 'supernumerary status'. All three groups defined supernumerary in human resource terms, i.e. the student was not part of the workforce. Other meanings included 'the students as both observer and participant' and 'working under supervision'. Different interpretations of the term emerged from the data.

The implementation of supernumerary status revealed interesting findings. All three groups stated that it had advantages such as providing the student with more time to see a procedure, but both teachers and students felt that clinical staff were unsure of their role. Clinical staff stated that they were unprepared for the role. Students stated that they could 'go to see procedures' but at the same time clinical staff were unsure what to expect from the student. Students also noted that there were times they had been left unsupervised and also had experienced negative attitudes of staff towards them. Joyce (1999, p.572) explained that "...not being part of the workforce sometimes meant partial

exclusion from the nursing team for students.” Teachers noted that there was a conflict between not allowing the student to do anything but on the other hand, not just using the student as ‘another pair of hands’. The author reports these findings as verbatim statements to enhance the credibility of the findings (Guba and Lincoln 1981).

As in other studies (e.g. Gray 1997; May et al 1997), Joyce (1999) stated that she found mixed opinions on whether students should only observe or be allowed to participate in care. Joyce (1999) suggests that students may progress from being an observer to working under supervision, and then to working independently. However, they may have to revert back to the observer role for example if they have just moved onto a specialist ward. The role of the supervisor would need to be flexible and change with the needs of the student.

Joyce (1999) warns against the generalisation of the results due to the small sample size and the small geographical area (one Irish hospital) used. The author admits that students documented a small number of critical incidents, but this may have been due to the lack of experience of the students. She recommended that students and clinical staff should be informed and educated on the supernumerary status of students. She also warned that the shortage of staff and busy periods in a ward environment, may result in inadequate supervision for the student (a findings also noted by May et al 1997).

By 2002, a study by Hyde and Brady highlighted staff nurses’ perceptions of diploma students with supernumerary students compared to traditionally trained students in the Republic of Ireland. The aim of the study was to explore staff nurses’ perceptions of their role in facilitating learning for diploma students in clinical areas and their attitudes towards these students. Access to staff was granted via the Directors of Nursing in two large hospitals, and participants were informed of the study via an information leaflet. The staff nurses were Registered General Nurses (R.G.N), in full-time employment, and were qualified for at least two years. They had completed the traditional training programme in Ireland. A convenience sample of 16 were chosen and formally consented for

the study. Anonymity and confidentiality was assured and maintained. Most reported having had no formal training or preparation for their role in facilitating clinical learning for supernumerary students.

During 2000-2001, Brady, who had no previous contact with the staff nurses, conducted semi-structured interviews. An interview guide was used and is provided as an appendix within the report. Data analysis was carried out using the software package NUD*IST, and data were combined to form themes. One of these themes was the participants' perceptions of supernumerary status in clinical settings. To enhance the credibility of findings, "...the researcher returned to three of the participants with the analysis of their own individual accounts and discussed them at length." (Hyde and Brady 2002, p. 626). Documenting memos and theoretical notes of data analysis and interpretation ensured audibility. The authors support each theme and statements through the use of verbatim quotes.

Participants (i.e. staff nurses) compared diplomates with supernumerary status to 'traditionally trained' students within three categories: 'learning by doing', 'clinical responsibility' and 'being part of the team'. The 'learning by doing' theme described the diplomates as being overly focussed on theory, and were not sufficiently engaged within practical patient care. This led to a number of participants being concerned about the gaps between theory and clinical experience/practice. However, participants described 'traditionally trained' students as keen to participate in patient care, and they felt that these students required less supervision. Due to the greater engagement in patient care, participants reported having a more positive attitude towards the traditionally trained students than the supernumerary students. Perhaps this was due to the fact that the participants had completed the same training as the traditionally trained students, and could have been bias towards this form of training.

In keeping with earlier studies, there was confusion over the role of observation within supernumerary status which may have led to the diplomate being excluded from learning opportunities either by the participants or by the student

stating that they were not allowed to undertake a particular task. Participants misconstrued supernumerary status to imply that these students were “simply observers” (Hyde and Brady 2002, p.629). “...this misconception of the role impeded the educational experience ...by excluding them [i.e. the students] from undertaking supervised practical activities necessary to develop ‘knowing how’ (Polanyi 1958 cited by Hyde and Brady 2002)” (Hyde and Brady 2002, p.629).

Within the ‘clinical responsibility’ theme, it emerged that traditionally trained students were given significantly more responsibility and as such were perceived to be more interested and motivated than their supernumerary counterparts. Participants also spoke of their reluctance to delegate responsibility to supernumerary diplomates as this would increase the amount of supervision required. Due to the pressure of workload many participants felt that they were unable to give this required level of supervision especially during busy periods.

Within the ‘being part of the team’ theme, traditionally trained students were perceived by participants as being more ‘like one of them’. The supernumerary diplomates were ‘different’ in a number of ways as they worked different shift patterns to the participants, and had ‘visitor’ status. Participants admitted to passing on information to traditionally trained students such as details of patients and ward rounds, since they were members of staff, while supernumerary diplomates were on a ‘need to know’ basis.

Hyde and Brady (2002) discuss the similarities of the findings of this study to studies in the U.K. which have highlighted similar problems with supernumerary status especially in its early implementation. The authors caution readers of the small sample size and that student nurses’ views were not considered. However, I think it is worth noting that despite the problems associated with the understanding of supernumerary status described in a large number of U.K. studies, Hyde and Brady (2002) did not consider how they would formally prepare qualified staff for their role with supernumerary diplomates. The authors do not discuss the future preparation of qualified staff to improve their

understanding supernumerary status. However, Joyce (1999) did acknowledge and suggest ways to implement supernumerary learning.

2.3.6 Preparation for Professional Practice

Luker et al (1996) examined the fitness for purpose of Project 2000 nursing students which the authors define as the appropriateness of the product for uses to which the consumer wishes to put it. One part of the study questioned nurse managers, most of whom were nurses, as to their satisfaction with Project 2000 diplomates. The research consisted of individual and focus group interviews.

A qualitative method of data collection was used as “... a valuable source of information on the lived experience of managers who are employing and working alongside the newly qualified diplomates” (Luker et al 1996, p. 18). The interviews were semi-structured to allow managers time and opportunity to consider and reflect upon the topic areas. However the authors do point out that due to the relatively small sample size and lack of quantitative data it was impossible to generalise the findings, but they argue that the use of verbatim statements provides a connection to the ‘real’ experience of the managers.

Luker et al (1996) aimed to assess the match between skills required of Registered Nurses by health service managers, and the skills exhibited by Project 2000 diplomates. The study population comprised managers based in the Midlands and North East England. Each had at least one cohort of Project 2000 diplomates qualifying within their region and diplomates who had taken up appointment within their Trust region. A convenience sample of 60 senior nurse managers was chosen for individual interviews. They were chosen to reflect diversity of responsibilities held for clinical specialities and administrative roles, both in N.H.S. and independent sectors. Convenience sampling has the largest risk of bias of all the sampling procedures (Polit and Hungler 1999).

A semi-structured interview schedule was used but it was not available within the report. No pilot study had been carried out. Therefore I am unable to assess

the reliability and validity of the interview schedule. The authors stated that topics such as organisational change, recruitment policies and the skills and abilities of Project 2000 diplomates were included. Interviews were tape recorded and transcribed. Data analysis was carried out using content analysis and categories produced.

Managers were asked to nominate suitable clinical managers with direct clinical responsibility, who had or had had experience of working with diplomate nurses and were employed at a minimum of F grade so that they could be included within the focus groups. Focus group interviews were also carried out to explore in greater depth themes arising from the individual interviews and to gain the perspectives of nurse managers who were more likely to have clinical responsibility for client groups. An advantage of using a focus group is that it provides an efficient way of obtaining many viewpoints in a short time. However, a disadvantage is that some people may feel uncomfortable about expressing their views in front of a group (Polit and Hungler 1999). The lack of detail about how the authors managed the focus group does not give the reader any insight into how this possible disadvantage was overcome/reduced.

Nine focus groups were carried out consisting of nurse managers from adult, mental health, child, community and learning disability areas. The focus groups were semi-structured using themes identified by managers during the individual interviews. The interviews focussed on the skills and abilities of newly qualified Project 2000 diplomates, and the differences in the quality of care delivered by these qualified staff compared to pre-Project 2000 qualified nurses. The authors stated that the questions related to the themes were used as triggers for discussion but were flexible enough to be included or not depending on the level of debate which ensued in each group. Two researchers attended each focus group interview: one acted as a primary facilitator for discussion and the other to take responsibility for taping the interview and for writing observational notes.

From the data analysis, a number of findings emerged but only those of significance to this study will be documented and analysed.

The managers' expectations and experience of the diplomates were identified following analysis of all the interview transcripts. The qualities of the diplomate included good interpersonal and communications skills, positive personal qualities, and a good knowledge base. The positive qualities of the diplomate included such abilities as being articulate, having a questioning approach and being willing to challenge other member of the multidisciplinary team. However the authors noted that those managers with direct responsibility for patients/clients were less likely to raise the willingness to challenge as a positive quality without prompting. In fact one manager noted that there was a potential for arrogance where the diplomate would ignore others' views.

The managers of Adult diplomates stated that the diplomates had good interpersonal skills and the authors concluded that managers were satisfied with diplomates' level of inter-professional and interpersonal communications skills. However, the managers pointed out that the time taken to build the relationship with the patient often meant that prioritising was frequently difficult for the diplomates. Therefore, I would argue that there was a conflict between the managers' expectations of 'getting the job done' and the diplomates' expectation that they should get to know the patient and build a relationship with them.

Managers also raised the issue of whether diplomates were ready and able to take decisions and accept responsibility for their actions. Managers stated that diplomates were sheltered from this due to lack of practice exposure, supernumerary status and the realities of shift hours as there was no compulsory requirement to do this within the diploma programme. All managers stated that newly qualified diplomates needed a period of preceptorship and indeed some diplomates even expected it. However, they acknowledged that this would require resources and commitment.

Almost every focus group commented on the value of maturity and life experience of the diplomate when they attempted to summarise their views on the qualities of the diplomate. The authors concluded that managers were eager

to employ mature diplomates especially in community areas, and that the recruitment drive of Project 2000 with the widening of the entry gate was proving successful. This seemed to suggest that mature diplomates may have been viewed as being able make better decisions than younger newly-qualified diplomates. However, the authors did not investigate whether the nature of clinical preceptorship may have been different for more mature students.

2.3.7 Lack of practical skills

Initial reports from research studies on Project 2000 indicated that students were lacking in practical skills. Lecturers, practitioners and students agreed that there were problems with practical skill acquisition early on in their educational programme. Complaints from students regarding feelings of incompetence during their C.F.P. ward placements are documented in the literature (e.g. White et al 1993). However, practical competence of newly qualified diplomates from early Project 2000 programmes remained a concern for the diplomates, lecturers and practitioners (Robinson 1993; White et al 1993; Elkan et al 1993; Jowett et al 1992b; Robinson 1991; Leonard and Jowett 1990).

This review of the literature of Project 2000 in England and Wales, provides a good summary of the 'teething problems' of Project 2000. Much of the research concentrated on the thirteen demonstration districts, which were the pilot areas into which Project 2000 was implemented (Elkan and Robinson 1995). Elkan and Robinson (1995) point out that the comparatively small scale of the research studies makes it difficult to generalise the results.

In the study by Luker et al (1996), most managers stated that the newly qualified diplomate lacked confidence in the clinical area but they did not feel that this was solely confined to Project 2000 diplomates. The authors concluded that the lack of confidence was often the single most limiting feature of the diplomate. A number of managers commented that lack of confidence could be related to the quality and nature of clinical areas in which they were working. Some felt that the clinical environment itself had some responsibility for the level of skill

acquisition of the diplomate. However, Jowett et al (1994) stated that the short placements within Project 2000 had hindered the development of confidence in ability as students were facing new situations more frequently. Luker et al (1996) also found that managers felt that placements were too short since the student did not have time to consolidate what they had learnt, and did not have the opportunity to gain new clinical skills or consolidate clinical skills already learnt.

In agreement with other studies already reviewed, Luker et al (1996) identified a shortfall in the range and level of practical skills Project 2000 diplomates had on qualification. Clinical skills such as drug administration were regarded as poor. However, Luker et al (1996) stated that managers felt that the deficit was made up from between two to six months post qualification. Managers commented on the lack of practical skills within the C.F.P., and were dissatisfied with diplomates' lack of practice exposure over the whole programme. According to Luker et al (1996) managers attributed most of the difficulties diplomates experienced with their practice and role as a newly qualified staff nurse to the lack of suitable and timely practice exposure. They commented positively on the level of theoretical knowledge but pointed out that this had little benefit if the nurses were unable to use it to inform and improve their own practice. When students entered the branch programme, managers stated that they were 'lagging behind' in practice. The diploma student was lacking in skills and confidence, which was blamed on the lack of practical input within the C.F.P.. Once qualified, managers felt that the diplomate required a "... considerable amount of support and instruction to ensure that they reached a suitable level whereby they could be left to practice in the knowledge that they would be safe and effective" (Luker et al 1996 p. 80). However, this could have been due to unrealistic expectations of the managers rather than a problem with the product of the diploma programmes.

Using the participants from Luker et al's (1996) study, Carlisle, Luker, Davies, Stilwell and Wilson (1999) compared the match between skills required by health service managers from registered nurses, and the skill exhibited by

Project 2000 diplomates. A large number of managers raised the point that they did not believe the diplomates employed within their organisation possessed, to any reasonable degree, the kind of 'basic nursing skills' they would have expected. Specific mention was made to such things as drug administration and injection technique, running a ward, and communicating with patients. However, they also pointed out that this skill deficit was quickly resolved when qualified (Carlisle et al 1999).

The managers also noted that diplomates had difficulty in becoming team members and had failed to grasp the concept of teamwork. The lack of experience in working a shift pattern, and the short exposure to placements were reasons given for the poor professional socialisation of diplomates (Carlisle et al 1999).

Carlisle et al (1999) suggested that preregistration education providers should consider adjusting the content of their programmes to meet the changing demands placed on newly-qualified nurses. Changes to the role of the newly-qualified staff nurse included managing a team of patients rather than, as traditionally-qualified nurses would have been expected to do, completing a series of tasks. With the change in junior doctors' roles and the change in the role of Health Care Assistants, there needs to be a consensus view as to which 'core skills' are required for a newly-qualified staff nurse. Carlisle et al (1999, p.1262) also suggest that "...in the move away from task-orientated care, the profession has forgotten that the provision of holistic care also includes the ability effectively to implement clinical psychomotor skills."

Hickey (1996) examined traditionally trained R.M.N.s' views of Project 2000 students and found similarities between his findings and those of Watson and Kiger (1994) and Elkan and Robinson (1991). Hickey (1996) used 556 nurses who were part of a larger longitudinal study investigating post-qualification career progression. The cohort involved 'traditionally trained' R.M.N.s who qualified between January and March 1993, from a three year programme and from an 18 month post-registration programme in all colleges of nursing in four

selected health authorities. 'Traditionally trained' nurses were those who qualified without an academic qualification (i.e. those who did not qualify with a degree or diploma), but did have a professional qualification. I referred to 'training' and 'education' throughout my thesis. I distinguished 'traditionally trained' nurses from graduate/diploma 'educated' nurses, as those who had a profession qualification and those who had a professional and an academic qualification, respectively.

Bendall (1975, p. 9) stated that:

"Learning to nurse is, by some, called "education" and by others "training". The process involves some elements taken from the apprenticeship system, whereby the trainee learns by doing the job under the supervision of someone already trained; and some elements taken from the educational system whereby knowledge is imparted by means of lectures, discussions, seminars and so on."

In 1999, Taylor and Care argued that the traditional apprenticeship model of nurse education had eroded, and as the responsibility for nurse education had moved from practice sites to educational institutions, the nature of the apprenticeship model had changed. They argue that the current system of education should use a 'cognitive apprenticeship' where there is still workplace learning, but that there should also be a cognitive development. For example, novices must not only learn from observable procedures and practices demonstrated by expert practitioners, but also must "...covert decision-making processes, values, and culture that guide ...behaviours." (Taylor and Care 1999, p. 35).

Therefore the words 'training' and 'education' are still used within the literature. There appears to be no consensus as to which refers to nurse education in the present or the past.

Within Hickey's (1996) study 80% (n=447) returned the questionnaire. The obvious advantage of this study is the large number of respondents used in a

large geographical area. However as the author fails to state how this sample was obtained it is difficult to generalise the results (Polit and Hungler 1995).

Hickey also carried out a pilot study (n=120) and modified his questionnaire to suit his population before beginning the study. The questionnaire stated (Hickey 1996, p. 391): "The route to registration as a psychiatric nurse is now through P2000". Respondents were then asked: What, if any, are your views on: (a) the new training? and (b) How do you think it will affect you? Hickey (1996) stated that his reason for having open-ended questions was that the pilot work had shown that closed questions had led some respondents, and therefore more valid data would be obtained through open-ended questions. A qualitative approach was used to develop categories with the categories emerging from the data rather than being predetermined. The data were then quantified by counting the frequency of the codes so that the magnitude of various categories could be assessed. Content analysis was carried out using two researchers to code and categorise responses and a third researcher to check the process for accuracy. The use of a third researcher is one way of ensuring that the results are credible in that the decision-making trail is clearly followed (Guba and Lincoln 1981).

Over half the respondents (n=251, 56%) thought that there was a lack of emphasis on practical skills in Project 2000 programmes. Fourteen percent (n=63) of respondents made comment about Project 2000 students' lack of practical experience. However Hickey (1996) points out that many nurses in the study would have formed their opinions on the basis of meeting students on C.F.P. placements and that during the C.F.P. research findings had indicated that students often still felt incompetent by the end of the C.F.P. (Elkan and Robinson 1995).

Ten percent (n=44) of respondents felt there was too much theory, while 14% (n=63) felt there was too little theory in the Project 2000 programme. Hickey (1996) stated that some of the comments about the practical and theoretical elements of the programme were concerned with the balance between the two. Some qualified staff believed that although diploma students needed theoretical

input, they felt that this had been achieved to the detriment of the amount of practical experience. These findings were also stated by Elkan and Robinson (1991).

Many respondents (15 managers, four researchers and two teachers) expressed concern that diplomates would not be 'hands-on nurses'. I feel this is an interesting finding that is regularly cited in graduate nurse research, where people expect graduates to avoid carrying out hands-on care (e.g. Bircumshaw 1989a). Also, the word 'concern' that Hickey used to describe the feelings of qualified staff perhaps demonstrates the continued opposition to diploma-level education for nurses at that time.

However, there were some positive responses, with four (i.e. less than one per cent) respondents suggesting that there would be improved academic/research knowledge with the Project 2000 education. Hickey (1996) noted that few respondents made comment on the quality of patient care brought about by Project 2000. There were more respondents who commented on the negative effects on patient care (n=17, 4%) than the positive aspects (n=9, 2%). Hickey (1996) cites that most frequent negative responses were 'possibility of deterioration in patient care' (n=6) and Project 2000 diplomates' 'lack of interest in hands-on care nursing may precipitate poor patient care' (n=4). The author noted that some other categories, for example the lack of practical skills, also suggest that Project 2000 could have a detrimental effect on patient care. Of the positive comments, the most frequently cited was that 'Project 2000 promotes the development of quality nurses/nursing/patient care' (n=6) and 'satisfactory development of patient care skills' (n=3). It is difficult to generalise these findings, although the research does point out the lack of positive feedback from qualified staff about diplomates.

The findings of this study confirm and/or add to those of previous studies. Although the study provided a large sample within a wide geographical area and high response rate, the sampling strategy used is not clear from this report, and as a result the generalisability of the findings are necessarily limited. I was aware

that Hickey's (1996) study involved Mental Health Branch students and questioned qualified R.M.N.s, which makes the result difficult to generalise to other specialities. However, the problems associated with the Adult Branch appeared to be similar to those problems identified within the Mental Health Branch by Hickey (1996).

2.3.8 Perceptions of newly qualified diplomates

Luker et al (1996) also used a national survey and follow-up questionnaire on students qualifying via the traditional route and those who had taken the Project 2000 route. Following a pilot study, the initial questionnaire was sent to a random sample of qualifiers (sampled from students from the first survey). The sample was stratified according to speciality, pre-Project 2000 and Project 2000 qualifiers and was weighted for each year. Over a three-year period (1992-1995), the study recruited 31476 nursing students. Thirty-three percent of students (n=10382) responded. Due to the low response rate the generalisability of the findings are questionable.

The questionnaire indicated some interesting findings. Fifty percent of traditional qualifiers wanted more practical skills, while 75% of Project 2000 qualifiers wanted more. Fifty percent of traditional qualifiers wanted more theoretical instruction while less than 10% of Project 2000 qualifiers wanted more. In both traditional and Project 2000 programmes, more than three-quarters of qualifiers stated that they wanted more instruction from tutors while on placements. Over 60% of Project 2000 qualifiers wanted longer placements, but only 15% of traditional qualifiers wanted longer placements. Of those qualifying in the Adult Branch, 60% wanted a shorter C.F.P. and no change in branch programme length, thus making the programme shorter. Those in other branches wanted a shorter C.F.P. and a longer branch programme in order that their programme would be focussed earlier within their nursing speciality (e.g. Mental Health) (Luker et al 1996), thus making the programme the same length.

Making the transition from student to staff nurse had been focussed on in

previous research of traditional students (e.g. Kramer 1974). Kramer's (1974) was the first American study to describe the 'reality shock' for newly qualified nurses. Therefore, this was not a phenomenon that was new to diplomate nurses. Maben and MacLeod Clark (1996) carried out a qualitative study of 10 newly qualified Project 2000 diplomates and compared their findings to the literature available on traditional qualifying students. In-depth interactive interviews were conducted with five staff nurses who were qualified five months and five staff nurses who were qualified 11 months. No other demographic variables are noted, for example what kind of environment the subjects worked in, the nature of the branch programme, or the age of the subjects. All of these factors could influence the findings. The authors transcribed tape-recorded interviews, and then analysed these using the concepts of unitising, categorising and pattern matching.

When asked to describe the first few days and weeks after qualifying, the main areas included the following discussions: the diplomates described that the increased responsibility and accountability was nerve-wracking and stressful. The feelings of stress were reported to have been associated with 'being alone' especially when it came to administering drugs. Diplomates also had a fear of making mistakes and were aware of the increased threat of litigation. Communication problems were also identified especially when breaking bad news to patients and relatives. Diplomates also stated that they felt that there was a stigma associated with the diploma programmes and had experienced negative staff attitudes towards diploma level education.

Maben and MacLeod Clark (1996) stated that the lack of practical skills was an issue for the diplomates but that these deficits were quickly rectified post-qualification. Lack of practical skills of pre-Project 2000 nurses did not seem to be as problematic, but this could have been due to the limited research findings available, or could be due to the greater range of practical skills now expected from nurses. The interviews revealed that diplomates often showed confidence and uncertainty at the same time. The authors concluded that diplomates had a

high degree of confidence due to their theoretical knowledge, which enabled them to recognise their limitations by highlighting the gaps in their knowledge.

The subjective nature of the interviews, together with the small sample size make the results of this study difficult to generalise. However many of the findings are consistent with those of other research from demonstration sites and later studies. Maben and MacLeod (1996) also compare their findings with those of pre-Project 2000 nursing research. However the authors fail to mention how the literature was obtained (i.e. what searches and key words were used) making the literature used for comparison susceptible to researcher bias.

Jasper (1996) also conducted a qualitative study using phenomenological methodology to investigate the experiences of eight diplomates in the first year following qualification. Again a demonstration district was used. The author writes in the first person "... in recognition of ... subjectivity" (Jasper 1996, p.780). Phenomenology was used as its "underpinning assumption" in "that the meaning of any phenomenon is that described by the person who has experienced it" (Jasper 1996, p.780). Semi-structured focus groups produced verbatim statements that were used throughout to convey that the experiences were from the participants themselves, and were a key criterion of the validity of the project (Duffy 1985).

Jasper (1996) as a nurse, teacher and previous pre-Project 2000 student, argued that phenomenology expects the researcher to enter the field without preconceptions, but the extent to which an interviewer can be totally naïve is debatable. To minimise these effects the author used a technique of 'bracketing', a process in which "... the researcher thinks about and records what his or her knowledge, beliefs and assumptions are regarding the phenomena" (Lackey 1992 p. 120 cited by Jasper 1996, p.781). She 'bracketed' before each interview and data analysis. Jasper (1996) used the process of theoretical sampling, which can be described as sampling on the basis of concepts that have proven theoretical relevance to the evolving theory (Streubert and Carpenter 1999; Strauss and Corbin 1990). Respondents were assured of confidentiality and anonymity. The

interviews used open-ended questions and the researcher only asked for clarification through reflection and expansion. Field notes, transcriptions and data analysis were carried out by the researcher. Data analysis used a phenomenological method transcription, extracting significant statements, identifying what the subjects had meant, clustering themes and validating themes (Colaizzi 1978 cited by Jasper 1996). The themes were then used to create “an exhaustive description of the experience as an unequivocal statement of its fundamental structure” (Jasper 1996, p.782).

Five themes emerged from the data; the first ‘coming out of school’ described the difference between being a student and becoming a staff nurse. There was a feeling of ‘being thrown in at the deep end’ (a finding also stated by Maben and MacLeod Clark 1996), and of lacking confidence. Jasper states that, implicitly rather than explicitly, the diplomates drew attention to their deeper knowledge base. However as she does not provide verbatim statements to support this point, it lacks credibility (i.e. a plausible and coherent explanation of the phenomenon is not provided) (Guba and Lincoln 1981).

‘From student to staff nurse’ was also associated with feelings of inadequate preparation which the author argued was not confined only to Project 2000. However, on a positive note, diplomates seemed to have the required decision-making skills, and appeared at ease in challenging others (a finding also reported by MacLeod Clark et al (1997a; 1997b)).

Jasper (1996) also noted that the theory-practice gap was evident and was leading to disappointment with the reality many newly qualified staff nurses were experiencing. She argued that although Project 2000 students had a deeper knowledge base and Project 2000 had equipped them with humanistic attitudes, this had led them to be more aware of the difference between theory and practice. The reality of nursing was apparent with many stating a lack of time to be with patients. The differences between student ideals and workplace reality has also been experienced and reported by graduates (e.g. Smithers and Bircumshaw 1988) and nursing students in the 1970’s (Bendall 1975).

As found by Maben and MacLeod Clark (1996) diplomates reported a stigma associated with Project 2000, a fear of associated accountability and responsibility, and that there was a contrast between their idea of holistic care and the 'getting the job done quickly' approach which was evident in the clinical areas. The diplomates stated that they drew upon their theoretical knowledge to help them overcome problems within practice. However, Jasper (1996) provides no evidence of this. Newly-qualified staff nurses, in a study by MacLeod et al (1997a), also reported some hostile behaviour from other staff simply because they had come through a diploma programme. Jasper (1996) noted that diplomates believed that their knowledge and expertise allowed them to be independent professionals within the multidisciplinary team, and that they should be confident to express their opinion and the opinion of their patient.

Jasper (1996) reported several limitations of the study. The diplomates were the product of a demonstration district when changes/implementation were still ongoing, which could have influenced the product of the programme. The sample was not a representative sample and therefore the findings are not generalisable. The self-selected sample limited the results as the motivation for participation was not known. The experiences of the diplomates must have been dependent on the branch and the type of employment the diplomate was in. The use of an interview guide may have unknowingly limited the respondents' answers.

Jasper (1996) proposed a list of strategies to help overcome the problems of the newly qualified staff nurse. She proposed a staff nurse preparation module within the curriculum for managerial and administrative purposes. Also, the provision of a supervisor in the first few months following completion of the programme was advocated. However, she provides no explanation of the practicalities of this arrangement, for example, the training required, the cost to the employer, or the problem of supervision when for example the diplomate works bank or agency shifts. Maben and MacLeod Clark (1997) also stated that diplomates wanted and expected to have a period of preceptorship, but stated that there appeared to be little evidence of this within practice. Bick (2000) also

recommended that newly-qualified staff nurses should be given effective support that was vital to effective role transition.

While interviewing ten newly-qualified nurses, Amos (2001) identified problems associated with the role transition from student to staff nurse, such as having an increased responsibility and accountability. This was a 'double-edged sword' as participants recognised that they enjoyed the added responsibility as they could 'sort out problems', but this also caused anxiety due to the accountability associated with the staff nurse's role. As the newly-qualified staff nurse became more knowledgeable, they noted that their confidence improved, but any mistakes they made severely decreased their confidence. Amos (2001) also noted that the amount and quality of preceptorship affected the confidence required to practice. Participants reported that it was "...the single biggest factor that helps you to develop as a staff nurse" (Amos 2001, p. 39).

In January 2001 the U.K.C.C. (2001) proposed the use of preceptorship for newly-qualified practitioners, those returning to practice after a break of more than five years or those entering a different area of practice by virtue of a new registrable qualification. The U.K.C.C. had first introduced this concept in 1990 (U.K.C.C. 1990) and then again in 1994 (U.K.C.C. 1994). "The U.K.C.C. believes that all newly-registered nurses, midwives and health visitors should have a formal period of support, under the guidance of a preceptor, of about four months." (U.K.C.C. 2001, p.4). The period of preceptorship could be varied according to the individual and local circumstances. The preceptors should be practitioners with more than 12 months (or equivalent) experience in the same area of practice (N.M.C 2002). The U.K.C.C. did not make preceptorship a mandatory requirement, but "strongly advocate it as sound professional practice." (U.K.C.C. 2001, p.5). However, Bain (1996) questioned the role and function of the preceptor as there appeared to be differing definitions within the literature.

In a study by MacLeod Clark et al (1997a), qualified diplomates emphasised holistic care, involving the patient in care planning and acting on their patients'

wishes. The authors argued that this was in contrast to the traditional views of nursing which were bound by ritual and routine, where there was an emphasis on routine and tasks rather than nursing care being tailored to meet patients' needs. However, the authors provide no literature or research evidence to support this view of traditional nursing. All those interviewed also expressed that 'fundamental' nursing care (e.g. attending to personal hygiene needs) should be a job carried out by a qualified nurse, which was seen as being important if qualified nurses were to be more than managers of care. This is in contrast to Melia's (1987) study in which 'traditional' students classified 'real nursing' as being required to do some technical job, for example, administering intravenous fluids.

MacLeod Clark et al (1997b) investigated the attitudes of newly qualified Project 2000 diplomates to their preparation for professional practice through the Project 2000 scheme. The same groups were used as for the previous study (MacLeod Clark et al 1997a). Focus group interviews were undertaken with homogenous groups of teachers, practitioners and nurse managers in each centre, but no details are given in this report as to the sampling procedure used or number of respondents.

Over the course of the study more than three-quarters of students felt they were prepared for practice. Statistically significant ($P<0.01$) differences existed between nearly qualified students who felt less prepared for practice than students earlier in the course. The authors suggested that this was due to the fact that nearly qualified students now had a clear idea what preparedness really meant. The major strength of the preparation for practice was reported to be the broad theoretical base of the programme (end of C.F.P. 58%; end of programme 44%). Other advantages included academic credit achieved (end of C.F.P. 37%; end of programme 38%), being a learner not worker (end of C.F.P. 25%; end of programme 28%), and the development of questioning and analytical skills (end of C.F.P. 17%; end of programme 23%). Disadvantages of the course towards preparing the student for practice included lack of practical skills and experience (end of C.F.P. 60%). This finding was also noted by Elkan and Robinson (1995)

and was expressed by qualified staff (Hickey 1996). However by the end of the programme the percentage of those who felt that they lacked practical skills had almost halved (31%). Focus groups containing newly qualified staff nurses stated that they felt a lack of practical skills initially but this had resolved by the time they were being interviewed (i.e. six months after registration). The students also stated that the practice experience was often 'hit or miss'. As a result there could be difficulty in obtaining management skills such as prioritising, decision-making, organising the workload and delegating to others. Supernumerary status was again credited for facilitating confidence and nurturing, but was counterbalanced by not feeling part of the team and lack of practical skills. Unfortunately the feeling of confidence and nurturing did not seem to facilitate the development of practical skills. Within the focus group interviews, managers and practitioners expressed concern at newly qualified diplomates' initial skill deficit and expressed the need for support in the immediate post-registration period for approximately six months to one year. There were concerns over the increased amount of theory in the programme at the expense of practice.

2.3.9 'Threat' to traditionally trained nurses

Crabbe (1989) and Watson and Kiger (1994) reported that traditionally trained nurses felt threatened by the new diplomate. Hickey's (1996) study demonstrated that there was evidence that traditionally trained nurses were becoming increasingly worried about their promotion prospects and obtaining jobs when 'competing' with nurses with the diploma qualification (n=71, 16%). Some stated (n=93, 21%) that they needed to embark on further education. Hickey (1996) recommended that 'traditionally trained' nurses needed to be provided with opportunities to further their own career development, for example through courses.

2.3.10 Trained Staff's Perceptions of Project 2000

Cuthbertson (1996) carried out a descriptive and correlation survey of pre-P2000 qualified nurses' views of Project 2000 student nurses in the Western Isles Health Board in Scotland. A pilot study was undertaken before the main study to ensure that the questions did not contain bias and/or ambiguity (Cuthbertson 1996). Three hundred and fifty qualified nurses were sent questionnaires with return envelopes. How the sample was obtained is not known and therefore there is a possibility of researcher bias. One hundred and seventy nine (51.1%) nurses responded. This response rate is lower than that recommended (i.e. 60%) by Polit and Hungler (1995), making the results prone to response bias.

Open questions were included in the questionnaire. Only 15 respondents correctly estimated that students spent 60-70% of their time in placement, with only 17 correctly estimating that students spent 30-40% of their time in college. These views were sought to gauge the qualified staff's knowledge of Project 2000. Respondents were then asked their opinion of Project 2000, and whether they felt the Project 2000 student spent enough time in placement, an appropriate amount of time in college, and whether the students would qualify with enough practical skills. A considerable majority (63.5%, n=117) felt that Project 2000 students did not spend enough time in practice, with only 12 (6.7%) respondents of the view that they spent enough time in practice. Less than half (45.3%, n=81) felt that students spent an appropriate amount of time in college, while the others stated that the time in college was not appropriate (22.3%, n=40), and others not sure (30.2%, n=54). Almost two thirds (65.9%, n=118) felt that students would qualify with a lack of practical skills, with only five percent (n=9) expressing the view that they would qualify with sufficient skills. I think it is interesting to note that although 117 felt that students should have more practical experience, only 40 felt that the time in theory was inappropriate. I think it would have been more beneficial to measure whether they felt that theoretical hours were too much or too little, as the measurement recorded does not indicate this. Also, it may have been interesting for the author to question

participants whether this shortfall in practical hours should be at the expense of theoretical hours.

From the results of this survey the author concluded that Project 2000 students may encounter negative attitudes in placements due to qualified staff's lack of knowledge about the programme, and that nurse educators had a responsibility to educate qualified staff about the programme. However, the sample location and size, sampling method, possible response bias due to poor response rate, and lack of reliability and validity testing limit the generalisability of the findings.

2.4 Qualified nurses' perceptions of graduate nurses

Given that the number undergraduate programmes and graduate nurses had increased considerably since 1956, Bircumshaw (1989a) felt that there was a need to investigate senior nurses' reactions to graduate nurses. The aim of this descriptive survey was to obtain views of senior nurses working in the same area as graduates from the University of Wales on whether they felt graduates should and actually did function differently to traditionally trained nurses. A postal questionnaire, accompanying letter, and a stamped addressed envelope were used. The questionnaire (a copy of which was attached to the research report) comprised open-ended and closed questions referring to graduates of a four year full-time undergraduate programme, which led to registration as a qualified general nurse.

Chief nursing officers (n=11) and directors of nursing services (n=17) where the study graduates were employed were included in the sample. This is a form of accidental sampling and can be open to bias, since no other variables are considered. For example, the research does not detail whether any of the senior nurses were graduates, whether one health authority employed proportionally more graduates than the other. Therefore the results and findings of the study could be open to bias due to the small sample size and the possible bias in the sampling procedure (Polit and Hungler 1995).

Following a reminder to non-respondents, six (54.5%) Chief Nurses and 12 (70.6%) Directors of Nursing responded. The overall response rate was 64% (n=18). A response rate of greater than 60% is sufficient to avoid response bias (Polit and Hungler 1995). Given that reminder notices were sent to non-respondents, this suggests that the questionnaires were not totally anonymous, therefore this could have biased the responses (Polit and Hungler 1995).

Both groups were equally divided over those who felt graduates should or should not function differently from traditionally trained nurses (i.e. not Project 2000 students). Different functioning comprised two views: that there should be different roles for graduate nurses such as those in management, teaching and research and that graduates should have the same roles as traditionally trained nurses, but should function differently. The respondents expected graduates to develop skills in areas such as utilising, implementing and carrying out research, developing different approaches to nursing care, reviewing nursing practice, and questioning and applying a deeper knowledge. Those who felt that there should be no difference in function between traditionally trained and graduate nurses made reference to the fact that graduates have the same legal responsibilities as traditionally trained nurses and should function to the level of their own ability and competence. They were essentially employed to carry out the same job and should have the same level of competency as traditionally trained nurses (Bircumshaw 1989a).

Bircumshaw (1989a) then asked the same subjects to consider whether graduates do function differently. Again the chief nursing officers were equally divided, but two thirds of the directors of nursing services indicated that they felt that graduates did actually function differently. Some responded that graduates functioned differently because they did not 'fit' into the present system, while others stated that their knowledge base improved their practice. Only three directors of nursing services felt that graduates should not, but actually did, function differently. Bircumshaw (1989a) concluded that there was little discrepancy between opinions of how a graduate nurse should function.

Bircumshaw (1989a) also noted that there were general comments made regarding graduate nurses taking longer than traditionally trained nurses to settle into the role of staff nurse. She concluded that investigations into why graduates do not appear as confident upon qualifying as traditionally trained nurses should be investigated, and that the role, function and clinical career ladder for graduate nurses should be explored. It is interesting to note that there were concerns that graduates did not develop sufficient practice skills (Watson and Thompson 2000).

One of the major limitations of the study (Bircumshaw 1989a) was the small number of senior nurses included and the sampling strategy used, making the reliability and generalisability of the results questionable (Polit and Hungler 1987). The author also highlights the problem of using the word 'function'. With hindsight, she admits that it would have been useful to include a definition of this word. The use of a pilot study may have helped to refine the questionnaire (Polit and Hungler 1995).

It is interesting to note that many respondents felt that graduates should be in management, teaching or research posts which is in contrast to the findings of graduate follow-up studies (Ring 2002; Kemp 1994; Smith 1993; Bircumshaw and Chapman 1988; Howard and Brooking 1987; Reid, Nellis and Boore 1987; Kemp 1985; O'Brien 1984; Sinclair 1984). These studies have demonstrated that most graduate nurses remain within clinical practice. Some argue that graduate nurses will be less likely to stay in the profession due to their more transferable qualification (Akid 2001).

Fitzpatrick, While and Roberts (1996a) investigated the process of professional socialization in Adult nursing students from a traditionally trained R.G.N. programme (n=34), a diploma programme (n=34), and a degree programme (n=31). Each programme was provided by three different institutions. A semi-structured interview was designed to explore the following areas: events considered significant to the participants' nursing practice; events considered to demonstrate high and low quality nursing care; issues considered important to

their practice; the participants' views of their strengths regarding practice; and practice areas in which they felt less confident; and finally key people who they considered had influenced their practice. The interview schedule was piloted on diploma students (n=7) and degree students (n=5) drawn from a location not involved in the study.

From the tape-recorded interviews, content analysis was carried out. The researchers carried out rater-reliability on the coding process by randomly selecting 10% of the data to an independent researcher. Any disagreement was discussed and reviewed as necessary. The authors support the findings with verbatim statements from the participants.

For both the degree programme (58%, n=18) and the R.G.N. programme (49%, n=16) the most frequent response to the question asked on the events which influenced their practice, was the therapeutic influences of the practice environment (e.g. role modeling and organization of nursing care). The majority of diploma students (53%, n=18) focused upon the positive influences of aspects of their course (e.g. course philosophy, particular course units), and this was the second most frequent choice by degree participants (55%, n=17). However, none of the R.G.N. programme highlighted this category (Fitzpatrick et al 1996a). The authors explain that this may be in part due to the changes seen within nurse education at the time i.e. the reallocation of resources away from the R.G.N. programme to the new diploma programmes.

Participants' rationale for events which they considered significant to their practice were discussed. The degree programme participants highlighted the acquisition and application of new knowledge and skills to enhance role performance (55%, n=17) and modeling clinical performance on exemplars of good practice (52%, n=16). The R.G.N. participants also highlighted these categories as the most frequent. All three programme commented on the value of role modeling upon the development of their nursing practice. In particular, the therapeutic influence on the practice environment was highlighted by the R.G.N. and degree programme participants. The authors stated that this could

reflect the more extensive clinical placements experienced by these groups.

All three programmes identified nurses in practice from the institutional setting as the key persons in their development as nurses. More than two fifths (45%, n=13) of degree participants particularly valued teachers from the educational setting, while only three diploma students, and two R.G.N. students felt this. Fitzpatrick et al (1996a) suggests that this may reflect the small class sizes within the degree programmes, which facilitate the use of student-centred approaches to learning. However, I think this could also be explained by institutional variance between the three groups as each group was selected from a different institution.

In a large study by Robinson, Murrells, Hickey, Clinton and Tingle (2003), the researchers investigated the career and competencies of nurses qualifying from three-year degree and three-year diploma programmes. The aims of the research were firstly, compare the careers of graduate and diploma nurses (Part A) and, secondly, to compare the competencies of graduate and diplomate nurses (Part B).

Although the authors pointed out that a longitudinal study would have been preferred, due to time constraints, a cross-sectional comparison approach was used. Within Part A cohorts of graduates and diplomates were recruited. The diplomate cohort had been recruited in the course of another study, and questionnaire data was available for the following time points: at qualification, six months, 18 months and three years after qualification. In generating the graduate cohorts, the authors used four retrospective cohorts: Cohort 1 who had qualified in 2001 (at qualification comparison), Cohort 2 who had qualified in 2000 (six months after qualification comparison), Cohort 3 who had qualified in 1999 (18 months after qualification comparison) and Cohort 4 who had qualified in 1998 (three years after qualification comparison).

Graduates were recruited by sending letters requesting participation via the U.K.C.C., with the exception of Cohort 1 who were contacted via their university. The authors explained that the diplomats were recruited via an

invitation during a face-to-face meeting with the researchers. This impacted upon the response rates. Seventy-six percent (n=1596) of diplomats eligible to take part agreed to do so. Response rates at the various stages of the study were 80%, resulting in 43% (n=900) of diplomate qualifiers being retained after three years. The percentage of the four graduate cohorts who agreed to participate ranged from 45% to 55%; subsequent questionnaire response rates from between 90% and 98% resulted in the following proportion of graduate qualifiers in the study: 43% (n=99) of Cohort 1, 50% (n=111) of Cohort 2, 48% (n=53) of Cohort 3 and 44% (n=57) of Cohort 4. Due to the very small number of other branch graduates used, only those for Adult branch data were presented.

Robinson et al (2003) demonstrated that graduates were significantly younger, significantly less likely to have a partner, be married, have children living with them and significantly less likely to have pre-course childcare and employment experiences, than diplomats. Graduates were also found to be significantly more likely to have higher educational qualifications (e.g. 66% (n=1053) had two or more A-levels compared with 31% (n=31) of diplomates), and were significantly less likely to have entered their course without formal academic qualifications. Both groups attracted a very small proportion of men and members of ethnic minority groups (Robinson et al 2003).

Upon and following qualification, both groups were satisfied with, and support from, colleagues or peers, availability of supplies and equipment, and the proportion of time providing direct patient care. However, sources of dissatisfaction common to all qualifiers were pay and grade in relation to the level of responsibility, career development discussions, paperwork and opportunities to reflect on practice (Robinson et al 2003).

Robinson et al (2003) noted that at six months the overall level of satisfaction for diplomats and graduates were similar; at 18 months the level had fallen for both groups, at three years the diplomats were more satisfied than they were at six months, whereas this was not the case for graduates. Graduates had significantly lower levels of satisfaction than diplomats with pay in relation to the level of

responsibility at 18 months and three years. Graduates had significantly lower levels of satisfaction than diplomates with grade in relation to the level of responsibility at 18 months and three years. Graduates also had lower levels of satisfaction with opportunities to reflect upon practice and opportunities to provide good quality care. Within Part B, Robinson et al (2003) demonstrated that graduates had higher expectations in a number of respects and this may account for the higher level of dissatisfaction among graduates.

Robinson et al (2003) explained that graduates were more career-minded than diplomates as they were significantly more likely to start their nursing course to gain a professional qualification or have an occupation with career prospects. Graduates appeared more certain about their career plans and were significantly more likely than diplomates to emphasise professional and career development opportunities as reasons for preferring to work in the N.H.S.. Interestingly, graduates were significantly more likely than diplomates to indicate that they hoped to be working at a higher grade at future time points when asked at qualification, six months, and 18 months after qualification. Graduates demonstrated dissatisfaction, particularly at three years, due to the "...substantial lack of fulfillment of these higher career expectations" (Robinson et al 2003, p.xix). Once graduates began working in the N.H.S. they were significantly less likely than diplomates to indicate that they would remain in nursing. However, no differences in retention were noted in the three-year study. Robinson et al (2003) suggest that it may be more difficult to retain graduates in the future.

During Part B of their study, Robinson et al (2003) investigated the differences in competencies of graduates and diploma prepared nurses in the early-qualification period. Competencies were self-rated and rated by immediate line-managers at one, two, and three years after qualification. The Nursing Competencies Questionnaire (N.C.Q.) developed by Bartlett, Westcott, Hind and Taylor (1998 cited by Robinson et al 2003), was used to measure nursing competence. The respondents were asked to rate how often each 103 tasks/functions had been performed over the previous six months. Robinson et al (2003) highlight the limitations of this competency scale. Firstly, that while

other studies had found the scale to be reliable, "...very little evidence exists that it is valid to assert that the suggested constructs do underlie the items..." (Robinson et al 2003, p. 132). Secondly, all the items in the N.C.Q. are socially desirable items, in that there are no negatively worded items. This, the authors suggest, could lead to response bias, i.e. could lead to an inflation of estimated scores. Thirdly, the N.C.Q. uses a Likert-type scale ('always-usually-occasionally-never') which restricts the range of responses. Many of the items refer to "...basic nursing tasks or functions and leave no scope to differentiate a very high level of performance from an average but very acceptable level of performance." (Robinson et al 2003, p. 133). The authors argue, that as a result, most answers were 'always' or usually', thus leading to a very low level of variability within the scores. Finally, the authors point out that the N.C.Q. does not take into account the barriers to the provision of care:

"For example, a nurse may be highly competent at initiating changes in the delivery of care, yet the organization is unsupportive and the nurse can only initiate change 'occasionally', then that nurse will receive a low competency score..."

(Robinson et al 2003, p. 133).

Graduates who returned career questionnaires were then asked to complete the N.C.Q.. A sample of the existing diplomate cohort who were qualified for three years were asked to complete the N.C.Q.. Diplomate cohorts for one and two years after qualification had to be recruited via the U.K.C.C.. Line-managers were recruited through nurses who had returned their N.C.Q.. All branches of nursing were included in order to create sufficient number for multivariate statistical analysis. Response rates for nurses were 66% for graduates (n=166), 30% for diplomates (n=188). Response rates for line managers were 36% (n=60) for graduates and 27% (n=51) for diplomates.

Robinson et al (2003) concluded that there were no meaningful differences in graduates' and diplomates' competencies as measured by the N.C.Q.. They conclude:

“...this should alleviate concerns that graduate courses do not prepare nurses adequately in terms of practical skills or that diploma courses prepare nurses to a substantially lower level than degrees. This research also suggests that there is no advantage with three-year degrees in terms of competence and so raises the question ...about the advantages to nursing of the three-year degree...”

(Robinson et al 2003, p.xxi)

Robinson et al (2003) recommend further study to investigate the similarities and differences of graduate and diploma programmes. They also suggest that there is a need to develop a valid, reliable, and theoretically informed tool to measure nursing competency.

Happell (2002) carried out a study investigating views of undergraduate nursing students towards desirable and undesirable areas of practice. The longitudinal study used two stages. Firstly, during the first three weeks of the course, a questionnaire, developed by Stevens and Crouch (1995 cited by Happell 2002), was administered to 834 first year undergraduate nursing students throughout Victoria, Australia. A response rate of 95% (n=793) was achieved. Secondly, the questionnaire was re-administered three years later at the end of the programme. Five hundred and fifty six questionnaires were distributed with a return rate of 92% (n=521). The lower sample in the second stage reflected the attrition from the programme. A pilot study using 30 students was carried out, with students commenting on the clarity of each question. The authors fail to state whether the pilot sample was from the same population as the main study, as subjects from the pilot study should possess the same characteristics as those subjects in the main study (Polit and Hungler 1987). The authors claim that this reflected the reliability of the instrument and no modifications were made. However, there are no reliability or validity tests used, which would raise questions as to the reliability and validity of the instrument on this sample population.

Undergraduate students within stage one of the research indicated that areas of

nursing practice such as working with children, midwifery, intensive/critical care and theatre nursing were viewed as very popular. Areas such as psychiatric nursing, aged care, and community health nursing were not popular choices. Medical and surgical nursing were ranked in the middle of these areas.

Stage two of the research indicated that by the end of the programme career preferences had changed. Surgical nursing demonstrated the most dramatic ascendancy, to become the most popular choice, followed by intensive/critical care. Midwifery and working with children had become less popular, but psychiatric nursing, aged care and community health nursing were still the least popular choices.

Happell (2002) discussed the implications of her findings. The more technologically driven areas of practice emerged to be the most popular by the end of the programme, which supports earlier research cited within her article. Happell suggests changes in attitudes such as 'you need to consolidate your skills in a general hospital first' and also recommended a review of nursing curricula to reflect the image of nursing in less popular areas.

I think Happell's research highlighted some interesting findings that could possibly be pertinent to the current situation in nursing within the U.K., although due to the Branch programmes some areas may be highlighted differently. Further research would be worthwhile within the U.K. to identify the similarities and differences in career aspirations between diplomates and graduates. It may be that graduates work within clinical practice rather than in management and education, but they may identify specific areas, such as those which are technology-driven. It may be the case that these areas would prefer to recruit graduates, leaving the less popular choices to be staffed by diplomates. There could be problems in attracting and retaining staff in the less popular areas, but perhaps the promotion prospects in those areas may be easier than in those which attract a high number graduates. However, at present there is a lack of research evidence to support or refute these hypotheses.

The literature review revealed a lack of research evidence into graduate nursing within the U.K.. With essentially two types of pre-registration nurse education in the U.K., the nursing profession has been asking questions as to the differences between the products of each programme.

2.5 The product of the nurse education programmes

Learning outcomes for pre-registration programmes are specified in the statutory rules (U.K.C.C. 1989) and these assume that in terms of competence to practice there is no difference between diploma and degree routes. It may be argued that a first level nurse is a first level nurse regardless of academic level of pre-registration preparation (Pleasance and Sweeney 1994). Hayward (1982) acknowledged that there is a need to study the 'end products' but relatively little research has been undertaken in the area.

Academic product

The differences between diploma and degree education are the level of difficulty and amount of study taken at each level (Partington 1997). In 1997 Dr Roy Partington produced a report on levels, standards and credit award frameworks. For the purpose of explaining academic level, this report will be used as the source of information. Generic descriptors offer guidelines about the expected study features and degree dimensions at each level, commencing at level one and progressing to level four.

a. Generic Descriptor 1

The establishing of 'ground rules' for the profession is taught mainly through directed study rather than self-directed study. Knowledge is understood but not necessarily integrated into the broader frame. Students reflect on their personal and professional experience and reflect on their own practice, drawing out strengths.

b. Generic Descriptor 2

At this level students show a widening of the scope of their field of study enabling the student to map knowledge into a coherent picture of their discipline and professional field. Significant critical analysis is expected while still remaining under tutor supervision, although students are expected to work towards increasing independence from their tutors as they learn to question, challenge and evaluate different authorities.

c. Generic Descriptor 3

At this level students are expected to show familiarity with broad areas of knowledge, and are able to express viewpoints and address issues logically and systematically. More extensive literature and data searches, and advanced methods of information technology are expected. Within the practical area, students are expected to show confidence in planning, implementation and evaluation, together with application of particular knowledge and skills. Students should be beginning to develop self-directed learning.

d. Generic Descriptor 4

At this level students have a confident familiarity with defining concepts and features of their specialist subject of study. They have a clear understanding of the profession's boundaries, the limits of its application, and the range of methods of study and types of judgement involved. While their study may have some aspects of mastery, it will normally be distinguished from it by a relative lack of a body of experience. It is not normally expected that the work should meet criteria for publication in a professional or academic journal, but it should show potential to satisfy the criteria. These students should be able to criticise, evaluate and argue, and where appropriate, reflect the relevant academic and/or professional values, and challenge existing orthodoxies, and make cogent proposals for new approaches and understandings.

Therefore, according to Partington's (1997) those with higher academic achievements should also have better practical skill.

Davis and Burnard (1992) asked all professors of nursing in UK universities to identify five characteristics of different levels of study, including diploma, undergraduate and post-graduate levels. Ten replies were received, but it is impossible to work out the response rate from the information given. Twenty-three masters students from Europe were asked to do the same. Content analysis of the participants' responses revealed the following characteristics of diploma and degree level education.

At *diploma* level of study, the student has a broad spectrum of knowledge, made of discrete categories, and uses a problem solving approach. The model of diplomate education used is based on an apprenticeship model which emphasises task orientated practice, and disease. The diplomate's research activity is limited to data collection for others, and the application of others' evaluation of research, and an introduction to critical reviewing skills. During diploma education, there is a high proportion of time with tutor/student contact.

At *bachelor* [i.e. undergraduate] level of study, the student has a professional orientation, which uses a broad and deep understanding demonstrating integration across categories. Translated into practical work, the graduate uses a holistic approach to care, using the application of the nursing process based on a conceptual model, with a move away from a disease model to a bio-psycho-social model. The graduate has an understanding of the research process, uses a broad range of literature to inform practice, shows self-awareness, and an ability to carry out independent study. The authors point out that the issue of academic level within nursing needs to be investigated further, both in terms of academic and practice differences.

Bevis and Krulik (1991) discussed changes in the education system for nurses in Israel. Graduates were to be "...substantially different nurses who are more academic, more clinically competent, more creative ..." [p. 364] and would

provide an improvement in patient care. The authors felt that these graduates should be better equipped for make competent and self-reliant decisions, while being more assertive and accepting of the responsibility for ethical and moral decisions made. The authors discussed the changes to the programme and the preparation of teachers, but do not provide any evidence to support these claims that graduate nurses educated within institutions of higher education would be 'substantially different' to those already trained within the hospital-based training system.

McKenna (1994) investigated the attitudes of traditional (n=20 third-year R.G.N) and undergraduate (n=20 second-year Bachelor of Science (B.Sc.)) nursing students towards nursing models. The 20-item Likert-type questionnaire was tested for reliability using Cronbach's alpha ($r=0.78$), and the authors describe and detail the content of the questionnaire within the report. Twenty out of 21 (95%) of traditional students and 20 (100%) B.Sc. students responded. Both groups of students responded similarly (i.e. no statistical significance) to the questionnaire in that the majority felt that nursing models would improve patient care, would incur more paperwork and more time would be required to do the paperwork, but would also identify patients' needs and become part of the patient's record. It is interesting to note that the traditional students had a more positive attitude to models 'working well in practice'. McKenna (1994, p.533) suggests reasons for this:

“One could argue that third year college students [i.e. traditional] have spent more time in the clinical setting ...they have had more opportunity of seeing models work in practice. An opposing interpretation could be that university students [i.e. B.Sc.] are more sceptical about the successful application of nursing models, because they are actively encouraged to be more questioning about innovations – especially those not supported by research.”

McKenna's (1994) research used a relatively small convenience sample and the author warns against generalising these results across the U.K.. However, it may

suggest that the 'products' of different nurse education programmes are indeed different.

During a workshop with pre-registration degree and Dip.H.E. providers held in 1998 (National Board for Nursing, Midwifery and Health Visiting for Scotland (N.B.S.) 1998a), the participants all agreed qualitatively that undergraduate preparation was different from that of the Dip.H.E., and that graduate nurses were distinct from diplomate nurses. These distinctions included better problem solving, decision making, communication, and leadership skills, and additionally, graduates were considered better prepared to develop their practice than diplomates. The participants also reported that they regularly received feedback from employers that indicated a difference between graduate and diplomate nurses. 'Graduateness' was felt to have added value in terms of enhanced levels of critical, analytical, evaluative and decision-making skills (terms also found by Higher Education Quality Council 1997). The N.B.S. advised the profession that the current exit points within nursing should remain, but that it should aim for a greater percentage of students exiting with degree, either after three years (Scottish Ordinary degree) or after four years (Honours degree). However no agreement has been reached on the number of students exiting with a diploma, a degree or an honours degree. The N.B.S. later explained that the rationale for a graduate-based profession is based on the complexities of health care, the demands for evidence-based-practice, comparability with other members of the health care team, and the increased expectations of society regarding educational preparation (N.B.S. 1999). The Scottish Executive (2001) later stated that education providers should aim to produce 80% graduates at the point of registration by 2005.

However, the report (National Board for Nursing, Midwifery and Health Visiting for Scotland (N.B.S.) 1998a) does not give any details of whether a sample of education providers was used and how this sample was obtained. Therefore the generalisability of the findings may be questionable (Polit and Hungler 1987). The data collection technique(s) employed during the workshops and the method of data analysis are not reported. This could make the findings susceptible to

researcher bias. There is no evidence of member validation of the findings, making the credibility of the findings questionable (Guba and Lincoln 1981).

I will now discuss the literature available from the U.K. and U.S.A. comparing graduate and diploma programmes and the products of these programmes.

2.6 Comparison of diploma and undergraduate preparation in nursing

In the U.K., While, Fitzpatrick and Roberts (1998) carried out an exploratory study of traditionally trained nurses, diplomates and undergraduates to establish what they felt were the similarities and differences between senior students from different pre-registration nurse education courses. A triangulation design using two simulations, non-participant observation and a semi-structured interview, was used to explore senior student performance in Southeast England. Three groups were used: R.G.N.s (n=34); diplomate nurses (n=34); and undergraduate nursing students (n=31). The sample was selected from three institutions providing each type of programme so that the potential of individual centres confounding the findings would be minimised. The researchers used volunteers for the study, but the reader is not made aware of how the sample of the volunteers was obtained. A potential disadvantage of using volunteers is that only those students who felt confident or good enough to be assessed would actually volunteer for the study. The limitation of using a volunteer sample is that we know little or nothing about those who do not take part in the study (Parahoo 1997). Parahoo (1997) also argued that self-selected participants may show more interest and motivation, but at the same time they may also be "... conformists and traditional in outlook and could thus bias the sample" [p. 233].

The information seeking exercise involved a short written scenario presented to the participants, who were asked to list any information they would require before planning care. All participants were given a maximum of ten minutes to complete this part of the exercise. Two pilot studies were carried out to refine the exercise. The data were analysed quantitatively using Kruskal-Wallis and Mann-Whitney U-tests. These were appropriate statistical tests as both are

nonparametric, and each tests the difference in ranks of scores. Kruskal-Wallis tests are used when comparing three or more independent groups, while the Mann-Whitney U-test is used when comparing two independent groups (Polit and Hungler 1995). The coding frame was developed using relevant literature associated with care planning and the nursing process. To add to the credibility of the findings, the authors also used an independent researcher to randomly code 10% of data to test for coder reliability and consistency, and "... differences were scrutinised and the whole data set was recorded accordingly" (While et al 1998, p.192). The decision trail was therefore tested for audibility (Guba and Lincoln 1981).

Overall, the authors found that only a quarter of students adopted a systematic approach (i.e. used a nursing model), and made reference to issues of dependence/independence, while only six percent requested assessment details. Just over half (54%) requested information relating to discharge planning. Significantly more degree participants were found to use a systematic format to data requests compared to diploma participants ($\chi^2=8.148$, 2d.f., $P<0.03$) and requested data regarding the role of the family and significant others compared to R.G.N. and Project 2000 participants ($\chi^2=6.504$, 2d.f., $P<0.05$). More R.G.N. participants used a model to guide their data requests ($\chi^2=10.19$, 2d.f., $P<0.01$). Project 2000 participants were characterised by an initial focus on biographical data and more requests for personal history data compared with degree participants ($W=819.5$, $P=0.01$).

A care-planning exercise was carried out which involved a videotape presentation of an elderly female client with multiple pathology and social problems for which the participants had to write a care plan. The participants were given 30 minutes to complete the care plan. A pilot study was carried out and data were analysed using the Kruskal-Wallis and Mann-Whitney U-tests. A scoring grid was derived from a model care plan with item weighting developed by the authors. An independent researcher was again used on 10% of the data set to test rater reliability. Spearman's rank correlation coefficient test was used to examine concurrent validity between the care-planning simulation scores and the

non-participant observation scores for care-planning. Spearman's Rho is used to test that a correlation is different from zero (i.e. that a relationship exists) (Polit and Hungler 1995).

Overall the authors found a large variation in participants' individual global scores, with the highest and lowest scores obtained for problem identification and rationale for nursing care and evaluation subsections respectively. Likewise, participants achieved higher scores for the physical care domain than for the psychosocial domain. The authors also noted their disappointment that the majority of participants (60%) scored zero for client participation in care and providing a holistic approach to care (59%). Global care plan scores were significantly different with both the degree ($W=923.0$, $P=0.01$) and R.G.N. participants ($W=1369.0$, $P=0.02$) obtaining higher scores than Project 2000 participants. Degree participants also scored higher median scores for the identification of aims and nursing goals ($W=1177.5$, $P=0.01$) than the Project 2000 participants, with the R.G.N. participants falling between the two.

The researchers discuss the possible reasons for the differences in global care-planning scores. They suggest these differences may have been due to the programmes of preparation themselves which differed in respect of a more limited clinical exposure within Project 2000 programmes especially in terms of planning care. Also, the Project 2000 programmes had intakes of more than 100 students while degree and R.G.N. courses had intakes of less than 35 students. In addition, the relative infancy and on-going developmental adjustments of Project 2000 programmes may have been another possible reason for the differences in scores.

The non-participant observation (742.5 hours) utilised a 53-item performance scale (King's Nurse Performance Scale developed by, While, Roberts 1997, 1996b). Reliability was tested using Cronbach's alpha coefficient ($r=0.93$ for the total scale) and was deemed satisfactory for this population (normal limit between 0.0 and +1.00 with the higher values reflecting a high degree of internal consistency). By measuring the internal consistency the authors can give the

extent to which all subparts of the scale measure the same characteristic (Polit and Hungler 1995). The use of a coefficient alpha is also better than the split-half technique since it gives an estimation of split-half correlation for all possible ways of dividing the measure into two halves. During the simulation case studies, an independent researcher coded a random 10% of the sample data to test for coder reliability and consistency.

Not only were students observed for the level of care they provided but also for any care which was omitted. From evidence in other research studies, the authors decided to observe the students on three separate occasions at different times of the day in an attempt to accommodate the potential influence of personal and situational variables. As already discussed, Bendall (1975) identified the possibility of the student performing well for the time the researcher was present, but this was not part of their everyday performance. Student ratings were calculated using the sum of the total weighted scores over all three occasions divided by the total number of ratings. Simulations and use of the rating scale was piloted and adjusted before it was used in the main study. Comparisons were made between the programme scores using the statistical tests as before.

The scale tested the physical and psychosocial domain, and the professional implications of the case, and reported similarities in performance among the three groups. However, the authors found that degree participants achieved statistically significant higher scores than both R.G.N. and Project 2000 participants in a number of areas. For example, the degree programme achieving significantly higher scores than both the R.G.N. ($w=1181.0$, $P=0.04$) and the Project 2000 diploma ($W=1222.0$, $P=0.01$) programmes. The R.G.N. and diploma programmes were very similar in terms of the scores obtained. Statistically significant differences were found in the following domains between Project 2000 and degree participants, with degree participants scoring significantly higher: promotion of health and teaching skills ($W=1242.0$, $P=0.0004$), care management skills ($W=1229.0$, $P=0.01$), communication skills ($W=1219.5$, $P=0.01$), and use of the nursing process in planning care ($W=1276.0$, $P=0.001$). There were also statistically significantly higher scores

for the degree participants compared to the R.G.N. participants regarding the promotion of health and teaching skills ($W=1205.0$, $P=0.02$), and the use of the nursing process in planning care ($W=1236.0$, $P=0.01$).

Semi-structured interviews were conducted which explored the following areas: events considered significant to the participants' nursing practice; events considered to demonstrate a high- and low-quality nursing care; issues considered important to their practice; the participants' views of their strengths and weaknesses regarding practice; and key persons who had influenced their development as nurses. The pilot study resulted in some minor word changes and provided the opportunity for 'interviewer training'. An independent researcher again coded a random 10% of the data as before.

Similarities and differences emerged from the data. Maintenance of a therapeutic nurse-client relationship was viewed as a key theme in the degree programme. Over a third of Project 2000 participants expressed a desire for more practice experience. The R.G.N. programme itself was not viewed positively by participants, but the experience gained in practice was. Both degree and Project 2000 participants identified their practice weaknesses to lie in the nursing skills domain, while the R.G.N. participants identified weaknesses in management and leadership within the nursing team.

The authors note that the findings were obtained during a time of major change in the U.K., within the N.H.S. and nurse education, although the exact time the study took place is not specified in the report. Also the researchers note that the findings must be viewed in the context of an exploratory study of limited sample size. With the potential confounding variable of the infancy of the Project 2000 diploma course and the redistribution of educational resources away from the established R.G.N. programme, the interpretation of the findings is necessarily cautious.

In summary, research carried out within the U.K. demonstrated variable differences between the products of each nursing programme.

In the U.S.A., attempts have been made to differentiate the roles and competencies of diplomates and graduates of associate degree (A.D.N.) and baccalaureate degree programmes. Bircumshaw (1989b) states that A.D.N. and baccalaureate students are to some extent comparable to diploma and graduate nurses in the U.K., in the sense that nursing graduates have undergone a very different education to traditional nurses, but upon qualification both enter the same roles. Gray, Murray, Roy and Sawyer (1977) provide an explanation of the differentiation between the technical (A.D.N.) and professional (baccalaureate) practitioner. The technical nurse has a fair amount of knowledge, can carry out skills, and make judgements. However those judgements tend to be involved with "... questions of when, where and how rather than what and why" (Gray et al 1977, p.368). The professional nurse (educated to a higher academic level than the A.D.N.) goes beyond generalisations, and uses knowledge to perhaps predict the course of action or prescribe an intervention, with his/her main activities revolving around the decision making process (Gray et al 1977; Waters, Chater, Vivier, Urrea, Wilson 1972 cited by Gray et al 1977).

Following a review of 47 sources of American literature between 1961 and 1988, Rose (1988) concluded that B.S.N. (i.e. baccalaureate) prepared nurses were "more professional" than A.D.N. (i.e. associate degree) nurses (five out of six studies). Rose (1988) pointed out that it was difficult to make comparisons between the literature, as some literature measured different aspects of the nurses' role to others. However the results were less conclusive when measuring decision-making skills (one study found no difference, while other studies show a 'partial support' for the assertion that the decision making of the B.S.N. nurse is more professional). Rose (1988) concluded that in 14 studies there was no definitive evidence that B.S.N. nurses had greater leadership skills than A.D.N. graduates, although the former group seemed to have higher expectations of promotion. There was no obvious difference in the level of job satisfaction derived by different nurses, nor was it possible to be conclusive about which type of nurse was, in the opinion of colleagues, 'better'.

Rose's (1988) review of the literature provides a summary, but fails to critique the results/findings of the literature. Thus I am unsure of the reliability and findings of the studies included, and she provides no evidence of how the literature was obtained i.e. searches and key words used. The source of the literature could be open to researcher bias, but the author does recommend further research studies to investigate whether there are any differences between the two groups. She concludes that if no difference exists, then this has implications for the future funding of B.S.N. courses which are more costly.

Johnson's (1988) meta-analysis of all the research on the differentiation of performance of differently prepared nurses in the U.S.A., involved 139 studies of nurses educated in one of the three basic nurse education programmes (i.e. baccalaureate degree (B.S.N.), associate degree (A.D.N.), and diploma). Johnson (1988) stated that in general, the B.S.N. was prepared to provide care on a professional basis, while A.D.N. and diploma nurses provided technical care. Literature was obtained from research journals, educational information centres, and indexes to nursing literature. To be included studies had to meet the following criteria: quantitative comparisons between students or graduates of nursing education programmes leading to first professional degree and necessary quantitative data (means and standard deviations or parametric and nonparametric statistics) in the report to permit calculation of estimates of effect. Overall the studies compared nurses on a number of specific behaviours: problem solving; communication; leadership and autonomy; role; actual clinical performance levels; attitudes; and knowledge (Johnson 1988).

The effect size was calculated using the mean difference between the experimental and comparison group divided by the standard deviation for the comparison group. For this study, B.S.N. nurses were considered the experimental group for analysis with A.D.N. or diploma nurses, and the A.D.N. nurses were considered the treatment group for analysis with diploma nurses. The effect size was interpreted in terms of the gain or loss that the average member of the comparison group would experience had they received the treatment.

The author also considered the features of each study in terms of the differences in 50 substantive and methodological variables. The underlying purpose for coding the variables was to ascertain whether the findings of the meta-analysis differed depending on the nature of the study. The variables were organised into five categories including the date and location of the study, the number and demographics of the subjects, the statistical methods used and the sampling, reliability and validity measures taken.

Reliability was improved for rater coding by having a master's prepared nurse code 10 randomly selected studies. Inter-rater reliability was 93% for the 10 studies. The effect size was only calculated once studies had been coded and reviewed in an attempt to reduce researcher bias. Data were then analysed using a statistical computer package.

From the 139 studies, a total of 479 effects were coded. These ranged in size from -1.21 to $+1.88$. The mean value was 0.19 from a normal distribution. The results from the meta-analysis showed that the null hypothesis (that there was no difference between educational programmes) was clearly rejected. Further analysis was undertaken by dividing the groups into professional ($n=364$) i.e. B.S.N. contrasted with A.D.N., with diploma and with A.D.N./diploma and technical ($n=115$), A.D.N. contrasted with diploma.

The mean effect size (M.E.S.) for all courses between B.S.N. and A.D.N. and diploma nurses was 0.27 . The confidence interval reported for the 364 effect sizes was $+0.22$ and $+0.32$. The author concluded that the B.S.N. was more than one-fourth a standard deviation above her technical counterpart and that 60% of B.S.N.s outperformed the average technical nurse when their performance from the studies were measured. The average weighted effect size for contrasts between the two technical programmes (A.D.N. with diploma) was 0.004 indicating no differences in the sample of studies examined. The analysis revealed that the B.S.N. differed from the A.D.N./diploma in performance, such as communication (M.E.S.= 0.55), problem solving (M.E.S.= 0.28) and

professional role behaviours (M.E.S.=54) which have been reported as being associated with the professional role (Johnson 1988). However there was no support for a difference in autonomy (M.E.S.=0.07) or leadership behaviours (M.E.S.=0.08) between B.S.N. and A.D.N..

Overall the author concluded that the meta-analysis supported the view that differences exist between nurses prepared in baccalaureate and A.D.N. or diploma nursing programmes. The results also indicated that B.S.N. nurses work at a level above A.D.N. and diploma nurses, and that no differences existed between A.D.N. and diploma nurses. B.S.N.s performed better than the technical nurses in behaviours identified with professional education and practice: communication, knowledge, problem-solving, professional role and teaching. Although the studies showed a variation in magnitude of effect of B.S.N. education, Johnson (1988) observed that it was not totally dependent upon whether the research was published, the date of the research, the region of the country, or the rigour of the research design and the selection procedures, and therefore concluded that B.S.N. education does influence professional nursing practice. The A.D.N. group was better at the technical skills involved within nursing, a finding also revealed by Zarett (1980) cited by Johnson (1988). This may be a reflection of the overall objectives of the courses as the A.D.N. course was specifically developed in the U.S.A. to provide technical skilled nurses while the B.S.N. aimed to provide professionally skilled nurses.

Johnson (1988) acknowledged a limitation of this meta-analysis is the quality and type of information available from the studies reviewed. Many studies failed to either report or control for variables that may have biased the results (Johnson 1988). Consistent reporting of means, standard deviations and descriptive information related to the subjects used and the research setting would facilitate the use of meta-analysis in nursing research (Johnson 1988). Johnson (1988) concluded that the variations differ in magnitude from study to study, but there is agreement that baccalaureate education does have a different effect on nursing practice to associate degree education.

Lawler and Rose (1987) investigated professionalisation (socialisation) among students about to graduate with either an A.D.N. (n=18), a B.S.N. (n=25) or a post-registration degree in nursing i.e. R.N.-B.S.N. (A.D.N. returning to complete B.S.N. degree)(n=36). The study used an ex post facto design, specifically investigating the association of educational preparation and professional orientation. This was a suitable methodology as the investigation took place after the fact i.e. ex post facto (Parahoo 1997).

The three groups were chosen from three institutions in North Carolina. Each group was chosen at the same point in time (i.e. within two to three weeks of graduation), with each group comprising students from one campus. This could be a major limitation of the study that the authors have not considered, since it assumes no other factors are causing the variation in results. For example, the variation in culture or teaching standards of the institutions could influence the attitudes of the students. Non-probability sampling was used since the researchers wished to select students at this particular time in their programme. However, it is not clear from the study how the subjects were then selected from each institution. The authors fail to identify the implications of this for the validity, reliability and generalisability of the findings. The use of a non-probability samples in quantitative research could raise the issue of researcher bias in choosing the subjects (Parahoo 1997; Polit and Hungler 1995).

Data collection involved the use of two Likert style questionnaires, both having been developed and used in other studies. The first was Stone's Health Care Professional Attitude Inventory (Stone and Knopke 1978), and the authors stated that construct and content validity had been addressed in the development and subsequent testing of the instrument. Validity was not tested in this study. The measurement of construct validity would have been an advantage for other researchers as questionnaires need to be tested for construct validity in a multitude of settings and with different populations over a number of years (Parahoo 1997). Content validity could have been tested for this study by presenting the questionnaire to a panel of judges with experience and knowledge

of the topic, thus ensuring the questions adequately represented the phenomenon being studied (Polit and Hungler 1995).

Alpha coefficient for reliability of the entire scale was 0.72 in Stone's initial group and was 0.73 for this group. Reliability coefficient is deemed satisfactory if it is above 0.7 (Polit and Hungler 1995).

The second scale, Corwin's Nursing Role Conception Scale (Corwin 1961), was used to measure traditional professional attitudes, independence of practice, and standards of excellence. The first sub-section investigated the perception of the professional ideal while the second investigated the perception of actual or observed professional behaviours in other nurses. Lawler and Rose (1987) argued that the developing authors had considered content validity but subsequent use of the scale by other researchers had resulted in questions being raised regarding the scale's validity. However no attempt was made to test the validity of the scale for this population. Reliability was not tested by the developing researchers of the scale but Lawler and Rose (1987) stated that subsequent users of the scale have reported alpha coefficients in the mid-50s. However, the reliability of the scale for their population is not considered.

Neither scales were piloted before being used by Lawler and Rose (1987). This would have given the authors an indication of whether all respondents understood the questions in the same way, whether the questions were suitable for the population, whether they understood the instructions and how relevant the questions were (Parahoo 1997). Parahoo (1997) stated that in conducting a pilot study the author will find out whether the length of the questionnaire and its response choices are likely to affect the respondents' answers.

Statistical tests (one-factor analysis of variance A.N.O.V.A.) on the subscales of each scale revealed some differences between the three groups. A.N.O.V.A. is a parametric test used to test the significance of differences between means, where three or more groups can be used (Polit and Hungler 1995). The statistic calculated is the F-ratio. The F-ratio signifies the variation between groups

compared to the variation within groups. If the differences between the groups are large relative to the random fluctuations within groups, then it is possible to establish the probability that the treatment is related to, or resulted in, the group differences (Polit and Hungler 1995).

Statistically significant differences were found in Stone's scale on subscales measuring the commitment to consumer control [$P=0.001$] and collaboration in healthcare decisions [$P=0.001$], and measures of subordination [$P=0.01$]. The R.N.-B.S.N. group consistently scored higher than the other two groups, and therefore the authors concluded that the R.N.-B.S.N. group appeared to have greater role congruency between perceived ideal and actual professional role behaviours. However it is worth noting that statistically significant results were obtained in three out of the six sub-sections. Results from the Corwin scale reveal no significant difference among the groups in their perception of the ideal professional role, while the RN-BSN group viewed behaviours of other nurses in practice as significantly less professional than the other groups [$P=0.001$].

Lawler and Rose (1987) discuss the implication of the findings for the nursing profession and suggest they should prompt changes in the curriculum to suit the needs of post graduate students taking account of the level of professionalisation. However they do admit that the extent to which the level of professionalisation impacts directly on nursing practice is not known and therefore there is a clear need to compare these nurses in the clinical setting. Overall, the research by Lawler and Rose (1987) assesses the professionalisation of three differently educated groups of nurses. Statistical evidence was presented clearly in the form of a table for each scale. However I would view these results with caution because the variation in results could be due to a number of factors, such as institutional variation in courses and differences in the academic and social background of students. Each group came from a different institution, and therefore differences between groups could have been caused by institution-related factors. A pilot study was not undertaken and the reliability and validity of both scales should have been more rigorously investigated with the use of statistical tests.

In summary, research from the U.S.A. and the U.K. would suggest that there are differences between nurses educated to different academic levels, although the degree of difference is variable and can involve different attributes.

2.7 U.K. Demographics

By September 1996 there were 40,000 pre-registration diploma students in the U.K. (Buchan, Seccombe, Smith 1998). Appendix I details the number of students undertaking undergraduate and non-graduate pre-registration nurse education programmes across the U.K. from 1987/88 to 1997/98, and shows an increase in numbers of undergraduate entrants to undergraduate programmes over the past ten years. However, the proportion of undergraduate to non-graduate nursing entrants varied between countries within the U.K. during 1997/98: England 7.6%; Scotland 10.5%; Wales 16%; Northern Ireland 9.3%.

A survey of 2000 Project 2000 nursing students in England, revealed that in the 1990s the profile of students was changing (Seccombe, Jackson and Patch 1995). In comparison with student demographics in the 1970s, nursing students were on average older, with more than a third of respondents aged over 25, a third were married or living with partners, and nearly a quarter had dependent children. The survey showed an improvement in educational background of entrants with the proportion of nursing students with A levels having doubled since the 1970s. A high proportion of students was shown to have had 'considerable' working experience before entering nursing, and for many this was having experience in the health care sector. The definition of 'considerable' is not specified by the authors, and is therefore not quantified.

Winson (1995) carried out a study of the demographic differences between diploma and degree students in the U.K.. Two hundred and forty diploma nursing students from four colleges of nursing offering a three year diploma programme, 140 nursing students from four universities offering a four year degree programme and 120 nursing students from four 'new' universities

offering a three year degree programme, were included in the study. A pre-tested questionnaire which sought socio-demographic data such as age, gender, marital status, ethnic background, education and reasons for choosing nursing as a career was used, with a response rate of 90%. Fifty-four percent of diploma students and 80% of degree students were under 21 years old. The demographic shortfall therefore seems to be more significant in diploma programmes than degree programmes, with diploma programmes being more likely to attract mature students over 31 years old than degree programmes. The majority of students were female (90%), but the diploma programmes were more likely to attract male applicants (15% as compared to 7%). It is worth noting that females (87%) were more likely than males (48%) to come into nursing for vocational reasons.

Winson (1995) found that undergraduate students were more likely to say they enjoyed the theoretical aspects of the course, and were more likely (60%) to have 'high range' career aspirations such as clinical nurse specialist, teaching, and research, compared to diploma students (47%). Diploma students were more likely (30%) to say they had 'low range' career aspirations, such as wanting to qualify and become a staff nurse compared to degree students (10%).

Reasons for attrition

During the 1950s lower academic achievement prior to entry was linked to higher wastage rates from nursing courses (Cross and Hall 1954), but MacGuire (1969) argued that wastage rates were also influenced by the standard of education provided within individual institutions. To facilitate selection of the 'right' student for nursing some authors even recommended that during the selection process the personal and psychological suitability of candidates should be determined by methods such as psychological testing (Maxwell 1967) and assessed by educational psychologists (Dent 1969). Wastage rates had been linked to students' academic and psychological characteristics, but by the 1980s other considerations came to the fore. The Royal College of Nursing Commission on Nursing Education (Royal College of Nursing 1985) reported that there was a reduction in wastage rates since the 1970s, from 20% to 15%.

A study by Price Waterhouse (1986) revealed that pay both as a nursing student and a qualified nurse, was a major factor affecting the recruitment and retention of students. West (1985) stated that low pay was an illustration of the subservient role of nurses in relation to other professions in society. Other factors included stress (Baldwin 1999) and lack of supervision (Lindop 1987), and overall satisfaction levels with education were found to be lower in nursing students than other occupations (West and Rushton 1987).

There have been several studies that have examined stress in nursing students (Deary, Watson and Hogston 2003; Schmitz, Neuman and Oppermann 2000; Lindop 1999; Kirkland 1998; Jones and Johnson 1997; Hamill 1995; Rhead 1995; Lindop 1991). Although there has been a lack of consensus regarding definition of stress, Timmins and Kaliszer (2002) stated that the literature explores the phenomenon of stress. Several studies have identified aspects of nurse education as a source of stress. The clinical area has been reported to cause stress. For example, witnessing death and dying (Rhead 1995; Lindop 1991), experiencing an unfriendly atmosphere in the ward (Lindop 1991), having a fear of making mistakes (Clark and Ruffin 1992 cited by Timmins and Kaliszer 2002) and feeling helpless (Mahat 1998). The academic work associated with nursing has been reported to cause stress. For example, assignments, the amount of work, the private study associated with the programme and lack of free time (Jones and Johnson 1997; Rhead 1995; Thyer and Bazeley 1993 cited by Timmins and Kaliszer 2002; Clark and Ruffin 1992 cited by Timmins and Kaliszer 2002; Lindop 1991). In a follow-up study, Lindop (1999) compared the reported stress of 146 diplomate nursing students compared to 'traditionally trained' students at college in 1988 (Lindop 1991). Although both groups had similar sources of stress within the clinical environment, diplomates seemed more stressed about the amount of work required in the diploma programme.

Timmins and Kaliszer (2002) examined the literature on the sources of stress in nursing students, and gave details of the search strategy and databases used. The literature review provides a wide range of articles relating to the exploration of the causes of stress in nursing students. Within their research study in 1999 to

investigate factors that cause stress to nursing students, they used a sample (n=110) of third year nursing students of a three-year diploma in two hospital sites in Ireland. A pilot study (n=10), which were not used in the main study) was used to identify modifications required to the questionnaire. This was re-administered one week later which, although the sample size was small, indicated a high reproducibility using the correlation coefficient. A 12-item questionnaire, compiled from the themes from the literature, was used to collect data. A four-point Likert-type scale scored from one (not at all stressful) to four (extremely stressful). A panel of six nurse experts was ensured content validity. One hundred percent of participants responded to the questionnaire.

Factors associated with academic performance, clinical placements, financial constraints, death of a patient and relationships with staff (mean > 2) caused considerable stress. Financial stress received the highest mean score with 72 of the 110 participants rating this as 'extremely stressful'.

Richardson (1996) also identified the academic content as the main reason (20%) for attrition within her study of the drop-out rate at the University of London. Unfortunately, with a low response rate to questionnaires (22%, n=23) it is impossible to generalise these results. However, it is interesting to note that for those who entered with General Certificate of Secondary Education qualifications at ordinary or Standard Grade level, the main reason for leaving was academic failure, while for those with Advanced levels and Highers, the main reason for leaving was a wrong career choice (Richardson 1996).

In England the National Audit Office (NAO 1992) reported that there was considerable wastage from diploma programmes, with one college having a rate of 37%. However, all colleges showed a reduction in wastage rates with progressive intakes (Coakley 1997), and by the fifth intake the attrition rate was as low as two percent in some areas. Students who had left stated that they had felt disappointment at the lack of time spent with patients within the Project 2000 programme (Coakley 1997). More promising results from the Scottish Office (1997) figures were reported (Appendix I). There was an overall decrease in the

percentage wastage over the entire course, but also a fall in the percentage wastage within the C.F.P. where attrition had been particularly problematic within the early years of the Project 2000 programme. According to Seccombe et al (1995), wastage rates from Project 2000 and degree programmes vary according to region and cohort. However this may be consistent with other countries offering nurse education, for example South Africa (Mashaba and Mhlongo 1995) and Australia (Harvey and McMurray 1997). The reasons for this are again anecdotal. However it is interesting to note that Project 2000 does not seem to have solved the attrition problem. For example, in Scotland 85% completed their general nursing training in 1989/90 whereas 79% completed the Project 2000 Adult Branch in 1992 (Scottish Office 1997) (Appendix I).

Figures from the U.K.C.C. for 1997/1998 show that over 27,000 nurses did not renew their registration in that year (Minton 1998). With fewer new entrants, 16,400 registered in 1997 compared to 18,000 in 1996 and more than 22,000 in 1990/1991 (Minton 1998), the number of nurses in the U.K. was falling far short of the demand (Healy 1996, Newton 1996). The Health Committee (1999) and the Royal College of Nursing (1998) both warned of the worst nursing staffing crisis in the N.H.S. for 25 years, and 80% of trusts were experiencing 'medium to high' problems in recruiting professional staff (N.H.S. Confederation 1998). Gage and Pope (2001) stated that nurse shortages within the N.H.S. had reached crisis point. The Royal College of Nursing Association of Nursing Students stated that attrition from pre-registration programmes was as high as 20-30% in some areas (Knight 1999). The U.K.C.C. Commission for Education (U.K.C.C. 1999) stated that the drop-out rate for pre-registration nursing programmes over the U.K. varied widely from 5-30%, although they state that there are no statistics on attrition rates in comparable form. In Scotland figures show that of the 1994 intake of students, around 19% dropped out, with as many as 29% having failed to complete the mental health nursing courses (Dinsdale 1998), which demonstrate a slight improvement from 1997 figures (Appendix I).

A Royal College of Nursing Congress Report (R.C.N. Education Forum 1998) discussed why students 'drop-out' of nurse education. In 1998 there were 57,000

pre-registration nursing students in the UK, from which it was estimated that 38,000 would qualify if dropout rate continued at the level anticipated (R.C.N. Education Forum 1998). Reasons for attrition are anecdotal (Knight 1999; Williams 1997), and it has been suggested that financial hardship, accommodation problems, feelings of not being valued when they are a student, disciplinary issues and academic difficulties are other causes of attrition. Due to the anecdotal nature of the evidence, the possible causes of dropout remain unanswered and the R.C.N. Education Forum (1998) has discussed the need for further research into this area. It addressed issues such as the promotion of a real understanding of what nursing is before the applicant starts the course, selecting the right people for nursing, and where and when are students most likely to drop out.

A study on two campuses within the University of Stirling (Smith and Cuthbertson 1999) found that overall attrition rates were variable between campuses (30.24% and 24.6%), but did not specify factors for this. Overall, there was more attrition during the C.F.P. (60.6%) than the branch Programme (39.4%) – a similar trend was identified by Seccombe et al (1995). From the data, Smith and Cuthbertson (1999) identified some characteristics of the ‘typical leaver’ from both campuses that included factors such as young age, single, minimum entry requirements, and high sickness and absence rates. The authors hoped that their work would help to identify those students at high risk at the point of entry to the programme in order to produce support systems that would help to reduce the attrition rate.

This attrition and retention problem is more worrying given the increasing age of the nursing workforce (Watson 1998a). The number of nurses under the age of 30 fell by more than half from 1988/1989 to 1995/1996, with a drop of 10,000 in 1996 alone, while the proportion who are over 50 was increasing (Appendix I). Cole (1997) predicted that a disproportionately large number of nurses will retire between 1997 and 2002.

Recruitment into nursing

Harvey and McMurray (1997) suggest that students entering nurse education could have some preconceptions based on what was portrayed by the media. Nurses are typically portrayed as less rational, less able and less academic in approach than doctors (Kalisch and Kalisch 1986). However, it was the opinion of many within the nursing profession that the image of nursing needed to move away from that of a 'low-level women's work' (W.H.O. 1994). Thus it might be expected that preconceptions could conflict with the reality of the nursing role, both academically (Harvey and McMurray 1997) and practically (Lindop 1987). Negative images of nursing has been blamed for poor recruitment to the profession. In a survey of young people, nursing was described as a low status job (Foskett and Helmsley-Brown 1998) and it has been argued that it is portrayed in the media as hard work for low pay (Bullivent 1998).

Following a survey of schools, Foskett and Helmsley-Brown (1998) found that in a convenience sample of 410 school pupils in England only six and a half percent (n27), most of whom were female, wished to become a nurse. The main reason given for wanting to become a nurse was 'helping people'. The authors note that the academic level of nurse education was not seen as important. During the study the authors also asked the pupils to state their perceptions of nursing. The authors found many, but I will discuss those which are likely to affect recruitment and retention.

The pupils stated that they expected nurses to have personal qualities such as being caring, friendly, patient and tolerant. However younger pupils (10-16 years) also expected that the nurse's role would include duties such as cleaning, giving out meals, taking temperatures, emptying bedpans, helping the doctor and taking people to the toilet. Older pupils (17 years) expected nurses might supervise and organise younger nurses and give out drugs. The pupils also regarded other careers as having better opportunities than nursing. Pupils perceived nursing as a career that did not need specialist knowledge or expertise,

since people who did not aspire to higher education traditionally did it. However job security was viewed positively, although most pupils perceived that nurses were paid low salaries for hard work, associated with long hours and shift work, resulting in tiredness. Nevertheless some pupils did describe it as challenging, rewarding and worthwhile. Although nurses were perceived as having a high status job by young people because they admired those who chose to enter the profession, this did not match the desire to or envy to become a nurse (Foskett and Helmsley-Brown 1998).

Given the lack of entrants into the nurse education system, the current attrition rates from nurse education programmes, and the high number of nurses due to retire, nurse education will need to attract and retain suitable candidates. The U.K.C.C. Commission for Education (U.K.C.C. 1999) stated that the number of graduates in the U.K. workforce was likely to double by 2020, and this will affect the public perceptions of nursing and may influence recruitment if nursing remains predominantly at diploma level.

2.8 The future of graduate nursing

The nursing profession has been debating 'all-graduate status' since before the introduction of Project 2000. Indeed many felt that Project 2000 was 'one bridge too few' when nursing moved into Higher Education (Glasper and O'Connor 1996). The Council of Deans and Heads of Departments of U.K. University Faculties for Nursing, Midwifery and Health Visiting (1998) argued for the need to work towards establishing an all-graduate profession for nurses and midwives. However, it also called for a clearly structured clinical career that was sufficiently rewarding if nursing and midwifery were to recruit and retain students in the future.

In 1998 the Council of Deans and Heads of Departments of U.K. University Faculties for Nursing, Midwifery and Health Visiting (1998) was pursuing a 10 year rolling programme to change the balance between graduate and non-graduate towards a purely graduate workforce. The entry qualifications and

difference in bursary support between undergraduate and non-graduate students needed to be addressed. Garbett (1997), Osborne (1997), Phillips, Schostak, Bedford and Leamon (1996) point out that undergraduate students were not given a non-means-tested bursary, while diploma students were, which made undergraduate status financially difficult for students. Glasper and O'Connor (1996) state that nursing students often opt for a pre-registration diploma programme rather than a degree programme purely on the basis of financial reasons even when their academic qualifications would allow them access to undergraduate study. However, while carrying out my study, this was under review by the Scottish Executive (2000).

The providers of Diplomas of Higher Education stated that a move to graduate entry to the professional register would significantly enhance the standing of the profession as a whole (National Board for Nursing Midwifery and Health Visiting for Scotland 1998b). However, Theobald (1996) and Booth (1996) argued that having a profession of all graduates is for purely academic and professional reasons rather than patient-centred ones. The World Health Organisation (W.H.O.) Study Group on Nursing beyond the Year 2000 (W.H.O. 1994 p. 13) stated the pros and cons of all-graduate education:

“Placing basic nursing education in the university may improve status of nursing, enhance recruitment of able students and ensure that all practitioners are broadly educated, become equal members of health care teams and are mobile. On the other hand, it may encourage elitism among nurses, prompt countries to increase the proportion of unqualified personnel and reduce the overall cost-effectiveness of the workforce.”

Other countries, such as Canada and South Africa, are well on their way to having an all-graduate profession (Smadu 1996). In 1991, Bevis and Krulik stated that Israel were moving from a diploma-based education system in hospitals to diploma and baccalaureate programmes provided by institutes of higher education. By 1992, all pre-registration Australian nurses were educated

to degree level within a three-year programme within an institution of higher education (Lusk, Russell, Rodgers and Wilson-Barnett 2001). New Zealand followed this trend by introducing all-graduate status in 1996 (Lusk et al 2001). From the year 2000, all Canadian nurses are required to have a baccalaureate degree in nursing before being allowed to practice, but those already qualified do not require to undertake degree studies to obtain licensure (Smadu 1996). It is hoped that graduate studies for nurses will include aspects of critical thinking, decision-making, teaching, advocacy, counselling, collaborating, caring, and practical skills (Smadu 1996).

In Ireland, the government (Government of Ireland 2000 cited by Fealy 2002) called for a full integration of nurse education into institutes of higher education and recommended the implementation of a four-year preregistration degree programme by 2002 (Fealy 2002; Cowman 2001).

Lusk et al (2001) stated that within the U.S.A. there have been calls to end the associate degree programmes and make “a baccalaureate degree the minimum requirement for registered nurse licensure.” [p. 197]. However, more nurses holding a diploma or an associate degree having been attending university to attain the baccalaureate level. There appears to be a surplus of diploma and associate degree nurses while there is a shortage of baccalaureate-prepared nurses within the U.S.A. (Lusk et al 2001). Authors have argued that there was a need for graduate status for nurses because the academic level in nursing is no different to other health professionals (Thomson 1998), and the increasing complexity of clinical decision-making requires nurses to have in-depth knowledge (Thomson 1998). Moreover, undergraduate programmes have better retention rates (Deary et al 2003) and graduate nurses are more likely to remain within patient care especially in areas where there is greater scope for professional development such as community and palliative care nursing (Thomson 1998).

A study investigated the perceptions of nurse academics about the future of nurse education in England (Deans, Congdon, Sellers 2003). A 50% randomised

sample of universities (n=30) was used from a list of 60 institutions approved to provide pre-registration and post-registration nurse education by the English National Board (E.N.B.). The Heads of Departments provided consent to conduct the study, and distributed information and the questionnaire with a paid return envelope to the participants. Participants (n=1612) were Registered Nurses within the 30 universities sampled. Thirty three percent (n=543) returned the questionnaire. The authors could have included a larger sample to allow for the poor response rate usually associated with postal questionnaires (Tarling and Crofts 2002). The questionnaire contained four parts: part A requested demographic information, part B requested information regarding the participant's career as a registered nurse, part C requested information about their academic career and part D requested the participants to rate whether specific changes in nursing practice and education were likely to occur in the next 10 years (by 2008). The participants were also asked to rate their preference on those changes. Predictions for 28 items rated from one (highly unlikely) to five (highly likely), and preferences regarding the same 28 items were rated from one (definitely not preferred) to five (highly preferred). The 28-item list had been developed and used in a similar Australian study.

The three outcomes that were rated most likely to eventuate in the year 2008 concerned the work life and profile of nurse academics themselves. Firstly, participants felt strongly that nurse academics would commit more time and effort to research and publication especially with the research assessment exercise, and secondly, that workforce priorities rather than academic standards would drive nursing curricula. Finally, nurse academics felt that nursing practice would be guided by research than it is presently.

Nurse academics forecast a number of outcomes that they felt were least likely to eventuate. These included the typical pre-registration courses in nursing would entail a four-year programme, and the concept of nurses being self-employed practitioners would be well accepted by the public. More concerning was that participants felt that nursing would not be fully accepted by other academics as a

discipline in its own right, and that nursing as a profession would not develop a higher status than at present.

The three outcomes that were most preferred by the participants were that nursing practice would be more strongly guided by research, that nursing would be fully accepted by other academics as a discipline in its own right, and that nursing as a profession would have a higher status than it had at present. The outcomes that were least preferred were the present requirement for 2300 clinical hours in pre-registration nursing courses to be lower, and due to the research assessment exercise nurse academics will have to prioritise their research above teaching, and hospitals will be responsible for post-registration education in nursing.

The study by Deans et al (2003) describes the perceptions and preferences of nurse academics in England. Although the questionnaire does not ask questions directly related to undergraduate or diploma programmes, there appears to be a strong perception and preference for nursing to develop as an academic discipline. However, nurse academics perceive that it will be important to extend research activity, but also recognise that this development may reduce the amount of time and effort they can spend developing their clinical and teaching aspects of their role.

2.9 The future of diploma education

Debate has raged over whether diploma nursing courses should retain their pre-registration specialist branches or opt for a general nursing education with a post-registration specialisation (Casey 1997, Cohen 1996). The Royal College of Nursing Education and Training Policy Committee has made a blueprint for the future, named *The Future of Nursing Education* (R.C.N. 1997). The programme would begin with pre-entry vocational training to a two-year diploma level programme on the science and skills of nursing. A one-year practice-based degree level programme in a nursing speciality would follow. According to Casey (1997) the nursing profession and the U.K.C.C. were considering this

framework as I began my study. Any proposed or actual changes to the programme would be considered with the emerging data from my study.

Murray (1997) questioned whether it was too early to open a debate on radically reshaping the future of nurse education when the current system had not been properly evaluated. However Chapman (1998) stated that Project 2000 was only a stepping-stone to graduate profession and that change was inevitable.

Due to the continued debate over Project 2000, it was anticipated that changes to the programme would possibly be made during the course of this research. I considered these changes in light of the data I collected, and discussion of these changes are made within chapter four on theory development.

2.10 Summary and Conclusion

Research studies have mainly focussed on demonstration districts in England during the early stages of Project 2000. This is perhaps due to the funding of these research projects by national boards who were eager to evaluate the new programme (Gray 1997). Subsequent to these earlier studies, a few research studies have been carried out in Scotland and Wales. An overall summary of the main points of my literature review is provided.

Recruitment to nursing programmes remained problematic despite the introduction of Project 2000 and the widening of the entry gate. However, once on the diploma programme students complained about the C.F.P being too long in length, with too much emphasis on adult nursing and acute care at the expense of other branch areas and community care (White et al 1999; May et al 1997; Sainsbury Centre for Mental Health 1997; Luker et al 1996; Norman, Redfern, Bodley, Holroyd, Smith, White 1996; McEvoy 1995; Cash, Compton, Grant, Livesley, McAndrew, Williams 1994; Elkan and Robinson 1994; White et al 1993). Eaton et al (2000) demonstrated that, after completing the C.F.P., undergraduates as well as diploma students from Child and Mental Health Branches also complained of the lack of preparation for practice, and were less

satisfied with the teaching and level of support provided than Adult Branch students.

A gap between theory and practice was identified in the Project 2000 Programme (Hislop, Inglis, Cope, Stoddart, McIntosh 1996; Elkan and Robinson 1995; White et al 1993). However, the students may have had poor experiences that led to a poor linkage of theory and practice. May et al (1997) found that experience of placements with 'best practice' was limited. Carlisle et al (1999) and Luker et al (1996) also stated that managers felt that diplomates had difficulty applying their obvious research and theoretical knowledge to actual clinical practice.

Especially in the early implementation of supernumerary status for nursing students, there appeared to be confusion over what the term actually meant, both from students and mentors (Hyde and Brady 2002; Joyce 1999; Gray 1997; May et al 1997; Ramprogus 1995; Watson and Kiger 1994; White et al 1993; Elkan and Robinson 1991). The student observer role was not well understood nor was it seen as having an educational benefit. Positive practice placement experience was often characterised by students retaining their supernumerary status, and being included as full member of the team (May et al 1997). On the other hand, there appeared to be a lack of formal preparation for mentors in order that they could effectively implement supernumerary status (Hyde and Brady 2002; Joyce 1999).

By the branch programme students were beginning to feel like 'real nurses' (May et al 1997; MacLeod Clark et al 1996a; Ramprogus 1995; Jowett et al 1994; Bradby and Soothill 1993; White et al 1993). An increase in confidence and competence was noted during the branch programme but students still complained of a lack of practical skills (May et al 1997; Jowett et al 1994; Luker et al 1996; Luker et al 1993; Bradby and Soothill 1993; White et al 1993).

There were differing opinions regarding the competence of students near to or on qualification. Some students felt that they lacked the necessary practical skills

(Ramprogus 1995; White et al 1993), whilst in other studies students believed their deficit in practical skills was quickly made up following qualification, i.e. within three to six months (Fraser et al 1997; May et al 1997; Wescott 1997; Kelly 1996; Luker et al 1996; Maben and MacLeod Clark 1996; and MacLeod Clark et al 1996 a&b). A lack of practical skills was also noted within midwifery but this seemed to be to a lesser extent than in nursing (Fraser, Murphy, Worth Butler 1997). Mental Health Branch students were also seen to lack practical skills (Hickey 1996). Students were felt to 'lag behind' their traditional colleagues. Students felt unprepared for the qualified role and the accompanying increase in responsibility (Amos 2001; Jowett et al 1994; Bradby and Soothill 1993). Although diplomates still valued rostered service as a means to aid transition from student to staff nurse (Jowett et al 1994), following qualification diplomates needed a considerable amount of support and instruction to ensure they could practise safely and effectively (U.K.C.C. 2001; Bick 2000; Maben and MacLeod Clark 1997; Luker et al 1996). Consequently, the U.K.C.C. (2001) 'strongly advocated' a period of preceptorship for four months for newly-qualified students.

'Traditionally' trained nurses felt that Project 2000 students did not get enough hands-on experience and/or were lacking in practical skills (Cuthbertson 1996; Hickey 1996; Luker et al 1996; Watson and Kiger 1994), but this may be based on incorrect or poor knowledge of Project 2000 (Cuthbertson 1996). Managers recognised that newly-qualified Project 2000 diplomates lacked confidence, which was the most limiting feature of the diplomate (Carlisle et al 1999; Luker et al 1996). However Jowett et al (1994) and White et al (1993) stated that the short placements in Project 2000 meant that students were faced with new situations more frequently which limited the development of confidence in ability. Managers also noted that short placements resulted in a lack of opportunity to consolidate what the student had learnt (Carlisle et al 1999; Luker et al 1996). Carlisle et al (1999) also noted that the lack of experience of shift-work meant that diplomates were not as well socialised into the role as traditionally trained students.

In summary, the literature has identified strengths and weaknesses of diploma level programmes. The production of a 'knowledgeable doer' was the overall aim of Project 2000, but the literature states that students and qualified staff have concerns over the level of practical skill acquired. Recruitment and retention within diploma programmes has also been problematic throughout the U.K..

There was less literature on the undergraduate nursing programmes. The academic level of undergraduate programmes suggests that graduates should have a deeper knowledge base and consequently better practical skill (Partington 1997). However, undergraduate level preparation continues to be debated by the profession. Recruitment to nursing programmes has also been shown to be problematic, although retention rates are better for undergraduate programmes. Anecdotal opinion, and a few research studies, comparing diploma and degree level preparation for nurses suggests that there are advantages to graduate preparation, although the extent of those advantages was variable (National Board for Nursing Midwifery, and Health Visiting for Scotland 1998a; While et al 1998; McKenna 1994; Davis and Burnard 1997; Bevis and Krulik 1991; Johnson 1988; Rose 1988; Lawler and Rose 1987).

2.11 Rationale for study

The literature available suggested that there were going to be changes to nurse education in the future, especially towards an 'all-graduate profession', but I was aware of a lack of research-based evidence to support the move to an all-graduate profession. Research needed to inform the nursing profession of the benefits and drawbacks of diploma and degree level education, in terms of theory and practice as there appeared to be a gap remaining between theory and practice within nurse education. There needed to be an investigation into the routes (i.e. diploma or undergraduate) students had taken and the reasons behind that. Only one research paper had investigated the differences between diploma and undergraduate students within the U.K.. More concerning was the changes to nurse education that had been made and were being suggested based upon research studies which were often ungeneralisable due to methodologies chosen.

I felt it was important to obtain in-depth preconceptions and perceptions of students on diploma and undergraduate programmes, and also to compare their actual performance. From these areas, I developed the aims of my study:

- (a) to explore the preconceptions of pre-registration undergraduate and Dip.H.E. (Adult) students have in relation to their programme and the nursing profession;
- (b) to explore students' perceptions in relation to their programme and nursing as their programmes progress;
- (c) to explore how pre-registration undergraduate and Dip.H.E. (Adult) students perceive their preparation for the qualified role;
- (d) to explore how pre-registration undergraduate and diploma students perceive their preparation for the qualified role;
- (e) to compare pre-registration undergraduate and diploma nursing students' performance in the clinical area near to qualification.

The following chapter explains the methodology I used to achieve these aims.

Chapter Three

Methodology

3.0 Introduction

Using relevant literature sources, the following chapter addresses the underpinning philosophies and methodology used, together with the triangulation of data collection methods used to meet the aims of the research.

In short, the study used Grounded Theory methodology (Glaser and Strauss 1967). Undergraduate and diploma nursing students were used from two institutions in Scotland. Cross-sections of volunteers were sampled using the theoretical sampling technique (Glaser and Strauss 1967). Further discussion of the theoretical sampling technique is carried out in section 3.7 (p. 113).

Initially, undergraduate and diploma students within the first two months of each programme were interviewed using focus groups to investigate the preconceptions each group had about their programme and the nursing profession. Focus groups were chosen for first year students to put them at ease. With little experience of the programme, research, and indeed the researcher, the use of focus groups was intended to provide a relaxed atmosphere for discussion. This was the case as most of the new students would not have had much experience of each other, of lecturers, of group work or of research/interview groups.

Secondly, undergraduate and diploma students at the mid-point of each programme were individually interviewed. These interviews investigated the perceptions students had of their programme. Finally, undergraduate and diploma students within two months of qualification were individually interviewed and observed within practice using participant observation. This stage of the research investigated how the students perceived their preparation for the qualified role, and revealed their actual level of performance in acute practice areas.

Data analysis was carried out using constant comparative analysis, where data coding and collection took place simultaneously (Glaser and Strauss 1967). Data were initially coded and analysed using substantive, or level one, coding. These codes were categorised to form theoretical categories, or level two, coding. Following constant comparative analysis of the data, a core category was formed which linked to other categories (Gray 1997). Subsequently a grounded theory was developed.

Reliability and validity of the qualitative data produced was facilitated with the use of member validation (Leininger 1992 cited by Gray 1997; Guba and Lincoln 1981), outsider validation (Sandelowski 1986), the provision of an 'audit trail' (Leininger 1994), reflexivity of the researcher (Abbott and Sapsford 1998), and data saturation (Glaser and Strauss 1967).

This chapter discusses the methodology adopted during this study to meet the research aims set out in the previous chapter.

3.1 Research aims

According to Strauss and Corbin (1990), the research question in grounded theory lends 'focus and clarity' to the study. They further expand this argument stating that the research question should be flexible enough to explore the phenomenon of interest in depth. Hutchinson (1993) and Strauss and Corbin (1990) state that the research question should focus the research but should not restrain the development of areas not yet identified or understood within the phenomenon. Therefore, the aims of the study lend a focus, but it is assumed that the focus of the study may change depending on the data generated from analysis (Streubert and Carpenter 1995). Glaser (1992) and Glaser and Strauss (1967) emphasise that the researcher must not force data to fit in with the problems or produce a hypothesis, but instead should keep an open mind to the emergence of the participants' ideas and problems. Therefore the aims of this study were written to provide a focus for the study, but were also open enough to provide the

participants with an opportunity to express their views. I also was prepared to alter the aims should the research findings demonstrate that there was a need to do so.

3.2 Participants and timing of data collection

The research involved two sets of students: one from a preregistration undergraduate programme and the other from a Dip.H.E. programme. Students were selected from a Diploma of Higher Education in Nursing (Adult) programme, and were referred to as diploma students throughout the study. Undergraduate students were selected from a Bachelor of Nursing (B.N.) programme, and were referred to as undergraduate students throughout the study. Bell College, Hamilton provided the diploma programme, and the University of Glasgow provided the undergraduate programme. Access was obtained through the Heads of Department of each institution (Appendix II).

I chose these institutions as I was a Lecturer within Bell College and a doctoral candidate at Glasgow University, and I could easily access both the institutions and the practice placements each used. I also chose these institutions as Bell College only offered a preregistration diploma (although this has now changed) and Glasgow University only offered a preregistration degree in Adult nursing. Other institutions offered both programmes and students could access either and transfer from one to the other. For the purposes of this study I felt that it would be easier to select groups of students who knew which pathway (i.e. diploma or degree) they were studying towards.

At the outset I also considered how I would separate my teaching role and my researcher role within Bell College (i.e. with the diploma group). During the study, I ensured that participants were given an assurance of confidentiality and anonymity. I also ensured that selection onto the study was voluntary. However, I could have had an effect on the participant observation of these participants. Being a Lecturer, I was responsible for assessing students within practice, and felt that those students who were to be assessed by myself could have felt more

pressure to perform better than those who were being assessed by another member of staff. Therefore, I only observed students who I did not have responsibility for their assessment.

The degree and diploma programmes differ in academic content and level, but practice placement provision is very similar in the types of placements used (e.g. community, acute areas), the length of time in placements (e.g. between four and ten weeks) and the total number of practice hours in the whole programme. The undergraduate students access large teaching hospitals while the diploma students access district general hospitals for acute placements.

Although the minimum number of theoretical and practice placement hours is achieved in both programmes, the students from different institutions have experienced different number of hours of theory and practice depending on the year of study. Appendix III demonstrates the flow of practice and theoretical placements for each programme. Those graduating from Glasgow University with a B.N. (with Honours) had a total of 2211 theory and 2448 clinical hours, while those graduating with a B.N. had a total of 2091 theory and 2598 clinical hours (Nursing and Midwifery School, University of Glasgow 1995). Diplomates graduating from Bell College had a total of 2512.5 hours of theory and 2550 clinical hours (School of Nursing and Midwifery, Bell College of Technology 1995). However, by the end of the C.F.P (i.e. 18 months into the programme), diploma students had experienced a ‘care of the elderly’ placement, but B.N. students did not complete this experience until the 21st month of their programme (i.e. the end of their C.F.P.).

Another major difference between the two programmes was the length of time taken to become a Registered Nurse (R.N.) (Adult Nursing) – three years for the diploma programme at Bell College and four years for the undergraduate degree at Glasgow University.

Table 1 demonstrates the difference in academic level of the programmes.

Table 1: Programmes and related academic level (Department of Nursing and Midwifery Studies, University of Glasgow 1995; School of Nursing and Midwifery, Bell College of Technology 1995; Higher Education Quality Council 1993)

	Number of points awarded per SCOTCAT level				
Programme	Level 1	Level 2	Level 3	Level 4	Total
Dip.HE	120	120	60	-	300
B.N.	120	120	120	-	360
B.N. (Hons)	120	120	120	120	480

Initially, first year diploma and undergraduate students were interviewed within two months of commencing their programme to gain an insight into their preconceptions about their programme and the nursing profession.

Diploma students between the eighteenth and twentieth month of the programme (i.e. the mid-point and the end of their C.F.P.) were interviewed individually to gain an insight into their perceptions of their programme. Likewise undergraduate students at the beginning of third year (i.e. the mid-point and end of their C.F.P.) were interviewed individually to gain an insight into their perceptions of their programme.

During their final year undergraduate students (fourth year) and diploma students (third year) were interviewed individually and observed in clinical practice within the last two months of completion of their programme. The aim of the interviews was to gain an insight into the perceptions of their preparation for the qualified role. The aim of the participant observation was to compare their actual performance in the clinical area with their perceptions of their preparation for the qualified role.

The following table (Table 2, p.97) locates the groups and the method(s) of data collection used:

Table 2: Outline of the cross-sectional study design employed in this study

Time-frame within programme	Diploma (36 month duration)	Undergraduate (48 month duration)
0-2 months	Focus group (D1)	Focus group (UG1)
18-20 months	Individual interviews (D2) (midway)	Nil
24-26 months	Nil	Focussed interviews (UG2) (midway)
34-36 months	Individual interviews + participant observation (D3) (within 2 months of completion)	Nil
46-48 months	Nil	Individual interviews + participant observation (UG3) (within 2 months of completion)

Due to the time constraints on this study, a cross sectional rather than a longitudinal approach was employed. A cross-sectional study involves “... the collection of data at one point in time.” (Polit and Hungler 1987, p. 199). The advantages of using a cross-sectional design was that it was practical in terms of a relatively short data collection period and was more economical and easier to run than a longitudinal design.

The major assumption for this study, and other cross-sectional studies designed in such a way that the processes evolving over time can be inferred, was that the

behaviours, attitudes and characteristics of the students were consistent throughout their educational programme i.e. to make this inference, the researcher must assume that participants in the later stages would have responded as participants in the early stages had they been questioned three or four years earlier (Polit and Hungler 1995). This type of design is often referred to as a cohort comparison design (Polit and Hungler 1995). One of the research aims was to investigate how neophytes' perceptions changed as the course progressed, but the study did not follow the same student through the programme. This was recognized as a potential limitation of the study at the outset as it assumed that students in later cohorts started the programme with similar preconceptions.

3.3 Choice of qualitative research method

For the purposes of this research, a qualitative research method was chosen. I explored the rationale for using a qualitative approach before the study began. The aims of the study were to explore the subjects' preconceptions and perceptions and to observe the participants within their natural context – qualitative methodology had been used successfully for these reasons by a number of other researchers (Gray 1997; Corner 1991; Duffy 1986; Duffy 1985; Leininger 1985a). Since preconceptions and perceptions were to be explored from the nursing students' perspective, after reviewing the research methodology literature, I felt that a qualitative approach was the most appropriate.

Firstly, as the research aims were to explore preconceptions and perceptions of the participants I chose to use interviews and observations as methods of data collection (Table 2, p.97). A quantitative approach may have had a narrow focus since it may have been difficult to explore phenomena using a quantitative data collection method such as a questionnaire (Corner 1991). Using qualitative data collection methods, I anticipated that I would be able to explore any of the participants' responses if I wanted further explanation or a deeper understanding of phenomena.

Secondly, due to the lack of literature on the study topic, I felt it was impossible

to write and test a hypothesis, and demonstrate a relationship between the factors, if I was not aware which factors were significant to the participants.

Thirdly, qualitative data collection methods allowed me to observe students in their natural context of the phenomena of interest. Participant observation had been used in earlier nursing research to explore research questions within nursing (for example, Johnson 1997a). I was interested in using this method of data collection as it would substantiate (or not) the perceptions of the participants' views on their preparation for the qualified role.

Fourthly, I was aware of the lack of students' views of their educational programmes. There was a need to discover students' thoughts, beliefs and values related to nursing and their educational programme. Earlier research often investigated what qualified nurses thought of student nurses from a particular programme, but there was little understanding of the reality of being a student from different programmes within the U.K..

I was, however, also aware of the disadvantages of this study design. Qualitative data collection methods are time-consuming and produce large amounts of data, and it was impossible within the time-frame to produce a large sample size from more than two institutions, i.e. the results from this study would not be generalisable.

There are a number of methods that can be employed within the qualitative arena: ethnography, phenomenology, historical, action research and grounded theory (Streubert and Carpenter 1999). Each method is briefly discussed, together with a rationale for rejecting the method, and accepting the method chosen.

Ethnography, although it has its roots in anthropology, has been used by a number of nurse researchers in studying nursing culture (e.g. Boyle 1994, Leininger 1985a). Essentially ethnography is the description of the culture by understanding the participants' lives. In order to do this the researcher has to

become part of that cultural scene and must learn from the people (Spradley 1980). Ethnography requires the researcher to become immersed in the culture and to carry out fieldwork. Due to the time constraints on this study, I did not believe I had adequate time to do fieldwork at every stage of the data collection process. As a qualified nurse and a lecturer, I did not believe that I could become 'immersed' in the student culture as the literature suggested.

Phenomenology has been described as the investigation and description of a phenomenon (Spiegelberg 1975). Rose, Beeby and Parker (1995, p.1124) described the purpose of phenomenology as being "... to explicate the structure or essence of the lived experience of a phenomenon in the search for the unity of meaning ... and its accurate description through the everyday lived experience." Upon reading the uses of phenomenology there seemed to be a number of methodological interpretations which made it difficult to understand the structure of the data collection and analysis (e.g. Streubert 1991; van Manen 1990; Colaizzi 1978). Streubert and Carpenter (1999) and Polit and Hungler (1995) also stated that there were various methodological interpretations. Therefore I was not confident in using this method.

Historical research was inappropriate as the initial literature review demonstrated that there was insufficient evidence on the topic. Action research was also inappropriate as this requires a change to occur and the research then studies the effect(s) of that action.

I used grounded theory as the qualitative research approach to explore the aims of my study.

"The Discovery of Grounded Theory" was written by sociologists Glaser and Strauss in 1967. Glaser and Strauss (1967) argued that from their perspective and within the grounded theory framework, theory is generated from data. Therefore the generated theory remains connected to or *grounded* in the data. As Strauss and Corbin (1990 p.23) explain:

“A grounded theory is one that is inductively derived from the study of the phenomena it represents. That is, it is discovered, developed, and provisionally verified through systematic data collection and analysis.... One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge.”

Grounded theorists do not begin with a theory, but instead, they generate the theory from the data collected and analysed. According to Streubert and Carpenter (1999), the procedural steps in grounded theory are specific and occur simultaneously (Figure 1, p.103). These procedural steps are discussed in more detail later in this chapter.

The main difficulty with the Glaser and Strauss (1967) text is the academic language which Keddy, Sims and Stern (1996) describe as ‘static and linear’. In an effort to make the methodology understandable to quantitative researchers, Glaser and Strauss (1967) used the language of positivism: variables, theoretical sampling, theoretical ordering, properties (Keddy et al 1996). However, Strauss and Corbin (1990) later argued that the language and the processes involved in producing a grounded theory was written to enable the researcher to produce a theory that met the criteria for doing ‘good’ research.

Since grounded theory was discovered there have been several developments within the method following its use in the disciplines of sociology from the 1960s and nursing from the 1970s. During the 1980s and 1990s the method was commented on, used within research, and was ultimately critically analysed by a number of authors. This facilitated a better understanding of grounded theory by explaining and refining areas of the original work (Benoliel 1996).

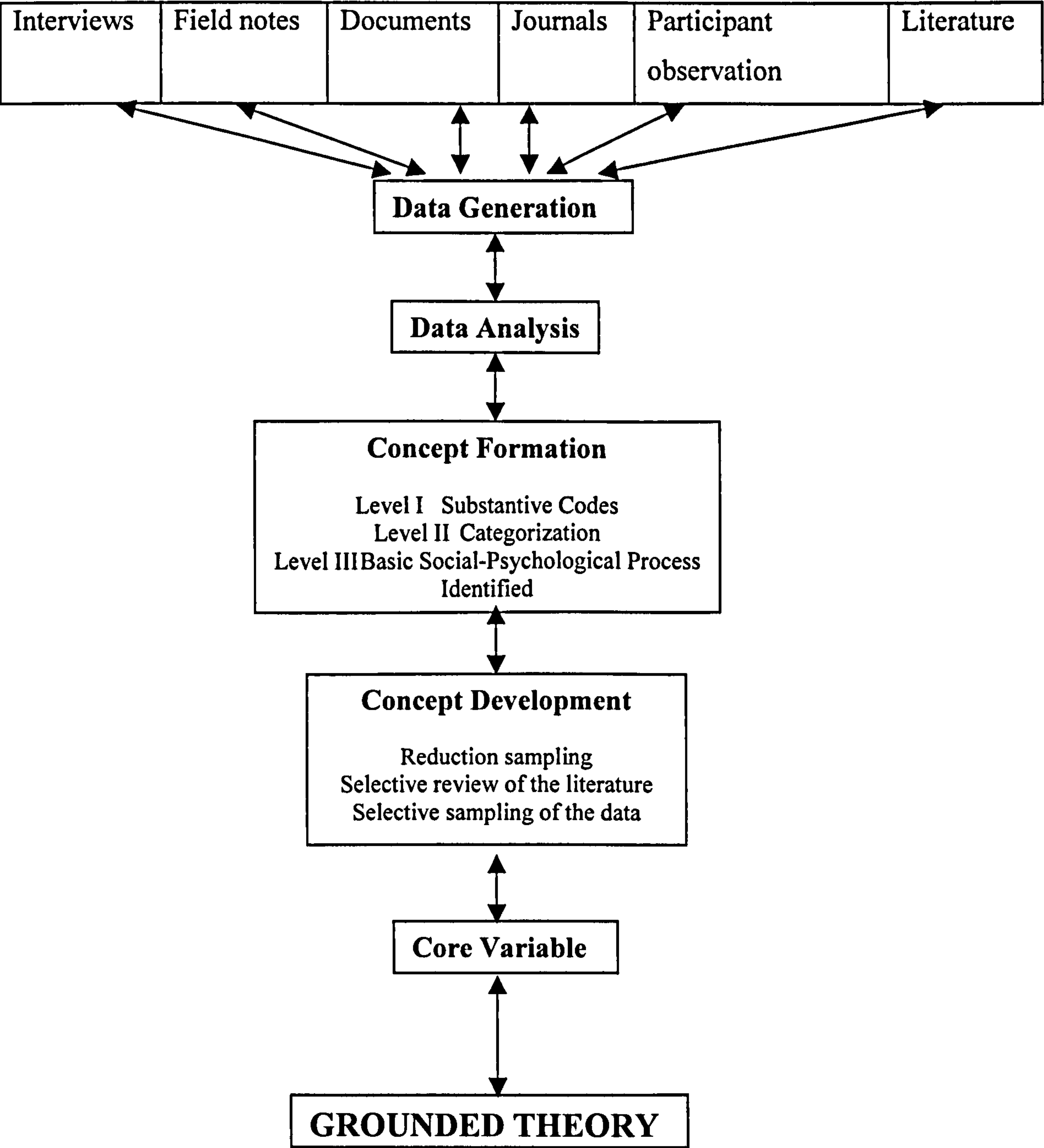
In using grounded theory, Stern (1980) differentiated grounded theory from other qualitative methodologies. A conceptual framework is generated from the data rather than from previous studies, whereby the researcher attempts to discover dominant processes in the social scene rather than merely describing it. Every piece of data is compared to every other piece of data, where the collection of

data may be modified according to the advancing theory. The investigator examines the data as they arrive, and begins to code, categorize and conceptualize, and to write the first few thoughts concerning the research report almost from the outset.

Published comments on qualitative nursing research (Benton 1996; Keddy et al 1996; Streubert and Carpenter 1995; Stern 1985) have stated that the method is ideal for identifying nursing problems, finding a solution and applying the findings to nursing settings. Since nursing is a relatively new discipline, grounded theory provides an ideal method for investigating topics about which little is known (Gray 1997; Parahoo 1997; Benton 1996). There are examples of original nursing theories that have been developed using grounded theory; for example Benner's (1984) *From Novice to Expert*, Melia's (1987) *Occupational Socialisation of Nurses* and Gray's (1997) *The Professional Socialisation of Project 2000 Student Nurses*. The use of grounded theory within nursing and other disciplines has explored the interpretation of the theory from its initial publication. These studies and other published authors have helped explain and clarify some of the difficult language as described by Keddy et al (1996), and have allowed nurse researchers to explore the methodology further.

I therefore believed that grounded theory was suitable for this study as it provided a framework by which I could carry out data collection and analysis, on a topic about which little was known. Having been used successfully within nurse education, grounded theory seemed a good choice for the investigation of student nurses' views and also in the observation of the students within practice.

Figure 1: Grounded theory and connections among data generation, treatment and analysis (From Streubert and Carpenter 1999, p. 101)



3.4 Grounded Theory: Theoretical Framework

Grounded theory uses a number of theoretical underpinnings: symbolic interactionism, verstehen and reflexivity.

Symbolic Interactionism

Grounded theory is rooted in the symbolic interactionist perspective (Annells 1996; Benoliel 1996; Stern 1994; Chentiz and Swanson 1986). Social science methodologists have advocated the use of symbolic interactionism and other approaches (e.g. constructivist) to steer the reader in the general direction of a particular area of interest (Schwandt 1998). Symbolic interactionism is a suitable foundation for grounded theory as it is a means of focusing on the manner in which people make sense of and interpret behaviour and interactions, using symbols such as language (Polit and Hungler 1995). Streubert and Carpenter (1999, p. 103) define symbolic interactionism as the belief that people interact and behave “... based on how they interpret or give meaning to specific symbols in their lives, such as dress or verbal or nonverbal expressions.”

Drawing on the work by Blumer (1969), symbolic interactionism rests on three premises. Firstly, human beings act towards physical objects and other beings in their environment on the basis of the meanings that these things have for them. Secondly, these meanings derive from social interaction between and among individuals. Thirdly, these meanings are established and modified through an interpretive process. Thus meaning is shaped by experience. Blumer (1969, p.56) argued that in order to observe and understand the participants' experience, the researcher has to “... see the situation as it is seen by the actor, observing what the actor takes into account, observing how he interprets what is taken into account.” Schwandt (1998, p. 233-4) also believed that symbolic interactionism requires the researcher to “... actively enter the worlds of people being studied ...” as the social realities are seen by interactionists as being inseparable from the researcher (Norton 1999; Annells 1996). By focusing on the interaction between people, symbolic interactionism attempts to explain how individuals fit their

actions in with those of others (Blumer 1969), and takes account of each others' actions by interpreting and reorganizing behaviour (Chenitz and Swanson 1986).

Bartlett and Payne (1993), Scott (1993) and Denzin (1989) link symbolic interactionism to qualitative research by stating that researchers must enter the world of the interactive human beings to understand them. Chenitz and Swanson (1986, p.7) state that "... the researcher needs to understand behaviour as the participants understand it, learn about their world, learn their interpretation of self in the interaction, and share definitions". In keeping with these interpretations I used a 'participant as observer' role during participant observation to explore the views of students. Using data collection methods, such as interviews and observation, I could begin to see phenomena from the participants' perspectives. Observations were also organised to take place in the 'natural setting' where true social interaction and behaviours could be described (Schwandt 1994; Denzin 1970; Blumer 1969). I also took a 'participant as observer' role in the study to understand the perspectives of the participants within the natural setting (Chenitz and Swanson 1986).

However, Denzin (1992) and Hammersley (1989) argue that in symbolic interactionism researchers may wrestle with maintaining the opposition of subjectivity and objectivity with the need to engage in the participant's natural setting. In this study I did not adopt a full participant role during participant observation thus maintaining some objectivity. Adler and Adler (1998 p. 82) argue that the strong theoretical roots of participant observation in the symbolic interaction perspective have virtually excluded an 'observer only' role: "interactionist researchers usually want to gather data from their subjects while interacting with them". Participant observation is discussed in more detail later in the chapter.

Verstehen

Bogdan and Taylor (1975 p. 13) define the term Verstehen as an "... empathetic understanding or ability to reproduce in one's own mind the feelings, motives

and thoughts behind the actions of others.” Melia (1983 p. 24) states that the “... central idea of verstehen ... is that the understanding of meaning is essential to the explanation of human actions, in other words, simply to observe is not enough.” Hutchinson (1993) states that individuals and their actions cannot be fully understood out of social context. Defenders of Verstehen argue that it is a matter of grasping intersubjective meanings and symbolizing activities that are constructive of social life (Schwandt 1998). This underpins the philosophy of symbolic interactionism, grounded theory and the data collection methods used within this study.

However some positivists have argued that Verstehen must mean a “... sympathetic imagination or empathic identification on the part of inquirers that allows them to grasp the psychological state (i.e. motivation, belief, intention or the like) of an individual actor ... [in which] the inquirer could hazard a guess as to the meaning of the actor’s behaviour.” (Rudner 1966 cited by Schwandt 1998 p. 226). However I did carry out member and outsider validation of my interpretation of participants’ thoughts and actions (i.e. Verstehen) following the interviews, and participant observation to ensure I was giving an accurate view or account of the participants’ thoughts and actions. Other reliability and validity issues are discussed later.

Reflexivity

Throughout the research I also considered the possible effect I could have, or was having, on the participants. Reflexivity has been defined by Kahn (1993) as the consideration of the “... reciprocal influence of the researcher and that which is researched.”

Abbott and Sapsford (1998 p. 150) describe the importance of reflexivity:

“At every stage of the research, right from the initial introductions, you must be thinking about how the participants are making sense of you and your presence, what you are taking for

granted or learning new about them, and how what you are doing may be shaping particular pieces of data or the whole relationship between you and participants.”

During the study I recorded any verbal and/or non-verbal signs in any communication I had with participants which I thought had significance to the study. These were recorded as memos attached to codes and categories and/or in field notes during participant observation. Also my personal journal contained periods of self-criticism and self-reflection (Altheide and Johnson 1998).

The researcher must, in essence, become inextricably involved in the social world under study (Maxwell 1996; Hammersley and Atkinson 1995; Altheide and Johnson 1994; Hutchinson 1993; Strauss and Corbin 1990). Some researchers have argued that maintaining a neutral and detached role from the data being collected and analyzed is impossible (Mason 1996; Porter 1993; Henwood and Pidgeon 1993). Through reflexivity I realized that I was part of the world being studied, and that I had to understand what effect I was having or would have on the study. This, it is argued by qualitative researchers, should bring an understanding of the effects I was having on my own study (Norton 1999; Smith 1996). During my reflection on the study (section 4.9, p.353), reflexivity is discussed, i.e. when and how I could have affected or did affect the data.

It has been argued that reflexivity can be used to establish rigor through the frank discussion of the influences, choices and decisions made by the researcher (Webb 1992). Through the use of reflexivity I was able to determine my own values and beliefs, and any prior assumptions that may have or did seem to impinge on the research (Porter 1993; Jorgensen 1991). This was done through the use of field notes, memos and writing a personal journal (Huberman and Miles 1994; Skeggs 1994; Hutchinson 1993; Aamodt 1991), all of which will be discussed later. Henwood and Pidgeon (1993) stated that writing concerns, sampling decisions, hunches and observations in memos facilitates the researcher's reflexivity as well as providing an audit trail.

Gray (1997) explained that the process of reflexivity facilitates the researcher in being aware of the effect of their own actions/decisions on the meaning and context of the experience being investigated. In order to do this, Parahoo (1997) describes the need for the researcher to be continually reflective during the whole research process. However, the influences, bias, incomplete or inaccurate theory generation, could be tested in this study using qualitative reliability and validity tests.

Abbott and Sapsford (1998 p. 150) state that reflexivity also enhances the validity of the findings, for three reasons. Firstly, it acts as a form of self-monitoring so that the researcher can spot something going wrong and be at pains to correct it. Secondly, it is in itself a form of data analysis - one way in which you find your way through the morass of material towards the underlying model that simplifies and makes sense of what is going on. Thirdly, it is the basis of your self-justification in the eventual report, your way of showing that others should believe that your interpretations are reasonable ones. Following my experience of the process of reflexivity, I will discuss reflexivity further in section 4.9 (p. 353).

Symbolic Interactionism, verstehen and reflexivity formed the theoretical framework of the whole grounded theory study.

3.5 Use of the first person in academic writing

According to Webb (1992) and Reid (1991), nursing has attempted to establish itself as a discipline by following the long established tradition, particularly in sciences, of writing in the third person. Students studying at diploma, degree, masters and doctorate level have been taught to use the third person when writing academic essays. This can lead to “excruciatingly tortuous sentences about what ‘the writer’ and ‘the author’ think” (Webb 1992). Webb (1992) and Porter (1993) argue that the use of the third person stems from the fact that statements have to be substantiated by evidence, and it is not permissible to give personal

opinion. Also in a highly competitive arena of publishing academic work, editors and referees have rejected published work in the first person (Webb 1992) or given adverse comments to those writing in the first person (Hamill 1999). However Webb (1992) provides no research evidence of such rejection, while Hamill (1999) based her view on personal experience. Burnard (1994) called for the need to challenge the assumption that literary convention demands writing in the third person.

The formation of a grounded theory requires intense participation from the researcher. Symbolic interactionism and verstehen require the researcher to enter the world of the participants and, while demonstrating empathy with the participants, interpret behaviour and actions of the participants. Gray (1997) and Webb (1992) argued that writing in the first person helped to convey this empathy. For this reason, I decided that the research study, its findings, and the development of theory should be written in the first person. Using the third person conveys an impression that the ideas being discussed have a neutral, value-free, impartial basis. These values are in contrast to the philosophy and methods of grounded theory, symbolic interactionism, verstehen and reflexivity. I also used my personal thoughts and experiences as data, for example in memo writing.

Writing in the first person is supported by Hall and Stevens (1991) who call for a 'strongly reflexive approach', and similarly, Sandelowski (1986) who believes that the typical language used in quantitative reporting, the neutral passive voice, is intended to convey the distance between researcher and subject. Mulhall (1997, p.974) stated that "...the process of research and its writing may be more transparent by ... recognising that the use of the third person may represent a contrived attempt at conveying an impression of objectivity."

On reviewing the literature I felt that the rationale for writing in the first person was largely anecdotal. However, other than academic tradition, there was no research evidence to demonstrate the use of the third person within a qualitative study. Following a period of personal reflection I developed my own opinion on

the matter which is explored within my reflection on the study (see section 4.9, p.353).

The reliability and validity of qualitative research are also important issues that were addressed.

3.6 Qualitative Reliability and Validity

Some scientists (Hinds, Scandrett-Hibden, McAulay 1990) view the validity of qualitative research methods with scepticism due to the lack of numerically-proven statistics. However, this view may result in the exclusion of qualitative research findings that might have relevance to the subject area. Conversely some qualitative research findings may have been prematurely accepted and applied in the subject area without consideration of reliability and validity (Hinds et al 1990). Goodwin and Goodwin (1984) reported that qualitative researchers have a tendency to ignore the issues of reliability and validity and to consider them irrelevant. However, more recently qualitative researchers have addressed these issues (Appendix IV) some of which I have explored within this study.

In qualitative research validity is seen as “... the extent to which findings represent reality” (Slevin and Sines 1999-2000, p.80) and reliability is seen the extent to which “consistency or replicability of the research findings” (Slevin and Sines 1999-2000, p.80) is achieved. Therefore it has been suggested that qualitative language should be replaced with words more compatible with qualitative research. Words such as ‘truthfulness’ and ‘consistency’ apply to validity and reliability respectively (Holloway and Wheeler 1996; Appleton 1995).

Rigor in research is commonly evaluated through reliability and validity assessment. Credibility (Appendix IV) is determined by the accuracy of the research findings as perceived by those who are knowledgeable about the phenomena being studied (Ashworth 1993; Hinds et al 1990). The credibility of the study was achieved through the use of member and outside validation. Guba

and Lincoln (1981, p.59) define a study as credible when "... it presents such faithful descriptions or interpretations of a human experience that the people having that experience would immediately recognize it ... as their own". When participants or other people read the findings and recognize the experience, this is also known as 'member validation' and 'outside validation' respectively (Sandelowski 1986; Glaser and Strauss 1967).

In this study, I anticipated that outside validation of the theory could be achieved through a conference presentation and report (Donaldson and Carter 2001), writing articles on the study findings for publication (being considered by professional journals) and providing copies of the theory to other students outwith the study groups.

Qualitative researchers have argued that validity is established by taking the findings back to the respondents, commonly known as 'member validation' (Mariano 1995; Koch 1994; Yonge and Stewin 1988; Borman, LeCompte, Goetz 1986; Stern 1985; Guba and Lincoln 1981; Glaser and Strauss 1967). Respondents can then confirm or refute the theory developed. This process, if used on an on-going basis, is similar to the test/retest approach to establish the reliability of quantitative research (Stern 1985). Member validation was carried out within the study to improve its 'truth value' (Guba 1981) and 'fittingness' (Guba and Lincoln 1989). Sandelowski (1986, p.27) reported that a study meets "... the criterion of fittingness when its findings can 'fit' into contexts outside the study situation and when its audience views its findings as meaningful and applicable in terms of their own experiences." If experience(s) or thought(s) were different to another or if outside or member validation revealed differences in some participants' experience, I would have expected to go back to more participants to explore these differences. If this were the case, the theory had not reached saturation and had therefore been prematurely closed.

I anticipated that participants would be required for member validation and this was made clear to participants during the information session about the project prior to them volunteering for inclusion into the study. I also took the addresses

of all students to ensure everyone would be included for member validation even if they had dropped out or had completed their education programme.

A researcher should produce a plausible and coherent explanation of the phenomenon under scrutiny (Mays and Pope 1995; Hinds et al 1990; Guba and Lincoln 1981). Koch (1994) advises the use of a journal as a means to increase the self-awareness of the researcher. I used a personal journal and memos to provide a record of relationships within the research, and record my reactions to various events and interactions (Boulton and Hammersley 1996; Koch 1994; Borman et al 1986). Reflexivity was used to obtain a plausible and coherent explanation of the findings by providing an 'audit trail' through data collection and analysis. A plausible and coherent explanation of the phenomenon added to the credibility of the grounded theory.

'Audibility' is a means of demonstrating reliability and validity. Audibility is when another researcher can follow your 'decision trail' and can come to "the same or comparable but not contradictory conclusions given the researcher's data, perspective and situation." (Guba and Lincoln 1981, p.10). The researcher should create an account of the method and data so that another trained researcher could analyze the same data in the same way (Mays and Pope 1995; Nolan and Behi 1995; Hagemaster 1992; Sandelowski 1986; Guba and Lincoln 1989; Glaser and Strauss 1967). My supervisor read each transcript and coding strategy to check the 'decision trail' and the reliability of the coding. I also used a reflexive approach during the coding process. If any 'errors' in coding were detected by the supervisor, a discussion of the coding of the meaning and rationale for the coding took place and changes were made as required.

Huberman and Myles (1994), Patton (1990) and Becker and Geer (1982) also suggested that the researcher should look for rival or competing themes and explanations to help establish confirmability (Appendix IV). I did this to help increase the confidence in the developing theory, but I also realized that there was an 'intellectual integrity' to be demonstrated (Patton 1990). This was facilitated through the process of reflexivity. However since it is not always easy

to stand back and examine rival or competing themes, given that there may be a lack of awareness of their existence, I felt it was important to test the theory by using reliability and validity tests in conjunction with reflexivity. Therefore, confirmability was demonstrated as a 'lived experience' (Avis 1995 cited by Gray 1997) through the use of reflexivity, member and outside validation, and the use of verbatim statements and verbatim codes in the writing of the theory.

The reliability and validity of this research was aided through theoretical sampling; constant comparative data analysis and theoretical coding; saturation and triangulation of data collection methods. Each are discussed further within the next section.

3.7 Theoretical sensitivity

Following the original publication of the *Discovery of Grounded Theory: Strategies for qualitative research*, Glaser (1978) produced more work to fill in some of the gaps in the original work. He stated the importance of producing the necessary theoretical sensitivity in grounded researchers as early users of the grounded theory method often floundered in how to set down theoretically what they had found. Therefore theoretical sensitivity refers to the researcher's ability to conceptualise and to formulate theory as it emerges (Norton 1999; Glaser and Strauss 1967).

The following section details the processes involved in the generation of the theory using theoretical sensitivity. Theoretical sensitivity involves theoretical sampling and theoretical saturation.

Theoretical sampling

During a grounded theory study, the sample is not selected from a population based on certain variables prior to the study. Glaser and Strauss (1967) introduced the concept of theoretical sampling whereby the researcher jointly collects, codes and analyses the data. Theoretical sampling develops as the research progresses, where the researcher decides what data to collect next and

where to find the data on the basis of concepts and theoretical issues which arise during the research (Coyne 1997; Holloway and Wheeler 1996; Becker 1993; Glaser 1978; Glaser and Strauss 1967).

In quantitative research representativeness is assured by clarifying the variables to be sought in the sample and assuring that there is a way to ascertain that the sample reflects these variables in the same way as the population (Chenitz and Swanson 1986). In contrast to qualitative research, quantitative research uses statistical sampling, in which the researcher aims for a predetermined probability sample and continues data collection until the predetermined sample size is reached (Beck 1996). However, within grounded theory the sample is not predetermined, nor does it use statistical sampling techniques. Instead, the sample is taken to examine the phenomenon in the area where it is known to exist (Chenitz and Swanson 1986). Wiener and Wysman (1990) reiterate that sampling does not proceed in terms of number of individuals or units of time, but in terms of what the individual has to offer the research, for example the individual has a particular experience the researcher wishes to investigate. Glaser (1978 p. 45), a founder of grounded theory, acknowledges that the researcher will, in the initial stages of the study, "... go to the groups which they believe will maximize the possibilities of obtaining data and leads for more data on their question."

Glaser (1978) makes a logical distinction between selective sampling used in quantitative research and theoretical sampling. He states that in selective sampling (for example, purposive sampling) the researcher makes a calculated decision to sample the population from a particular place with particular dimensions. Purposive sampling is a "...nonprobability sampling method in which the researcher selects subjects on the basis of personal judgement about which ones will be most representative or productive" (Polit and Hungler 1987, p. 534-535), and uses a predetermined sample size. Data analysis would be carried out after the data were collected. However in theoretical sampling the researcher cannot know in advance what to sample for, or how many participants will be required, nor where it will lead. Only when data collection and analysis

is ongoing does the researcher know where to look and for what.

However, both purposive and theoretical sampling methods are at risk of researcher bias. I was aware that there is a risk within theoretical sampling of choosing participants who would agree with rather than refute the emerging theory. However, I expected that disagreements with the theory would have been demonstrated on completion of outside validation, but this sampling technique could be open to researcher bias especially if there were no aspects of reliability or validity tested.

The initial samples of preregistration undergraduate and diploma students were chosen from two institutions. This was based on the need to collect data and examine the categories and relationships within the sample. The exact number of subjects was not confirmed at the initial stages as it was not known how many subjects would be needed for the theory to be developed (Streubert and Carpenter 1995). I carried out constant comparative method of data collection and analysis i.e. the data were collected and analysed on an on-going basis as recommended by Glaser (1969) and Glaser and Strauss (1967). In other words, data were collected, analysed and then the next participants were selected according to the emerging theory.

Theoretical saturation

Saturation was achieved through the use of the constant comparative method, which Johnson (1997a) described as the simultaneous analysis and collection of data, which provides new ideas and concepts that should continually guide the researcher to new data sources. During this study, analysis and collection of data were on-going such that the analysis of one data source led to further collection from the next and so on. This is reflected in the setting of research aims rather than specific questions at the start of the project. The research and consequently the interviews and observations becomes more focussed as the data analysis continues – an observation made by Artinian (1986) when she discussed the constant comparative method.

Theoretical sampling continued to the point of saturation (Pidgeon 1996). Saturation occurred when examination of the data yielded only re-occurrence of material (Benton 1996). Morse (1991 p.149) suggests that not only when the concept is mentioned frequently does saturation occur, but the saturate data must be “... rich, full and complete”.

Hutchinson (1993 p. 204-205) describes theoretical saturation in grounded theory as referring to:

“... the completeness of all levels of codes when no new conceptual information is available to indicate new codes or the expansion of existing ones. The researcher, by repeatedly checking and asking questions of the data, ultimately achieves a sense of closure.”

I chose groups/individuals who would stretch the diversity of the data as far as possible to make sure that saturation was based on the widest possible range of opinions and performance (Glaser and Strauss 1967). For example I selected mature students, school-leavers, and poor and good academic achievers to achieve a diversity of perceptions on their preparation for the qualified role. This is known as maximum variation theoretical sampling (Patton 1990). This type of sampling involves purposefully selecting cases with a wide range of variation on dimensions of interest. According to Polit and Hungler (1995), this type of sampling encourages challenges to the emerging theory by including participants with a wide variation in their background.

However, overall differences in the characteristics of the students sampled were noted. Within the undergraduate sample used there was only one non-school-leaver (i.e. the participant had completed another degree before commencing the nursing programme), while most of the diploma students had previous work experience or had undertaken further study at Further Education institutions. Therefore, most of the diploma students were mature students with work/college

experience, while most of the undergraduate students were school-leavers with no work experience. None of the diploma students had completed any degree programmes. None of the undergraduate students had healthcare work experience before commencing the programme. A few undergraduate students had work experience within a healthcare environment while completing their educational programme. The entry criteria for the two programmes were different and this meant that the undergraduates had better grades from school than diploma students. Therefore the students' preconceptions and perceptions of their programme may have been as a result of their educational and work experience they had gained before commencing their educational programme. However, from the institutions chosen I was unable to match the group characteristics which could be a limitation of the study.

I also treated member and outsider validation as a data source for saturation. If any other experiences were noted during the validation but were not in the research findings, I anticipated that I would continue data collection until saturation was complete and then repeat the validation exercise.

The next section describes and provides a rationale for data collection and analysis.

3.8 Data Collection Methods

Focus group interviews, individual interviews and participant observation were the data collection methods used within this study. Using more than one method of data collection is known as triangulation. Abbott and Sapsford (1998) advocate the use of triangulation to demonstrate validity. Triangulation has been described by Clifford (1997 p. 199) as "... the use of more than one method of collecting or interpreting data", and by Abbott and Sapsford (1998 p. 187) as "... using different sources of information to bear on and illuminate a single problem." In research terms it means being able to show that more than one source has been used, each with its own bias, but not necessarily the same in each case (Abbott and Sapsford 1998). Triangulation of data collection methods

was used in this study.

Adler and Adler (1998) advocate the use of another method of data collection when using observations to produce a greater rigor. I used interviews to demonstrate that what I concluded from the observations was what the subjects understood by it.

Within a grounded theory study, data collection methods should aim to place the researcher in the world of the participant. For this reason, focus groups and individual interviews, together with participant observation, were methods of data collection. The literature and the experiences of the researcher were also used as sources of data (Holloway and Wheeler 1996; Chenitz and Swanson 1986).

From the grounded theorist position, the researcher is a 'social being' who creates and recreates social processes (Baker, Wuest and Stern 1992). Therefore past experiences of the researcher are data. No attempt was made to put aside ideas or assumptions about the situation being studied, but rather I used these to facilitate my understanding of what was being observed and what the participants told me during the interviews. This is in keeping with the symbolic interactionist framework and reflexivity.

Preliminary Measures

Initially, the study required some preliminary measures be taken, including gaining access to the participants, and ethical considerations. These were addressed before commencement of the research project.

Both institutions were contacted by letter (Appendix V) for access to use their students, facilities and accommodation for interviewing. Procedures for recruiting subjects and a copy of the research proposal were also given to the institutions. A letter of confirmation was necessary for the research to proceed (Swanson 1986).

I initially contacted students via flyers and then an informal meeting, which took place within a classroom at each institution containing all students at the necessary point of the programme. During the informal meeting, discussion took place in general terms rather than specific terms to limit bias on the information sought from the informant at interview (Field and Morse 1985). Participants volunteered, and if they were chosen for the study, were required to sign a consent form for inclusion in the study (Appendix VI). Students' names were drawn randomly to give each participant an equal chance of being selected, and therefore reducing researcher bias (Polit and Hungler 1995).

I used a checklist at each informal meeting to ensure I remembered to inform the participants of all the necessary details to allow them to make an informed choice to participate in the study (Appendix VI). Initially, participants in the focus groups were informed that one focus group was required. Other participants were informed that one individual interview was required. I informed the participants that the interview could last approximately one hour (plus or minus 15 minutes). They were advised that they could refuse to answer particular questions, withdraw from the research at any time, and an assurance of confidentiality and anonymity was given. I also informed them of the meaning of, and need for, member validation which would mean that I would contact them again at a later date. A written information sheet was issued to students detailing what would be required of them should they volunteer for the study (Appendix VI). This initial meeting provided an opportunity for the students to become acquainted with me, and to arrange suitable dates and times for subsequent interviews (Field and Morse 1985).

Having gained access to the participants, it was important to consider the ethical implications of the research before commencing the study. I aimed to consider the ethical implications of the research for the participants. This was done by ensuring that informed consent was obtained, participation was voluntary, participants were ensured of confidentiality and anonymity, and the participants were treated with dignity and respect (Couchman and Dawson 1990).

Initially, ethical consideration was given to the participant. The individual was informed of the research and that participation was voluntary (Ford and Reutter 1990), thereby respecting each individual's autonomy. Each student volunteered to be included in the study by indicating this choice on a response form (Appendix VI). The concept of informed consent assumes that individuals make informed choices on whether or not to volunteer, taking account of the risks and benefits (Ford and Reutter 1990). However, the very nature of qualitative research, and especially grounded theory, makes it impossible to give complete information about the research at the beginning of the study (Holloway and Wheeler 1995; Ford and Reutter 1990; Ramos 1989). Ford and Reutter (1990) and Ramos (1989) suggested that informed consent at one stage of the interview cannot be assumed for another as the research objectives may have changed on the basis of the information given. The nature of the interview within grounded theory makes it difficult to predict the range of issues to be discussed, the exact time commitment and even the people who will be interviewed (Ford and Reutter 1990). For these reasons, informed consent was not limited to a 'one-time' session, but before each interview I reiterated the rights of the participant such as the right to withhold information or withdraw from the study at any time. Each participant signed a consent form (Appendix VI) before each interview and/or participant observation session.

It was important to remember that the signed consent form does not absolve the researcher from responsibility (Ramos 1989). Therefore, I was aware of the responsibility to keep the participant informed at every stage of the research. I provided an information sheet to every volunteer in the study (Appendix VI). The participants were assured confidentiality and anonymity. Ramos (1989) and Becker (1969) state that although confidentiality was promised, the small number of respondents and depth of detail within qualitative research make it difficult to disguise identities. Minor details, for example age, could be changed if the participants could be recognized by the other students and/or staff (Archbold 1986). Each participant was given a code name and only I was able to match the 'real' names and identities with the transcriptions. The list of code names was

kept securely in a different place from the transcripts. In addition the participants' views were respected and treated with dignity. I always thanked participants for their time and effort in the research.

With the small sample sizes used in my study, there could have been an issue with the identification of some participants (Archbold 1986). Therefore, in order to protect the identity of some participants, I changed the recorded gender from female to male as some classes had only one male student. In quantitative research, changing the demographic details of a participant may result in statistical misrepresentation. However, given the qualitative nature of my research, and the fact that the opinions presented by males were consistent with those of females, the changes to sex were not significant to the findings. I would suggest that qualitative researchers should check the data for inconsistencies or patterns in the data when they have changed demographic characteristics of the participants.

3.8.1 Focus Group Interviews

Diploma and undergraduate students, within two months of commencing their nursing programme, were interviewed via a focus group. The aim was to explore the preconceptions diploma and undergraduate nursing students have about their programme and the nursing profession.

Howard, Huble Bank and Moore (1989, p.39-40) describe focus groups as:

“... simply a discussion in which a small group of people under the guidance of a facilitator or moderator, talk about topics selected for investigation. Participants answer the questions posed by the moderator, make comments, ask questions of other participants and respond to other participants' questions.”

However, upon reading more literature this seemed an over-simplified version as there were benefits and drawbacks which had to be considered (Kevern and

Webb 2001), as well as the practical issues such as group size.

Group Size

Morgan (1988) suggests that a group size of between four and twelve participants should make up a focus group. According to Morgan (1988), it is not considered a focus group if there is less than four participants as there would be too few people to create a good discussion. Greater than twelve is considered too many to allow full participation and interaction from all the members (Morgan 1988). From their personal experience, MacLeod Clark, Maben and Jones (1996b) suggested that between seven and twelve worked best, as smaller groups lacked 'lively discussion'. Other literature sources such as Boulton and Fitzpatrick (1994) suggest between eight and ten people, while Quine and Cameron (1995) suggest four to five people. I based my selection on the average of these literature sources and selected seven to eight participants for my focus group.

Morgan (1988) suggested that the researcher should 'over-recruit' by 20% to allow for dropout. Groups of 10 were recruited for each session in this study, allowing for a 20% dropout, while still not being too large should all the participants attend. If groups of four or less attended, I would not have carried out the interview. In an attempt to prevent poor recruitment, a number of interventions were carried out. Flyers were used initially to gain interest in the research project. I made contact with the participants personally during an initial discussion session. A response form was given out and collected when personal contact was made. A meeting time and place was then set for the interview at the convenience of the participants.

Advantages

The main advantage of focus group interviews is that they facilitate group interaction. After using focus groups within a research study, Jarrett (1993 p.191) suggested that in a relatively short period of time "... focus group

interviews can thematically identify the diversity of view-points or the range of behaviour patterns associated with particular issues". However, Fern's (1983) experience of using focus groups and individual interviews led her to conclude that focus group interviews do not provide any more ideas than the same number of individual interviews. Sim and Snell (1996) identified that it was difficult to achieve the same depth of interview as with an individual. On the other hand the richness of group interaction and the opportunity to see how individuals respond to one another would be preserved.

Stewart and Shamdasani (1990) identified four advantages of focus group interviews: synergism; snowballing; spontaneity; and stimulation. Synergism refers to the wider range of insight, information and ideas that come from focus group discussions. This has also been stated as an advantage by researchers using focus group interviews (Boulton and Fitzpatrick 1994; Crabtree, Yanoshik, Miller and O'Connor 1993; Frey and Fontana 1993; Morgan and Krueger 1993). During focus group interviews a chain of responses may be triggered (snowballing) by participants' responses (Frey and Fontana 1993; Morgan and Krueger 1993). Participants' responses may be more spontaneous in focus groups, as the participants only speak when they have real feelings on the matter and not when a question requires a response (Stewart and Shamdasani 1990). Focus groups also stimulate discussion as the participants have to express their feelings (Frey and Fontana 1993; Stewart and Shamdasani 1990). Additionally, Calder (1977) argued that participants have to justify their views to a larger audience, and analyze their own and other participants' views.

On reflection of these possible advantages, I was keen to try a focus group interview in the initial interviews to create wide discussion. The focus group interview sits well with grounded theory as it allows the participants to set their own framework and use their own language to explain their own world (Frey and Fontana 1993).

Disadvantages

There were, however also disadvantages identified within the literature. These included the influence of other participants, less researcher control, communication problems within the group, and poor recruitment to focus groups.

The influence of others on the participants' willingness to disclose and share opinions is crucial and has received much attention in the literature (Parahoo 1997; Morgan 1993; Stewart and Shamdasani 1990; Morgan 1988). Wilson (1997) warns that responses may be guarded in a 'public' arena like a focus group. In other words, there may be a 'public' and 'private' account of the phenomenon under investigation. Within this study all interview participants were reminded of confidentiality between group members and anonymity within the research before each session began.

The researcher has much less control in the group interview than in an individual interview, in that in the group situation participants can interact with each other and as a result members are able to influence the course of the discussion (Krueger 1994). The focus of the interview was aided with the use of very broad questions that were asked at the start of the interview.

Issues with verbal and non-verbal communication are potential problems within focus groups. The main difficulty I anticipated at this stage was that of silences within the group. Silences were noted in each transcription, and I recorded any non-verbal communication that I observed. Asbury (1995) commented on the difficulty of interpreting silence in a participant: is he or she agreeing with what is being said and has nothing to add, or are they disagreeing, but do not want to say so? Jackson (1998) stated that she found direct questioning of the participant to be the most fruitful tactic. I recorded thoughts, feelings and factual information about the interview participants, including verbal and non-verbal signs, within a memo.

Fontana and Frey (1994) identified additional problems: (a) the researcher may

become a spokesperson for the group being studied, losing his/her distance and objectivity; and (b) the researcher may 'go native' and become a member of the group. These were problems I was aware of and tried to avoid throughout the study.

Twinn (1998) identified the difficulty of transcribing data from a large group (n8) since there was a tendency for participants to speak at the same time as each other. This resulted in lost data, and lost opportunities, for issues to be explored in greater depth. In addition, Twinn (1998) felt that there was a tendency for the larger group to break into smaller discussion groups of two or three, which once again resulted in data being lost. However, Twinn (1998) found that in the smaller group (n3) there was a tendency for a particular member of the group to dominate the discussion. In one interview she found that 70% of the interview was taken up by the contributions of one person. However, this could have been due to the lack of skill of the interviewer rather than the group size.

Krueger (1994) argued that focus group interviews are more difficult to analyse, since comments can be taken out of the text but occasionally participants may modify or even reverse their position after interacting with others. Since people are social creatures, Krueger argues that they are influenced by comments of others and make decisions after listening to others' viewpoints. This therefore results in debate and a wider scope of conversation. However, I would argue that from a negative point of view, participants with strong personalities/views may influence or over-ride those participants with weaker personalities and/or less popular views.

The issue of confidentiality was addressed again at the beginning of each interview, and the group was encouraged to guarantee confidentiality to each other. Also, I highlighted the importance of 'truth value' in the research and stated that I was looking for honest opinions from all participants. I used a checklist (Appendix VI) to ensure that all issues were addressed before the participants signed their consent form.

3.8.2 Individual Interviews

Students at the middle and end of their programme were interviewed individually. The aim of the interviews was to explore the perceptions students had about their programme and their preparation for the qualified role. Focus groups were felt inappropriate for the end-point interviews as I wanted to compare each student's perceptions of their preparation for the qualified role with their actual performance during participant observation.

Various interview methods are described in the literature, including structured, semi-structured or unstructured interviews.

The unstructured interview is described by Whyte (1982 p. 111) as:

“The interview structure is not fixed by predetermined questions, as it is in the questionnaire, but is designed to provide the informant with freedom to introduce materials that were not anticipated by the interviewer.”

According to Swanson (1986), the unstructured interview can be intensive and in-depth. Following their use of unstructured interviews, early researchers stated that this type of interview allowed participants to use their “... unique ways of defining the world...” Denzin (1970, p. 1265), and Lofland (1971) stated that the participants' own words were used to gain a description of situations. Silverman (1985) also argued that interactionist research tends to reject standardized interviews and to prefer open-ended interviews for the reasons stated by Lofland (1971) and Denzin (1970). Denzin (1970 p. 125) offers other reasons for this preference for unstructured interviews including that they assume that no fixed sequence of questions is suitable for all participants and they allow participants to “... raise important issues not contained in the schedule...”.

Structured interviews are carried out using a predetermined and structured questionnaire, and the interviewer's role is to administer the questionnaire or

‘interview schedule’ in the same way to all the respondents (Parahoo 1997). This was however, impossible to achieve within a grounded theory study where the questions are not set at the beginning of the study, and where the questions are expected to evolve with the emerging theory.

Parahoo (1997) describes semi-structured interviews as interviews in which the respondents are asked the same questions but there is flexibility in the phrasing and ordering of the questions. Again, due to the nature of grounded theory, questions were not pre-determined and it was expected that participants would be asked different questions as the theory evolved.

Therefore, there were reasons for rejecting the use of unstructured, semi-structured and structured interviews. Parahoo (1997, p. 286) described an interview in which the researcher may wish to explore participants’ experiences “... but may not have a list of questions or topics but may decide to let them talk about their experience.” He argues that in this type of non-directive interview, the participant should be given freedom to express their views. Parahoo (1997) stated that completely non-directed interviews could be difficult to manage, and suggests a ‘focussed’ interview as a method of giving the interviewer some degree of control. A focussed interview uses a list of topics to provide the researcher with a guide on what they want the participants to talk about, but should not restrict any new ideas or perspectives the participants may wish to state (Parahoo 1997). However, there appears to be some confusion over the use of the terms ‘focussed’ and ‘semi-structured’ interview as Polit and Hungler (1999) use the terms interchangeably.

Swanson (1986) and Burgess (1982a) suggested an interview guide as an alternative to completely unstructured interviews. An interview guide containing a set of brief, general questions, a topic outline, or major themes could be used. However, the interviewer must not stick rigidly to the guide, and must be “... ever mindful to follow the respondent’s major concerns or viewpoints” (Swanson 1986, p. 67). Waltz, Strickland and Lenz (1984, p.314) describes this type of interview as ‘focussed’ where there is a:

“... loose agenda, for example, a list of topics to be covered. However the interviewer may move freely from one topic area to another and allow the respondent’s cues to help determine the flow of the interview.”

As data were analysed, it was anticipated that new areas would be talked about by a participant and would then be developed further in subsequent interviews. Therefore, I used focussed interviews rather than structured and semi-structured interviews. Unstructured interviews have no focus and let the participants address the subjects most important to them, thus increasing the amount of unnecessary information. Focussed interviews allows the subject to talk freely about certain areas the researcher directs them to.

Having completed data analysis on the focus group interviews, codes and categories emerged which were used to help maintain a focus on the main themes of the research. Open-ended questions and topic lists were used to focus subsequent interviews. I felt that it was important to focus on particular areas for the development of the emerging theory.

The following sections discuss the preparation and the processes involved in completing the focussed interviews: (A) the role of the interviewer; (B) the interview; and (C) ethical considerations.

3.8.3 Focussed Interviews: preparation and processes

(A) The role of the interviewer

Reviewing the literature revealed various opinions on the role of the interviewer. During the focussed interview, I used a ‘loose agenda’ (Waltz et al 1984) to provide a focus for the topics I wanted discussed, but also to limit the amount of irrelevant information. This irrelevant information is known as the ‘dross rate’ (Gorden 1975). I anticipated that I would use a number of open-ended questions during the interview, such as “Tell me about?” , or “I would like to learn

about...?” This, according to Field and Morse (1985), would help prevent leading the thoughts of the participant. Morse and Field (1996 p.73) state that “... the important point is that the participants often know better than the researcher exactly what is and what is not relevant to the topic.” Therefore, I used questions which would focus the discussion without leading or causing bias in the question. For example, I asked participants the following question: “Tell me about your clinical placements?” rather than more specific questions such as “What did you like about your mentor?”

Hutchinson (1993) pointed out that quantitative researchers describe qualitative methods as too subjective and inherently unreliable and invalid. They maintain that the presence of the researcher will influence the behaviour and/or the answers given in field research. There are possibilities that informants may lie, distort the truth, or withhold information. This may mislead the interviewer with incomplete, inaccurate or biased data.

Stern (1980) noted that within the field, as opposed to the laboratory, it is impossible to have control that allows for the presence of the interviewer. Instead of being viewed as an intrusive factor which influences the interviewee (Hutchinson 1993), Stern (1980) believes that the personal experience of the interviewer may enhance the understanding of the problem. Strauss and Corbin (1990 p.18) also hold the view that the interviewer draws “... upon past experience and theoretical knowledge to interpret what is seen, with astute powers of observation, and good interactional skills”.

Sandelowski (1986 p. 31) argued that the researcher may have direct access to the participants’ experience, “... but may also be unable to maintain the distance from those experiences required to describe or interpret them in a meaningful way”. I hoped to overcome this problem with the use of triangulation of data collection methods, i.e. individual and focus group interviews and participant observation.

Initially participants were approached via an informal meeting with me.

Following the initial meeting, each potential participant had a chance to assess and make their own judgments about me as a researcher. Thereafter only those who volunteered for inclusion into the study were approached. Field and Morse (1985) suggest a quiet, uninterrupted interview, where the researcher listens carefully, is receptive and non-judgmental. I arranged the seating so that I was at right angles to the participant to allow eye contact and observation of non-verbal gestures without appearing threatening, which helped to establish rapport and trust in the relationship (Gray 1994). Fontana and Frey (1994) explain that establishing rapport is the overall goal of interviews where the researcher must be able to put herself into the role of the participants and attempt to see the situation from their perspective.

The overall purpose of the interview was to gain information. Field and Morse (1985) suggest that the listening skills of the interviewer must be very good to recognize 'thin' areas and probe for additional information. The interviewer should attempt to 'get inside the informant's skin' so that they could understand the topic from the informant's perspective (Field and Morse 1985 p.67). Gorden (1975) described this role as the 'intelligent interviewer', where the interviewer knows the objectives, can remember what was said, can probe appropriately, and can evaluate the information and seek clarification of inconsistencies. These objectives have also been suggested by other researchers, such as Whyte (1982).

I only asked questions if the conversation became confused or there was a need to clarify or further investigate a particular point further (Morse and Field 1996). Ely et al (1991) and Gorden (1975) identify this as one of the characteristics of a good interviewer.

Developing trust and communication between researcher and respondent has been commented upon by a number of authors. For example, Parahoo (1997) stated that it was important that participants revealed "... their inner thoughts if the researcher is skillful enough and if a trust is built up with the respondent." However, Parahoo (1997) does not reveal how this trust should be developed, but recognises trust as being achieved when the researcher extracts the information

from the respondent. However Streubert and Carpenter (1999, p. 23) describe the importance of making the respondent as comfortable in space and time as possible: “The more comfortable each participant is, the more likely he or she will reveal the information sought.” However, this explanation lacks substance, is anecdotal, and does not provide researchers with verbal or non-verbal actions to aid the process. Gorden (1975) argued that throughout the interview, the role of the interviewer is to observe the participants’ emotional needs, empathize and communicate warmth, with the aim of putting the participant at ease. Polit and Hungler (1999, p. 346) also state the need for a good relationship between respondent and interviewer, in order that the respondent will “... feel comfortable in expressing their honest opinions.” Polit and Hungler (1999) explain the need for the interviewer to be reliable, punctual, courteous and friendly. They also state that all opinions of the respondent should be accepted, the interviewer generally not expressing surprise, disapproval, or even approval. However, this would prove difficult if the interviewer was to communicate normally, or even to express empathy as advised by Gorden (1975).

Thus, whilst the literature agrees that it is important to establish a trusting relationship that will facilitate good communication, during which the participant will reveal the information you seek, how this is to be achieved is discussed at an anecdotal and superficial level. I anticipated using non-verbal cues such as facial expressions, gestures, body position, and verbal cues to establish the relationship. Reflection of this process is discussed later (see section 4.9, p.353).

At the end of each interview, I always asked: “Is there anything you would like to ask me?” and “Is there anything else I should have asked you?” (Morse and Field 1996), and thanked the participant for taking part. If there were discussions after the audiotape was switched off these were noted in my memos. I explained the need for member validation, but expressed that there would be a time lapse between the interview and construction of the theory.

(B) The interview

Each interview was set up in the same way, and would last between 45 and 75 minutes.

Time

Swanson (1986) suggested that an interview should last a minimum of 50 minutes, while Field and Morse (1985) suggest no longer than 60 minutes. For the initial interviews, the participants were told that it would last approximately 45 to 75 minutes. Because of my inexperience in interviewing, I wanted to allow a large enough time margin. Interviews were held one hour apart to allow for over-running and a break (Swanson 1986). I always arrived at least 30 minutes prior to interview time to allow for setting up and testing of the equipment.

The participant was told that a tape recorder was going to be used to save me from taking copious notes, and to allow me to concentrate solely on what the participant was saying (Gray 1994). The tape recorder was placed to the side of the participant so as not to distract them, but as advocated by Morse and Field (1996), I was able to see that it was working. Before each interview I checked the recorder by sitting in each chair in turn and speaking, and then replaying the tape. A tape recorder was used to record focus group and individual interview data. Extension cord, batteries and spares, extra tapes and a microphone were taken to the place of the interview. I tested the equipment beforehand and was familiar with the instrument before I commenced the interviews (Britten 1996).

Place

For participants' convenience interviews were carried out within the institutions they were attending. The rooms chosen were quiet, allowed privacy, and were free from distractions and interruptions (Morse and Field 1996). A sign was placed on the outside of the interview door to 'warn off' intruders and provide information for anyone arriving for their interview appointment (Swanson 1986).

Pre-testing

Gray (1994), French (1993 cited by Gray 1997), Leininger (1985b) and Waltz, Strickland and Lenz (1984) suggest that interviews should be pre-tested. Gray (1997, p.105) stated that “Advice regarding pre-testing of in-depth interviews is contradictory.” Glaser (1978, p.44) stated that in using Grounded Theory the researcher should have no “...preconceived framework of concepts and hypotheses...” at the beginning of the research. On the other hand, French (1993 cited by Gray 1997) advocated the testing of two to three trial interviews before commencing the study. However as with a literature search within grounded theory, I rejected the pre-testing of interviews as I felt that pre-testing interviews could influence my thoughts and perceptions of subsequent interviews, causing problems such as premature closure of the research.

Gray (1997) argues that the interview technique may be pre-tested using an alternative content to the proposed research topic. The short timeframe between gaining access to students and commencing the research did not allow me to pre-test the interview technique.

3.8.4 Interview Data: recording and transcribing

The next stage within the interview process involved the recording and transcribing of the interview data.

Transcription is an immensely time consuming process. Review of the literature suggested that an hour's worth of interview would take between six and seven hours (Britten 1996), from three to 12 hours (Swanson 1986), or from four to six hours (Holloway and Wheeler 1996) to transcribe. Transcribing can be done by a professional agency, but I decided that I would transcribe all the tapes within seventy-two hours of the interview. Self-transcription stimulates analysis of the data (Swanson 1986) and immerses the researcher in the data (Holloway and Wheeler 1996), and it gives the researcher an opportunity to write memos to direct further interviews (Swanson 1986). Six to seven hours were initially allowed to transcribe one hour of interview.

Other researchers, such as Buckeldee (1994), suggested that the researcher's skills could improve as they carried out more interviews and transcriptions. Buckeldee (1994, p.107) states:

“Transcribing and preliminary coding of early interviews helped in several ways. First it gave me feedback about my interviewing skills (or lack of them at times!) which proved invaluable. It also helped to identify areas requiring further exploration, which in turn helped direct later interviews. Furthermore as the interviews progressed my own confidence and skill in conducting interviews increased and was verified in later transcripts of interviews.”

The transcriptions were page-numbered, and a fact sheet was attached containing the date, location and time of interview, as well as the code name for the informant(s). The code names for informants were kept in a locked drawer in a separate location from the transcriptions to ensure confidentiality (Holloway and Wheeler 1996, Swanson 1986).

A minimum of three copies were kept of the transcript, one of which was a clean copy, without comments, locked away in a different place from the rest of the transcripts in case other copies were lost or destroyed (Holloway and Wheeler 1996).

3.9 Participant Observation

The aim of participant observation was to explore the differences and/or similarities in performance of diploma and undergraduate students near to qualification. The students would be observed within an everyday work environment. Participant observation was chosen as it was important to obtain information from the inside about phenomena of which little was known (Jorgensen 1989).

I anticipated that the observations would be flexible in duration. The maximum time I would spend with the student would be a seven and a half-hour shift, but it was anticipated that observations would range from two to five hours. The Nurse Manager for the area had initially contacted the ward areas to inform them of the access agreement I had made. Thereafter, I contacted students by telephone who were in placement in medical and surgical areas as I felt that those were the areas in which I could make an assessment of their work performance. Those were the areas in which I felt most comfortable to take part in the ward routine due to the medical and surgical experience I had had as a qualified nurse. Bonner and Tolhurst (2002, p. 9) advocate that the observer should choose an area in which they can easily become an 'insider' rather than having to "...spend time and energy trying to understand the fundamentals of what was going on." However, Gerrish (1997) warns that the researcher may be too familiar with the setting which might lead them into making assumptions about what they were observing. Bonner and Tolhurst (2002) stated that the use of interviews with participant observation can help to discuss areas of the participant observation in more detail.

During the telephone conversation with the student I explained the aims of the research and the role the students and I would have in their placement area during the participant observation phase. Verbal consent was obtained over the telephone to firstly interview the participant and then to carry out participant observation. I explained to the student that the interview and the participant observation would take place in the same week.

On arrival at the interview I carried out the same procedure as before in terms of providing information and gaining written consent. Anonymity and confidentiality was assured. The students were given the opportunity to choose their own code names such that they could identify themselves in the final thesis.

Diploma students were interviewed and observed between December 1999 and February 2000. Undergraduate students were interviewed and observed between May 2000 and July 2000 (Appendix II). For future researchers I would

recommend that they allow between five and seven days of full-time hours per student to carry out the preparation, the interview and participant observation process (including travel to the placement area), and the data transcription, note taking and data analysis required.

The advantages of using participant observation have been documented in the literature. Gans (1968) focused on the researcher who is the instrument of data collection and analysis. He argued that this puts the researcher 'close to the data', a point also expressed by Bailey (1985) who believes that the method allows first hand witnessing of events and allows the subjects to display 'ordinary behaviour' or to see a thing "as it is" (Parahoo 1997). This is disputed by those who have used covert methods to study nurses (Field 1989) with the explanation that they were 'hidden' to allow general behaviour to be "natural and normal".

Johnson (1997a) summarized the advantages of participant observation. He believed that the participant observer is close to the data, allowing follow-up of leads and hunches. Participant observation allows the researcher to validate emerging theory continuously in the context within which it is most relevant, by being able to experience the social world of informants in the way that the interviewer in an office or other setting cannot. As a participant observer I would also have an opportunity to construct an account of the phenomena in terms of the person directly, rather than indirectly through researchers' journal articles or case reports. For example, I would be able to use verbatim statements to facilitate an explanation of points in the participants' own words.

One of the main criticisms of participant observation is concerned with the extent to which the participant may be influenced by the presence of the observer, otherwise known as observer bias or observer effect (Barker 1996). Before each observation, each student was reminded of the focus and meaning of the research, and it was stressed that I was not there to assess or criticize their work, but simply to observe their performance. As advocated by Ely et al (1991) and Schatzman and Strauss (1973), I tried to create an open, trusting, relationship

with each student to attempt to reduce the effect of the observer bias. However, as I discussed in relation to interviews, the way in which this trusting relationship is built is not discussed in any detail within the literature.

Another criticism leveled at observational research is that of validity (Adler and Adler 1994a). Observers are forced to rely on their own perceptions and are susceptible to bias from their own subjective interpretations of situations (Adler and Adler 1998; Denzin 1989; Schatzman and Strauss 1973; Schwartz and Schwartz 1969). Fox (1982) argued that there is a possibility that researchers may end up collecting only those instances of data that support their desired research outcomes. He argued that this is less likely if they are in a complete observer role where there are only tick boxes and columns to fill in. Adler and Adler (1998) argued that observers may have difficulty legitimizing their work if observations are the only source of data. They argue that the researcher should use participants' quotes to enrich and confirm the results of the study, or there should be inter-observer crosschecking.

Adler and Adler (1994b) state that some observers have had difficulty legitimizing their work to a scholarly audience since there are no quotes to enrich and confirm the research, and this may explain why so few observational research works are published when they are solely based on observation. Frankenberg (1982) stated that the researcher must be aware that they have participated in a small group and this may not be typical of the society as a whole. Therefore generalisability of results from participant observation should be necessarily cautious.

Adler and Adler (1998; 1994b) and Denzin (1989) argue for the use of multiple researchers to cross check findings and eliminate inaccurate interpretations. Due to time constraints, I was unable to use multiple observers to enhance the validity of the observations. However, validity of the observations was checked through the participants and others reading the research findings (i.e. member and outsider validation), as documented previously. This helped to ensure the authenticity and credibility of the research (Adler and Adler 1998; 1994b).

All participants who were at the end of their programme (i.e. UG3 and D3) were interviewed and observed (Table 2, p.97). The use of two data collection methods has been advocated to improve the rigor of the research and the findings (Adler and Adler 1998; Denzin 1989; Douglas 1976).

Observational data were gathered from students who were working in an acute nursing area and each observation was carried out between 07.00 hours and 15.00 hours. Observational data were gathered until theoretical saturation was achieved (Glaser and Strauss 1967). Schwartz and Schwartz (1955) were among the first authors to describe how participant observers should act and present themselves. Following from this literature, Gold (1958) outlines four modes through which observers may gather data: the complete observer, the observer as participant, the participant as observer and the complete participant.

(A) 'Complete Observer'

In the role of complete observer, the researcher takes no deliberate part in events and tries to record the event as objectively as possible. A classic research study set out to examine the effect of illumination levels on productivity at the Hawthorne plant of Western electric in Chicago (Roethlisberger and Dickson 1939). The experiment involved altering the levels of light over a period of two and a half years and found that no matter what the levels were, productivity continued to increase. The authors concluded that the workers produced more mainly because they were being observed rather than as a result of different lighting. This type of observer effect is now known as the 'Hawthorne effect' (Parahoo 1997). Johnson (1997a) felt that from personal experience of being observed in this way, people changed their work routine because they were being observed. Schatzman and Strauss (1973) argue that whilst the researcher is visible to the participants, it is impossible for the researcher to have no effect on their behaviour.

I felt that as a nurse I could not observe events going on in the ward areas without feeling perhaps a legal and/or moral obligation to intervene, especially if

a mistake was about to be made which would have endangered the patient. This has been identified as a problem with observation (Dingwall 1980; Johnson 1997a). Dingwall (1980) stressed that if the researcher allows poor practice to continue, then the participant might even think that their behaviour is acceptable.

During research as a complete observer, Johnson (1997a) gave an example of an elderly debilitated patient having to undergo uncomfortable investigations, which, if his own clear wishes had been noted, he would not have been subjected to. He felt that intervention by the researcher would have assumed a direct patient advocate role in opposition to medical staff and the patient's family. Johnson (1997b) argues that as an observer he had 'invited status' and the fragility of the researcher-respondent relationship must not be challenged too seriously by interventions of an unacceptable nature. Johnson (1997a) advises the researcher to discuss these problems with supervisors and colleagues and then offer reasoned opinion on researcher conduct. Johnson (1997a) used a general unwritten policy that if he witnessed anything resembling negligent or unsafe conduct, he would compromise his position as a researcher in the interests of the patient. For the purposes of this research, I also made this my general policy. I planned to discuss with my supervisor any interventions I decided to take during the participant observation, and decided that a 'complete observer' role was not appropriate for my study.

(B) 'Observer as Participant'

Next along the continuum of observer roles is the 'observer as participant' (Gold 1958). Here the observer accepts limited impact on the research setting. This has been used in classic studies of socialization into the medical and nursing profession (Olsen and Whittaker 1968; Becker, Geer, Hughes and Strauss 1961). The researchers generally tried to follow the participants during the day-to-day experiences but did not take part in specific work treatments, such as wound treatments. This perhaps was due to the fact that they were sociologists and not members of the profession being studied (Johnson 1997a). I decided not to use this method of observation as I felt that, as a nurse, it would have been difficult not to get involved in the care of a patient. I also felt that this type of observation

would have made it more difficult to understand what was going on during the time on the ward.

(C) 'Participant as observer'

A more involved participation role Gold (1958) calls 'participant as observer', and there has been limited use of this role as evident in the literature (Johnson 1997a). Schatzman and Strauss (1973) suggest that in the participative role, the researcher has a more 'active control' of data collection.

However, Gold (1969) also noted that there may be problems with this type of participant observation: it may take some time before the informant(s) begins to feel at ease with the observer or the informant-observer relationship may become too friendly. The observer may over-identify with the informant and start to lose his research perspective by 'going native'.

I used this method of observation as I felt it would be easier to gain an understanding of the decisions and performance of the participant. I made students aware of my study aims and I summarised my findings of each observation session with each participant at the end of each session. These strategies were employed to help avoid over-familiarity with the participant, and to avoid 'going native'.

(D) 'Complete Participant'

The final category of observer role is that of 'complete participant' (Gold 1958; 1969). Informants are not told of the role of the researcher within this category of observation. This is also known as covert observation (Bulmer 1982a). This role has been keenly followed in various branches of social science because it minimizes the risk of hosts changing their behaviour in response to scrutiny (Johnson 1997a; Field 1989). Schatzman and Strauss (1973) describe this role as 'participation with hidden identity', and it has been used recently in the U.K. by Clark (1996a and 1996b). Bulmer (1980; 1982a; 1982b) raises several objections to this type of role. Firstly, that the principle of informed consent is ignored; secondly, that it is a betrayal of trust and an invasion of personal privacy; and thirdly, that covert observation is deception. However, Bulmer

(1980) does not consider that covert methods should never be used, but advises the researcher to think carefully before utilizing the method. Indeed in some types of research, for example in a public setting involving crowd situations, it may be impossible for the researcher to indicate to all the subjects that the research was being conducted (Burgess 1982b), or even to tell the subject 'everything' (Roth 1962).

I did not select this role as I felt that it was morally right that participants were volunteers and were aware of the aims of my study.

Researcher role

I defined participant observation as observation of students in the clinical setting, with a participant as observer role. In other words, I attempted to become a member (albeit temporarily) of the group under study (Bonner and Tolhurst 2002; Barker 1996) in keeping with the essence of symbolic interactionism (Blumer 1969). Participation and observation have been seen as competing objectives in that the more one participates, the less one is able to observe (Jorgensen 1989; Vidich 1955). However, everyday experience contradicts the idea that as your participant involvement increases the ability to observe effectively and accurately is diminished (Jorgensen 1989, Burgess 1982a). Jorgensen (1989) argued that objective and truthful findings are more rather than less likely when the researcher becomes involved directly and personally in the everyday life of the participants. Burgess (1982a) describes participant observation not merely as a method of conducting field research, but also as a role that is used by the researcher. Becker (1958, p.653) states:

“The participant observer gathers data by participating in the daily life of the group or organization he studies. He watches the people he is studying to see what situations they ordinarily meet and how they behave in them. He enters into conversation with some or all of the participants in these situations and discovers their interpretations of the events he has observed.”

Bonner and Tolhurst (2002) and Kite (1999) stated that as a research student and a nurse there was a potential for role conflict. In a clinical area that was understaffed it would be easy to help with the work at the expense of getting the research done, and that there may be a professional responsibility to help the clinical staff. As a researcher she also felt that she would disrupt the normal goings on and owed it to the staff to be helpful.

Following the participant observation I discuss the possible conflict between observing and participating, and role conflict (if and when it occurred) within section 4.9 (p.353).

Access to the Clinical Areas

Access to the clinical areas was gained through the clinical nurse manager of the area. The manager was contacted initially by letter (Appendix V), followed by an informal discussion outlining the aims of the study and the role of the researcher in the field. This was the first stage in the process as advocated by Adler and Adler (1994b).

None of the hospital trusts asked for ethical approval before commencing the study. It was expected that as the research commenced and progressed within the ward area, I would observe and perhaps would be involved in providing care to a number of patients. During the participant observation, I introduced myself to patients and verbally explained the reason I was working with the participant. None of the patients involved refused myself access to themselves or their casenotes. In fact, many patients would also state what qualities they felt made a 'good nurse' and on occasion, some also commented on the professional attributes of the participant.

Focussed Observation

In keeping with the philosophy of the grounded theory approach, it was thought that a focussed approach would be adopted such that, as stated by Parahoo (1997

p. 324), I could “... observe phenomena without any pre-determined categories and allow these to emerge from the data collected.” Polit and Hungler (1995) state that researchers who favour this type of observation see quantitative-oriented methods as too mechanistic and superficial to render a meaningful account of human behaviour within their own environment.

Parahoo (1997) suggested that focussed observations are useful when little is known about the subject under study or when existing knowledge is either lacking or invalid. Focussed observations are less standardized and more flexible than structured ones (Adler and Adler 1998; Parahoo 1997). What was learned from one observation was built on through another, and so on, until a theory emerged. It was important that I was flexible enough to observe everything I could and not only the categories identified in advance from the individual interviews or from previous observations. However, it was anticipated that, as with the focussed interviews, the observations would become more focussed as time went on (Adler and Adler 1998; Adler and Adler 1994a). Kite (1999) argued that there is no such thing as an unstructured observation as the observer will only observe what he/she thinks is worth observing.

3.9.1 Field Notes

Data were also collected via logs which I used for personal dialogue, recording moments of hunches, feelings, insights, assumptions and even possible sources of bias (Ely et al 1991). A regular time and place was set aside for writing field notes (Burgess 1982c), and all notes contained date, time, location, and details of the participants (Burgess 1982c). Notes were made immediately following the observation as it was felt that overt recording of material would be an obvious intrusion on the researcher-participant relationship (Barker 1996). Each line within the log was identified to allow easy access for coding as the log data were often used within the coding process (Ely et al 1991). As Ely et al (1991) point out, the log was used for ‘public’ access (i.e. for use during data collection and analysis) while my journal was strictly for personal use.

However Kite (1999) pointed out that field notes are three times removed reconstructions of 'what might have happened'. As Kite (1999, p.46) remarked:

“I chose to observe something, tried to remember it to note it down on site, then remembered it again at home to enter it into the computer. Such activity is fraught with missing something in the translation. Further, my written observations were constructed through language and so further remembered.”

For this reason I wrote the field notes as soon as possible after the participant observation.

As with the interview transcripts, three copies of the field notes were made with one being stored in separate places as a precaution against damage and destruction (Burgess 1982c). Again, names were coded and the coding list was kept separate from the field notes to prevent identification of subjects by anyone other than me.

The need for different types of notes to be kept was noted from the literature: mental notes, jotted notes and full field notes (Bogdan and Taylor 1975; Schatzman and Strauss 1973; Bogdan 1972; Lofland 1971). For the purpose of this research, I used Burgess's (1982c) types of field notes: (A) substantive field notes; (B) methodological field notes; and (C) analytical field notes.

(A) Substantive Field Notes

These notes contained the main observations, conversations and interviews. Detailed notes were made, not merely on the details of the event, but also descriptions of demographic information about participants, details of conversations, and the actions and reactions of individuals and groups (Kennedy 1999). Burgess (1982c p. 192) summarized that "... substantive field notes include a chronological description of events, details of informants and conversations and, in the case of documentary work, details on the content of

documents.”

Kite (1999) noted that she had concern over the dividing line between description and evidence, and interpretation and judgement. She describes her notes as ‘bald’ when descriptive/evidence was used. However she also pointed out that she had a fear of producing highly disputable accounts of the observation if she veered towards the interpreting or judging the observation. These issues will be expanded upon in section 4.9 (p.353).

I kept substantive field notes in memos written along with interviews and observations.

(B) Methodological Field Notes

It is important to keep records of personal impression of situations and relationships within participant observation (Burgess 1982c). According to Burgess (1982c p. 192) the researcher should include details concerning field notes, selection of subjects, relationships with the subjects and “... some self-analysis that gives an account of emotional relationships at various points throughout the research process”. Burgess (1982c) noted that researchers have recorded these notes in various ways: as part of field notes; as a separate journal or diary; and letters from the field.

For the purposes of recording methodological field notes I decided to use the personal journal which was ongoing throughout the whole research study. I made use of self-analytical notes throughout the research to promote reflexivity.

(C) Analytical Field Notes

Field notes were simultaneously collected and analysed, giving indicators about the topics that were developing, and eventually giving rise to themes emerging from the data (Burgess 1982c). These notes were kept in the form of memos as each code developed. The emergent codes and themes were constantly

compared and analysed such that the data from one observation was used to inform the next, and so on, i.e. in the formation of the grounded theory (Glaser 1978).

Having recorded the observations within the substantive, methodological and analytical field notes, I then carried out data analysis.

3.10 Data analysis

Data analysis was carried out on an ongoing basis. The preparation and process of analysing the interview and observational data will now be discussed.

Software packages capable of analysing qualitative data have rapidly increased in number and have developed considerably over recent years (Pateman 1998). Their uptake by qualitative researchers has been influenced by beliefs that computers are too numerical and scientific to deal with words, and that the computer and not the researcher is analysing the data (Pateman 1998). Becker (1993) stated that the use of computers in qualitative data analysis results in “... flat and oversimplified descriptive results ...”. As Morse and Field (1996) and Russell and Gregory (1993) point out, a computer cannot analyze the meaning of the text.

The researcher has to read and engage in the text and code it, but the software has several advanced functions that can make the process faster (Pateman 1998). The package chosen was QSR NUD*IST (Qualitative Solutions and Research Pty Ltd 1997), which has several advanced functions such as ‘automatic coding’. Auto-coding is described by the manufacturers (Qualitative Solutions and Research Pty Ltd. 1997) and can be used to search for actual words or strings of characters in the text, and then brings the pieces of text together to form a code and/or category. NUD*IST is an acronym for Non-numerical Unstructured Data Indexing Searching and Theorising. The software eases the researcher’s workload, saves time, and generally enhances the power of qualitative analysis (Pateman 1998; Kelle 1995). The indexing system in NUD*IST allows for

coding and retrieval of the text, with a facility to attach memos (Weitzman and Miles 1995) and field notes (Tait and Slater 1999). The theorising ability of the software has a large advantage over traditional methods (Pateman 1998) and over other software packages (Weitzman and Miles 1995), in that codes can easily be refined. The NUD*IST package also divides the text into units, each numbered sequentially ready for coding. The facilities for storing and analyzing data via this software package were well matched with the use of grounded theory (Morison and Moir 1998).

Pateman (1998) felt after personal experience with the NUD*IST package it had several advantages over the manual systems. It allowed the manipulation of the coding system to accommodate emerging themes. NUD*IST can search for words and phrases, and can ask questions by including or excluding other key words.

The main disadvantage foreseen at this stage was my unfamiliarity with the programme. However, training packages and on-line help were provided with the software. My experience of using computer aided data analysis will be discussed later (see section 4.9, p.353).

Meticulous records of interviews, memos and field notes were kept via NUD*IST. Analyses of these were documented in detail, such that other researchers could follow the 'audit trail' (Mays and Pope 1995; Rodgers and Cowles 1993; Hinds et al 1990). For example, each window containing a transcript can record the coding pattern in the margin beside the text of the document (Qualitative Solutions and Research Pty Ltd. 1997). This allows the 'audit trail' to follow all researcher-initiated changes (Grbich 1999; Tait and Slater 1999). This helped to demonstrate credibility, again allowing other researchers to follow the 'decision trail' (Guba and Lincoln 1981).

3.10.1 Literature as data

The use of the literature in grounded theory is significantly different to that in

other research methods (Benton 1996). Firstly an initial literature search and critical analysis was undertaken to establish that there was little evidence on the topic and to establish the need for research (as detailed in Chapter Two, p.8).

Benton (1996), Streubert and Carpenter (1995), Strauss and Corbin (1990), Stern (1980) and Glaser and Strauss (1967) advised that an in-depth literature review prior to data collection and analysis should be avoided. In-depth knowledge of the literature provides the researcher with a framework in which the categories may be incomplete and/or misleading (Christensen 1993). Stern (1985) suggested that literature searching may lead to prejudgment and effect premature closure of ideas and inquiry. This may lead to the direction of inquiry being wrong, beginning with the study focusing on one aim and then switching to another, or the available materials or data being inaccurate. However, there are advocates of a pre-study literature review in grounded theory. Morse and Field (1996) and Porter (1998) stated that it would prevent a 'reinvention of the wheel', and is necessary for a research proposal (Holloway and Wheeler 1996; Field and Morse 1985). Morse and Field (1996) suggest that the researcher bracket or try to forget the data and return to the library at a later date.

For the purposes of this research I carried out a limited literature search, not only to provide a rationale for the aims of the study, but also to check the literature for originality of the work for doctoral study. Data from the initial literature review was used as data for my grounded theory study, as the literature should be viewed as another source of data (Benton 1996). My accessing of the literature was an on-going process during data collection and analysis (Chenitz 1986; Benton 1996). I examined concepts reported in the literature with the material that emerged in my developing theory. The existing literature was then used to support or challenge the developing theory (Holloway and Wheeler 1996; Streubert and Carpenter 1995; Hutchinson 1986; Stern et al 1982).

During my study I used the literature five ways, as advocated by Strauss and Corbin (1990). Initially I used the literature to stimulate theoretical sensitivity, by alerting me to ideas that I could check against the data. The literature then

became part of the data, and was used to generate questions and problems. Interviews or observations might be illuminated by the literature in which similar or different ideas are discovered (Strauss and Corbin 1990). I also used the literature to guide theoretical sampling where it can help to decide where to go next in the search for more data. Ideas might arise which increase the chance of developing further the emerging theory. Finally, the literature was used to validate the researcher's categories by confirming my theory. Concepts in the literature may have contradicted the theory, in which case I would have tried to discover the reasons for this conflict.

3.10.2 Coding and Categorizing

The discovery of a core variable is the goal of grounded theory (Figure 1, p. 103). The core variable serves as the foundation concept for theory generation (Streubert and Carpenter 1995) and, as Hutchinson (1993) points out, this discovery of the core variable affects the integration and density of the developing theory.

Strauss (1987 p. 36) describes the core variable as being central, that is, it should relate "... to as many other categories and their properties as is possible...It indicates that the category accounts for a large portion of the variation in a pattern of behaviour", and should recur frequently in the data, linking the various data together. In addition, the core category should explain much of the variation in all the data, having implications for a more general or formal theory, and should move the theory forward as it becomes more detailed, permitting variation and analysis.

To establish a core variable the researcher simultaneously collects, codes and analyses the data. According to Hutchinson (1993), the method is 'circular' allowing the researcher to change focus and pursue leads revealed by the ongoing data analysis.

Coding took place at three levels, as explained overleaf:

Level I or substantive coding

Initially I scanned tapes and transcripts to sensitize myself to the relevant ideas and themes (Wainwright 1994). Glaser (1978) describes this process as developing *theoretical sensitivity*, that is, an awareness of the theoretical possibilities in the data. Wainwright (1994) also believes it prevents the researcher missing alternative interpretations.

I employed a system of open coding, which involved examining the data line-by-line and identifying the processes in the data (Streubert and Carpenter 1995; Stern 1980), and unraveling the complexity of the concepts which underlie them (Strauss 1987; Charmaz 1983). Strauss and Corbin (1990 p. 61) describe open coding as the process of "... breaking down, examining, comparing, conceptualizing and categorizing data". A thorough examination of the data were carried out, and code words were identified using the QSR NUD*IST (Qualitative Solutions and Research Pty Ltd 1997) package.

Stern (1980) described Level I coding as 'substantive codes' because they add 'substance' to the data, often using the very word the participant used. Two kinds of classes of codes emerged: those abstracted from the language of the research; and those constructed by the researcher (Glaser and Strauss 1967). The use of verbatim phrases as code words helped to convey that the findings were grounded in the data.

Level II or theoretical coding

The method of constant comparative analysis was used, where data were coded, compared to other data, and assigned to clusters or categories. This resulted in Level I codes being condensed to become categories (Hutchinson 1993; Stern 1980). Comparison of each Level I code to every other code was carried out (Streubert and Carpenter 1995). This facilitated the grouping of similar Level I codes into particular categories (Streubert and Carpenter 1995). Each category

was then compared to every other category to ascertain that each was mutually exclusive. This is theoretical coding (Glaser 1978) whereby theoretical codes conceptualize how the substantive codes relate to each other (Beck 1996).

The use of the constant comparison helped me to check and recheck the consistency of the key concepts emerging throughout the data. This was a test of validity – whether the emerging theory was accurate or, in other words, whether it had ‘truth value’ (Smith 1997). When a particular concept recurred, I was satisfied of its existence. Also, when a concept was raised using the different data collection methods (for example, observations and interview), I concluded that the accuracy of the emerging concept was greater (Smith 1997).

Level III coding and production of the core category

I produced Level III codes by asking questions including: “What is going on in the data?” and “What is the focus of the study and the relationship of the data to the study?” and “What is the issue/problem that is being dealt with by the participants?”, and “What processes are helping the participants cope with the issue/problem?”. Glaser and Strauss (1967) suggested these questions be used when developing core categories.

Using various literature sources Gray (1997 p. 120) explained that the core category has seven characteristics. The core category recurs frequently (Strauss 1987) and develops as a pattern (Holloway and Wheeler 1996), where it links various data together (Holloway and Wheeler 1996) and relates easily to other categories (Strauss 1987). Since it is central, it explains a lot about the variation in the data (Holloway and Wheeler 1996; Strauss 1987) and has implications for a more general or formal theory (Strauss 1987; Hutchinson 1986). The core category becomes more detailed as the theory moves forward (Holloway and Wheeler 1996; Strauss 1987; Hutchinson 1986). Developing the core category permits maximum variation in analysis (Strauss 1987; Hutchinson 1986) and is usually found towards the end of the research (Holloway and Wheeler 1996; Corbin 1986), as it takes longer to define its precise nature (Strauss 1987).

Level III coding produces a core category, which can be any category such as a cause, condition or consequence from any family of codes such as process or strategies (Glaser 1978). These categories are linked to form a tentative conceptual framework (Stern and Pyles 1986). The emerging theory was then expanded through a further three steps: reduction, selective sampling of the literature, and selective sampling of the data. Stern et al (1982) note that through these processes the core variable emerges. During constant comparative analysis, I expected the overwhelming number of codes and categories would be reduced, and I would be able to see how the categories connected (Stern et al 1982). The reliability and validity of the project can be enhanced by the constant comparative method (Wainwright 1994; Strauss and Corbin 1990; Strauss 1987). As already stated, the literature was used to confirm, or challenge, the emerging theory. As the main concepts became apparent, additional data were collected using theoretical sampling for the purpose of developing a theory, and identifying the main areas of the categories. I used this process to achieve saturation of the data (Stern et al 1982).

To promote the reliability of the analysis of the transcript data, my supervisor acted as an independent assessor. Comparison was made of my analysis with that of the assessor (Hutchinson 1993). This was done on an entirely random basis with only a selection of transcripts and coding being chosen by the assessor. Any disagreements were discussed and reviewed as necessary.

Care was taken to avoid one of the pitfalls of grounded theory, that is premature closure (Wilson and Hutchinson 1996). This refers to the 'underanalysis' of the data. At each level of coding I aimed to refine and integrate the codes and categories. Wilson and Hutchinson (1996) believe that the results of a grounded theory study should not be based solely on participants' descriptive phrases, but also on the concepts that emerge. In order to keep track of the data analysis, I wrote memos to attach to each code and category, and also made notes on the integration of the codes and categories with others and to the core variable.

3.10.3 Memo Writing

“Memos are the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding”

(Glaser 1978, p. 83)

Memo writing is an important activity associated with coding. Memo writing provides a way of focussing on the emerging concepts and their interrelationships (Corbin 1986). Any thoughts, ideas, and facts about the data were written in the memo as data collection and analysis was carried out. Glaser and Strauss (1967) regard this process as fundamental to the formation of the core category because the “... root sources of all significant theorising are the sensitive insights of the observer himself” [p.251]. If there were any ‘flashes of insight’ these were immediately written in a memo (Glaser and Strauss 1967). Smith (1997) also stated that the memo could contain other information, such as alternative ideas, or could consolidate existing thoughts. A notebook was also taken to interviews to record thoughts immediately after the interviews had finished. These written notes were transcribed into memos. The memo facility was used within the NUD*IST package (Qualitative Solutions and Research Ltd 1997).

Throughout my study, memos were to be kept in which areas of interest were recorded immediately following the data collection. The memos recorded interactions, events and actions. In other words, ‘everything was data’ (Stern, Allen and Moxley 1982) and was obtained through a combination of a diverse range of methods.

3.11 What is a grounded theory?

Glaser and Strauss (1967) identify that grounded theory may produce *substantive* or *formal* theory. Substantive theory is developed for an empirical area, such as patient care (Streubert and Carpenter 1999; 1995). Formal theory is developed for a conceptual area of inquiry, such as socialization to professional nursing

(Streubert and Carpenter 1999; Glaser and Strauss 1967). Both formal and substantive theories are considered as middle-range theories, which have a narrower focus than grand theories in that they fall between the working hypotheses and the grand theories (Glaser and Strauss 1967).

Strauss and Corbin (1990), Stern (1980) and Glaser and Strauss (1967), state that grounded theory combines inductive and deductive research methods. From the inductive perspective, theory emerges from specific observations and generated data. The theory can then be tested empirically to develop predictions from general principles, that is, the deductive research method (Streubert and Carpenter 1999; 1995).

However Blaikie (1993) described interpretive approaches such as grounded theory (i.e. one which allows the theory to emerge and make no prior assumptions about it) as using a strategy of theory construction called 'abduction'. This relies on cyclical processes of data collection, hypothesis formation, testing and theorising compared with deductive and inductive reasoning, which relies upon linear logic. The researcher hypothesises from the participants' accounts of their social lives and tests the hypotheses through further data collection and theorising. Blaikie (1993) argued that the theory should be constructed from the participants' descriptions so that theory generation is part of the process of the research, rather than something which precedes or follows it. This, Blaikie (1993) argues, is fundamental to grounded theorising.

The important question about a theory in a grounded theory study is the usefulness of the theory (Baker et al 1992). Stern and Pyles (1986 p. 23) explain:

"To be credible, the core variables, or theory, must be well integrated, easy to understand, relevant to the empirical world, and must explain the major variation in the process or phenomenon studied."

Glaser and Strauss (1967) argue that the theory must 'fit', 'grab' and 'work'.

Chenitz and Swanson (1986) explain that 'fit' means that the categories must be indicated by the data and be readily applied to the data. To have 'grab', the theory must be relevant to the participant group. To 'work', the theory should explain what happened, what will happen and interpret what is happening (Glaser 1978).

The theory produced should be true to real life and clearly understandable to participants and other professionals who are in that area of study (Strauss and Corbin 1990). I used symbolic interactionist perspective and data collection methods which would obtain 'real-life' data. The theory was checked by outside and member validation to validate its credibility and confirmability.

At the end of the study, the question was asked: is the theory useful? (May 1986). The theory should raise more questions than answers, and should be tested before it is used in the nursing profession. I anticipated that the theory would provide knowledge to make a contribution to practice and the nursing profession and would provide a springboard for other research (May 1986).

The following chapter discusses the findings of the study, and explains the development of the grounded theory.