

University of Warwick institutional repository: <http://go.warwick.ac.uk/wrap>

A Thesis Submitted for the Degree of PhD at the University of Warwick

<http://go.warwick.ac.uk/wrap/36253>

This thesis is made available online and is protected by original copyright.

Please scroll down to view the document itself.

Please refer to the repository record for this item for information to help you to cite it. Our policy information is available from the repository home page.

Title

Expert nursing knowledge as an evolutionary process

Name

Jane E. Conway

RGN, NDN, DN London, Cert Ed. RNT, BSc. (Hons.)

In submission for the degree of Doctor of Philosophy.

University of Warwick

Continuing Education Department



January 1995.

'We will now discuss in a little more
detail the struggle for existence'.

Charles Darwin (1809-82) Origin of Species, Ch.3

Contents

Title page	
Quotation by Darwin	(i)
Contents	(ii)
Tables	(vi)
Acknowledgements	(vii)
Declaration	(viii)
Summary	(ix)
Abbreviations	(x)
Glossary	(xiᵛ)
Chapter 1 Background - early influences on the study	1
Chapter 2 Expert nursing knowledge - defining the field	7
- Types of knowledge	10
- Nursing literature	18
- Reflection and nursing knowledge	26
- Intuition and nursing knowledge	34
- Teachers' practical knowledge	38
- Competences and accreditation	46
- Conclusion	51
Chapter 3 The research process and related issues	54
- Theoretical framework	57
- Research tools	59
- Questionnaires	59
- Diaries	62
- Learning style inventory	62
- Expert nurses-workshops	62
- Interviews	63

- Critical incident technique	64
- Participant observation	64
- Sampling	67
- Situation of the study	69
- Stage 1 Authority A	70
- Stage 2 Authority B	77
- Analysis of the data	84
- The generation of theory	94
Chapter 4 Reliability and validity	95
- Credibility	97
- Personal validity	98
- Validity and Supervision	99
- Face validity	100
- Verification with source	101
- Replicability and fittingness	102
- Auditability	104
- Confirmability	105
Chapter 5 Expert nursing knowledge - findings	108
- Quantitative findings	109
- Qualitative findings	125
- World view	125
- Categories of expert knowledge	127
- Pluralism of nursing expertise	132
- Technologists	133
- Autonomy and Authority	136
- Diagnosing	145
- Teaching	149

- Technologists summary	158
- Traditionalists	159
- Traditionalists summary	182
- Specialists	183
- Criteria for inclusion in specialist group	184
- Specialists summary	204
- Humanistic Existentialist Group	205
- Humanistic Existentialists summary	238
- Summary of the four types of expertise	239
Chapter 6 Re-visiting the literature	240
- Limitations of models in the field	248
- Nursing philosophies	249
Chapter 7 Discussion and Implications	253
- The nature of expert nursing knowledge	254
- Philosophical influences	256
- Models and goals	257
- Reflective ability	259
- Education - necessary but not sufficient	261
- Resources	269
- Relationships and authority	271
- Doctor-nurse relationships	275
- Implications for further research	287
References	288
Appendices	
(i) Questionnaire requesting respondents to name an expert	303
(ii) Modified questionnaire.	309
(iii) Questionnaire group B.	312

(iv) Specialist nurse questionnaire	313
(v) Questionnaire to identify if experts felt their practice reflected the Higher Award characteristics and Benner's (1984) competencies.	315
(vi) Questionnaire to obtain information about the expert.	320
(vii) Learning style inventory.	326
(viii) Workshop Format.	327
(ix) Description of workshops.	336
(x) Critical Incident instructions.	339
(xi) List of knowledge devised by group A.	342
(xii) Sections omitted from workshop - group B.	348
(xiii) Rating scale panel of experts	351
(xiv) Definitions of expertise.	352

List of tables

1. Carper's Patterns of knowing (Carper 1978)	19
2. Classification of knowledge related to practice (nursing and teaching)	45
3. The two educations as curricular models (Jarvis 1986)	243
4. Two conceptions of the ideal nurse (Moore 1989)	244

Acknowledgements

I wish to thank Mike Vaughan of Wolverhampton University, Lovemore Nyatanga of the University of Derby and Mike Mcmanus of Sheffield Hallam University, for sharing their experiences of accreditation with me. Thanks are also due to Margaret Bamford ex-Regional Nurse West Midland Health Authority for asking me to complete a working paper on accreditation and to Margaret Crotty ex-Principal of the United Midland College of Nursing and Midwifery (UMC) for support in carrying out the study.

Thanks to the managers and expert nurses of both Health Authorities. The experts gave freely of their time and energy and and this was truly appreciated. Thanks are also due to the panel of experts, Marilyn Williams, Lyn Francis and Lyn Swindlehurst. Marilyn deserved a special mention for acting as a sounding board for my half-baked ideas and for supporting me through the 'darker days'. Ian Williams, Geff Stockle and Gill Williamson have also been helpful. At a personal level thanks are due to my partner David, for his encouragement and support.

Finally I would like to thank my supervisor Chris Duke. His support peppered with wry humour and cryptic comments have proved invaluable throughout.

Declaration

Author's Statement : This thesis, Expert nursing knowledge as an evolutionary process is the original work of the undersigned, Jane E. Conway in all respects.

Signature: Date:

Jane Conway

1st. January 19'

Summary

The introduction of the Framework and Higher Award (ENB 1991b) provides the opportunity for nurses to claim credits for the knowledge they use in practice. The assumption is, that this is accreditable (ENB 1991). This study aims to identify if this is the case by examining the practical knowledge of 35 expert nurses. Expert nurses were chosen as they are the most likely of all nurses to be using knowledge in their practice which is accreditable at diploma and degree levels.

The study was carried out in two Health Authorities, using both quantitative and qualitative methods. The later formed the main contribution to the study. Ethnographic and phenomenological approaches were used to guide the workshops, interviews, observation visits and critical incident collection. Modified grounded theory was used for data analysis. As a result of the inductive nature of the study, emphasis changed from identifying knowledge for accreditation purposes, to exploring the types of knowledge and expertise that emerged from the data.

Findings challenge much that had been written about nursing knowledge. A number of issues arise. Questions are raised about the definitive way that expertise is presented in the literature. Also, the assumption that the importation of subject matter knowledge will produce practitioners who provide expert care is challenged. Whilst education is seen as important, it is not sufficient. Other factors in the nurses' 'world view' require consideration. The experts exhibited four different 'world views'. These in turn had an evolutionary effect on knowledge development and knowledge use. Four distinct types of expertise were found to have developed.

A number of areas are explored in relation to the practical knowledge experts use and include: organisational culture, doctor-nurse, and management-nurse relationships, academic and professional development, empowerment and reflective ability. Issues relating to advocacy, the theory-practice gap, accreditation, and the quality of patient care, are also examined. Implications arise for curriculum builders, managers, nurses and educationalists.

Abbreviations

A and E - accident and emergency

APL - accreditation of prior learning

APEL - accreditation of prior experiential learning

AV - atrio ventricular compartments of the heart

BPM - beats per minute

BP - blood Pressure

CAPD - continuous ambulatory peritoneal dialysis (a filtration process used for patients with renal failure).

CATS - credit accumulation and transfer

CBE - competence based education

CCU - coronary care unit

CNAA - Council for National Academic Awards

CPR - cardio-pulmonary resuscitation

CVA - cerebral vascular accident or stroke

DOH - Department of Health.

DIC - disseminated intravascular coagulation (clotting throughout the body)

DVT - a clot in a vein in the leg

ECG - electrocardiogram : a recording of the electrical activity of the heart.

ENB - English National Board

ENB 923 - Developments in Nursing Care short course

ENB 998 - Teaching and Assessing short course.

EUSOL - Edinburgh University solution of lime

GI - gastro intestinal (stomach and intestines)

HSDU - hospital sterile disposal unit

ISC - intermittent self catheterization

ITU - intensive therapy Unit.

IV- intra venous

IVC - inferior vena cava. A large vein which empties into the the right side of the heart.

MRSA - methicillin resistant staph aureus.

MSU - mid-stream specimen of urine

OPD - out patient department.

P2K - Project 2,000

PREPP - Post Registration Education and Practice Project

PREP - Post Registration Education and Practice.

QRS Complex - recording of the electrical activity of the heart

RCN - Royal College of Nursing

RSCN - Registered Sick Children's Nurse

RGN - Registered General Nurse

SEN - State Enrolled Nurse

Glossary

Acidosis - a condition in which the acidity of body fluids and tissues is abnormally high.

Adrenalin - an important hormone secreted by the medulla of the adrenal gland. It has widespread effects on the circulation.

Aneurysm - a local dilation of an artery.

Arterial line - a fine flexible tube inserted into an artery

Arrest - a cardiac arrest

Atrium - a chamber of the heart.

Auscultation - the process of listening, usually with a stethoscope, to sounds produced by movement of gas or liquid within the body, as an aid to diagnosis.

Barium enema - a radiographic examination of the lower intestine.

Blood gas - a recording of oxygen and carbon dioxide levels in the blood

Brachial pulse - pulse point over the brachial artery on the inner surface of the arm at the elbow.

Bradycardia - slow heart rate.

Bypass graft - an operation in which a segment of a coronary artery narrowed by atheroma is bypassed by an autologous section of healthy saphenous vein.

Calcium - a drug that is used to correct chemical imbalances in the heart during a cardiac arrest.

Cannula - hollow tube designed for insertion into a body cavity.

Cardiac arrest - the cessation of effective pumping action of the heart.

Coned - herniation of the brain stem through the foramen magnum caused by acute cranio-spinal pressure dissociation

Coronary thrombosis - the formation of a blood clot in a coronary artery, which obstructs the flow of blood to the heart

Creatinine - a substance excreted in the urine.

Crepitation - a soft fine crackling sound heard in the lungs through the stethoscope.

Cross infection - the transfer of infection from one patient to another in hospital

Defib - defibrillation

Defibrillation - administration of a controlled electric shock to restore normal heart rhythm in cases of cardiac arrest due to ventricular fibrillation.

Dexamethasone - a cortico-steroid drug

Diastole - the period between two contractions of the heart, when the muscle of the heart relaxes and allows the chambers to fill with blood.

Dopamine - a neurotransmitter drug

Duodenal ulcer - an ulcer in the duodenum, caused by the action of acid and pepsin, on the duodenal lining of a susceptible individual.

Ectopic beat - a heart beat due to an impulse generated somewhere outside of the sino-atrial node.

Embolism - obstruction of a blood vessel by a travelling clot.

Endocarditis - inflammation of the lining of the heart and the heart valves.

Endoscopy - use of a flexible tube to examine the inside of the body - inserted through a body orifice.

Endoscopist - Doctor trained to use an endoscope .

Extended role certificate - a certificate issued by an employing authority to signify that the holder has permission to undertake specific named tasks normally the province of doctors.

Fibrillation - a rapid and chaotic beating of the many muscle fibres of the heart, which is consequently unable to maintain effective synchronous contraction.

Fundi of the eye - part of the interior of the eye which is situated opposite the pupil.

Gastrostomy tube - a tube inserted through an opening into the stomach

Guarding - rigidity of the abdominal muscles, an indicator of appendicitis.

Haemofiltration - a technique for removing waste materials from the blood using the principle of dialysis.

Heparin - an anti-coagulant

Hickman line - a catheter used for total parenteral nutrition administration

Hypertension - high blood pressure

Homan's sign - pain elicited in the calf when the foot is dorsiflexed. Indicative of a clot in a vein.

Hypoglycaemic attack - low blood sugar - usually due to diabetic patients having too high a dose of Insulin.

Infarct - a small localised area of dead tissue produced as a result of an inadequate blood supply

Inferior vena cava - a large vein which empties directly into the heart.

Insulin - a hormone that controls the level of sugar in the blood

Inotropes - drugs which affect the contractions of the heart muscle.

Intubated - when a tube is passed into the trachea to facilitate breathing.

Lasix - a diuretic drug.

Metastasis - the distant spread of disease especially in cancer

Metformin - a drug that reduces blood sugar levels

Myocardial infarction - death of a segment of heart muscle, which follows interruption of its blood supply.

Naso-gastric tube - a tube passed down the nose into the stomach.

Oral agents - drugs to control diabetes

Organ harvesting - the removal of organs from a donor for the purpose of subsequent transplantation.

Oximeter - an instrument for measuring the proportion of oxyhaemoglobin in the blood.

Pacemaker - a device used to produce and maintain a normal heart rate in patients who have heart block.

Peritonitis - inflammation of the peritoneum.

Post cardiectomy psychosis - a mental state that can occur after a cardiac operation in which the patient becomes very confused and disorientated.

Primary Nursing - where a nurse is responsible for the total planning and administration of a patient's care from admission to discharge.

Project 2,000 - a new educationally based programme for nurses.

Prothrombin time - clotting time of the blood.

Pulmonary Oedema - fluid in the lungs

Pump failure - heart failure

Rota-virus - a type of virus

Saturations - the level of carbon dioxide and oxygen in the blood.

Sharps - any objects with a sharp or pointed end, for example blades, needles and syringes.

Sengstaken tube - an oesophageal compression tube for the treatment of bleeding oesophageal varices.

Sub-acute bacterial endocarditis - a form of endocarditis usually caused by streptococcus or staphylococcus.

Sub-arachnoid haemorrhage - a bleed into the sub-arachnoid space of the coverings of the brain.

Syringe pump - a pump used for transmitting a measured dose of a substance, usually a drug to a patient.

Tachycardia - fast heart rate

Tamponade - abnormal pressure on a part of the body; for example, as caused by the presence of excessive fluid between the pericardium and the heart.

Thoracotomy - a surgical opening of the chest cavity to inspect or operate on the heart, lungs, or other structures within.

Tricuspid valve - the heart valve between the right atrium and the right ventricle.

Urodynamics - measuring pressure within the bladder

Ventilating - using a machine to pass air into and out of the respiratory tract.

VF - ventricular fibrillation
(xxi)

V F - ventricular fibrillation

Ventricular fibrillation - fibrillation that causes the heart to stop beating.

Warfarin - an anti-coagulant drug

SHO - senior house officer : a senior doctor

SVC - superior vena cava - a large vein which empties into the right side of the heart.

TPN - total parenteral nutrition

TURP - trans-urethral resection of prostate. An operation to remove the prostate gland

Type II AV Block - a type of heart block.

U & E - urea and electrolytes

UKCC - United Kingdom Central Council

VF - ventricular fibrillation

Chapter 1

Background - early influences on the study

Early influences on the study

Nursing has undergone major change during the last ten years as a result of two main influences. First, reorganisation of the National Health Service (NHS) (Griffiths 1984) in line with market forces, has been influential. Secondly, the drive for professionalisation and academic recognition within nursing itself (UKCC 1986, ENB 1991b, UKCC 1994) has promoted substantial change. The introduction of Project 2000 (P2K) (UKCC 1986) was a major attempt to move nursing from a training based profession to an educationally based one. However, it has produced an anomaly in that newly qualified nurses emerge as diplomates, but senior nursing staff, often very experienced, who were trained before this time largely have not achieved this academic level.

The newly established links between nursing continuing education and higher education provide a means for accrediting nursing courses. Closely allied to this process is the Credit Accumulation and Transfer Scheme (CATS) implemented by the Council for National Academic Awards (CNAA) (1989). Accreditation of prior experiential learning (APEL) provides the opportunity for learning gained through experience to be accredited and provides a means for nurses to make claims for the knowledge they use in practice.

In September 1991 The English National Board (ENB) released its Framework and Higher Award for Continuing Professional Education for Nurses, Midwives and Health Visitors. The implementation document identifies the centrality of CATS and APEL to the Framework and Higher Award.

Colleges of Nursing ... will take account of relevant prior learning achievements of practitioners ... [which] avoids repetitious learning and contributes to value for money in education ... Colleges of Nursing ... will include recognition for assessment of prior experiential learning (APEL) (ENB 1991b:27).

The Post-Registration Education and Practice Project (PREPP) (UKCC 1989, 1994), is another major initiative in continuing education which acknowledges the importance of credit accumulation and transfer. Both the Framework and Higher Award (1991) and the PREPP recommendations (UKCC 1989, 1994) indicate that where appropriate, academic recognition should be given for knowledge used in professional practice. These factors form the backdrop to this study.

Direct influences on the study occur at several levels. At regional level, part of the early exploratory work formed the basis for a working paper on accreditation and profiling for West Midland Regional Health Authority. At a local level, the College I work for, is involved in piloting the implementation of the Higher Award and this study will inform this process.

At a personal level many of my initial concerns were practical. I wanted the research process to be as valuable as possible. Previous experience with research had proved to be of limited value. On completion, little or nothing changed. This seemed a poor use of resources and contrary to the notion of academic work feeding into and linking with the world of work (ENB 1991b). In an attempt to avoid this and in order to have maximum work involvement and support, I decided to use a modified action research approach thereby providing the opportunity for the world of work and the study to flow from one to the other. I also believe that it is important that practice forms the basis for theories which guide nursing actions, and is recognised as a legitimate source of nursing knowledge. In the past a theory-practice gap had developed as the primacy of examining nursing practice was not recognised.

It was also important to me that the research area should be of professional and intellectual interest. The work of Benner (1984) had impressed me considerably and I was eager to use the interpretive approach that she had used, which illuminated the reality of the practice setting so clearly.

I decided to investigate the areas of practical nursing knowledge and accrediting nursing practice. I had noted that although the ENB (1991b) recommends accreditation of practice and has produced a framework against which knowledge can be

classified, the problems that arise in relation to this have not been addressed.

For example, accreditation of previous learning (APL) is a relatively straightforward process, but this is not the case with claims for knowledge gained in the practice situation itself (APEL). Many experienced nurses are in the position of having participated in the development of curricula, also of acting as teachers and mentors to diplomate nurses. Some of these nurses are trailblazers taking practice beyond the realms of basic training, yet, if they have not attended academic courses, they are likely to encounter difficulties in trying to make accreditation claims. This is because traditionally nursing courses were accredited for the written component of the course at the appropriate level, certificate, diploma, or degree, but the practical aspect of the course was only recognised at certificate level. One notable exception to this is a nursing degree course at the John Radcliffe Hospital Oxford where practice is assessed through the use of a reflective learning contract (Burns 1992).

In addition the links between professional nursing knowledge and academic knowledge have not been established and ought not to be presented as one and the same thing. Professional bodies (ENB 1991b) might assume that knowledge found in practice can be accredited at all three levels, but this is an assumption that needs further investigation.

It is also important to examine the factors that influence the development of practical nursing knowledge.

To address these issues I selected a group of expert nurses, to examine how they use and develop knowledge in their practice. Experts were chosen as they are the most likely to be using knowledge in their practice which is accreditable at all three academic levels. By studying expert nurses I felt that the full depth and breadth of what nursing knowledge could be, would be illustrated. To identify the state of the art in terms of expert knowledge, knowledge from practice, and accreditation issues, an extensive review of the literature was carried out. This is reported and analysed in Chapter 2.

Chapter 2

Expert nursing knowledge - defining the field

The use of knowledge in expert practice : a definition of the field.

Practical nursing has only in the last fifteen years been seen as a fit topic for investigation (Benner and Wrubel 1982, Benner 1984, Benner and Tanner 1987, Corcoran and Moreland 1988, Brykczynski 1989, Farrell and Bramadat 1990, Butterworth 1993). This says much about the way practical nursing knowledge has been valued. As nursing has striven for professionalisation its theoretical knowledge base has informed this process. Consequently, recognition and importance was attached to theoretical knowledge and practical knowledge was seen as its instrumental application.

Several factors challenge such perceptions. The persistence of a theory-practice gap, when students find that what they are taught in college does not reflect the reality of the practice setting, has been influential. Also, Benner's (1984) placing of practice, central to knowledge use and development, has resulted in a reappraisal of the way knowledge is viewed in nursing.

The recent government White Paper, 'Working for Patients' (DOH 1989) and organisational change within the Health Service have also been influential.

These require nursing to articulate the value of its practice and by implication the knowledge inherent in that practice in a way previously unheard of. Finally the requirement of nursing's professional bodies (ENB 1991b) for colleges of nursing to establish a means for examining and accrediting the knowledge found in practice, begs questions requiring investigation. The most fundamental is : 'is there knowledge in expert practice that is accreditable ?'.

To explore this question, relevant literature was consulted. This revealed that whilst nursing has in the past been recalcitrant about examining its practical knowledge base, there is a growing body of literature relevant to considerations of knowledge use and practice (Carper 1978, Benner and Wrubel 1982, Benner 1984, Tanner 1987, Corcoran and Moreland 1988, Hardy 1988, Brykczynski 1989, Urden 1989, Farrell and Bramadat 1990, Davis et al 1990, Nehring 1990, Fitzpatrick et al 1992, Davies 1993, Shay and Stallings 1993, Butterworth 1993).

A variety of occupational groups and professions have made contributions that are informative in terms of practical knowledge (Charlesworth 1976, Chi et al 1981, 1982, Eisikovits and Guttman 1982, Isenberg 1984, Eraut 1985, Huberman 1985, Cecci and Liker 1986, Klemp and McClelland 1986, Berliner 1986, Shulman 1986, Sternberg and Wagner 1986, Houle et.al. 1987,

Calderhead 1987, 1989, Lampert and Clark 1990, Swanson et al 1990).

Educational commentators, particularly, appear to have examined the practice of teaching (Elbaz 1981,1983, Eraut 1985, Shulman 1986, Sockett 1987) in a similar fashion to that undertaken by nursing. Indeed the literature on teachers' examination of knowledge in practice provides a rich resource from which insights and experience can be drawn and applied directly to attempts to discover the knowledge in nursing practice (Eraut 1985, 1983, Nolan and Huber 1989, Shulman 1985, and Sockett 1987). Literature on experiential learning (Burnard 1989, Nyatanga 1989, Spence Laschinger 1990) also provides a useful resource of information. The literature related to these areas is now examined in more detail.

Types of Knowledge

Associated with the general question 'is there knowledge in expert practice that is accreditable ?' are two further questions. These are central to deliberations about practical knowledge : First, what is meant by knowledge ? Second, why is it important ? Examining what is meant by knowledge is not easy since it is presented in many forms and varies in both type and focus.

Indeed, thinking about knowledge varies from one philosophical perspective to another (Plato, Aristotle, Heidegger 1962, Merleau-Ponty 1964, Dewey 1933, 1958, 1966, 1971, Polanyi 1958,1967, Gadamer 1970, Schon 1983, 1987). The Platonic perspective for example, as portrayed in the teachings of Socrates, presents value as attached to 'the power of the principles of good and beauty', importance is attached to making these significant in students' own lives (Greene 1986:482). This is characterised by an interpretation of knowledge as transcendent, linked to notions of idealism and the emergence of man's own true nature (Greene 1986:482). For Plato, true knowledge occurs when ideas are remembered and brought into consciousness (Urden 1989). Knowledge gained through experience is considered to be of little value.

...'conceptual knowledge' surpasses sense perception and reveals the essence of things. Knowledge obtained through experience-sense-perception is not genuine knowledge (Frost 1962) (Urden 1989:18).

The importance of gaining 'conceptual' knowledge is therefore paramount, with experience playing no part in this process. An alternative perspective is presented by Aristotle who emphasises the importance of the intellect, linking it to the quality of a person's life. The best life according to Aristotle 'is the life of the intellect, since the intellect is in the fullest sense the man '(Hanfling 1987:203). Nature is presented in a developmental way; that is, man differs from the animals through the activity of reason or intellect.

The rational life is peculiar to man, and therefore fulfilment and happiness are to be found in perfecting it as far as possible (Hanfling 1987:203).

Of particular relevance to this study is Aristotle's notion of praxis. His assertion that the practical arts such as politics and education were not rigorous sciences can also be applied to nursing. Praxis emphasises the importance of values and morals in relation to action, that is, the action is informed by these.

Practical deliberation has its roots in the disposition of the actor to act truly, rightly, wisely and prudently - the disposition called 'phronesis' by Aristotle. It expresses itself in praxis - informed action (Carr and Kemmis 1986:93).

This linkage of knowledge and values is significant in relation to practical nursing knowledge. Nursing commentators are starting to emphasise the importance of praxis, particularly in relation to providing reflective care, based on a critical thinking process. Since Aristotle, it has been possible to 'distinguish three broad forms of reason on the basis of the way they relate thought and action: they are technical, practical and theoretical reason'(Kemmis 1985:141).

Technical or instrumental reason concerns choosing between available means to achieve a known end. Its ideal type is the 'making' action of the craftsman ... Practical reason, by contrast, takes place ...[when] the actor must decide how to act rightly and appropriately in a given situation ... Theoretical or speculative reason (theoria) is simply the pursuit of truth through contemplation (Kemmis 1985:142).

The legacy of such thinking can still be seen in some nursing curricula.

Technical knowledge for example was highly valued under nursing's apprenticeship model. Conversely today practical reason through the process of reflection is being increasingly emphasised.

Whilst educational commentators cite both Plato and Aristotle as having influenced thinking about knowledge in a major way (Shulman 1986) I found in later philosophical works, for example Heidegger (1962), and Schon (1987), that notions of transcendence are refuted and detached rationality is presented as a flawed perception of professional practical knowledge. Indeed contemporary philosophical theorists (Dewey 1933, 1958, 1966, 1971, Heidegger 1962, Merleau-Ponty 1964, Polanyi 1966, Gadamer 1970, Schon 1983, 1987) reject early descriptions of knowledge and devise unique ways of perceiving it.

Whilst acknowledging its Platonic and Aristotelian roots, practical knowledge appears to be a conception of the last forty years built on deliberations of philosophers such as Dewey, Heidegger, Polanyi, and Schon. Practical knowledge is also contemporary in its emphasises on existentialism, that is, on individual choice and responsibility. However, the pain of choice (Sartre 1965) does not appear to have been considered by the United Kingdom Central Council of Nursing and Health Visiting (UKCC 1992) which exhorts practitioners to become autonomous in their practice.

Philosophers and educational commentators describe practical knowledge in many ways, and this presents difficulties, also there is little consistency in the language used. For example practical knowledge has one meaning when used by Burnard (1987), but another when used by Carr and Kemmis (1986). Some descriptions acknowledge a moral and ethical dimension to practical knowledge such as is found in praxis, whilst others do not recognise this dimension, content to present a classification system only.

Benner (1984:2) cites both Kuhn (1970) and Polanyi (1958) as having observed that 'knowing that' and 'knowing how' are different kinds of knowledge. This early distinction of knowledge is attributed to Gilbert Ryle cited by Berliner (1986:6) who specified that indeed 'knowing how is a different kind of knowing than knowing that'.

'Intelligent' cannot be defined in terms of 'intellectual' or 'knowing how' in terms of 'knowing that'; 'thinking what I am doing' does not connote 'both thinking what to do and doing it'. When I do something intelligently ... I am doing one thing and not two. My performance has a special procedure or manner, not special antecedents (Ryle 1949:32 cited by Schon 1983:51).

Ryle's position is clarified by Hyland (1992) in relation to knowledge and competence.

... when Ryle observes that 'our intelligent performances are not clues to the workings of minds, they are those workings', he is not denying that 'theoretical' knowledge of rules, procedures, principles, etc., informs performance, but insisting that it is a mistake to regard these phenomena as separate from and somehow prior to performance (Hyland 1992:22).

This distinction of knowledge is complex for although Ryle is describing two types of knowledge he emphasises that it is the intelligence informing the activity that is significant and not the mere behaviour itself. An example which illustrates this thinking is evident in Goodman's (1984) consideration of reflective practice which is discussed later in this chapter. For Goodman it is not reflection per se, that is significant, rather it is the nature of that reflective activity.

There is increasing evidence of the influence of philosophers such as Ryle, Dewey, Heidegger, Heron and Schon in the work of nursing theorists. Burnard (1987) for example uses the work of Heron (1981), to present an epistemological theory of knowledge. He presents three domains of knowledge : propositional, practical, and experiential. Each of the domains although presented as distinct is inter-related. Propositional knowledge or 'textbook' knowledge is similar to cognitive psychology's declarative knowledge, and Ryle's concept of 'knowing that'.

Practical knowledge

is knowledge that is developed through the acquisition of skills, often, though not necessarily, of a psychomotor type. Thus, giving an injection, or driving a car, demonstrates practical knowledge (Burnard 1987:190).

This type of knowledge is synonymous with Ryle's (1949) concept of 'knowing how' and Burnard (1987:190) contends that it encompasses a considerable amount of nursing activity.

Experiential knowledge is knowledge gained through 'direct personal experience'. It is 'the subjective and affective nature of that encounter that contributes to this kind of knowledge' (Burnard 1987:190). Whilst Burnard's (1987) theory is informative it raises many queries. Its originality is evident in the experiential aspect of the theory; propositional knowledge and practical knowledge correlating to 'knowing how' and 'knowing that'. However, his distinction between practical and experiential knowledge is not entirely convincing. Whilst he classes experiential activity as being concerned with relationships and learning from experience, he reduces practical knowledge to mere skills acquisition. This implies a separation that does not in reality exist. Practising a skill is synonymous with gaining experience, and developing a relationship, therefore the distinction is somewhat arbitrary.

In addition, when Burnard describes experiential knowledge as relational it seems likely that he is in fact describing an orientation towards knowledge, rather than experiential knowledge itself. Burnard's theory mentions no moral dimension, the assumption presumably being that experiential knowledge will provide this, or else that this dimension will be classified under propositional knowledge. Whilst this theory is a useful staging post in terms of theory generation about practical knowledge, it is inconclusive and requires further consideration.

Heidegger has also had a major influence on thinking about knowledge and approaches to examining nursing knowledge. Benner (1984) explicitly acknowledges that the definition she uses for experience is grounded in Heideggerian philosophy and her research methodology for examining expert practice is rooted firmly in the hermeneutic interpretive approach.

Hermeneutics is an ancient discipline which was originally concerned with the interpretation of ancient religious texts; it was primarily a method for discovering the correct interpretation from several differing versions of the same text. Modern hermeneutics has been developed by Heidegger (1962) and Gadamer (1975,1976) (Reason and Rowan 1981:132).

Heidegger's concern is associated with a reaction against calculative thought, with a call for 'meditative thinking' not as a substitute for calculative thought but rather as 'a way of regaining a certain rootedness in nature and a more reflective awareness of cognitive agency' (Greene 1986:491). It is Heidegger's contention that this kind of thinking when combined with a 'renewed consciousness' might prevent the technological domination of thinking. Like the critical viewpoint in sociology, the aim is to demystify through the process of phenomenology. Hermeneutic phenomenology legitimises qualitative approaches to investigating practical knowledge that previously were not recognised in nursing (Benner 1984:8, Boud et al 1985:11).

Phenomenological approaches recognise the importance of artistry as a knowledge form (Schon 1987). They also challenge

traditional approaches to knowledge and enquiry into that knowledge and are forming the focus for considerable discussion within nursing today (Omery 1983, Benner 1985, Holden 1991, Clarke and Wheeler 1992, Hiraski 1992, Baker et al 1992, Tichen and McIntyre 1993, Harvey 1993, Greenwood 1994, Jasper 1994).

Significant conclusions can be drawn from this analysis of the philosophical literature related to practical knowledge. It is evident that traditional empirical approaches to examining knowledge have their roots in the work of Aristotle where detached theoretical reasoning was valued and rational thought was presented in a hierarchical manner, thus devaluing or not recognising knowledge in practice. Under the influence of philosophers such as Dewey (1933, 1958, 1966), Heidegger (1962) and Schon (1983, 1987) a reconceptualisation of knowledge in practice has taken place.

Nursing literature

As there is still little research into nursing knowledge the classification provided by Carper (1978) remains influential today. Some theorists suggest that Carper misunderstood the differences between practical and theoretical knowledge (Benner 1984).

Whilst acknowledging this, I still find Carper's fundamental patterns of knowing a useful starting point for considerations of nursing practical knowledge.

Table 1.

CARPER'S (1978) FUNDAMENTAL PATTERNS OF KNOWING IN NURSING

EMPIRICS The Science of Nursing

AESTHETICS: The Art of Nursing

PERSONAL KNOWLEDGE

ETHICS: The moral Component.

Empirical knowledge is the scientific base of nursing and is presented as being very much in a state of development:

There is a critical need for knowledge about the empirical world, ... that is systematically organised into general laws and theories for the purpose of describing, explaining and predicting phenomena of special concern to the discipline of nursing (Carper 1978:14).

Aesthetics is described as being concerned with the Art of Nursing. Wiedenbach cited by Carper (1978:16-17) suggests that the art of nursing is

... made visible through actions taken to provide whatever the patient requires to restore or extend his ability to cope with the demands of his situation .

Artistry is the taken-for-granted aspect of expert practice and has received scant recognition, particularly in academic terms. Under the heading of aesthetics Carper (1978:17) also identifies empathy as 'an important mode in the aesthetic pattern of knowing'. Nursing curricula do not include empathy.

It is presumably expected that empathy will be acquired in a tacit form through a process of symbiosis.

The personal knowledge component, is 'the most problematic, the most difficult to master and teach' (Carper 1978:18). This component represents the knowledge evident in the nurse patient relationship. It is concerned with interpersonal processes and involves interactions, relationships and transactions. The phrase 'therapeutic use of self', which has become increasingly prominent in the literature, implies that the way in which nurses view themselves and the patient / client is of primary concern in any therapeutic relationship. The fourth and final pattern of knowing concerns the ethical dimension of nursing practice.

The ethical pattern of knowing in nursing requires an understanding of different philosophical positions regarding what is good, what ought to be desired, what is right; of different ethical frameworks devised for dealing with the complexities of moral judgements; and of various orientations to the notion of obligation (Carper 1978:21).

Carper's patterns of knowing provide a useful framework for identifying different types of knowledge in nursing practice.

Benner's seminal work provides the next milestone in terms of identifying nursing knowledge. Focussing on the proposition that perceptual awareness is central to good nursing judgement and that this begins with vague hunches, she contends that the knowledge embedded in clinical practice accrues over time

(Benner 1984). Her work focussed on nurses' discretionary judgement used in clinical situations. She addresses the risky, situation-specific decisions that are usually covered up, but that nurses face in their practice every day. The central premise of her work is that

... expertise develops when the clinician tests and refines propositions, hypotheses, and principle-based expectations in actual practice situations (Benner 1984:3).

She identifies six types of practical knowledge :

(1) graded qualitative distinctions (2) common meanings (3) assumptions, expectations, and sets (4) paradigm cases and personal knowledge (5) maxims and (6) unplanned practices. Nurses acquire knowledge as they move from novice to expert through a five stage sequence. Benner has set the scene for a new awareness and appreciation of practical nursing knowledge. Her work has been drawn on for assessment (Darbyshire et al 1990) and developmental purposes, through the use of critical incidents (Smith and Russell 1991). In addition Brykczynski (1989) used an interpretive methodology to describe the clinical judgement of nurse practitioners in a cumulative study building on Benner's earlier work. She substantiated Benner's findings and new competences were identified. However, important points need considering in relation to evaluating nursing competence that do not necessarily apply to more general discussions about competency approaches to training and education.

Nursing competence involves more than knowledge and skill: also included within this domain are the processes of critical, creative and reflective thinking , decision making and problem-solving. Indeed it may be argued that these processes represent the main components of nursing practice ... (Fitzpatrick et al 1992:1214).

These considerations do not sit easily with behaviourist approaches to professional competence and indicate that cognisance needs to be given to factors such as reflective ability when investigating expert practical nursing knowledge.

Early studies of nursing knowledge in America were essentially technical, using concept attainment and information processing theory (Tanner 1987). However, as the complexity of nursing knowledge was recognised these approaches have given way to more qualitative inductive approaches. An eclectic approach used by Shay and Stallings (1993) describes the attributes of expert nurses in relation to a number of indices used as part of a retention programme at the Wake Area Health Education Centre (AHEC) North Carolina.

Participants indicated that important characteristics of the nurse included striving for perfection and excellence, being anxious to help others, being loyal to friends, and to the organisation, having a feeling that there is a job to do, and staying with a job until it is finished. The valued personal characteristics were sincerity, radiance, warmth, trust, and consideration (Shay and Stallings 1993:68) .

Therefore simply examining the competence demonstrated by expert nurses is inadequate, as factors such as values and characteristics also require attention. Another popular methodology is the delphi technique (Lindeman 1975, Anderson

1986, Goodman 1987, Beech 1991). In a recent British study by Butterworth et al (1993) 2,006 nominated expert respondents completed a delphi survey of optimum practice. A number of recommendations emerged and included the need for management support, and staff development on an on-going multi-disciplinary basis. Other recommendations were linked to resource issues, for example the requirement that centres of clinical practice be linked to data-bases and libraries. In many ways this study reinforces what nurses have long known: that support and continuing educational updating are essential requirements of expert practice.

However, this study has a major flaw in that the findings are based on what expert nurses said they did, rather than what they actually did in practice. These cannot be assumed to be one and the same thing and this considerably weakens the value of the study. The distinction is important, and is supported by Schon (1987:255) who clearly differentiates between 'espoused theories' and 'theories-in-use'. Meerabeau (1992) in an examination of tacit knowledge expresses similar concerns:

... wherever possible, research into practice should involve observation of that practice (Meerabeau 1992:110).

Other empirical research, less extensive but addressing specific issues of relevance to this study, includes work on role models in influencing the development of nurses' knowledge (Howie 1988, Nehring 1990, Davis et al 1990, Davies 1993). There is a common theme in studies carried out in

Australia (Davies 1993) and China (Davis et al 1990). They emphasise the importance of role models in transmitted knowledge about the artistic rather than the scientific aspects of nursing. These findings support Schon's (1987) contention that artistry is at the heart of professional practice. Values associated with practice are discovered and classified as 'good' and 'bad'. Students

... articulate[d] those attributes of nurses which lead to holistic care and those which lead to rigid, fragmented and impersonal care. They were able to recognise creativity and flexibility in practitioners and to relate these attributes to the ability to provide individualised, context-specific care (Davies 1993:635)

Studies of professional socialisation (Davis and Olesen 1989 cited by Davis et al 1990) also suggest the importance of qualities such as caring, responsibility and diligence in the 'good nurse'. Whilst positive role models may well assist the development of expertise particularly in relation to personal qualities and artistry, the negative effect that bad examples have on knowledge use and development does not appear to have been addressed in the literature.

A recurring theme is the linking of values to knowledge development (Davis et al 1990, Davies 1993). This is clearly illustrated by Raya (1990) through the emphasis she puts on developing the whole being in terms of nurse education.

The university is the cradle which nurtures intellectuals, professionals and scientists as whole human beings ... it cannot be limited merely to developing the student's mind. It should inspire the student with a belief in the higher values of life (Raya 1990:504).

Whilst such values appear rather lofty when contrasted with the practicalities of everyday practice for nurses, Raya emphasises the importance of the ethical component of curricula, citing this as essential to the preparation of nurse graduates. Such sentiments are addressed in the new Project 2000 (P2K) curriculum (UKCC 1986). It will be interesting to see if future studies substantiate the benefits of this holistic approach to education in terms of improved care provision.

It can be concluded that although nursing literature in the past decade has started to address the area of practical nursing knowledge in a serious manner, this exploration is still in its infancy and studies which specifically examine the practice situation and in particular the knowledge that nurses use are much needed. Clearly emerging from this review are the following points of significance. First, the importance of context has to be recognised when considering nursing knowledge. Secondly, rote learning has no place in the knowledge base of expert nurses. Rather what is required is a knowledge base informed by professional values and beliefs that is able to cope with the indeterminacy of the practice situation.

Reflection and nursing knowledge

Reflection is strongly linked to knowledge use in practice. It is defined in many ways, and there is ambiguity in the way the term is used. Reflection is presented as a significant process by other professions, most notably teaching (Calderhead 1989, Turner-Muecke et.al. 1986, Zeichner and Liston 1987, Munby and Russell 1989, Nolan and Huber 1989, Osterman and Kottkamp 1993) and social work (Eisikovits and Guttman 1982).

Numerous studies address the benefits of reflection in teacher training programmes (Gore and Zeichner 1991, Turner Muecke et al 1986, Calderhead 1987, 1989, Goodman 1984). Most definitions of reflection include acknowledgement of a critical process (Carr and Kemmis 1986) usually allied to retrospection (FEU 1981, Grudy 1982 cited by Boud et al 1985, Saylor 1990). Schon (1983,1987) has produced a definitive text in relation to reflection-in-action and reflection-on-action. Problems of practice are often messy and ill defined and Schon argues that these are 'the problems of greatest human concern' (Schon 1987:3). He presents reflection-in-action as a process whereby the professional 'thinks on her feet', finding the solution to problems through framing and reframing. This appears to be an almost sub-conscious process, and theory and practice are synthesised into reflection-in-action.

Conversely reflection-on-action occurs after the event and is similar to the more traditional and accepted interpretations (Dewey 1933, Boud et al 1985) of the concept of reflection. Schon's model of reflection-in-action and reflection-on-action provides new insights and further dimensions to the traditional acceptance of reflection. By linking reflection to artistry and the development of professional practice, Schon takes reflection firmly into the professional arena in a novel and original way. He presents a fundamental reorganisation of the ways in which we think about professional practice and the relationship of theory to practice (Munby and Russell 1989).

Boud et al's (1985) definition however, differs from Schon's, suggesting that reflection is something so familiar that it tends to be overlooked and assumed to be occurring effectively. These differentiations are problematical since it is impossible merely by the use of the term reflection to know exactly in what sense the term is being used.

Clearly illuminating the central issues, Munby and Russell (1989) present a cogent review of Schon's work on reflection. They highlight the need to separate Schon's reflection-in-action from other forms of reflection and suggest that the promise of Schon's work lies in his view that

... significant professional knowledge arises immediately from the direct interaction between the practitioner and the action (Munby and Russell 1989:78).

Commentators who present reflection as something familiar, do not address the dynamic nature of reflection as presented by Schon. Boud et al's original work has been revisited but links to the artistry of professional practice are still not apparent although a type of reflection-in-action is described. During a recent workshop (May 1994) David Boud presented reflection-in-action as dynamic in so much as the individual is actively involved in the process of reflection. This differs from the dynamism presented by Schon in reflection-in-action with its links to professional practice which has been such a stimulus for debate and exploration. Numerous authors have drawn on Schon's work (Zeichner and Liston 1987, Nolan and Huber 1989, Powell 1989, Dewing 1990, Brook and Champion 1992, Newell 1992, Jarvis 1992, Cameron and Mitchell 1993, Atkins and Murphy 1993, James 1993) and present it as a model for professional practice.

Attempts have been made to understand how reflection develops and to find appropriate methods to measure this process (Goodman 1984, Powell 1989, Jarvis 1992), whilst others have provided comprehensive reports on the topic (Brook and Champion 1992). The work of the Frankfurt School of Social Research, and of Habermas in particular is cited as having

inspired a critical science concept of reflection as self-determination. Reflection is viewed as a process of becoming aware of one's context, of the influence of societal and ideological constraints on previously taken-for-granted practices (Calderhead 1989:44)

Three areas identified by Habermas are 'knowledge constitutive' in that they determine categories which are interpreted as knowledge .

They also determine the mode of discovering knowledge and for establishing whether knowledge claims are warranted. Three distinct but interrelated learning domains are suggested ... the technical, the practical and the emancipatory (Mezirow 1981:3-4).

Of particular importance is Habermas's emancipatory level of learning interest. This is concerned with self-knowledge and self-reflection.

... one must become critically conscious of how an ideology reflects and distorts moral, social and political reality and what material and psychological factors influence and sustain the false consciousness which it represents - especially reified powers of domination (Mezirow 1981:6).

The challenging of assumptions within ideologies has been presented by Freire (1970) as conscientization. This is the process

... by which the Hegelian and Marxist concept of false consciousness becomes transcended in traditional societies through education (Mezirow 1981:8).

This reconstruction perspective on reflection is of a different nature than other presentations on the topic (Boud et al 1985, Schon 1983, 1987) and is challenging in the extreme. It offers a fundamental approach to reflection and consequently to nursing practice that none of the other theorists present. The assumption within this theory appears to be that such challenging of ideologies is possible, but there must surely be a danger that one set of assumptions is merely replaced with

another. Mezirow cites Habermas who has clearly recognised this fact.

We are never in a position to know with absolute certainty that critical enlightenment has been effective, that it has liberated us from the ideological frozen constraints of the past, and initiated genuine self-reflection ... any claim of enlightened understanding may itself be a deeper and subtler form of self-deception ... (Habermas 3:218-219 cited by Mezirow 1981:8)

Such ideas may have positive benefits for an emerging profession such as nursing, which has based much of its practice on ritual and routine in the past (Bevis 1982), and is only now attempting to look with critical insight on its practice (Leino-Kilpi 1990, Darbyshire et al 1990, 1991, McCaugherty 1991a, 1991b, 1992a, 1992b). Habermas's theory has significant implications, identifying as it does the importance of perspective transformation in the development of both learning and education. It has been highly influential in shaping critical thinking in education. Mezirow for example based his theory of adult critical thinking on it and in turn Brookfield (1987) acknowledges that Mezirow, a colleague of his at Columbia University, has contributed to the development of his book on adult critical thinking. The use of the term critical thinking appears synonymous with Habermas's presentation of reflection.

Also challenging is Goodman's (1984) analysis of how reflection is used as a 'blanket term' which may in essence have little relationship to a 'true' process of reflection.

He suggests reflective levels , based on Van Manen's (1977) work, in an effort to guide and deepen the reflective processes of trainee teachers. Whilst specifically examining the role of reflection in teacher education, he provides insights which have direct application for nursing. Goodman's theory of reflection focuses on levels of reflection, the process of reflection and reflective attitudes (Goodman 1984). Level one is concerned with the techniques needed to reach a given objective. At this level of reflection students are concerned with 'what works'. At level two student focus on the relationship between theory and practice. The third level incorporates reflections on both ethical and political concerns, and principles such as justice, equality and emancipation are used as criteria in deliberations (Goodman 1984). This framework provides an excellent means for reflecting on practice, incorporating as it does practical, theoretical, moral and political considerations. Such an approach appears particularly suited to the profession of nursing which proclaims advocacy as a central tenet (UKCC 1992).

Calderhead also provides useful insights into the types of reflection teachers use for understanding classroom practice. These insights are also likely to be highly applicable to nursing practice.

student teachers' understanding and critical appraisal of their own and others teaching was generally superficial and pragmatically orientated

... Reflection focussed on the immediate concerns of accomplishing the task ahead of them (Calderhead 1987:276).

This supports Goodman's findings and challenges the assumption that practitioners can and do reflect in depth. It is evident that practical concerns of day to day practice form the main focus for practitioners' reflections, and curriculum builders need to be cognisant of this.

Another reflective theoretical framework is presented by Powell (1989). Drawing on critical theory she uses Mezirow's seven levels of reflectivity for analysing data she had collected. The levels of reflectivity are hierarchically arranged. The first four relate to consciousness and the last three to critical consciousness. These levels have some areas of commonality with Goodman's (1984) levels of reflection based on Van Manen's (1977) work. Both of these theoretical frameworks emphasise description and awareness of feelings. They also both address judgmental reflectivity, although the emphasis and interpretation is different. How effective Powell's framework can be is far from clear, as it is surely necessary to ensure that a process of emancipation and conscientization has occurred in the individual reflecting. Powell does not address this issue, rather presenting these levels as a mechanistic formulae for developing reflection.

Reflection is also linked to developments in adult education such as andragogy (Knowles 1984).

In addition developing reflective practitioners is seen as a management responsibility. Campbell, a management consultant, suggests that an essential requirement is

an organisation in which being protective and making changes is not only possible, but expected ... reflective practitioners require reflective management (Campbell 1991:34-35).

This is supported by the findings of Butterworth et al (1993) in their study of optimum practice. The importance of reflection as the key element in learning from experience was explored by Boyd and Fales (1983). Their analysis of reflective learning shares some aspects with Habermas's critical theory in that it involves a 'shift from one perceptual perspective to another' (Boyd and Fales 1983:101).

Although there are numerous interpretations of reflective practice some are more applicable to developing nursing practical knowledge than others (Schon 1983, 1987, Habermas 1970 cited by Mezirow 1981, Goodman 1984). Two important strands are evident in these works: first the linking through a dynamic process of reflection-in-action of knowledge use to professional artistry (Schon 1983, 1987); and secondly the necessity for consciousness-raising which facilitates indepth reflection and the questioning of ideological assumptions and beliefs. Such reflection is light years away from mechanistic presentations of reflection discussed later in relation to APEL issues. Using reflection from a critical theory perspective, the nurse-patient relationship can be redefined in terms of

both nurse and patient emancipation. This has considerable implications for the type of knowledge used in practice.

Intuition and nursing knowledge

The importance of intuition in terms of nursing knowledge has been recognised only recently (Gerrity 1987, Rew and Barrow 1987, Correnti 1992). Gerrity (1987) highlights the importance of intuition and draws on Jungian theory to support its use and development. Intuition is also presented as an aspect of the pattern of personal knowledge (Agan 1987) whilst Correnti (1992) promotes strategies to facilitate its use.

There are dissensions vis-a-vis an intuitive model for nursing (Farrington 1993, English 1993). These commentators are keen to redefine intuition in terms of the feature-detection model of cognitive psychology (English 1993) or in terms of Heuristics (Farrington 1993) based on the work of Kahneman and Tversky (1973). Despite this, intuition has in the past decade achieved a degree of legitimacy (Schon 1983, Benner 1984 Agan 1987, Schraeder and Fischer 1987, Rew 1988, 1989, Gatley 1992a). This legitimacy arises from a reconceptualisation of the processes involved in professional decision-making (Schon 1983) and from a recognition of the complexity of nursing clinical judgement (Benner and Tanner 1987). Also, intuition has links with the artistry of practice.

Gerrity notes that as nursing has aspired towards professional status its concern has been to establish a scientific base to practice:

As nursing becomes a science, the text-book ideal of scientific knowledge becomes the dominant mode of knowledge in nursing. This mode is largely analytical, verbal, and linear. The intuitive mode has been deemphasised and devalued (Gerrity 1987:69).

In the past decade such mechanistic approaches has been superseded by an approach to clinical decision-making that acknowledges the importance of a synthesis of intuition and skilled theoretically based nursing (Gatley 1992). Benner and Tanner (1987) use Dreyfus's aspects of intuitive judgement as the first attempt in nursing to devise a model of expertise.

Exploration of intuition is linked to a desire for a wider, less 'mechanistic', indeed less 'scientific' agenda in nursing (Schraeder and Fischer 1987, Rew and Barrow 1987, Gerrity 1987). Scientific approaches are viewed as essentially masculine by some commentators (Schraeder and Fischer 1987). They criticize the narrowness of the biomedical model and suggest that

The antithesis of the biomedical approach is the caring, warm, and intuitive dimensions of clinical practice. This has been described as the yin, or female paradigm (Randolph 1981 cited by Schraeder and Fischer 1987:47).

Links between gender and intuition are also presented by Rew (1989) and Munhall and Oiler (1986).

Agan argues that

Most nurses are women, so nursing is unique in that it is a women's science while all the others are viewed primarily as men's sciences (Agan 1987:64).

This uniqueness is presented as enabling nursing to transcend the male world view of scientific method and to question the myths that have perpetuated an erroneous view of knowledge about the world (Rew 1989 citing Chinn 1985). Schraeder and Fischer in their study of a neonatal unit, like Benner (1984) found that

... intuitive thinking was found in the most experienced, technically proficient nurses (Schraeder and Fischer 1987:48)

Links between intuition and holistic approaches to care are demonstrated by many (Schraeder and Fischer 1987, Rew 1989, Agan 1987). They take intuitive approaches to care into the realms of spirituality, (Rew 1989, Agan 1987) psychic phenomena, (Agan 1987) and expanded consciousness (Barnum 1989). Agan provides an informative exploration of the concept of intuitive knowing which conveys perceptual awareness into the realms of psychic experience.

Whilst American commentators (Agan 1987 Barnum 1989, Rew 1989) are prepared to explore the spiritual and psychic aspect of nursing knowledge in relation to intuition, there is scant evidence that British writers are prepared to consider such approaches . Rather, those who mention intuition do so in terms

of legitimised approaches to professional knowledge such as Schon's (1987) reflection-in-action and Benner and Tanner's (1987) clinical judgements. It seems that words like psychic are still beyond the pale in the British literature, threatening as they do the scientific basis of nursing and professionalisation that has so long been striven for. Perhaps nursing in Britain is as yet too insecure in terms of its shaky scientific basis and emerging professionalisation to tolerate ambiguity in terms of its knowledge use. This is rather ironic considering the efforts being made to produce flexible reflective practitioners (UKCC 1986).

Some commentators recommend techniques for developing reflective practice abilities and clinical knowledge that also focus on developing intuitive abilities (Correnti 1992, Benner and Wrubel 1982). Expanded consciousness shares characteristics with intuition and appears to take definitions of intuition into the psychic and paranormal. Barnum's study for example presents intuition in terms of precognition and as 'tuning into messages'. Whilst Barnum's (1989) was the only study in the literature of this nature to date, it reinforced the conclusion that nursing commentators are becoming dissatisfied with narrow rational prescriptions for care - giving. A more eclectic holistic framework is now being sought (Agan 1987 Barnum 1989, Rew 1989). Several important points arise from this review. Intuition's new-found legitimacy is linked to recognition of women's knowledge, also artistry

is as integral to nursing knowledge as is the science of nursing. This has only being recognised as nursing commentators, primarily in America, develop the confidence to challenge the technical rationalist model so eagerly adopted by nursing in its flight towards professionalisation. To what extent intuition is used as a base for practice is not known, but there are indications that it might occur more frequently than has been recognised.

Teachers' practical knowledge

Practical knowledge and the development of expertise have been examined in several occupational groups. These include management (Isenberg 1984, Klemp and McClelland 1986) racetrack handicappers (Ceci and Liker 1986) and milkmen (Scriber 1986). Literature related to teachers' practical knowledge and expertise is particularly informative, providing useful insights which are directly applicable to nursing (Elbaz 1981, Eraut 1985, Clandinin 1985, Sternberg 1985, Huberman 1985, Shulman 1986, Shuell 1986, Berliner 1986, Sockett 1987, Lampert and Clark 1990, Floden and Klinzing 1990, Hyland 1993). Questions have been raised about the appropriateness of narrow and mechanistic approaches to developing teachers' knowledge and expertise (Hyland 1993). These queries also apply to the development of nursing knowledge. Such approaches

... assume[s] that what is most important about expertise can be distilled, and once distilled, can be acquired by others in such form to be useful in practice (Lampert and Clark 1990:21).

The assumption that expertise can be somehow imported into practice through an educational process does not acknowledge the importance of context in terms of knowledge use.

... teaching [like nursing] is a complex act requiring the moment by moment adjustments of plans to fit continually changing and uncertain conditions (Lampert and Clark 1990:21).

Recognition of the importance of context and uncertainty echoes the Dreyfus model of skills-acquisition drawn on by Benner (1984). Emphasis on context is also supported by others

A range of empirical studies ... have demonstrated that the knowledge ... involved in being an acknowledged expert are all context specific... (Hyland 1992:24).

Such emphasis reinforces an educational as opposed to a training approach to both teacher and nursing professional knowledge development. Questions need asking then, about the appropriateness of competency approaches for professional development. I return to this below. The way knowledge used in teaching is classified is confusing, as numerous categorisations are presented. Lampert and Clark for example offer three types, contextual, interactive, and speculative. They also suggest that it is necessary to

... raise questions about where expert teachers get that knowledge, and how and where they get it might be related to their capacity to use it (Lampert and Clark 1990:21).

Questioning of teachers' practical knowledge indicates a new awareness of influences upon knowledge development. For Lampert and Clark (1990) developing expertise requires consideration not only of context but also of the conditions under which

teachers use knowledge. Once again much wider issues than subject knowledge are considered. These further substantiate earlier indications that a multiplicity of factors require consideration when examining practical knowledge. Others also raise questions about teachers' practical knowledge:

Where do teachers' explanations come from ? How do teachers decide what to teach, how to represent it, how to question students about it and how to deal with problems of misunderstanding ? (Shulman 1986:8)

Shulman (1986:10) presents three forms of teachers' knowledge : propositional knowledge, case knowledge and strategic knowledge. There are no apparent links with Lampert and Clark's (1990:21) classification of contextual, interactive and speculative teachers' knowledge. It is not surprising that educationalists debating the same area should present different perspectives. This seems to reflect a lack of clarity in the literature in terms of what can justifiably be called 'teaching knowledge'; and of what forms that knowledge takes. Further refining his description, Shulman differentiates between three types of propositional knowledge:

... there are fundamentally three types of propositional knowledge in teaching corresponding to three major sources of knowledge about teaching: disciplined empirical or philosophical inquiry, practical experience, and moral or ethical reasoning. I will refer to these three types of propositions as principles, maxims and norms (Shulman 1986:11).

These forms of propositional knowledge link with Carper's (1978) fundamental patterns of knowing, which are, empirics, aesthetics or the art of nursing, personal knowledge and the

ethical or moral component of knowledge in nursing. Whilst Shulman (1986) acknowledges both the moral and the empirical aspects of knowledge he does not explicitly identify the importance of the art of teaching or of the influence of personal knowledge in teaching. It is likely however that his use of pedagogical parables corresponds to development of the artistry of teaching practice.

What distinguishes mere craft from profession is the indeterminacy of rules when applied to particular cases. The professional holds knowledge, not only of how - the capacity of skilled performance, but of what and why ... and [is] capable of explaining why something is done (Shulman 1986:13).

This differentiation of professional expertise is significant, specifying as it does the difference between mere skilled performance and informed practice. It underpins the importance of a sound educational base in making informed decisions about practice in indeterminate situations. Recognition of the complexity of teachers' knowledge is also evident in Eraut's (1985) work on knowledge creation and use in professional contexts. He distinguishes between different types of professional knowledge and concludes that

... knowledge is likely to be labelled and packaged according to traditional assumptions about where and how it will be acquired (Eraut 1985:119).

However, Eraut argues that by abandoning such assumptions it is possible to view professional knowledge from a different and fresh perspective. Highlighting discrepancies between curriculum knowledge and the knowledge used by leading

practitioners, Eraut's critique of traditional approaches to professional education reconceptualises the issues related to developing professional knowledge. He broadens the debate to factors other than the curriculum, and calls for wider considerations regarding continuing education.

Continuing education needs to be viewed in the broad sense of all kinds of further learning beyond initial qualification, not in the narrow sense of attending courses. Thus it includes informal learning and on-the-job learning (Eraut 1985:131).

In addition he presents the need for a broader conception of what constitutes professional knowledge. Essentially he is calling for an opening up of professional knowledge, and emphasises the importance of making the practical situation central to knowledge development. In similar vein Elbaz (1981) also expresses dissatisfaction with traditional perceptions about teachers' knowledge.

The prevailing view of the teacher as a passive transmitter of knowledge does not accord with my own experience, in teaching and in work with teachers, of what the teaching act requires (Elbaz 1981:43).

Elbaz identifies the complexity of practice and challenges the view that teachers do not have a body of knowledge:

The view of teachers as lacking in knowledge is, I believe, mistaken and misleading ...
(Elbaz 1981:45)

He categorises teachers' knowledge into subject matter and knowledge of curriculum, also practical knowledge and personal knowledge, and finally he suggests that an interaction aspect is significant . Elbaz (1981) identifies five orientations of

practical knowledge, namely situational, theoretical, personal, social and experiential. Like Shulman (1990) he further proposes three terms, which are rules of practice, practical principle, and image, and he suggests that these 'embody the teacher's purposes in varying ways'.

Socket (1987) emphasises the importance of both context and moral knowledge. Clandinin (1985) provides an interesting and informative presentation of the importance of images in terms of teachers' personal, practical knowledge. This work emphasises the influence of the personal in terms of practical knowledge, an area that has as yet received scant attention in the nursing literature.

These differing views suggest that examination of teachers' practical knowledge is still in its infancy. There is evidence of considerable speculation in this area, with numerous interpretations being presented. Fundamental issues are raised, which can be described as a questioning of assumptions to do with knowledge use and development.

There is considerably more activity in terms of categorising knowledge in teaching (Elbaz 1981, Shulman 1986, Eraut 1985, Lampert and Clark 1990) than in the nursing literature (Benner 1984, Tanner 1987). Teachers' and nursings' practical knowledge share common areas of meanings which are presented in different ways (Benner 1984, Elbaz 1981, Eraut 1985, Shulman

1986:10, Lampert and Clark 1990:21). This is particularly evident in the use of cases in the teaching literature (Eraut 1985) and critical incidents in the nursing literature (Benner 1984). Other links exist such as those presented by Shulman (1986) who acknowledges both the moral and the empirical aspects of knowledge. These link with two of Carper's (1978:14) patterns of knowing. Table 2 (overleaf) provides a classification of knowledge related to practice in both nursing and teaching.

There is increasing recognition that such knowledge is not definitive and fixed. Rather there is a growing appreciation that teachers' practical knowledge is complex, going far beyond simply imparting subject-matter knowledge. This also applies to nursing practical knowledge. The educational preparation of trainee teachers and nurses therefore, needs to share an additional curriculum of imparting desirable values and beliefs into students. There is scant literature available to identify the influence that values have on practical knowledge use and development. Rather, current methods in both teaching and nursing favour competency approaches which are essentially reductionist in nature and inappropriate for developing a professional ethos towards practice.

TABLE 2. CLASSIFICATIONS OF KNOWLEDGE RELATED TO PRACTICE (NURSING AND TEACHING)

CARPER 1978	<p>Empirics Aesthetics Personal knowledge Ethical knowledge</p>
BENNER 1984	<p>Common meanings Assumptions Expectations and sets Paradigm cases, personal knowledge Maxims Unplanned practices</p>
HABERMAS, presented by Mezirow, 1981	<p>Technical Practical Emancipatory</p>
LAMPERT AND CLARK 1990	<p>Contextual, interactive, speculative</p>
SHULMAN 1986	<p>Propositional, case and strategic <i>He further defines propositional knowledge as:</i> Disciplined empirical or philosophical enquiry Practical experience Moral or ethical reasoning <i>These are presented as:</i> Principles, maxims and norms</p>
ELBAS 1981	<p>Subject matter, knowledge of curriculum, practical knowledge, personal knowledge interactive knowledge</p> <p><i>He Further defines five orientations of practical knowledge:</i></p> <ol style="list-style-type: none"> 1. Situational 2. Theoretical 3. Personal 4. Social 5. Experiential <p><i>He proposes these terms:</i> Rules of practice Practical principle Image</p>

Competences, accreditation and practical nursing knowledge

Accreditation of prior experiential learning (APEL) and of prior learning (APL) are relatively new concepts in nursing, with only a few notable commentators in the last five years. McManus (1990) produced an advisory document for the ENB (1990) whilst Nyatanga and Fox's study (1991a) provides guidance about good APEL practices.

They have written on APEL separately (Nyatanga 1989) and with others (Fox et al 1992). Others are now contributing to this growing body of literature (Rowbotham 1991, Glen and Hight 1992, Crook and Maran 1993, Day 1991, Barnes 1992, MacAlister 1993, Howard 1993). Much of the literature is essentially descriptive and pragmatic in nature (Simosko 1985, 1991), mainly originating from the Further Education Unit (Mortimore 1984, FEU 1987), Council for National Academic Awards (CNAA) and Learning from Experience Trust. Much of it is the work of Evans (1984, 1987, 1988). The need for a rigorous approach to APEL assessment is highlighted by Barnes (1992). Rowbotham sees accreditation processes as both rigorous and developmental.

The ability to use previously learned material and to translate that into different circumstances must show a grasp of understanding far removed from the mechanistic approach to nurse education of previous years. This is the so called 'transfer of learning' advocated by Butler and Elliot (1985) and would seem to bear no relationship to a lowering of standards, indeed it should enhance them (Rowbotham 1991:470).

However, such approaches to professional development are challenged on several accounts. Concerns are expressed about the notion of a competence approach to assessment. These are presented in relation to nursing practice (Cernik and Evans 1992) and more generally in terms of professional practice (Hyland 1993). Such views echo earlier concerns with behavioural approaches to education (Pinar 1986).

The Unit for the Development of Adult Education (UDACE) undertook a project to investigate ways of describing clearly what the outcomes of higher education are. Outcomes are used rather than the term competences, because of concerns expressed by the academic community.

There are two major concerns in the academic world about ... competence. The first is a fear of vocationalism that important dimensions of higher education which relates to the development of the person, to the acquisition and transmission of cultural and social values, may be lost in the pursuit of short term work-related value systems. The second is a fear of reductionism that the analytical techniques which break learning down into small pieces inevitably lead to the neglect of those qualities which we understand as a subject, profession or a discipline (UDACE document 1991:6)

Emphasis on objectives and rule-governed behaviour is perceived as producing a social type, who becomes developmentally arrested with a consequent numbing to

... ethical, aesthetic and political considerations as these are forgotten in this consuming effort to achieve his objectives (Pinar 1986:18)

In similar vein Hyland is critical of educational reforms which aim to link teacher education with competence based education (CBE).

Extreme caution needs to be exercised here, however, for the experiments with CBE in the post-school sector have been less than inspiring and, as Betts (1992) observed in a recent critique of the proposed reforms in teacher education, there is 'a genuine fear that the current fashion for defining competence as the application of skills and underpinning knowledge is leading to a narrowing of the professional role, if not actually deskilling it' (Betts, 1992 p8.)(Hyland 1993:130)

He raises further concerns and reservations in relation to competence-based education and the more qualitative and reflective nature of the teacher's role.

Programmes based on the functional analysis of work roles are likely to produce teachers who are 'competent' yet ill-equipped for further professional development, uncritical of educational change and largely ignorant of the wider cultural, social and political context in which the role of teachers needs to be located. Such teachers will be neither experts nor reflective practitioners ... and will be 'professionals' in name only (Hyland 1993:130).

These reservations need careful consideration as they are likely to be directly applicable to nursing also. There is scant evidence however, that the consequences of competence approaches to nursing education have been reflected on to this degree, although some concerns are raised.

To overestimate the power of competency-based testing will cause an undesirable reductionism in nursing. That is, the definition of practice will be reduced to the capabilities of the measuring tools. Practice in any helping profession is more complex than current test methodology can evaluate (Benner 1982:309).

Other concerns are expressed in a more tentative style, focussing on the practicalities rather than the deeper professional issues in relation to political, ethical and emancipatory considerations.

The attempt to measure competency is fraught with difficulties. Nurse educationalists have found it useful to make use of product objectives ... but such approaches tend to stifle initiative and imply that terminal objectives are satisfactory (Cernik and Evans 1992:37).

Voices questioning competency approaches are in the minority (Benner 1982, Cernik and Evans 1992). Many commentators adopt a more positive stance (Rowbotham 1991, Nyatanga and Fox 1991a, 1991b, Fox et al 1992). In particular both the Framework and Higher Award document (ENB 1991b) and PREPP (UKCC 1989) recommendations extol the virtues of accreditation approaches as a means of claiming credits for knowledge gained through nursing practice. There is scant evidence of concerns related to this approach. It is as if, in its rush to take on board the latest initiative, nursing has neglected to consider the total implications. As the nursing workforce is largely trained at certificate level at the moment, it may be that educational opportunism is holding sway, in the belief that accreditation issues can go hand in glove with developing reflective practitioners.

A variety of methods have been presented by nursing commentators (Benner 1984, Smith and Russell 1991, Farrell and Bramadat 1990, Corcoran et al 1988, Ross et al 1988), for

identifying knowledge from practice. Although these have not been presented in relation to accreditation, they may also be useful for this purpose. A useful starting point for identifying knowledge found in practice is through the use of Flanagan's (1954) critical incident technique. Critical incident approach is used in the ENB Professional Portfolio (1991a) and several nursing commentators have identified this technique as a useful tool for developing knowledge from practice (Benner 1984, Smith and Russell 1991).

Numerous techniques can be used and include paradigm case analysis (Farrell and Bramadat 1990) and 'thinking aloud' (Corcoran et al 1988). Another means of assessing clinical competence presented by Ross et.al. (1988) is the use of the objective structured clinical examination (OSCE). This was used to measure the psychomotor learning outcomes of a programme to assist students to conduct a nursing neurological examination. It was found that 'the OSCE appears to be a promising method for the evaluation of clinical skills performance'(Ross et.al.1988:55). The OSCE might be a useful tool for post-registration also, and enable the articulation of the knowledge found in practice.

APEL is inextricably linked to wider sources of knowledge in nursing (Burnard 1987, 1989a, 1989b, Meerabeau 1992) and the gap between theory and practice (Clarke 1986). Also the debate on nursing as an art or a science impinges on this arena

(Carper 1978). Indeed APEL is linked to the wider arena of the creation and use of knowledge in professional contexts (Eraut 1985, Cervero 1988). Certainly the identification of nursing knowledge is complex and not easily accessible to assessment. What is far from clear is how the complexity of nursing knowledge can be assessed through the use of competences.

Conclusion

Several issues of importance arise from this review, not least of which is the complexity of the topic. Perceptions about practical knowledge are influenced by numerous factors. Rational thought and positivism have been pervasive in relation to the way knowledge has been perceived. However the assumptions inherent in such approaches have been questioned by educational philosophers, and new appreciations of the role of practice in relation to professional knowledge use have been defined (Dewey 1933 cited by Boud et al 1985, Kolb et al 1971, Schon 1983, 1987). This type of recognition is still rather new to nursing but it is becoming increasingly prominent (Benner 1984).

Two government initiatives have stimulated the need for practical knowledge to be considered at this time. First reviews of nursing skill-mix mean that nursing has to specify what is distinctive about professional practice. Such evidence needs to be in a form acceptable to a government heavily

influenced by quantitative approaches to evaluation. Secondly, nationally there has been a drive to accredit a workforce largely under-represented in European examination league tables. This has led to knowledge being viewed from a pragmatic and largely reductionist perspective. Such methods do not sit easily with considerations of professional practice however, and even less so with academic accreditation. There is little recognition of this point, most commentators preferring instead to take advantage of the educational opportunism that such approaches offer (Nyatanga and Fox 1991a, 1991b).

Reflection is at the heart of the debate about gaining knowledge through experience, yet this complicates matters further. Reflection has many meanings ranging from pondering on experience to perspective transformation. Its value in terms of developing professional practice depends on the type and level of reflection employed. There is considerable evidence that professional nursing bodies (ENB 1991b, UKCC 1989) have attempted to link mechanistic and reductionist aspects of reflection such as identifying knowledge from practice in an effort to accredit it, with professional development without fully considering the complexity of factors involved. To treat reflection as a behavioural tool is to ignore its true value as a stage in the development of professional practice.

The importance of research methodology (Meerabeau 1992) in terms of examining practical knowledge is suggested with a

number of writers advising the use of critical incidents (Smith and Russell 1991, Benner 1984 and Brykczynski 1989) and illuminative approaches to evaluation. These reports have informed and guided the methodology of this study.

The entangled nature of practical knowledge is also evident in that values and beliefs also need consideration (Raya 1990). In addition links between artistry and nursing knowledge need further clarification (Schon 1987). This also suggests that knowledge cannot be examined in isolation. Recognition of the importance of role models (Davis et al 1990) in developing nursing expertise is also required.

Habermas's critical viewpoint appears particularly relevant to considerations of nursing practice now that the apprenticeship model is being replaced by an educational one. The critical viewpoint presented by Mezirow (1981) challenges assumptions, and questions the influence of ideologies in a given situation. Whilst Benner (1984) emphasises the importance of context, the critical viewpoint goes beyond this, providing a focus for exploring the tensions and power within a given context (Cervero 1988). Such considerations provide an overt but none-the-less real political dimension to deliberations about nursing practical knowledge and indicate that methodology needs to be responsive to the complexity of factors which influence expert practical nursing knowledge.

Chapter 3

The research process and related issues

The research process and related issues.

As far as I am aware, this study is unique in a number of respects, notably, in the methodology used to select expert nurses, and also in its linkage of practical nursing knowledge with accreditation issues. The methodology comprises the collection of both quantitative and qualitative data, the latter forming the major contribution to the study. The use of critical incidents, interviews, observation visits and workshops provide an opportunity for the 'real world' of participants to be examined. The aim of such approaches is to generate descriptions of the knowledge used by expert nurses in the practice setting. A number of questions arise from the literature review:

- a) Is the knowledge used by expert nurses creditable ?
- b) What are the contextual influences on knowledge use and development and do these affect the way knowledge is used and developed?
- d) How influential are the philosophies and values held by experts on knowledge usage and development?
- e) Are role models significant in the shaping of expertise?

These questions were influential in shaping the content of the workshops and interviews.

I have chosen an approach which is based on a combined ethnographic and phenomenological methodology. Much of the literature emphasis the benefits of paradigm cases and critical incidents for identifying and learning from practice (Benner and Wrubel 1982). Such approaches have developed from phenomenological philosophy.

Phenomenology has its intellectual roots in philosophy. It was conceived by the German philosopher, Husserl, at the beginning of the twentieth century to investigate consciousness as experienced by the subject (Baker et al 1992 : 1356).

Ethnographic methods in contrast have a sociological basis having developed from anthropology where field work is used to enable the researcher to develop an appreciation of the culture of the group being studied. Such methods are also useful for examining the practical arena. Some commentators are critical of eclectic qualitative approaches, arguing that

frequently nurses who combine qualitative approaches to develop a more suitable method describe their assumptions and procedures inadequately (Baker et al 1992:13590).

Whilst accepting this reservation, I recognise that eclectic approaches have strengths that other methods do not. Schon (1987) differentiates between espoused theories and theories in use. By combining methodologies it is possible to ensure that both are investigated.

This is important in relation to this study as what experts say they do, and what they actually do in practice, may be very different matters. The benefits of eclectic research approaches

have been demonstrated. Both Benner (1984), and Titchen and McIntyre (1993), provide examples of the successful co-existence of methodological approaches by combining phenomenology and grounded theory. I also chose phenomenological method because it reinforces the notion that reality is a social construct. Such a view needs to be central to considerations of the dynamic nature of practical knowledge

This world of everyday life is not only taken for granted by the ordinary members of society in the subjectively meaningful conduct of their lives. It is a world that originates in their thoughts and actions, and is maintained as real by these (Berger and Luckman 1967:19-20 cited by Munhall and Oiler 1986: 113-114).

To 'enter into' such a world it is necessary to view the world of the subjects from their perspectives and not to impose rigid frameworks. This has implications for the research framework.

Theoretical research frameworks

Whilst some of the data collection in this study is deductive, much of it is inductive, deriving data directly from the practice situation and experts themselves. Such inductive approaches do not fit easily into a theoretical framework. Benner's (1984) work was influential as it was the first to establish the value of examining nursing practice through the use of a Heideggerian phenomenology methodology. The philosophical influence of Schon (1983) is also significant. His recognition that problems of practice are ill defined, and

do not lend themselves to easy examination through technical problem solving, has also shaped the methodology of this study. Important considerations have been raised in support of inductive approaches.

It would be unreasonable to assert that research without any theoretical underpinning is useless. In nursing research, there are still many 'facts' that need to be accumulated, and descriptive enquiries may well form the basis for subsequent theoretical developments ... It is not always easy to place one's research problems into a theoretical context, particularly because nursing theory per se is in its embryonic stages (Polit and Hungler 1987:84).

Modified grounded theory forms the theoretical framework for the data analysis. The constant comparative method was used. This consists of four stages, namely (i) comparing incidents applicable to each category, that is the researcher compares and contrasts emerging data with previously generated categories for classification purposes (ii) integrating categories and their properties. (iii) delimiting the theory, by

examining categories and their properties for underlying uniformities that may reduce the number of categories (Polit and Hungler 1987:362).

(iv) Is the final stage of writing the theory.

Research Tools

In an effort to untangle the complexity of issues that relate to examining practical nursing knowledge, a variety of tools was used. These included both survey methods and observation. In the first instance a questionnaire was devised for selecting experts and for identifying if the experts' practice reflected the key characteristics of the Higher Award (ENB 1991a) and the PREPP statement of advanced practice (UKCC 1989). Once the experts had been nominated a process of triangulation was used for data collection. Workshops interviews, observation visits and critical incidents were all employed to collect data in two Authorities. A total of 165 hours was spent on observation visits and workshops. In addition 80 hours of tape recordings were transcribed.

(i) Questionnaires

Five questionnaires were used to collect data:

1. For nurses, managers and tutors to select expert nurses and to rate them against the Higher Award characteristics and the PREPP statement of advanced practice
2. For expert nurses to rate themselves against the Higher Award characteristics (ENB 1991a) and Benner's competencies
3. To collect background information from the experts.
4. A learning style inventory.
5. A document for recording critical incidents. These are now explained in more detail.

Questionnaire to select expert nurses from ward or unit areas.

This questionnaire (appendix i) requested respondents to name an expert from their ward or unit and to state why they felt the person named was an expert. Respondents were also asked to provide their own definition of nursing expertise. As expertise is linked in the literature to both the Higher Award (ENB 1991b) and the PREPP statement of advanced practice (UKCC 1989) respondents were asked to identify through the use of a rating scale the extent to which they felt that the expert they had named demonstrated these characteristics.

Pilot Study of questionnaire to name an expert

A pilot study of the questionnaire to name an expert was carried out in February 1992 with a convenience sample of 25 nurses. Comments were received and modifications made. The questionnaires were then piloted with a second convenience sample of 15 nurses, in March 1992 and no further amendments were required (appendix ii). However, this questionnaire was amended for group B (see p.71, and questionnaire appendix iii).

Questionnaire to collect a sample of experts (For specialist nurses)

This questionnaire (appendix iv) asked respondents to nominate expert nurses from amongst their peer specialist nurses in the

district they worked for. The remainder of the questionnaire was the same as the questionnaire in appendix ii.

Questionnaire to identify if the experts felt their practice reflected the Higher Award and Benner's competencies

Expert nurses were requested (appendix v) to state if their practice reflected the Higher Award key characteristics (ENB 1991) and Benner's (1984) competencies.

Questionnaire to obtain relevant information about the expert

The expert nurses were requested to complete questions about the following (appendix vi) :

The number of years they had been nursing, their past nursing experience, academic qualifications, and present areas of responsibility and any major initiatives they had been involved in connected with patient care. They were asked where they felt their expertise came from and why they felt their expertise developed. Another question asked 'was their expertise mainly theory based or practice based' and they were requested to name the factors which had influenced or hindered its development. Questions were also included relating to role models such as when they first perceived expert practice, and what was expert about this practice. Some questions requested experts to describe competences their role models demonstrated

and to name key factors they felt had influenced their practice. Finally they were asked to describe the advice they would give when trying to develop expertise in others.

(ii) Diaries

The purpose of the diaries was to act as a memory aid for the expert nurses. They were asked to record key words which would prompt their thoughts regarding any critical incidents that occurred between workshops, and to record key terms in relation to examples of reflection-in-action or reflection-on-action that had occurred.

(iii) Learning Style inventory

The experts were requested to complete Kolb's learning style inventory (appendix vii).

(iv) Expert-nurses workshops

A focussed group interview approach was used to conduct the workshops.

In a focus group interview, a group of usually ten to 20 individuals is assembled for a group discussion, led by an interviewer who is guided by a written series of questions. The advantage of a group format is that it is efficient, the respondent obtains the viewpoint of many individuals in a short space of time (Polit and Hungler 1987:230).

The areas addressed in the workshops were determined by literature findings and empirical evidence (appendix viii). They focussed on the knowledge that the experts felt they used in their practice, the values and philosophies that the experts held, and the methods that the experts felt were helpful in developing expertise in others. A full description of the workshops can be found in appendix ix.

(v) Interviews

A variation of the focussed group interviews, (Polit and Hungler 1987) was used in the interviews with the expert nurses and the workshop guidelines were used to guide the interviews (appendix viii). Using focussed interviews I was able to address a number of issues, and the interviews were 'much more like a conversation' (Couchman and Dawson 1990:115). This provided the opportunity for topics to be discussed as and when they arose

... and in the respondent's own words, rather than in the order and format prescribed on a questionnaire. A much wider range of data can be collected in this way, with much more depth (Couchman and Dawson 1990: 115).

Through this approach it is also possible for respondents to raise issues that might not form part of the original interview guidelines and consequently

data collected like this are said to be much 'richer' (Couchman and Dawson 1990:115).

(vi) Critical Incident Technique

Benner (1984) drawing on Flanagan's work (1954) demonstrated the advantage of this method in identifying the difference between novice and expert nurses. This technique was used to identify situations where what the expert did really made a difference to a situation (appendix x). Flanagan (1954) developed this technique and used it with pilots in the Second World War. In this study critical incidents presented by expert nurses will be analysed to determine the knowledge they use.

(vii) Participant observation

Field research aims

... to understand the behaviours and experiences of people as they occur in naturalistic settings ... with a minimum of structure and researcher imposed interference (Polit and Hungler 1987:270),

The advantage of unstructured methods is that they provide the opportunity for deeper and richer understanding of human behaviour and social situations than is possible with more rigid, rigorous procedures (Polit and Hungler 1987). It must be noted when using observation as a methodology that the researcher is essentially using her/his self as a research tool. In addition the social role the observer plays is important because 'the social position of the observer determines what she or he is likely to see' (Polit and Hungler 1987:270).

The observer must overcome at least two major hurdles in assuming a satisfactory role vis-a-vis subject-informants. The first is to gain entree into the social group under investigation; the second is to establish rapport and develop trust within the social group (Polit and Hungler 1987:270).

If these hurdles are not overcome and without the trust of the group, the researcher will

typically be restricted to what Leininger (1985) refers to as 'front stage' knowledge, that is information that is distorted by the group's protective facades. The goal of the participant observer is to 'get back stage' to learn about the true realities of the group's experience and behaviours (Polit and Hungler 1987:270).

The observation visits in this study were guided by the same format as the workshops; that is identification of the knowledge, skills and attitudes that the expert nurses demonstrated and of the factors which influence knowledge use and development.

Field notes and taped clarification techniques were useful adjuncts to the observation process. I acknowledge that critics of observational method point out a number of shortcomings .

Observer bias and observer influence are prominent difficulties. Not only is there concern that the observer will lose objectivity in recording actual observations, there is also the question that the observer will inappropriately sample events and situations to be observed. Once the researcher begins to participate in a group's activities, the possibility of emotional involvement becomes a salient issue (Polit and Hungler 1987:273).

The measures I have taken to address such shortcomings and to ensure rigour are addressed in chapter four.

Observational methods also have advantages, for as well as ensuring the collection of data that may not be obtained in any other way, they enable espoused theories to be distinguished from theories in use (Schon 1987). I felt that by using an eclectic array of research tools, that is questionnaires, diaries, workshops, focussed group interviews, critical incidents and observation visits, I would enable both depth and breadth to be evident in the data collected, and thus provide a sound basis to the study.

There are a number of specific differences, between this study and others in the field (Benner 1984, Butterworth et al 1993). Specifically, this is the first to examine the influence of nursing values and philosophies in relation to knowledge use and development by expert nurses. It is also the first to consider models of contextual influences on the knowledge expert nurses develop. Benner (1984) recognises the context-specific nature of expert practice . This thesis goes beyond that and further develops this by exploring the influences that context has on knowledge use and development.

This study is also original in that it is the first to examine accreditation issues in relation to expert practice. There are as yet no studies that have investigated the efficacy of competency approaches for evaluating expert nursing practice. Finally, in terms of the methodology used for selecting a representative sample of experts, this study is also unique. It

goes beyond nomination by one possibly biased source. Such bias was evident in a recent study by Butterworth et al (1993). They selected a group of experts to participate in a study of optimum practice. This selection is likely to be suspect as it is based on one source only, that is management.

The use of several informants [also] helps to verify information. In a study of nursing, for example, the view of the supervisor, the graduate nurse, the patient, the physician and the ancillary workers, may all be needed to understand the complex culture of a hospital ward (Field and Morse 1987:57).

A process of data triangulation (Polit and Hungler 1987) is therefore used in this study, whereby three separate groups (managers, educationalists with a link responsibility to a clinical area, and nurses working within a clinical area) are asked to select an expert. A total of 913 respondents were consulted. Two hundred and fifty seven nominations were returned. Through cross-referencing 40 experts were named, 35 of whom participated in the study.

Sampling

Recognising that sampling procedures in qualitative studies needs quite different considerations from quantitative approaches (Patton 1987), I decided to use purposeful and deviant samples.

The logic of purposeful sampling in qualitative methods is quite different from the logic of probabilistic sampling in statistics ... The power of purposeful sampling lies in selecting information-rich cases for study in depth.

Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the evaluation, thus the term 'purposeful sampling' (Patton 1987:51).

In terms of this study, information-rich cases relate to nurses in Health Authority A who through a process of triangulation were nominated as experts and thus likely to be demonstrating knowledge in their practice. Twenty one experts were obtained from Authority A in this manner. Purposeful sampling also applies to Authority B. In addition however, this sample can be classified as deviant in so much as it is unlikely to be typical of all other authorities. I decided to use Authority B because it has a reputation in nursing circles for the excellence of its nursing practice. As the purpose of this study is to identify knowledge found in expert nursing practice I felt that Authority B would provide a rich source of such knowledge to the study.

Extreme or deviant case sampling. This approach focuses on cases that are rich in information because they are unusual or special in some way...The logic of extreme case sampling is that lessons may be learned about unusual conditions or extreme outcomes which are relevant to improving more typical programs (Patton 1987:52).

The 35 experts ranged in age from their mid-twenties to their mid-fifties. Their number of years nursing ranged from 8 to 38 years. Their professional and educational background varied enormously from little or no post-basic education to a respondent who was undertaking doctoral studies. There were 33 female and 2 male experts in the group. Some were nationally recognised in their field, having participated in conferences

at national and international level. Several had publications in nursing journals. One was awarded an MBE for her work in nursing. Another had recently returned from a scholarship abroad. The experts worked in a variety of different positions. Some were specialist nurses whilst others were team leaders or ward sisters /managers. Others were lecturer practitioners or combined practitioner managers, and some were clinical nurse specialists. All were involved in the provision of hands-on care although the amount of time allocated to this varied considerably between individuals. The experts were nominated from a wide variety of general and specialist areas including medical and surgical areas, a children's ward, high technology areas and community.

Situation of the study

The study was carried out in two separate Health Authorities. Authority A is situated in an industrial area of central England whilst Authority B is situated in a university town of Southern England. The study was carried out in two stages. Experts were selected and data collected from authority A, then this process was repeated with authority B. Authority A was chosen because it was convenient for investigation and was known to me through my teaching role. Authority B was chosen because it is an area renowned for its nursing expertise, and I felt that in any exploration of nursing knowledge it should be included .

In the initial stages of this study a number of visits were made to individuals who were known authorities in the field. These were identified from the literature or through networking. The visits were informative and underpinned this study with the latest experiences of those addressing related issues. A number of conferences were also helpful in this regard.

Stage 1 Authority A

Permission was obtained from the senior nurse advisor Authority A to proceed with the study. Initially 423 questionnaires requesting nurses to name an expert(s) from their clinical area, were sent out to community and ward-based general nurses (all nurses who had link tutors to their areas) in March 1992. Of these 149 questionnaires were returned (35.22% response rate). Morale was low at this time due to major reorganisation within the NHS and this may account for the poor response rate.

I felt that the response rate would have been worse if I had not been personally known (through my role as a tutor) to many of the nurses canvassed. There were 31 nominations by management and 25 educational nominations. All managers and educationalists were interviewed to ensure maximum nominations, and questionnaires were completed during the interviews. In an effort to improve the response rate I sent out reminders. I also called in person to each area on three occasions to

collect the completed questionnaires and to encourage those who had not completed to do so.

Twenty questionnaires did not qualify for inclusion. Eleven of these specified that there was not an expert in their area. Five did not differentiate between staff and made comments such as 'all of the staff are experts'. Three questionnaires did not have experts' names on them and one questionnaire said that 'all G grade Sisters were experts'.

Dissatisfaction was expressed from one area canvassed about a perceived ethical problem in rating an expert nurse, who was nearly always also the most senior nurse, against the ENB (1991) Key Characteristics and the UKCC (1989) PREPP statement of advanced practice. These respondents felt they were in some sense being disloyal if they commented on their manager in this way. This problem had not arisen during either of the pilot studies. On consideration there did not appear to be an ethical dilemma but as it had caused some consternation, I felt that these sections would be omitted when submitted to authority B.

In total there were 31 nominations by management and 25 educational nominations and 93 nominations by nurses. Through triangulation 19 expert nurses were named, fourteen of whom participated in the study. In addition 12 specialist nurses who were not ward based were (i) asked to name an expert from amongst their peers and (ii) as they were the educational

link person for their speciality to assume the tutorial nominating role also, and nominate an expert. The manager of the specialist nurses was also interviewed and in total 7 expert nurses were named by all three groups. The total number of experts participating in the next stage was 21.

Following nomination of the expert nurses, visits were made to the experts' managers to seek permission for the experts from their area to be given time to attend the study. This involved visiting individual managers on site, and provided an opportunity to further familiarise myself with the various clinical areas. I was already quite familiar with most of the areas visited as this authority has direct links with the college where I work.

At this time a great deal of reorganisation was occurring at ward level and the management structure was undergoing considerable change. This meant that permission had to be on occasions renegotiated as boundaries altered and new structures were created. Permission was received for all the expert nurses to attend the workshops.

Having obtained a sample of experts, and permission for them to participate in the study, I then organised the workshops and interviews. Four workshops (3 .5 hrs. each) were proposed with alternative dates being offered for each of them. Because of restraints on their time I felt it would have been unrealistic

to ask these nurses to attend for more than a half day session (3.5 hrs).

The aims of the workshops and interviews were to explore the knowledge expert nurses used in practice and to examine the factors that they felt had influenced the development of their expertise. The workshop format for Authority A is outlined in appendix (viii). The workshops took place between July and November 1992 and were carried out in a classroom of the college of nursing I work for. All the participants were familiar with the college and I knew all the respondents on a professional basis. These experts were prepared to carry out all the requests I made willingly and without questioning. Several of the experts in this group pronounced that 'that they had never thought of themselves as experts', whilst others acknowledged their own expertise in an open manner.

This group of experts participated in four three and a half hour workshop sessions. In all a series of eight workshops totalling 28 hours was held with experts from Authority A and in addition interviews on an individual basis were carried out with 2 of the participants and these lasted 1.5 hours each (total of 30 hours interviews and workshops). These experts attended the workshops without apparent difficulty. References were made at times to the experts 'being very busy' but at no stage did it appear that this was going to affect their attendance. One expert did withdraw at the very beginning and

no explanation was given as to her reason for withdrawal. Although this was disappointing it did not affect the study. I had informed the experts at the commencement of the workshops that they were free to withdraw at any stage without any questions being asked.

I became aware that in the main these experts were unfamiliar with reflecting on their practical knowledge, although they all felt that they used reflection without calling it that. They were able to identify large areas of knowledge that they held. Indeed they identified a plethora of knowledge that they felt they used in their practice. Much of this knowledge was general in nature and essentially 'how to do knowledge'. Examples included knowledge of how to influence management, of how of how to fight for facilities, of the ability to act as a change agent and liaison knowledge (appendix xi). Much of it appeared almost defensive in that the experts appeared to be presenting an 'ideal type' of their practice. Discrepancies were evident between the knowledge they said they used and the knowledge demonstrated in critical incidents. The examples provided demonstrated that nurses working in a speciality developed knowledge in greater depth related to that speciality than did nurses from less specialist areas in relation to their areas. The total span of knowledge was also extremely wide-ranging, as the experts came from different speciality areas.

An information session on academic levels was held with the expert nurses from Authority A using Bloom's (1956) taxonomy as a framework. Following this they were asked to identify academic levels in terms of the knowledge they had identified in previous sessions. Their perceptions were that they were using degree and diploma level knowledge frequently in their practice. The purpose of this exercise was to establish the level of knowledge that experts felt they were working at. However, it was questionable if the experts had a true appreciation of what diploma and degree level really meant, I felt nothing of value would be obtained by repeating this procedure with group B. The experts were confusing their effectiveness as professionals with academic levels. In fact no such direct linkage exists.

Discussion revealed that some of the expert nurses did indeed appear to have a wealth of knowledge related to their practice, but whether it was accreditable or not was not apparent at this stage.

Participant observation visits were carried out with each expert, either as three separate one hour visits, two ninety minute visits, or a single three hour visit. Field notes were kept in the form of reflective diaries of the observation visits and a tape recorder was used for recording comments, impressions, observation notes and personal feelings. A clarification process at the end of the observational visit

enabled me to ensure that the conclusions being drawn were consistent with the subjects' interpretation; it also provided an opportunity for field notes to be expanded and tape recorded.

Participant observation was used for these visits but participation in many of the areas was minimal and only initiated where a response to an obvious or stated request for assistance was apparent. The focus for the interviews was to explore the knowledge and beliefs that the expert nurse used during the period of observation.

Of particular interest, also, was observation for any consistencies or inconsistencies between the expert nurse's espoused theories and the theories that (s)he used in practice. Whilst these experts stated that they provided holistic individualised care, this did not prove to be the case. All experts had a minimum of 3 hours and a maximum of 5 hours observation. A total of 65 hours was spent observing experts from Authority A. The deciding factors as to the length of time spent in an area were a) the wishes of the expert nurse, b) the availability of the expert nurse c) the activities of the expert nurse when observed. In total 95 hours were spent interviewing and observing this group.

Stage 2 Authority B

Gaining access to the nurses in Authority B was an extremely time-consuming and involved process which took place over a nine month period. I made three visits to senior nurses in Authority B to explain about the study and to ask for permission to carry it out. I submitted a research proposal and the questionnaire that I intended to use to select experts to the nursing research committee for their approval.

Initially I had approached the senior nurse advisors at two of the hospitals in this Authority for permission to carry out the study. At this stage one of the hospitals approached declined to participate as they were already heavily committed to supporting research studies within that hospital. I continued to consult with the senior sisters of one of the other hospitals within the Authority and finally agreement was given in principle for the study to go ahead, but with a revised time schedule. Agreement was given for three two hour workshops plus a three hour observation visit per expert. This meant reworking the workshops, but as it was important to obtain experts from this authority, the compromise in time was justified. Because of organisational constraints only hospital-based nurses were included in this part of the study. This did not pose a major problem as for the purpose of analysis both groups of experts would be combined and treated as a single group.

A modified questionnaire for selecting experts was distributed to Authority B (appendix iii). The same process of triangulation was used as in Authority A. I distributed 490 questionnaires through a named person at the hospital and 96 were returned (a response rate of 19.59 %) . Reminder posters were sent out to the ward areas. I consulted with the senior sisters about the poor response rate. They felt that this particular hospital received a great number of questionnaires and that this might be producing a type of questionnaire fatigue. Other questionnaires had recently been in circulation also.

Because of the flattened hierarchy operational in Authority B there were differences in the way votes were cast compared to Authority A. Some respondents under this system were entitled to two votes. For example , a lecturer practitioner was in some instances not only the ward manager but also the educational-link person. However, in other instances (s)he did not combine both of these posts. If (s)he had responsibility for education and management then (s)he effectively had two votes. As this hospital was not known to me and the nursing organisation was also unfamiliar to me I spent a considerable amount of time communicating with my link coordinator, to ensure that the rigour of the methodology was maintained. As in group A specialist nurses often worked alone so the adapted methodology used for specialist nurses in group A was also used with group B. From the 96 returned questionnaires 15 experts were named

through a process of triangulation. Two of these were specialists. Of the 15 named 14 participated in the study.

Data collection took place over a three month period. Initially three separate workshops were planned of two hours each which the experts agreed to attend. However, this did not work out as planned. Only one expert attended the first workshop, four experts attended the second workshop but none attended the third workshop. Two further workshops were arranged eight days later but none of the expert nurses attended these. Apologies and messages about sickness were given for two of the experts who were expected to attend.

I was very disheartened at this stage as I was travelling over 180 miles daily only to find that the experts had not turned up. I decided that if I wished to interview the expert nurses in Authority B I had to do so on an individual basis and I needed to go to them, rather than asking them to come out of their clinical areas. Although this again meant modification to the methodology I felt confident that I would be able to address the same issues in an individual interview that had been covered in the workshops. In fact I had already done so with some of the experts in Authority A who were unable to attend the workshops. Subsequently over the next three months interviews were carried out with all experts from this group on an individual basis.

During this period I was resident for two separate periods of a week to ensure that the greatest possible flexibility was afforded the expert nurses in making time available for interviews and observation visits. The interviews in this group varied in length from 1.5 hours to 3.75 hours depending on the time the expert had available. In all a total of 25 hours was spent interviewing members of this group.

During stage one with experts from Authority A it was necessary to present issues to do with reflection in some depth but this was not the case with the majority of respondents in group B, since most were familiar with and used reflection in relation to their practice. Due to time constraints a number of sections were omitted [appendix xii]. However, this did not adversely affected the study, as the whole approach to nursing knowledge was very different in Authority B, and certain of the activities carried out with Authority A were not relevant with this group of experts. Differences started to emerge shortly after the workshops and interviews commenced. It was obvious from the responses of many of the expert nurses in this group that the study had up to this stage addressed nursing knowledge in a rather mechanistic and reductionist manner. Indeed, I now started to recognise an assumption within the research questions that nursing knowledge would emerge from the data in a linear definitive typology, which could be readily measurable and easily defined. This was now proving not to be the case.

As the data emerged from the experts in Authority B I realised that to follow such a mechanistic approach was to ignore the complexity and problematic nature of issues related to knowledge used by and developed by expert nurses in their practice. Some of this complexity was revealed in the first interview I carried out with an expert nurse from Authority B. She did not feel that there were any activities that she should do, rather than another nurse.

Part of the way we work is that we don't define particularly roles in terms of tasks or activities. On my ward and most of the wards on we practise primary nursing by that name or another but basically we are talking about the prospect of a more holistic and individual approach. I do for my patients what my patients need doing, that can encompass anything. If my patients with bowel surgery and bowel prep find themselves with intractable diarrhoea and the loo needs cleaning, then I do it. I would never ever expect not to, or expect to do things that other nurses wouldn't do, or not to do things that other nurses do, ever. We all do everything and I think that is very important in working as a team and in being able to stand up and say that you are a professional person who is caring for your case load of patients you have to be able and willing to do everything that they need doing.

This was rather disconcerting, as part of my methodology had been based on the assumption that expert nurses would do different tasks from other nurses. Whilst this was the case in Authority A it was not the case in Authority B. For many of the experts in Authority B primary nursing was the care delivery method employed and this meant that these nurses did everything for their patients as the need arose rather than separating tasks out according to a hierarchy. This caused me to question

the knowledge that had been presented to me so positivistically by experts from Authority A as typifying expert practice.

Another difference was that with one exception experts in Group B were more tentative about issues such as devising a criteria for expert practice than those in group A had been. Experts from Authority B were concerned to identify the complexities associated with expertise rather than devising a specific list. They presented expertise development much more as an active process for the neophyte expert, where all nurses accept responsibility for their own development as opposed to Group A where expertise had been presented as something that could be taught and imported into practice.

Indeed two educational models were in operation. In Authority A, expertise was presented as something that could be taught almost as if it was a matter of acquiring a number of skills and abilities. However, expertise in Authority B was linked to a developmental process, based on a reflective paradigm. Expertise was about self-development. Because of this difference, lists of knowledge were not collected and returned to experts in group B .

Participant observation visits to experts from Authority B varied from 2 hours to 3.5 hours In total 45 hours were spent observing this group. The same tools and procedures were used for these visits as had been used for Authority A. Many of the

expert nurses in this group appeared considerably more reflective and evaluatory than the expert nurses from Authority A. The observation visits indicated that both the philosophy of care, and the strong nursing focus held by these experts permeated considerations of their practice.

Whereas in group A many of the expert nurses had been unable to underpin their practice with theoretical frameworks or research, many of these experts appeared to be doing so as a matter of course. As a consequence they appeared to be questioning aspects of their practice in a different manner from group A. As the observation visits to experts in Authority B continued I observed that several of these nurses were trailblazers pushing the boundaries of nursing practice and knowledge forward. Visits to the ward areas in many cases also revealed a very different environment from those encountered in Authority A. The nurses in these areas appeared to support each other in a positive manner. Because primary nursing was operational these nurses planned, provided, and evaluated care, and they appeared to totally accept responsibility for this process. The espoused theories advocated by some of these experts were also evident in practice. Rather than one person 'being in charge' these experts accepted responsibility for care provision and thus these areas acted as a breeding ground for expertise development.

Analysis of the data

Field notes were written up during and immediately following observation visits and interviews. These notes contained impressions obtained during the visit and formed the first stage in analysis of the data. Data were recorded as soon as possible after collection. Examples are provided below.

Impressions-visit to expert GI nurse

Sister views herself as practical and non-academic, no post-basic development. Strong medical model of care. Knowledge development linked to this e.g. emergency knowledge, anatomy, instruments, procedures. Readily agreed to 'get on with' identifying knowledge. Did not challenge concept of competence linked to role. Did not argue that 'all nurses do the same'. Seemed unable/unwilling to talk about values or philosophy. Emphasis on time and lack of it. Respect for old way of doing things. Feels patient care not as good under present system e.g. preps not done properly, nurses saying 'not my patient'. Able to manage consultants egos. Emphasis on calm and control.

Types of knowledge

Knowledge of anatomy and physiology, particularly anatomy, knowledge of instrumentation, knowledge of health and safety, side effects of cidex, knowledge to manage a budget, Knowledge to develop a case of need for new unit, including statistical projections of skill mix and staffing requirements. Knowledge needed to cope with an emergency e.g. haemorrhage, cardiac arrest, respiratory arrest, emergency procedures. Knowledge of haematology 'occasionally you might have somebody whose clotting time comes back out of wack, and you would say [to the doctor] I think you ought to correct this before we go ahead and do the procedure'. Knowledge to manage an endoscopy list. Knowledge of how to manage patients. Knowledge of disease processes, Knowledge of disease processes hepatitis and HIV, knowledge of infection control, knowledge of

gastroenterology. Knowledge of surgery, knowledge of the complications of cholecystectomy, knowledge of gastrectomy operations, knowledge of ulcerative colitis and chrons disease. Knowledge of altered pathology of the gut.

Characteristics

Keeps calm when others are panicking e.g. calms registrar in incident of oesophageal varices. Can say no. Believes it is important to protect staff. Other areas seek advice, lectures on GI.

I typed up the tape-recording from this interview and simultaneously generated categories from the data. Sections of the transcript from this interview illustrate this process. Categories which emerged were numbered and listed.

Expert Nurse GI unit

I think what always strikes me most is that you feel at times that you don't give people enough time and something perhaps I would like to change, .(1)... I was extremely lucky in the way that I was trained here ... they set the example ... I am glad I worked with that person because she gave me a certain standard to work to. Role models were very important (5). It was a very traditional training it is nothing like the training today (2) ... It was very hierarchical you were the first year, the real junior. They were very good organisers and they knew everything that was going on on the ward. Certainly very different from today (2)(3) ... You find that you ring a ward for a nurse to come and collect a patient and the classic answer is 'its not my patient'... I would not have dreamt of saying that (2). I say to them that I don't care whose patient it is you are working on the ward and ... they are all your patients, surely ? (3) ... you also find that patients come down for endoscopies and they are not properly prepared (3), I can remember being threatened by certain sisters that if the patient was sent down and was not properly prepared that they would send you back to the ward.(2)
Fear is a wonderful thing in some ways it concentrates the mind (2)(4)... The sister was the person in charge, with team nursing you get the feeling that there is nobody really in charge.(2)(3)(4)(10).

:KEY:(1) Time (2) Appreciation of traditional (3) critical of nursing today (4) Appreciation of hierarchy (5) Importance of role models (10) control. In this excerpt the expert nurse describes how she would develop expertise in others.

I would start from the very basics this is an endoscope, this is how it works ... It takes about three months to train someone (9) ... as soon as possible I send them off to study days, to courses, to other units ... (9) it is down to time which is so precious here.(1)

KEY: (1) Time (9) expertise can be imported into practice. An example of how she dealt with an emergency situations was provided by this expert.

... There were two experienced nurses and an inexperienced endoscopist. I thought the situation was under control (10) ... I literally walked out of the endoscopy room for two minutes to get another Stenstaken tube to hear the registrar shouting Pat, Pat at the top of his voice. I went ... to find out what was the matter and he said 'I don't think I have got it in the right place'... I was reassuring him (10)(11 (5).It was tricky ... You consciously try to keep calm keep everybody as calm as possible (5)(10), slow it down, there is no panic, the patient is here, we are all here, we can deal with it... there is no problem (11).

(5) Importance of role models (10) Control (11) Rescuing doctors. The following section related to this experts perceptions of patient education

.... You say lose some weight, stop smoking and you will feel better, and they look at you as if you are mad (12) , but you try and sort of explain why ulcers develop and how to adjust their lifestyle and their diet. Certainly young men who smoke 20 a day and drink 8 - 10 pints a night are not destined to have a happy GI tract!! So as much as possible you try and advise patients on adjusting their life style to suit their conditions but it is flogging a dead horse much of the time (12).

KEY: (12) negative-nurse patient relationship. This expert nurse's relationship with doctors is further demonstrated in the following section

The trouble is here and certainly in theatre you seem to work with a lot of little egos that all have to be pampered to. (14) They are not easy I think sometimes it is a bit like watching a creche some days ... I go along with it up to a point , up to a point. (14) I have to show I am not prepared to put up with things at times (10). For example on a busy day some one will come down and say can I do another patient and I will say no. (15)(10) They might say 'it is only a quick one' but I would say no sorry but, I have X number of nurses on this morning we are flat out we are up to our eyes and it is not possible (1) (16)(17) ... I try to fight my corner ... for the nurses I try very very hard ... We have the same number of people [nurses] that we had two years ago, but you are expected to do more and more and more (1)(17). Somebody has got to be prepared to say sorry I just can not do it...(15).

KEY: (1) Time (10) control (14) doctor nurse relationship (15) prepared to say no (16) concern for staff (17) concern about resources.

Seventeen categories emerged from these excerpts. They substantiate the original impressions recorded in the field notes. These categories were also evaluated in terms of the observation visits and these confirmed the categories identified from the interview. These or similar categories were also demonstrated by other experts. For example an expert nurse from a medical ward had similar concerns about resources.

Interview with an expert nurse from a medical area

INTERVIEWER: What was in your mind as you were going around?

EXPERT NURSE : Mainly to make sure that they were safe really (2), that they had got adequate staffing levels and that the skill mix was OK (1), well I could see for myself (3) that the skill mix was adequate for each area they had got sufficient trained nurses to cope and they had got the number that they needed (1)(2).

INTERVIEWER: Do you work that out differently every day or do you do you tend to keep a number in your head ? ...

EXPERT NURSE : 5 total, 5 staff if we can see two trained nurses that's as much as we can expect on a shift you know, which is pretty diabolical (4), but this morning every where we have gone I have seen far more and really that has made me pleased, it is has made my day in fact today, because I have seen 4 and 1, ... So that has made my day today.

INTERVIEWER: Are they working with 2 sometimes ?

EXPERT NURSE :Yes.

INTERVIEWER: With patients this ill ?

EXPERT NURSE : Yes, yes, it is a very serious situation.(4)(2)(1)

KEY:- (1) Concern for resources (2) safety (3) control (4) powerlessness - inability to influence events.

There are similarities between the categories in that resources are a concern, but there are also differences in that this expert felt there was nothing that she could do to influence events, whereas the expert from the GI unit was prepared to say no to the medics if she felt the staff were under pressure.

Once the categories had been established I returned to the data to abstract associated social science and educational ideas from the data.

Schutz (1970) describes the social science constructs as constructs of the 'second degree, that is, constructs of the constructs made by the actors on the social scene, whose behaviour the social scientist has to observe and explain in accordance with the procedural rules of science' (Titchen 1993:34).

The second order constructs from the first example included the following :

Second order constructs interview with GI expert

Evidence of preference for old ideology / traditional norms. Hierarchical, autocratic management styles, decision maker, power with person in charge, limited autonomy for other nurses. Position, not knowledge, brings power. Role theory pedagogical approach to developing knowledge. Emphasis on physical aspects of care-medical model of care, no consideration of more holistic aspects of care. Patient seen in terms of his/her condition. Theory-practice gap continuing education seen as largely irrelevant. Training model lack of appreciation of importance of education in professionalisation of practice. Prepared to be assertive to defend staff.

This process added meat to the bones of the first order analysis. It enabled me to consider the implications of what was going on in the interview in a more meaningful way. Categories were then compared with the next transcript for similarities and differences. If similar it was classified under the same category, if different a new category was formed. In this manner 110 categories were identified from the data from experts in Authority A and 108 categories were identified from those in Authority B. These categories in turn formed distinct patterns. Certain categories emerged as distinctive to certain experts. Examples of categories distinctive to many of the experts from Authority A included

smoothing the way, coping, sense of powerlessness, conflict-management, presence, variable assertiveness. Examples of categories distinctive to experts from Authority B included ambition, passionate about nursing, prepared to challenge, supportive culture, espoused philosophy evident in action, political.

It was also now possible to see that certain categories crossed boundaries. Returning once again to the data it was evident that some categories applied to some experts but not to others and that the relationship of some of the experts to these categories was different. In fact a type of clustering of categories was apparent, for example the category named 'doctor-nurse relationships '. In the main this was presented negatively by those from Authority A whilst it was presented positively by most from Authority B (but not all). Those who were positive about the doctor-nurse relationship also were classified as being positive in terms of assertiveness. These experts also were categorised as having a positive developmental culture and were classified as demonstrating awareness. In contrast experts from Authority B were not so consistent. Some of these experts were positive in terms of assertiveness whilst others were classified as non-assertive. Gradually four distinct groups emerged from the data. I have named these Humanistic Existentialists, Traditionalists, Technologists, and Specialists. The names reflect the characteristics that these experts displayed.

Each time a distinctive category emerged in terms of a group, for example the category of 'extended role', it was compared with the other groups to establish similarities in the nature of the relationship of the experts in that group to the category. For example those in the Humanistic Existentialist group emphasised the importance of incorporating any role extension within a nursing focus, whilst those in the Technologist Group presented the knowledge used in extended role as well-established nursing knowledge used within an evaluation framework. Those in the Traditionalist group presented extended role less positively, presenting themselves as checking with the consultant and being within a supervision framework. Those in the Specialist group varied considerably in their response to extended role. Some were positive, some were concerned about the implications of their extended role, whilst others saw themselves as having limited authority in relation to extending their role. It was differences such as these that determined that the Specialist nurses themselves, although emerging as a group, were also further subdivided within that group into Technologists, Traditionalists and Humanistic Existentialists.

Whilst this analysis and synthesis was taking place a series of memos were made. These memos contained ideas, potential hypotheses, and pictorial model representations which acted as a testing ground for theory development, as it was being developed. For example key points were identified early; terms

included 'Kaleidoscopic' in relation to the types of knowledge being used. This acted as a useful focus enabling me to visualise that nursing knowledge appeared to be rather like a kaleidoscope : if you look at it one way you get one pattern, but if you adjust it even slightly a completely different pattern emerges. Examples of the field notes are provided below.

30/4/93 Impressions :
Visit to Sr. A+E Dept.

Atmosphere — struggling to get recognition of authority.
Conflict between basic philosophies.
Unable to introduce change (here 2yrs.)
Blamed for things going wrong.
Important conflict values + philosophies
needs authority to implement
change. Philosophy alone not enough.

As the theory emerged I questioned and tested out the assertions within it. For example I asked myself questions such as

in what way(s) are experts in the Humanistic group different from the Technologists' group and where is the evidence for these assertions ?'

In this manner I was able to test out the theory by returning to the data for confirmation or refutation of the groups identified. As the analysis progressed I realised that different types of expertise were emerging from the data. This was substantially affecting the original research question which asked:

Is there a knowledge found in expert practice that is creditable ?

I could not answer this question, I now realised, until I explored expert practice further. I needed to establish if it was definitive as I had expected and the literature indicated, or was it, as the data were now indicating, dependent on an almost evolutionary process, where knowledge was developed and used in response to a specific set of influencing factors ? In addition I was becoming increasingly aware that the language of competence was inappropriate for addressing many of the issues related to nursing knowledge and its development. Bearing these points in mind I decided to change the focus of the study from accreditation issues to establishing the types of

expertise emerging from the data and the contextual and interactive factors that shaped them.

Theory generation

Theory emerged at a number of stages. First, four different groups were identified. This level of theory can be classed as Descriptive Theory and has two parts

The first type is the factor isolating, category-formulating or labelling theory. This theory describes the properties and dimensions of phenomena. The second type is the explanatory theory, which describes and explains the nature of relationships of certain phenomena to other phenomena (Meleis 1991:19)

The next stage was concerned with identifying the relationship between a variety of contextual factors and the use and development of nursing knowledge. Influencing factors included : the level and type of management support each of these groups had, the level of resources available and the experts' perceived ability to affect these; the academic and professional development of the experts. Also influential and complex in nature was the interaction between the values and philosophies held by the organisation on the one hand and the experts' espoused values, and the values (s)he used in practice on the other. The level of authority that the experts had was also influential.

Chapter 4

Reliability and validity

Reliability and Validity

The knowledge and experience gained throughout this study makes me aware that qualitative research is complex and problematical. Initially I was not aware of the paradigm I was working within, content to consider 'qualitative' as an all-embracing umbrella term within which the study was located. I now realise this was somewhat naive, and that within a qualitative framework are a number of alternative inquiry paradigms, for example positivism, postpositivism, constructivism, and critical theory (Guba and Lincoln 1994). I am now also more aware that issues of reliability and validity or the 'quality criteria' are dealt with differently depending on the perspective employed. So not only is the way reliability and validity are interpreted in qualitative inductive research quite different from their use in quantitative approaches, but there are differences also between paradigms. This study is located in a constructivist paradigm (Guba and Lincoln 1994) and issues such as trustworthiness and authenticity require addressing. Lincoln and Guba provides guidance as to how these issues are addressed in interpretive (constructionist) studies

A good constructionist interpretation (text) is based on purposive (theoretical) sampling, a grounded theory, inductive data analysis, and ideographic (contextual) interpretation. The foundation for interpretation rests on triangulated empirical materials that are trustworthy (Lincoln and Guba 1985:300)

Each of these factors is addressed in this study.

Guba and Lincoln (1981) suggest the use of four methods analogous to traditional scientific concerns of internal validity, external validity, generalisability and objectivity. These are credibility, fittingness, auditability and confirmability.

Credibility

To improve the probability of credible findings I used a number of strategies. To prevent and detect distortions arising from my presence at the research site I took Speizman's advice that

Close monitoring of responses and prolonged engagement at the site are sufficient to overcome these effects (Speizman cited by Guba and Lincoln 1981:105).

One means for establishing the credibility of a fact or inference is through the use of repeated observations from a single perspective. The familiarity of the environment being studied is allied to this point. I am essentially familiar with and part of the milieu expert nurses work in. Because of this, I have an understanding of the language, culture and behaviour demonstrated in this environment. I carried out 63 observation visits.

Although the same areas were not visited more than three times, the subjects observed, (expert nurses) were visited 90 times, including workshops interviews and pre-research visits to obtain permission for the study.

Distortions can also arise as a result of failure to establish a minimum level of rapport, or conversely by 'going native'. A reflective diary was useful in providing insight into proceedings. It is discussed later in this chapter. Distortions also arise as a result of bias on the part of either the fieldworker or the subjects. By allowing the data to emerge from the practice setting I reduced the possibility of such distortions arising. Eisner suggests that

Evidence is structurally corroborative when pieces of evidence validate each other, the story holds up, the pieces fit, it makes sense, the facts are consistent (Eisner 1979:37 cited by Guba and Lincoln 1981:106)

The use of methodological triangulation provided structural corroboration in this study. Data were obtained from interviews, workshops, reflective diaries and participant observation visits. By comparing and contrasting data it was possible to identify areas of contention for further exploration, for example espoused theories as opposed to theories in use.

Personal validity

Having spent 25 years in the Health Service, and many of these in the clinical setting, the language used by nurses is familiar to me whereas it is likely to be unintelligible to those from outside of such a setting. Study and work give me a knowledge base (subject matter knowledge and educational knowledge) which permits understanding of issues that would

perhaps mystify outsiders. This was particularly helpful in high technology areas where principles and procedures could be followed from a physiological perspective. The need for such understanding is illustrated in the following example provided by one of the expert nurses.

This lady ... had a massive infarct (coronary thrombosis) ... she needed ventilating for a while ... she had a very fine line between too much fluid tipping her in to pulmonary oedema ... she was fine sitting up in bed and then she started to get quite fidgety and really quite restless and then her respiratory rate went up, it was all sorts of things like that before you saw her saturation drop ...I was beginning to think maybe she is going into pulmonary oedema. Her sputum was clear that was OK, so by this time her sats. (saturations) were starting to drop so I got Jacky to do a blood gas I was already thinking we need an x-ray here.

To understand the implications of what was going on in this scenario I needed an understanding of both physiology and disease processes. The expert was in fact establishing a diagnosis and attempting to exclude possible physical causes. She excluded the possibility that the patient had a blood clot in her lungs and she based this on the fact that the patient's sputum was not bloodstained.

Validity and supervision

Valid research cannot be carried out alone:

there is always a need in research for colleagues, peers, mentors, 'friends willing to act as enemies' (Torbert 1976a) who can challenge and shock one out of habitual ways of thinking and experiencing (Reason and Rowan 1981:247).

My research supervisor has gamefully played this role on occasions, thus ensuring that propositions can be substantiated and increasing their validity. The validity of research is

much enhanced by the systematic use of feedback loops, and by going round the research cycle several times (Reason and Rowan 1981:247).

Such feedback loops were used in this study. Emerging themes were compared and contrasted following each observation visit, so that theory emerged over time and was not an impressionistic formulation. Findings from one observation visit were contrasted with the findings from another, and gradually the theory emerged.

Face validity

The issue of expertise is a crucial one in this study and a great deal of time and effort was spent identifying the experts who participated.

Face validity is established by the assumption that members selected as informants to represent the subculture, have expert knowledge in certain cultural components (Munhall and Oiler 1986:159).

The use of data triangulation (Polit and Hungler 1987) whereby a manager, an educationalist and a nurse were all asked to name an expert, is likely to result in a much higher degree of face validity than if only one of these groups had named such an expert.

Verification with sources

This process of going to sources... is the backbone of satisfying the truth-value criterion (Guba and Lincoln 1981:110).

This method was also used to enhance the credibility of the findings of this study. At the end of each observation session, I set aside a period for clarification of my perceptions, with the expert being observed.

Validity is provided by cross-checking different data sources and by testing perceptions against those of participants ... (Guba and Lincoln 1981:106 cite House 1978b).

Such clarification was not easy and a number of difficulties have been identified by Guba and Lincoln (1981). The whole of the observation visit was checked with the expert to ensure that the impressions gained were in fact correct. A variety of questioning techniques were used for this purpose including verification questions 'am I correct in assuming that ...?' and open questions 'what were you thinking when ?' These were followed up with clarification questions 'so what you are saying is...?'. An example of this process is provided below.

INTERVIEWER : Can I just go through the things that I have jotted down, ... We started with the report from the night staff nurse ... and then you went to that patient ... they (the staff) seemed to be giving a report on him as if everything was a fate accompli but you seemed to want to know a bit more, you seemed to want to know, well if he has got Ca. (cancer) what is going to be done next, what have the family been told, this did not seem to be picked up and pursued by the other nurses ?

EXPERT NURSE: Mmmm, Mmmm,

INTERVIEWER : The staff nurse said that the patient's family had gone past the nursing station too fast last night for the nurses to speak to

them. I noticed that a bit later on you made it your business to go and talk to him, because they (the staff) gave the impression that he did not know earlier (about his diagnosis)

EXPERT NURSE: Mmm,

INTERVIEWER : But in actual fact he does know ?

EXPERT NURSE : He does know, yes,

INTERVIEWER : because you sounded him out and then when you were sat down with him it sounded as if you were finding out if he had talked to his relatives,

EXPERT NURSE :Mmmm, Mmmm,

INTERVIEWER : which he had, and then you were trying to find out how he was coping with that ?

EXPERT NURSE : yes,

INTERVIEWER : and then you found out that he had also been told that he would probably have deep X-ray, so then you explained ...

EXPERT NURSE: That was the intention yes, I still do not really know what they have decided, I need to read through the notes but I need really clarification from the medical staff.

Replicability and fittingness

With regard to qualitative research and replication

some investigators think that generalisability is a chimera and it is impossible to generalise in the scientific sense... Replication is impossible because circumstances change so rapidly ... interactions are always so complex that any observation can have meaning only in ... the situation in which it occurred (Guba and Lincoln 1981:116).

Accepting the validity of these concerns and drawing on the suggestions of qualitative theorists (Guba and Lincoln 1981), I have used fittingness rather than replicability in this study.

... it seems useful to think not in terms of generalisations but in terms of working hypotheses that fit more or less well into a context other than the one in which they were derived ... Working hypotheses ... seem to be well borne out within the local context that spawned them. But one does not assume that they would for that reason, be well borne out in other contexts as well (Guba and Lincoln (1981:118-119)).

Fittingness introduces the idea of 'thick description'.

In comparing one area with another it is necessary to ask 'What is the degree of fittingness between the two contexts' ... [to] identify that, it is necessary in order to make such a comparison of fittingness to carry out a process of thick description ...[which] involves literal description of the entity being evaluated, the circumstances under which it is used, the characteristics of the people involved in it, the nature of the community in which it is located, and the like ... (Guba and Lincoln 1981:119).

'Thick' description requires the researcher to

... interpret[ing] the meaning of such demographic and descriptive data in terms of cultural norms and and mores, community values, deep seated attitudes and motives, and the like (Guba and Lincoln 1981:119).

Using fittingness as a criterion for reliability it is probable that similarities would be found between this research and future research. For if mores and values are considered initially (in terms of fittingness) then there is likely to be a degree of fit between this and similar studies undertaken in the future with similar purposive samples and in similar settings.

Auditability

Auditability requires simply that the work of one evaluator (or team) can be tested for consistency by a second evaluator or team, which after examining the work of the first can conclude, 'Yes, given that perspective and that data, I would probably have reached the same conclusions' (Guba and Lincoln 1981:124).

A panel of experts were consulted for this purpose .

While it can not be expected that sets of categories developed by two independent judges from the same basic data will coincide, it was argued that a second judge should be able to verify that the categories derived by the first judge make sense in view of the data-pool from which the first judge worked and that the data have been appropriately arranged into the developed category system (Guba and Lincoln 1981:122).

I asked three nurse teachers to participate as the panel of experts. I chose them because they are respected teachers and honours graduates at the college where I work. One of the panel members is course tutor for an English National Board (ENB) course and a diploma level Management Module. The second member is also a course tutor of an ENB course, and the third panel member is teacher for the Open University 553 course, and a study skills course. All three are ideally placed because of their educational background, professional involvement and experience, to check whether the categories generated do in fact reflect the data provided. I asked the experts to read the data analysis and complete a rating scale (appendix xiii) stating whether the categories identified were substantiated by the data provided.

Guba and Lincoln (1981) recommend that such an audit gives substantial assurance to the consistency of the evaluation. All three agreed that the categories generated reflected the data supplied.

Confirmability

Guba and Lincoln offer confirmability rather than neutrality as confirmability:

shifts the burden of proof from the investigator to the information itself (Guba and Lincoln 1981:126).

Recognising that all individuals bring their own values and beliefs to a situation they argue that complete neutrality in investigators is an impossibility.

To imagine that an evaluator, by an act of will or by virtue or clever methodology, can rid himself of subjectivity is the worst kind of fantasy (Guba and Lincoln 1981:126).

Instead they offer the notion of confirmability which

simply asks that an inquirer report his data in such a way that it can be confirmed by from other sources if necessary (Guba and Lincoln 1981:126).

This does not mean that objectivity should be discarded, rather that the researcher should endeavour to know himself / herself. Refuting positivistic methodological approaches to validity, Reason and Rowan (1981) suggest that one way validity can be assured is by getting away from the subject-object division.

... validity in new paradigm research lies in the skills and sensitivities of the researcher, in how he or she uses herself as a knower, and as an inquirer. Validity is more personal and interpersonal, rather than methodological. (Reason and Rowan 1981:244)

In terms of self-awareness I kept a reflective diary in which I explored ideas, feelings, and issues. I used this process both for consciousness-raising and for exploring my feelings about issues encountered. By providing a 'picture' in this diary of the impressions gained during the visits, I found that the immediacy of the impressions returned and through exploration were strengthened. The following excerpt describes a clinical area where a visit was to take place. Many of the patients in this chest clinic had some form of terminal illness.

The room was sparsely furnished with an examination couch, a desk and a few hard backed chairs. Four x-ray viewers adorned the wall over the desk signifying the primacy of the medico-technical aspects of care. Various pictures were displayed on the walls, including posters of horses and jockeys and a faded picture of daffodils. A medical poster paid recognition to the clinics functions by depicting an anatomical diagram of the structure of the lung and its linings. The dusky red colour of the picture showed an ideal type of a normal lung, a rare occurrence I suspected at this particular clinic. The door had been left open and the patients sitting outside in the corridor could be clearly heard quietly talking. Their hushed voices echoed against the white painted walls, creating the impression that they were whispering in some huge cathedral. A false sounding bonhomie was evident, punctuated by burst of coughing, from first one patient and then another. It was as if the cough was in some sense a badge of admission to the clinic. I mused on the happenings earlier in the day... I was aware that I would need to concentrate whilst observing nurse X (the expert nurse) and wondered once again if there might not have been some way that I could have structured /

focussed my observations further, (a legacy of positivistic research-perhaps ?) A strident voice belonging to ? a nurse could be heard authoritatively telling a patient where to sit, 'sit on the end of the bench you will be next in'. Outside the birds could be heard singing and it was a lovely sunny May day, one of those days that makes you feel glad to be alive, but this only added to the poignancy of the situation for so many of these patients.

The reflective diary enabled me to explore my feelings and impressions 'outside' the formal data. This added a human dimension. Whilst acting the part of researcher, I was so immersed in data collection that I was not acknowledging my own feelings. Such recordings enabled me to be both within the data collection (as researcher) and yet to remain outside of the data as self. I found I had a deeper, richer picture of the clinical areas as a result of this combination of approaches. For example the description from the diary presented above depicts the clinical area as one in which patients whisper and where there is little evidence of partnership in care. This was subsequently confirmed in the non-assertive way that the expert nurse acted in relation to the consultant that afternoon.

Whilst this process may not have made me more objective, it provided an opportunity for me to be much more aware of the factors which influenced me, and therefore by implication the study.

Chapter 5

Expert nursing knowledge - findings

Expert nursing knowledge-findings.

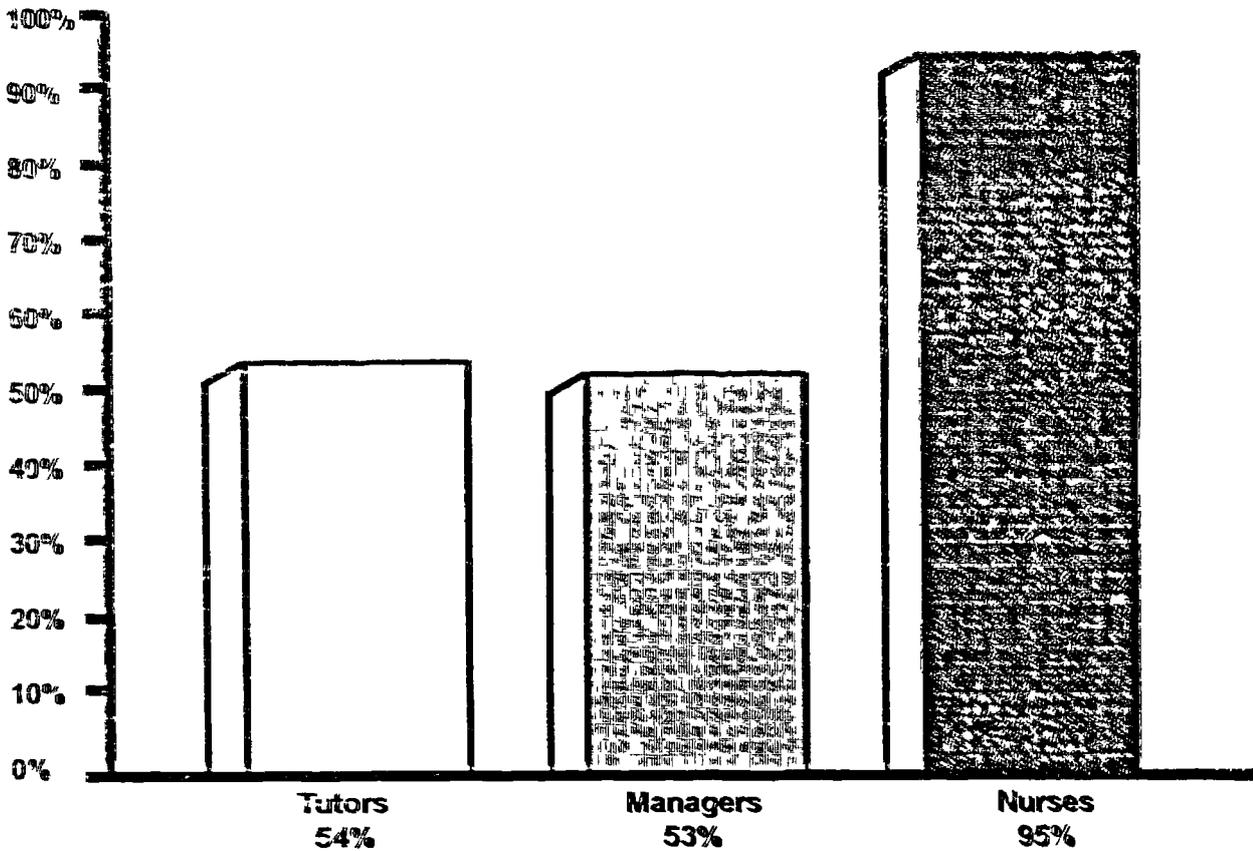
In this chapter the findings are presented. These comprise both quantitative and qualitative data. The qualitative data were obtained through an inductive, modified grounded theory approach, and form the major contribution. The quantitative data are subsidiary only. These comprise the results of the questionnaires sent to nurses, managers and educationalists asking them to name an expert and in addition to rate their expert in terms of the ENB (1991) key characteristics and the PREPP statement of advanced practice (UKCC 1991). Results are also presented of the experts' self-rating of their practice reflecting the Higher Award key characteristics and competencies identified by Benner (1984). Analysis of the definitions of expertise collected from managers, nurses and tutors are given. For ease of presentation the quantitative data are also discussed here.

Quantitative data findings

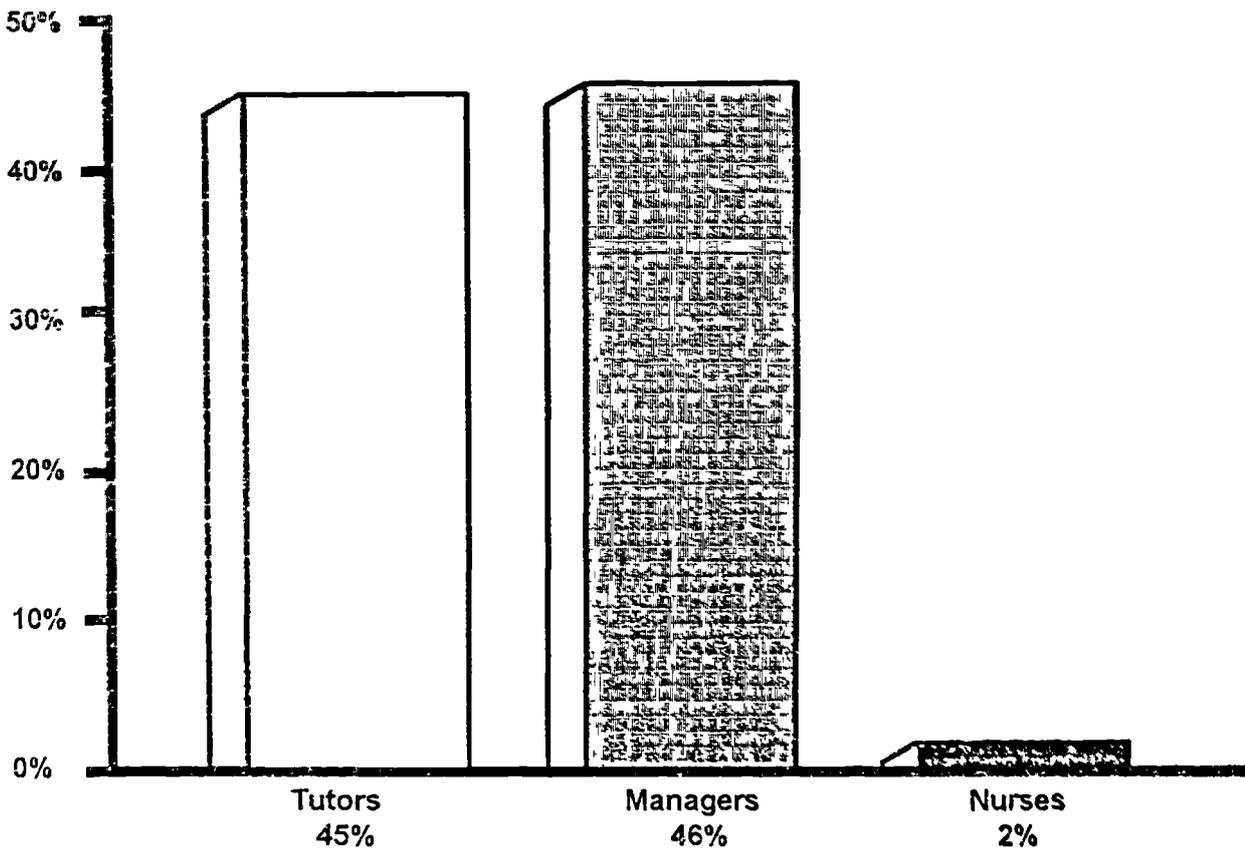
One hundred and nineteen of the 149 returned questionnaires completed the sections related to the UKCC (1989) PREPP statement and the ENB (1991) Higher Award Key Characteristics. The results are presented in graph form overleaf.

P.R.E.P.P. STATEMENT

92 Respondents (77%) agreed that their experts' practice reflected the PREPP statement.

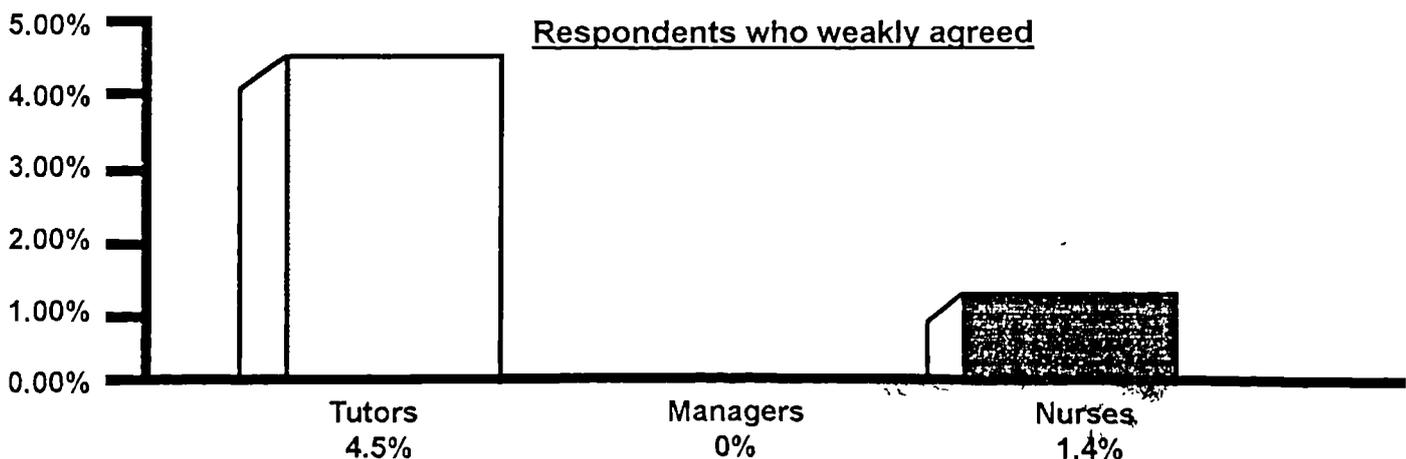
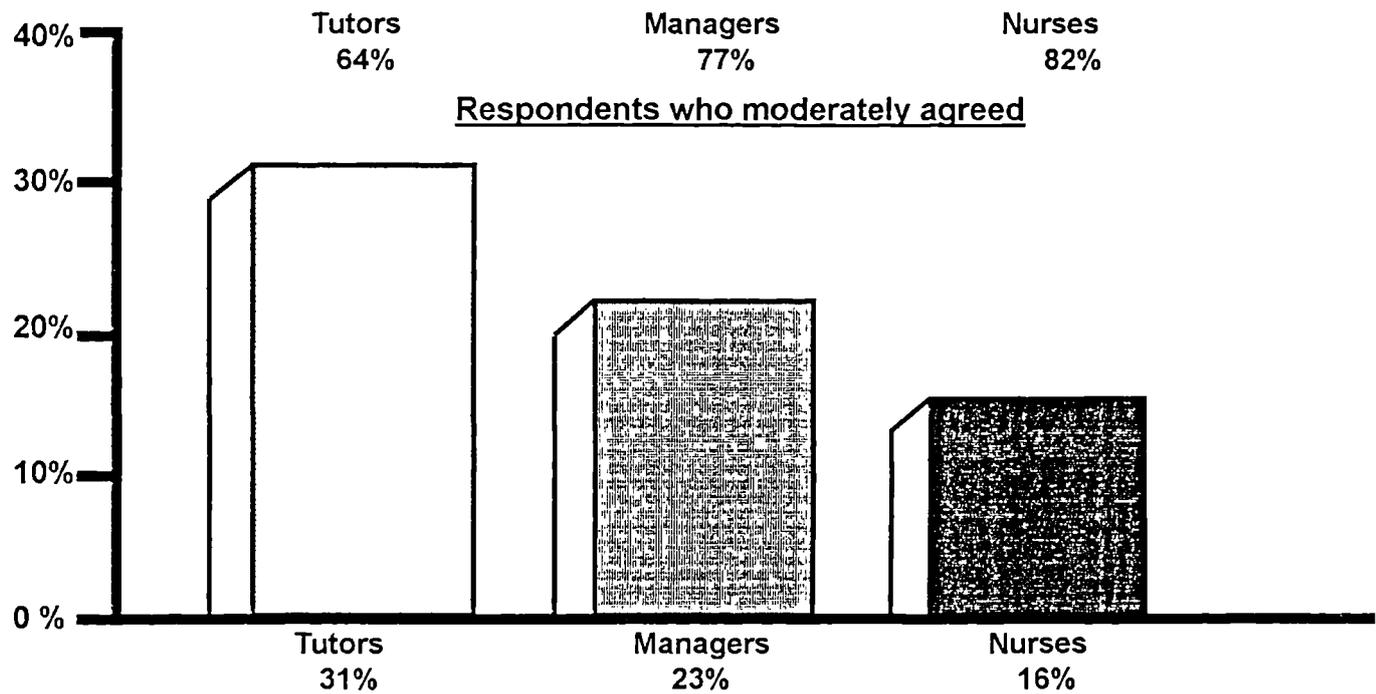
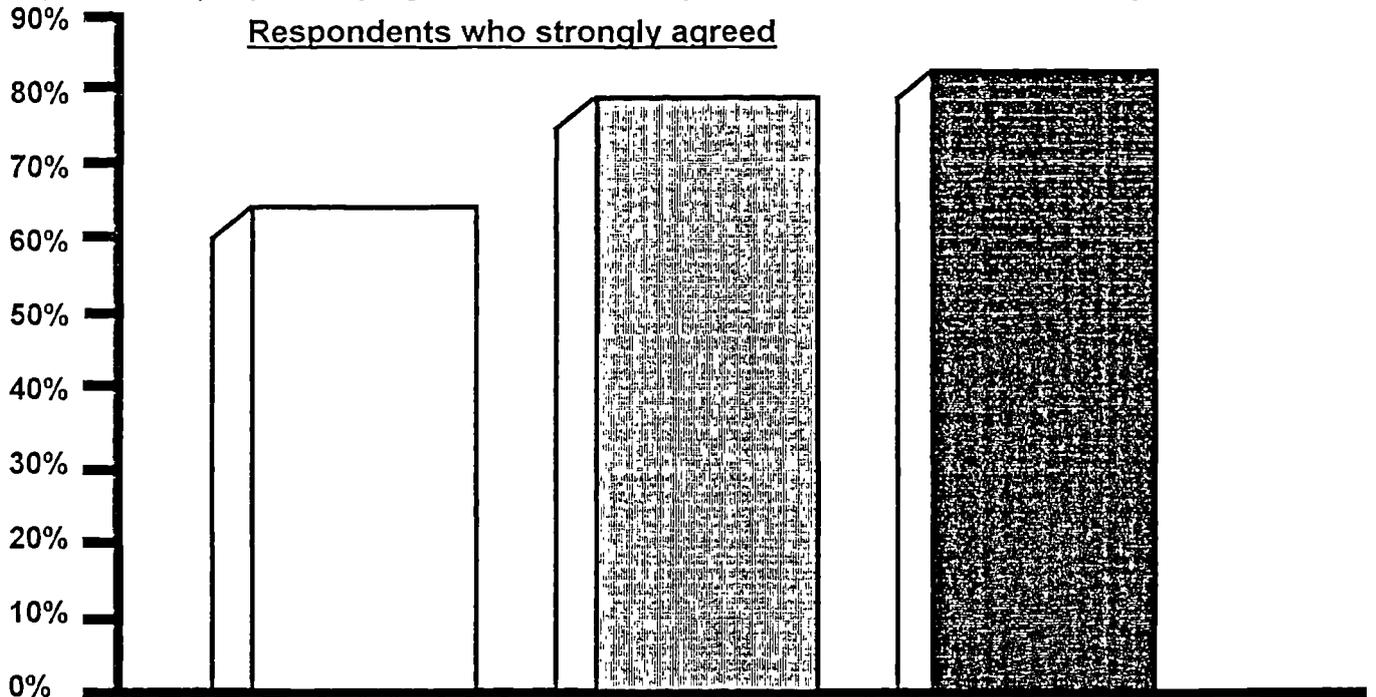


27 Respondents (23%) did not agree that their experts' practice reflected the PREPP statement.



Q1 PROFESSIONAL ACCOUNTABILITY AND RESPONSIBILITY

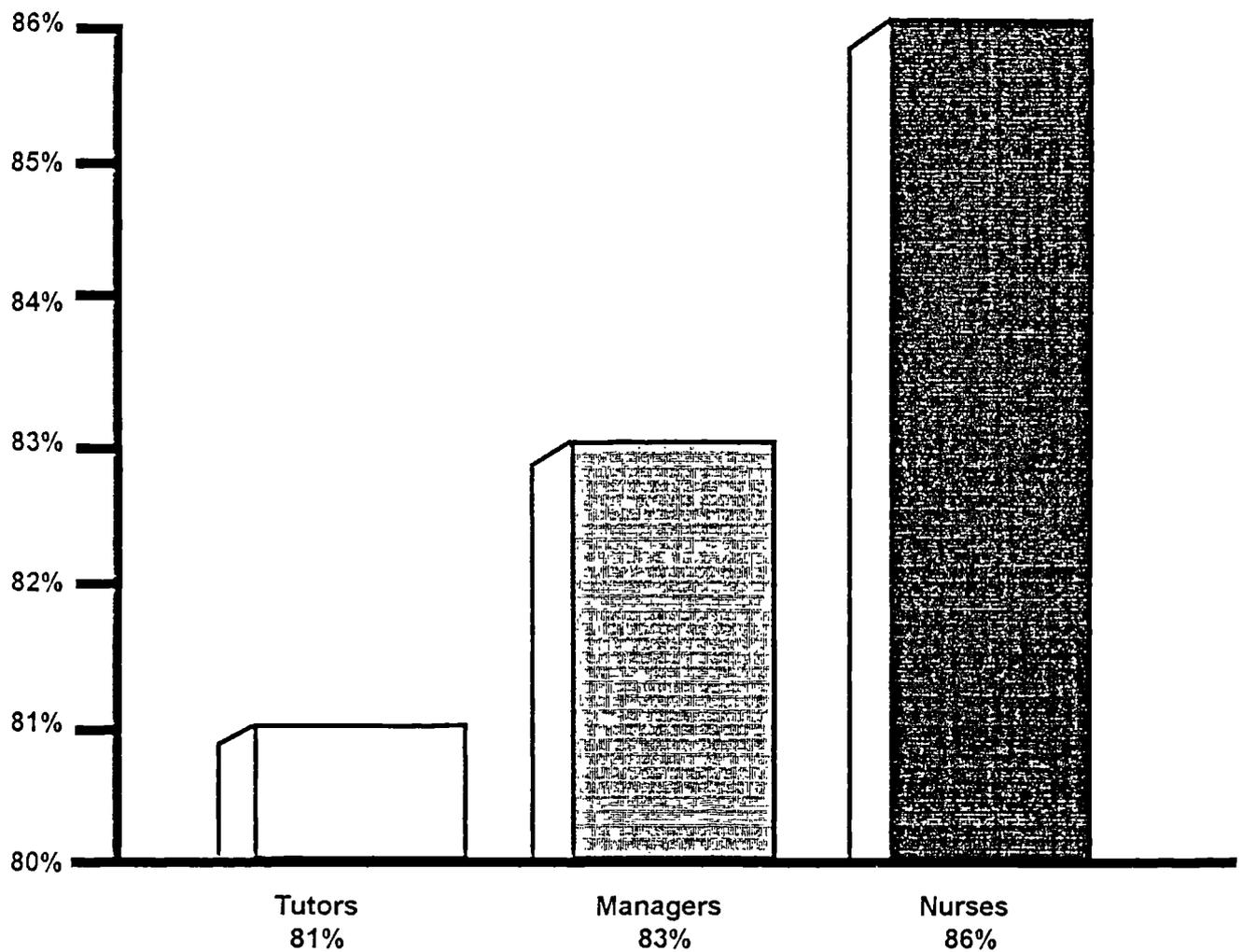
92 Respondents (77%) strongly agreed that their experts demonstrated this ability.
 25 Respondents (12%) moderately agreed that their experts demonstrated this ability.
 2 Respondents (1%) weakly agreed that their experts demonstrated this ability.



Q2 CLINICAL EXPERTISE WITH A SPECIFIC CLIENT GROUP

101 Respondents (85%) strongly agreed that their experts demonstrated this ability.
25 Respondents (21%) moderately agreed that their experts demonstrated this ability.
2 Respondents (1%) weakly agreed that their experts demonstrated this ability.

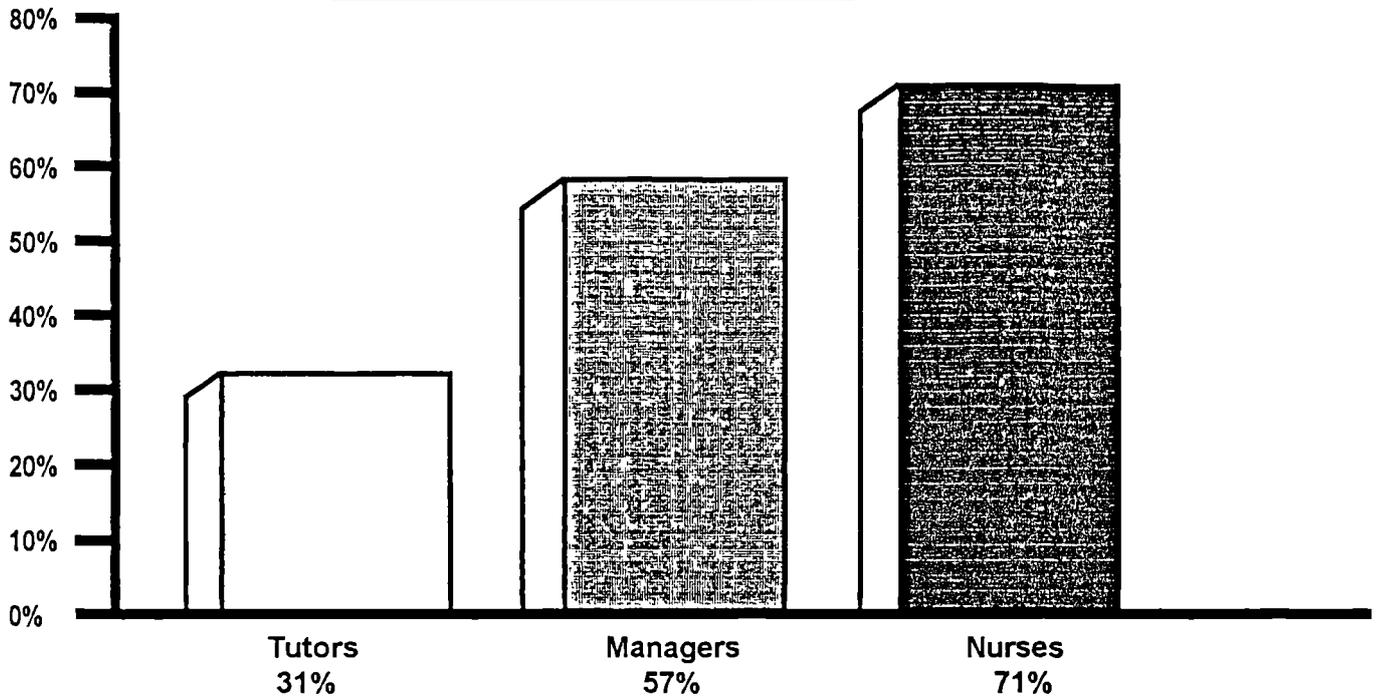
Respondents who strongly agreed



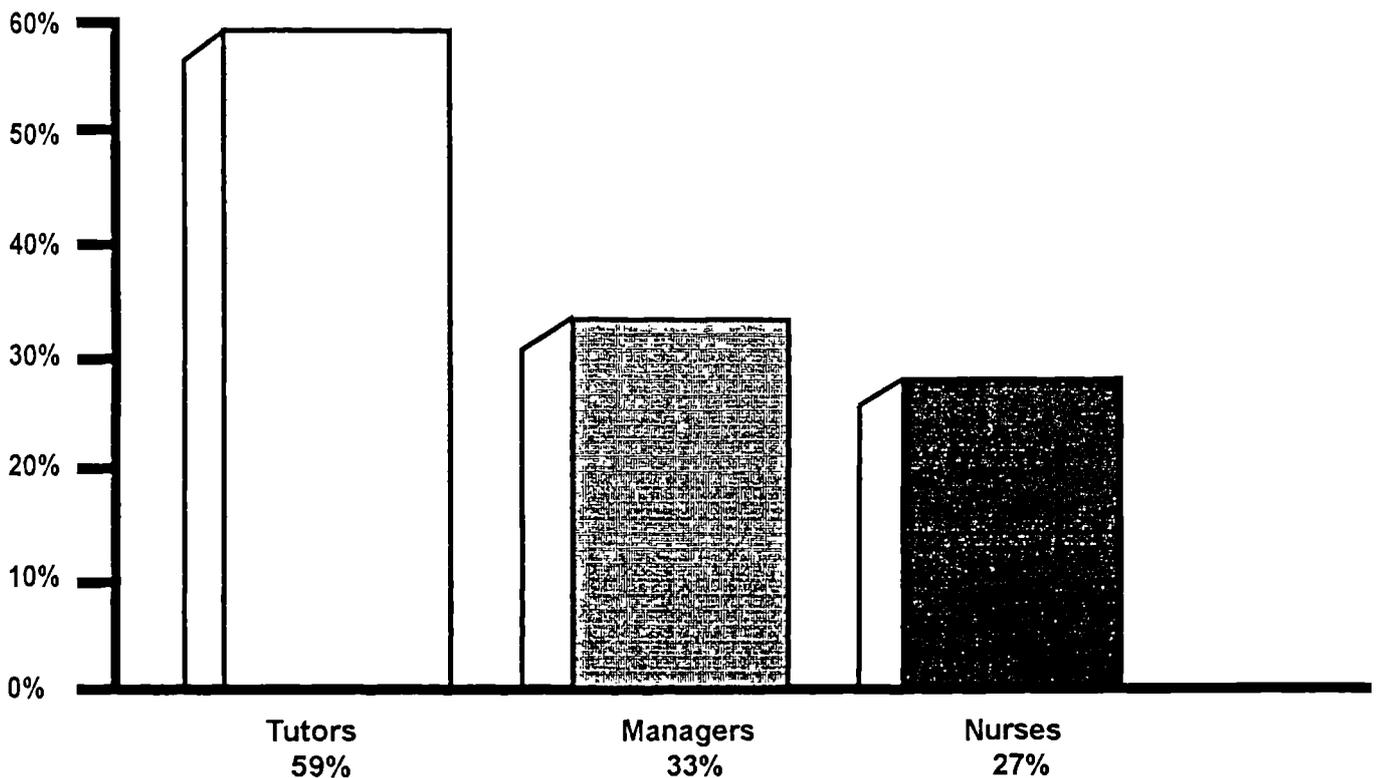
Q3 ABILITY TO USE RESEARCH

72 Respondents (61%) strongly agreed that their expert demonstrated this ability.
41 Respondents (34%) moderately agreed that their expert demonstrated this ability.
5 Respondents (4%) weakly agreed that their expert demonstrated this ability.
1 Respondent (1%) did not agree that their expert demonstrated this ability.

Respondents who strongly agreed



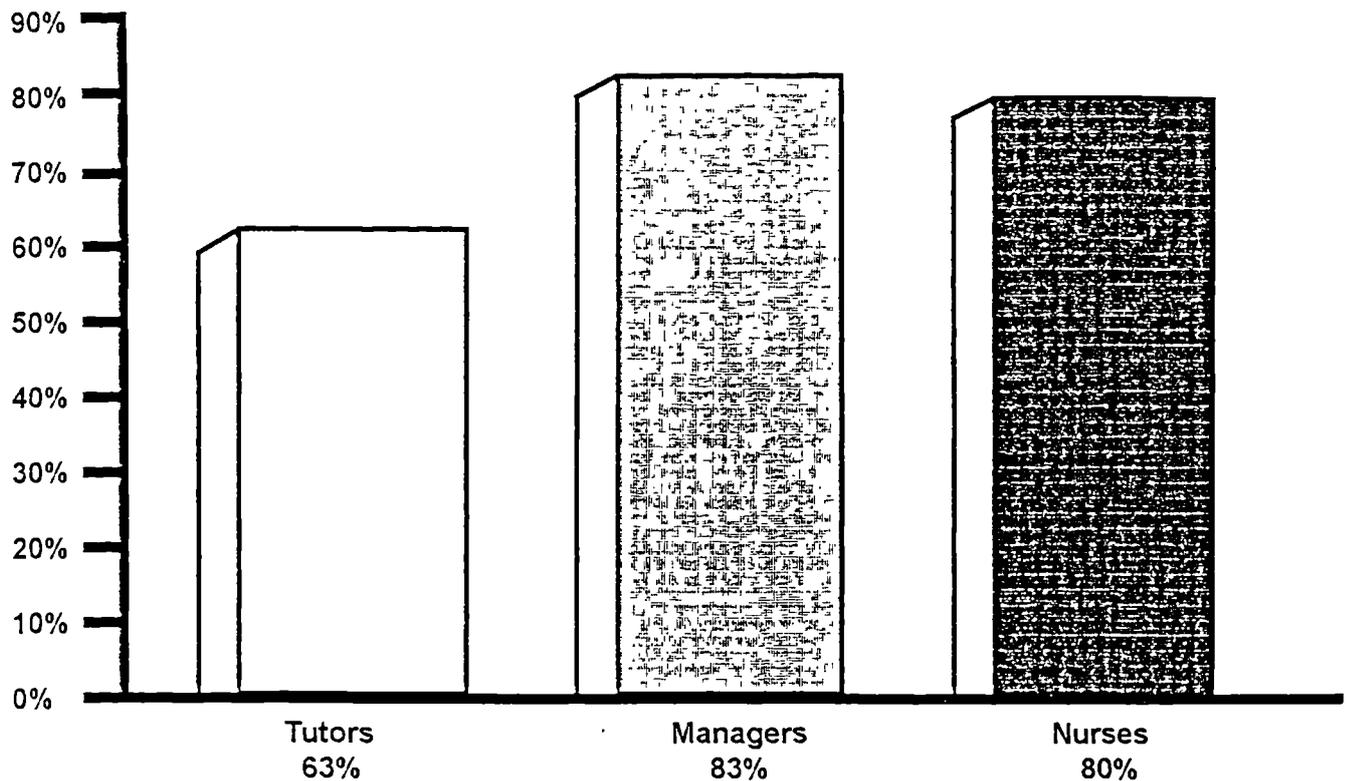
Respondents who moderately agreed



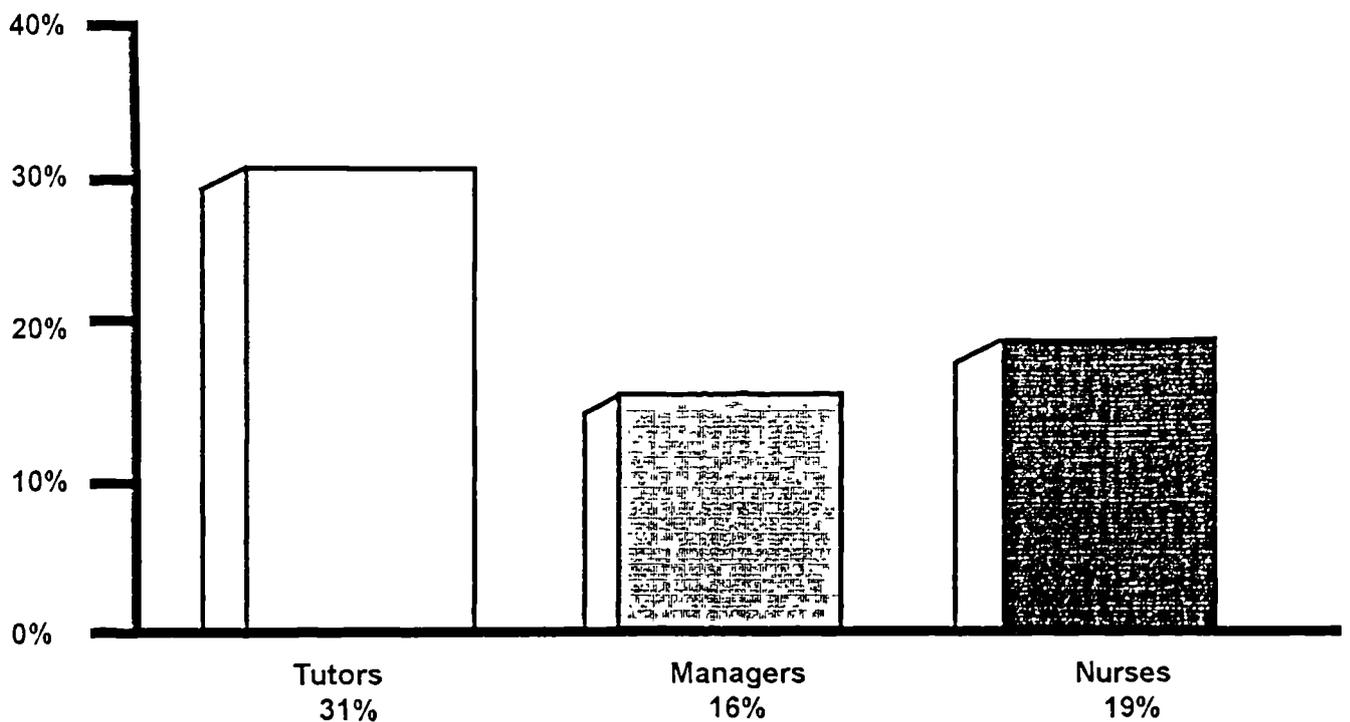
Q4 TEAM WORKING AND BUILDING MULTI-DISCIPLINARY TEAM LEADERSHIP

93 Respondents (78%) strongly agreed that their experts demonstrated this ability.
25 Respondents (21%) moderately agreed that their experts demonstrated this ability.
1 Respondent (1%) weakly agreed that their experts demonstrated this ability.

Respondents who strongly agreed



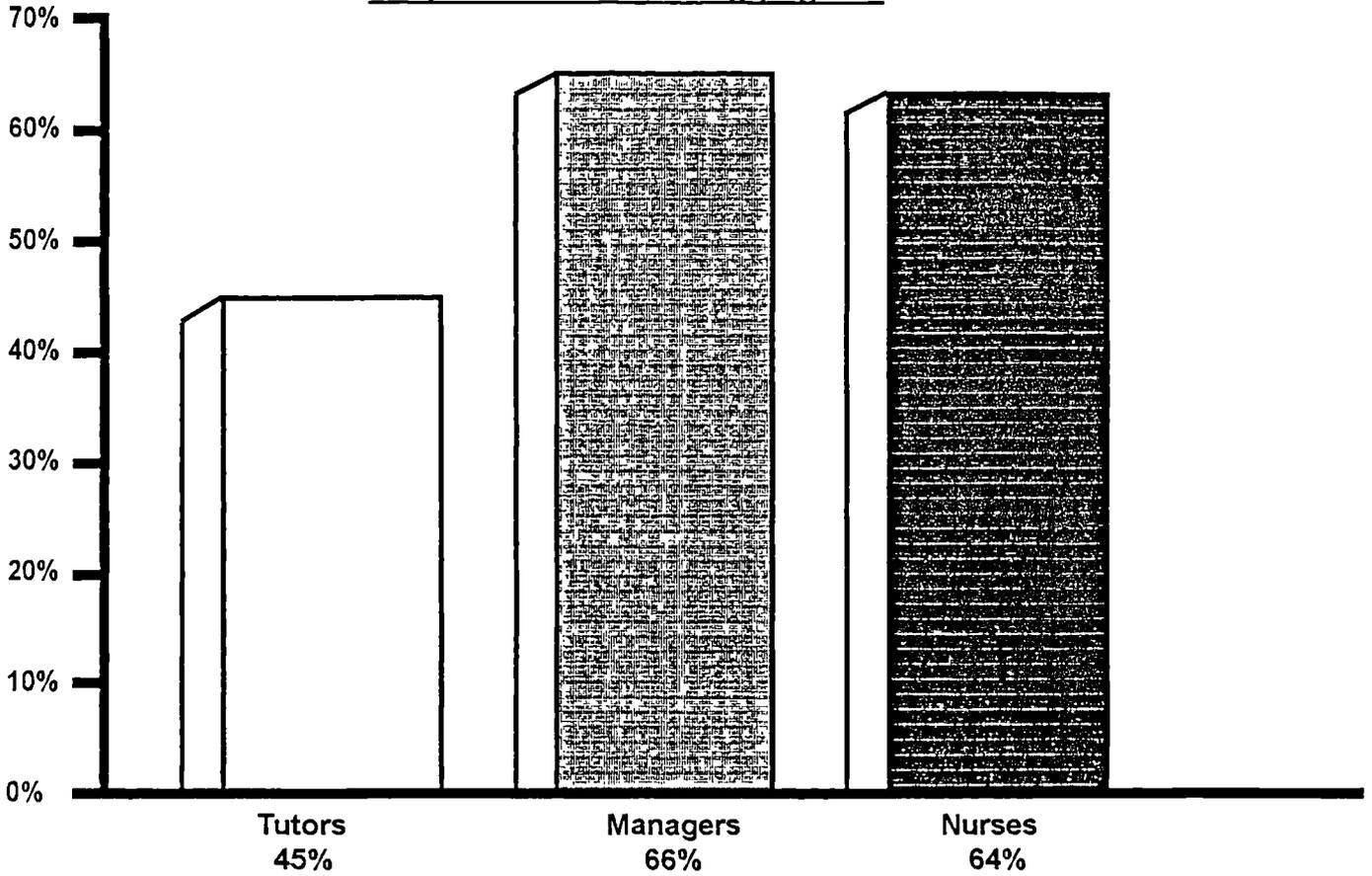
Respondents who moderately agreed



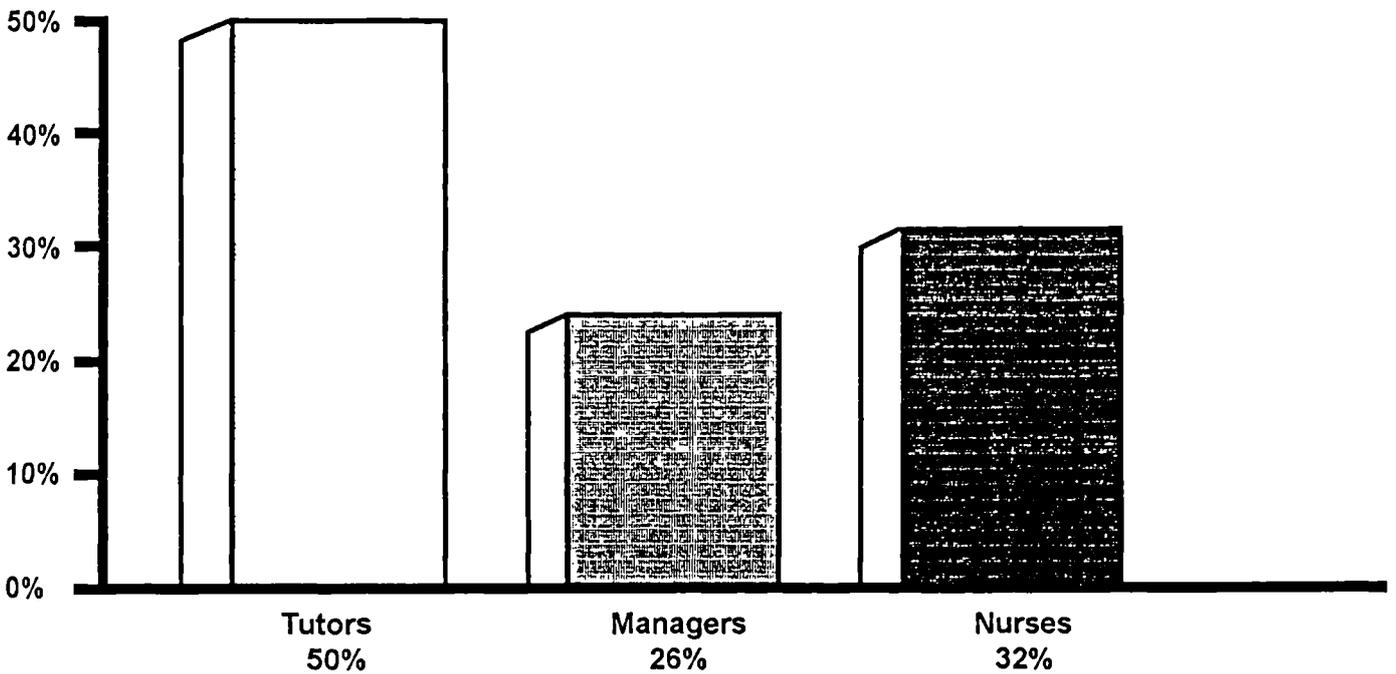
Q5 FLEXIBLE AND INNOVATIVE APPROACHES TO CARE

73 Respondents (61%) strongly agreed that their experts demonstrated this ability.
41 Respondents (34%) moderately agreed that their experts demonstrated this ability.
5 Respondents (4%) weakly agreed that their experts demonstrated this ability.

Respondents who strongly agreed



Respondents who moderately agreed



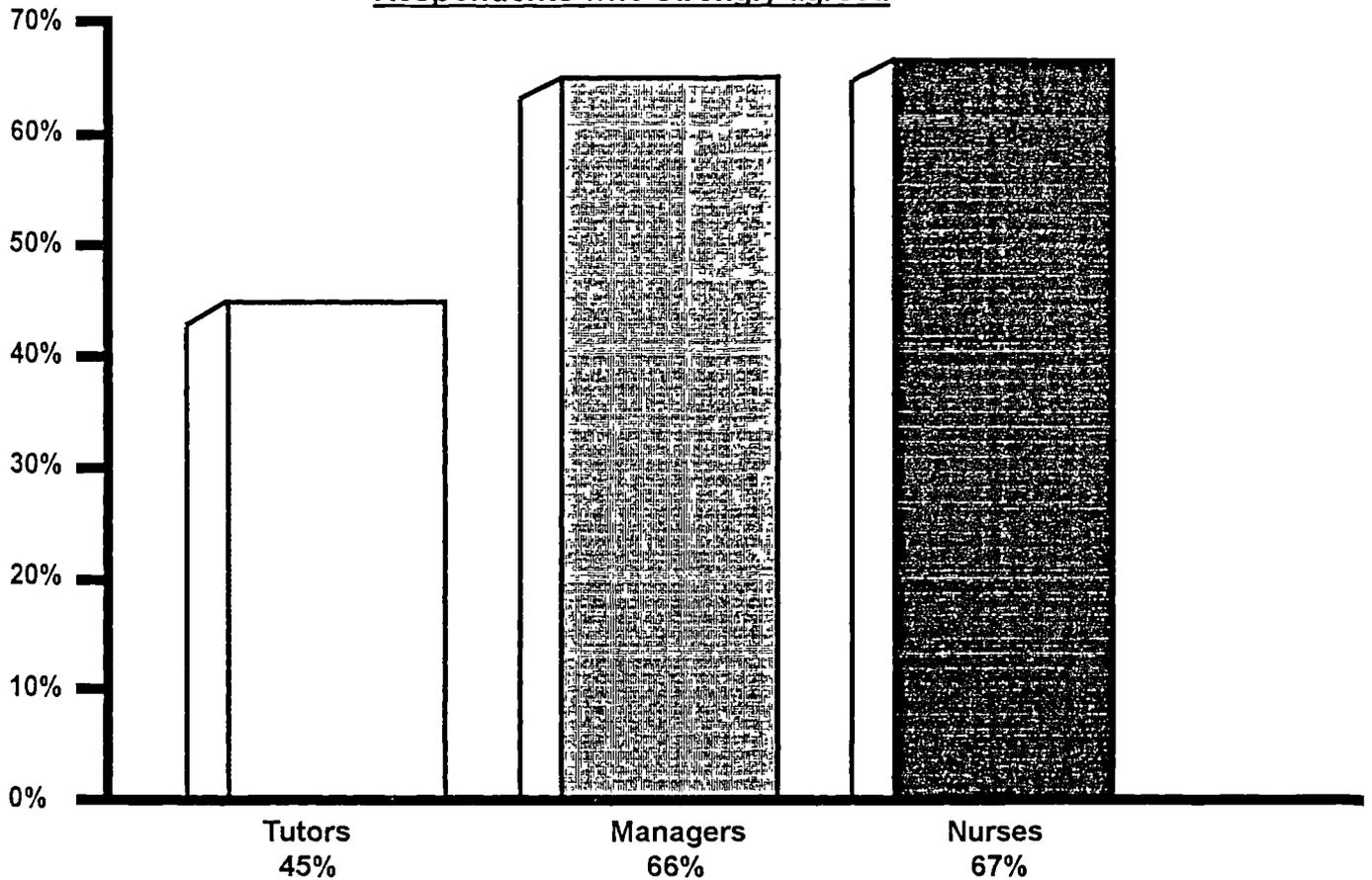
Q6 USE OF HEALTH PROMOTION STRATEGIES

75 Respondents (63%) strongly agreed that their experts demonstrated this ability.

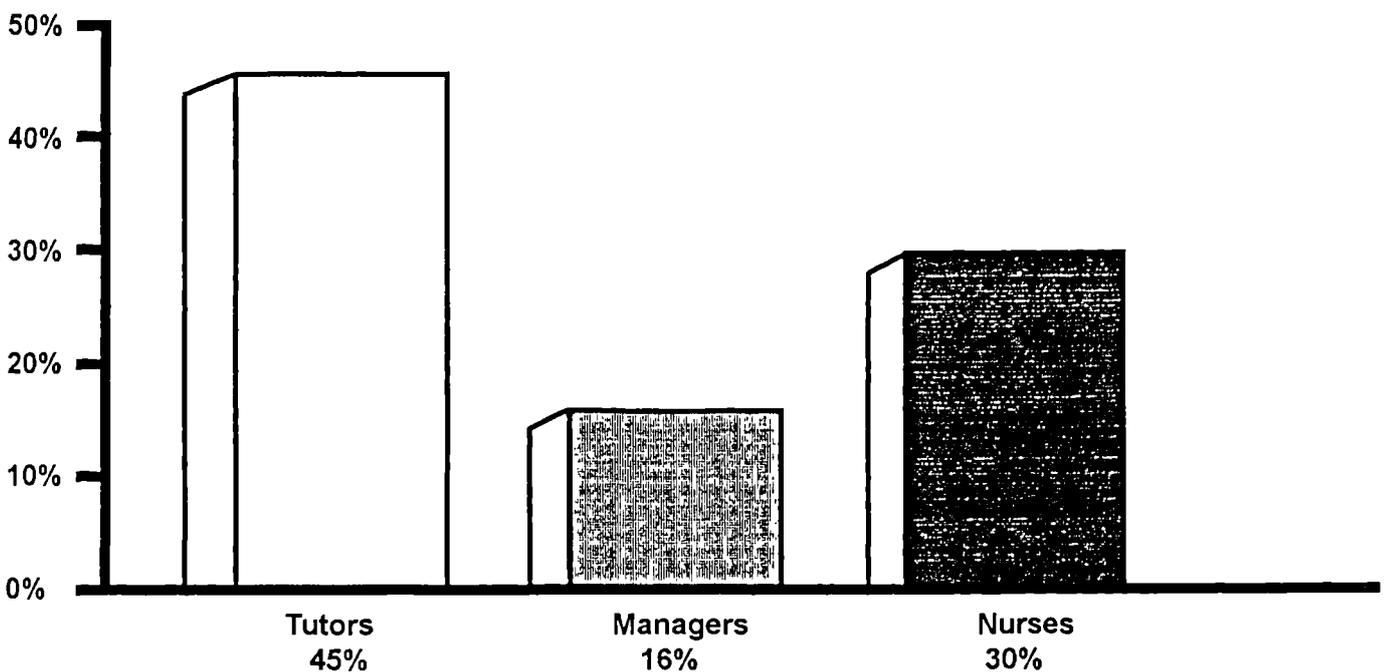
35 Respondents (29%) moderately agreed that their experts demonstrated this ability.

9 Respondents (7.5%) weakly agreed that their experts demonstrated this ability.

Respondents who strongly agreed

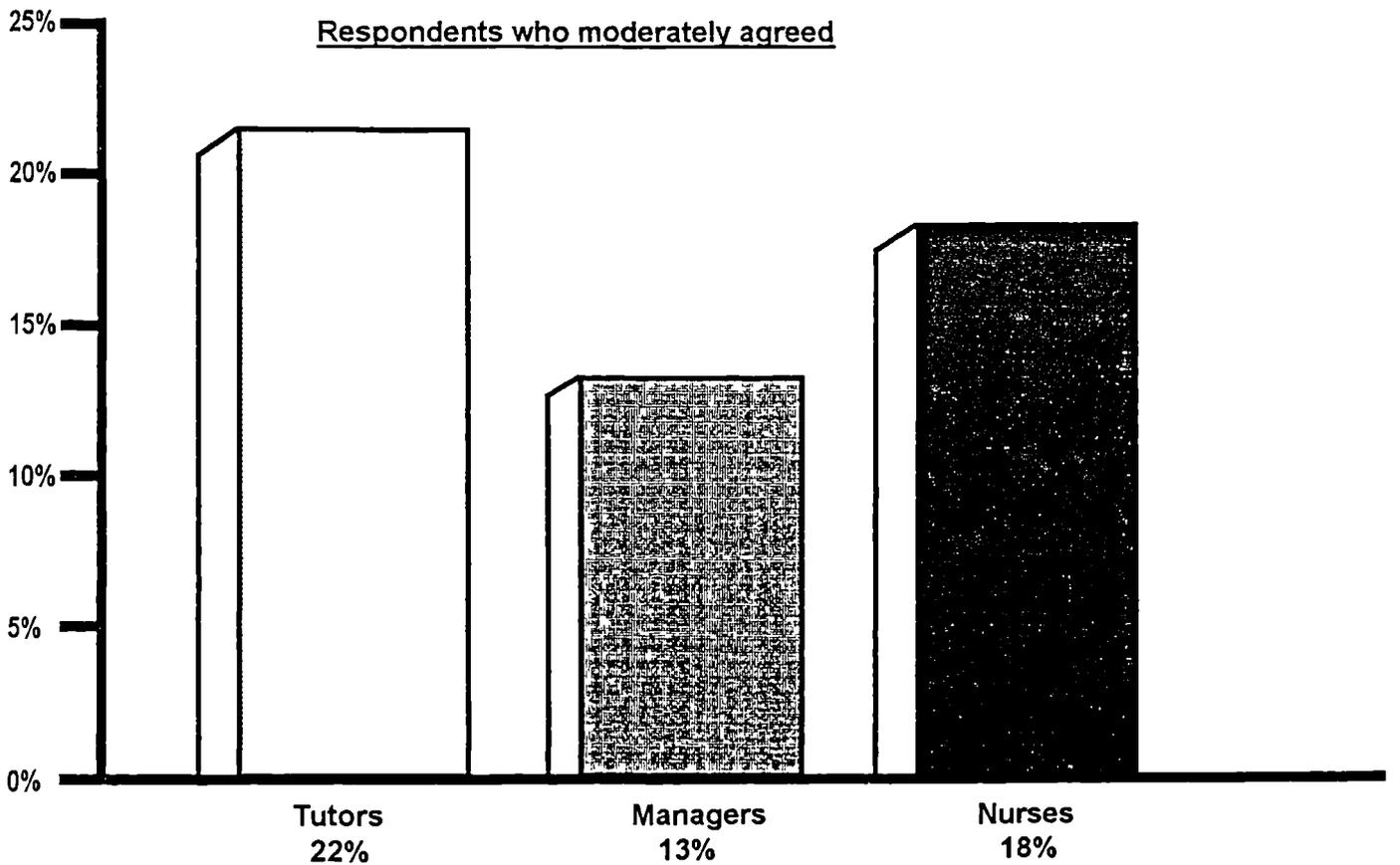
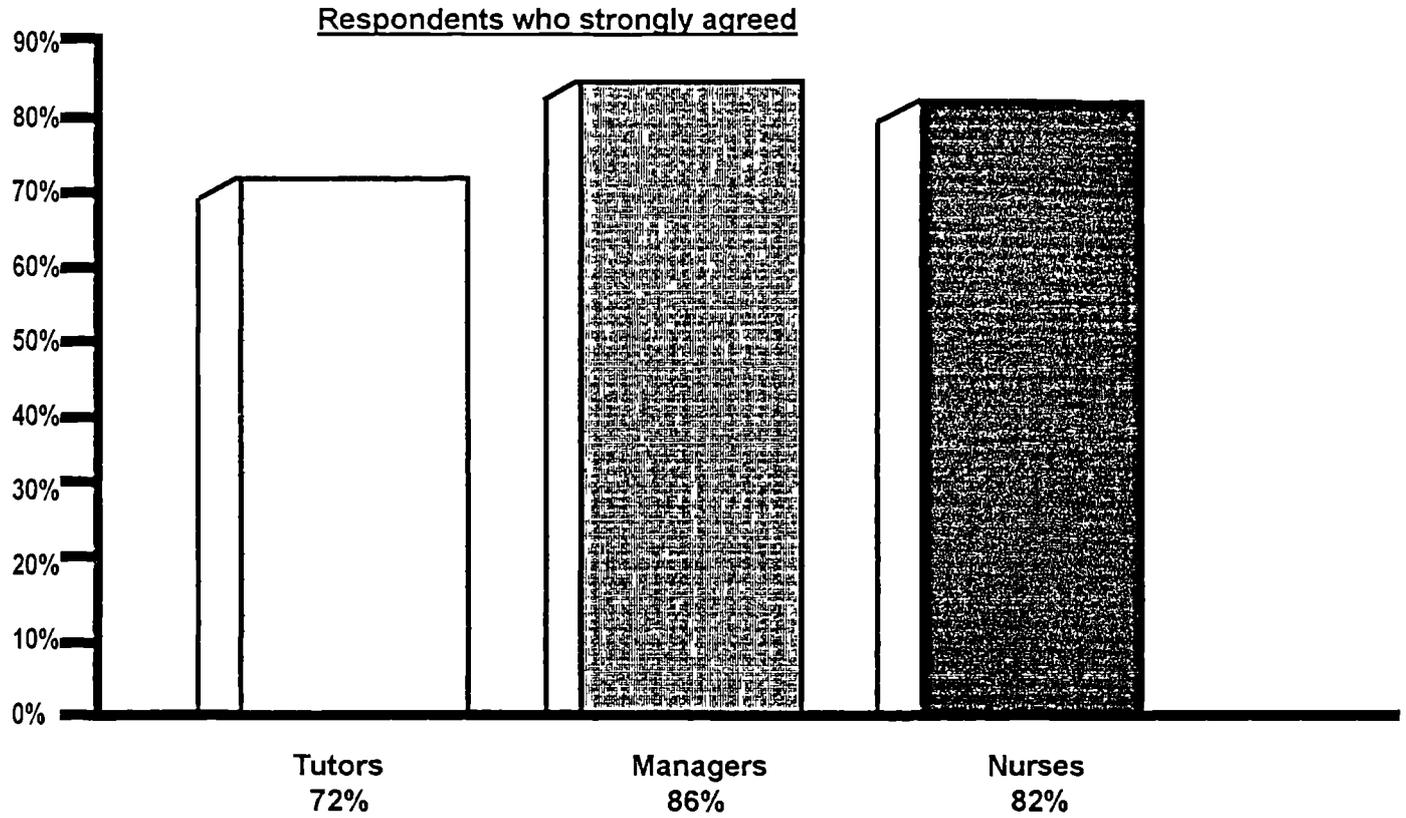


Respondents who moderately agreed



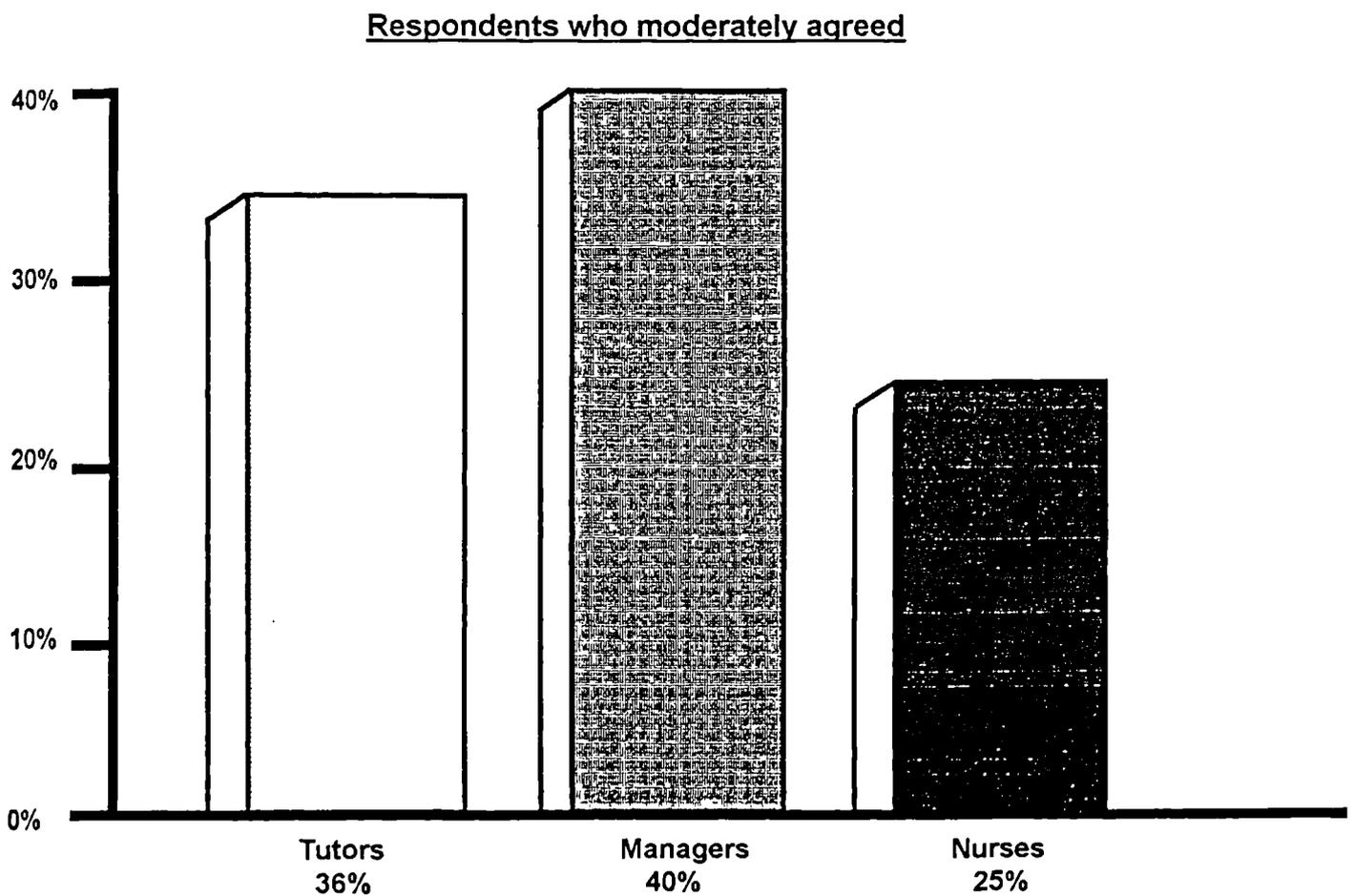
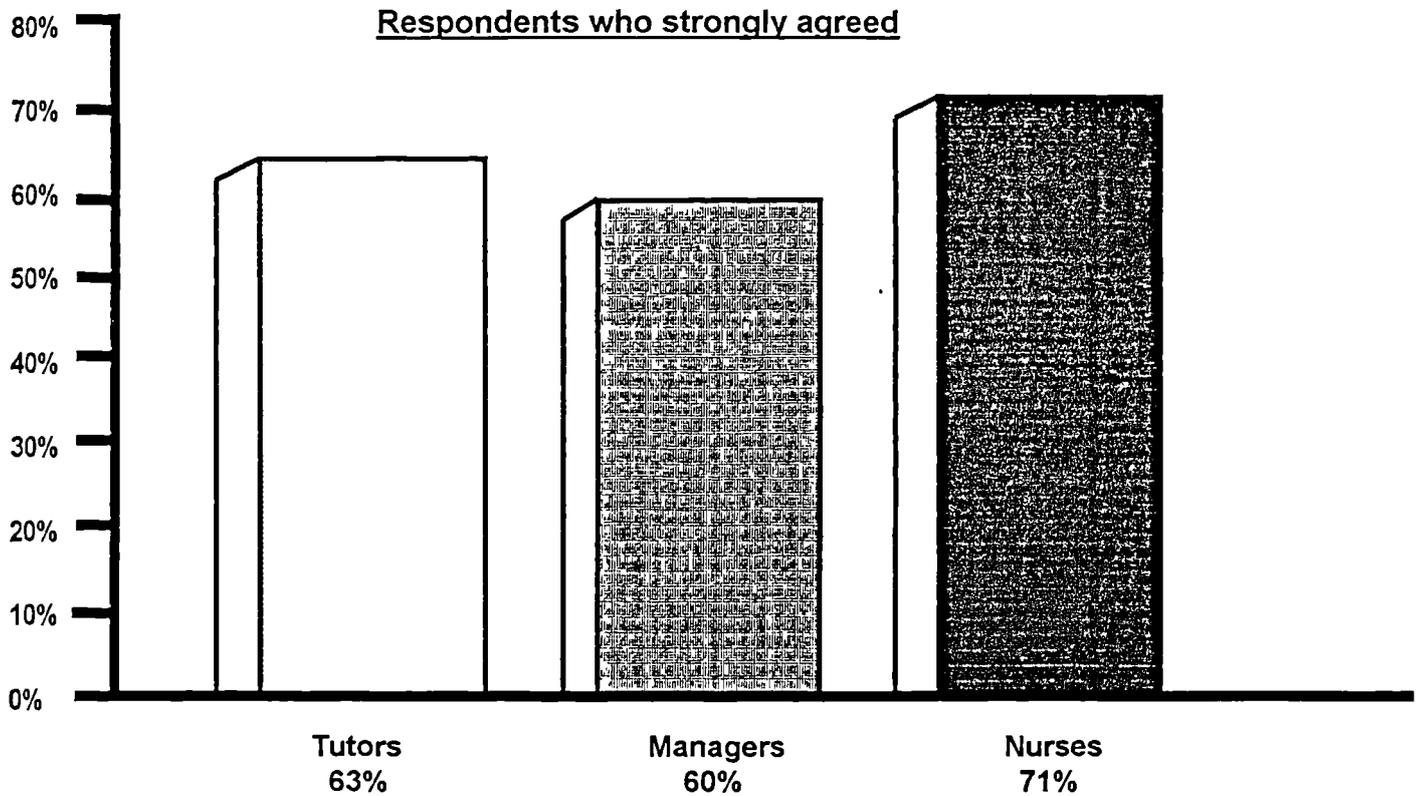
Q7 FACILITATING AND ASSESSING DEVELOPMENT IN OTHERS

97 Respondents (81%) strongly agreed that their experts demonstrated this ability.
21 Respondents (17%) moderately agreed that their experts demonstrated this ability.
1 Respondent (1%) weakly agreed that their expert demonstrated this ability.



Q8 ALLOCATION OF RESOURCES

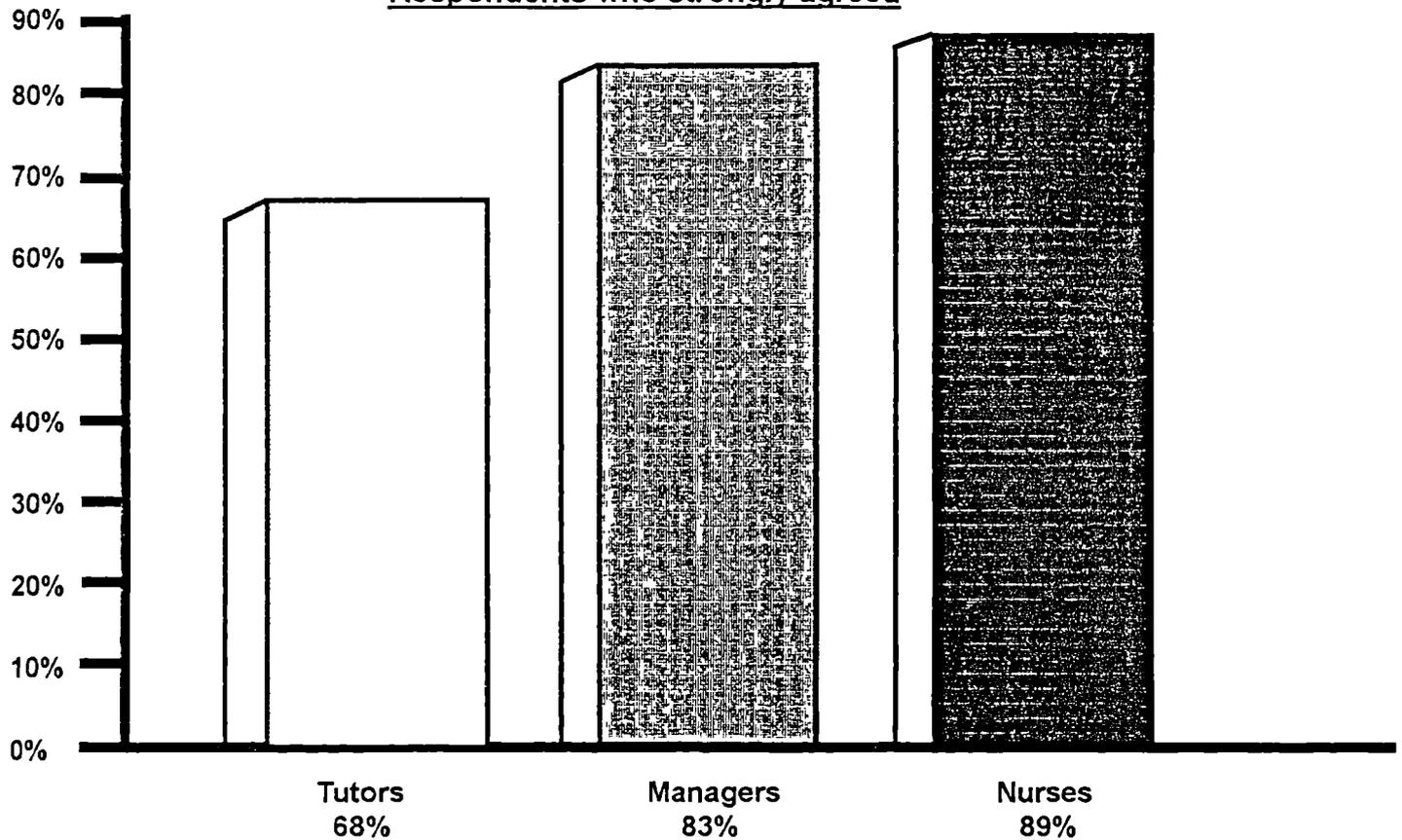
80 Respondents (67%) strongly agreed that their experts demonstrated this ability.
37 Respondents (31%) moderately agreed that their experts demonstrated this ability.
2 Respondent (2%) weakly agreed that their expert demonstrated this ability.



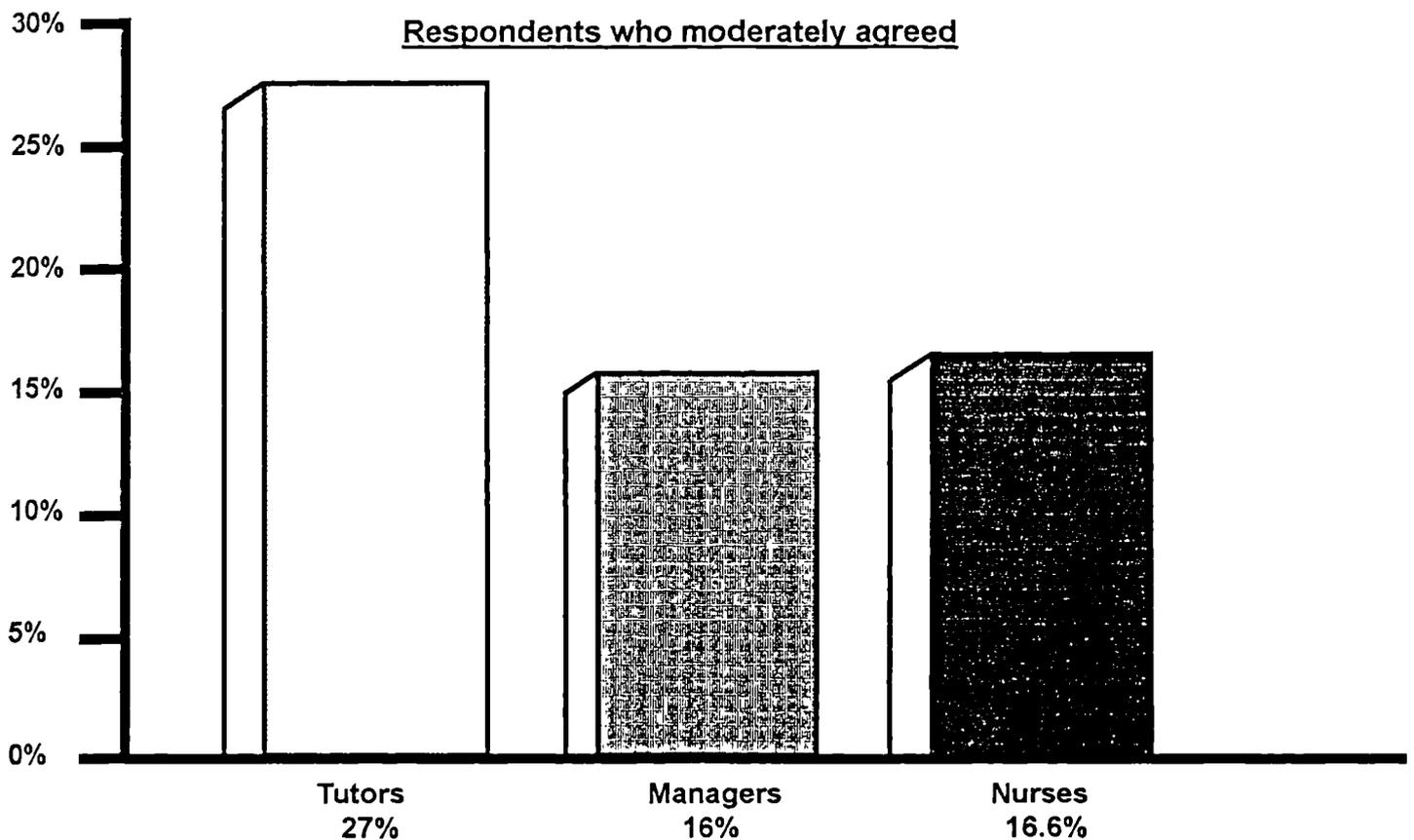
Q9 EVALUATION AND QUALITY OF CARE

100 Respondents (84%) strongly agreed that their experts demonstrated this ability.
16 Respondents (13%) moderately agreed that their experts demonstrated this ability.
3 Respondents (2%) weakly agreed that their expert demonstrated this ability.

Respondents who strongly agreed



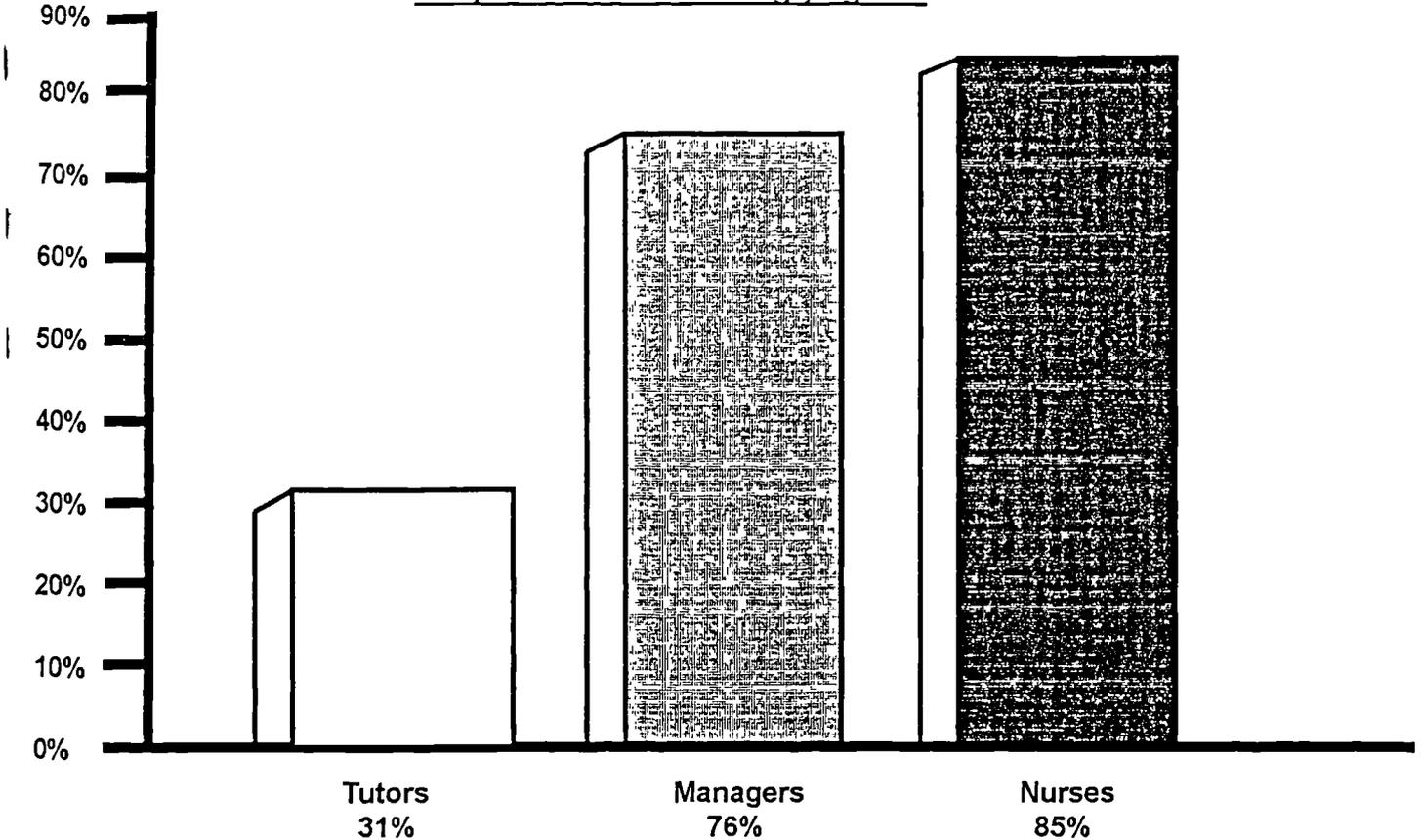
Respondents who moderately agreed



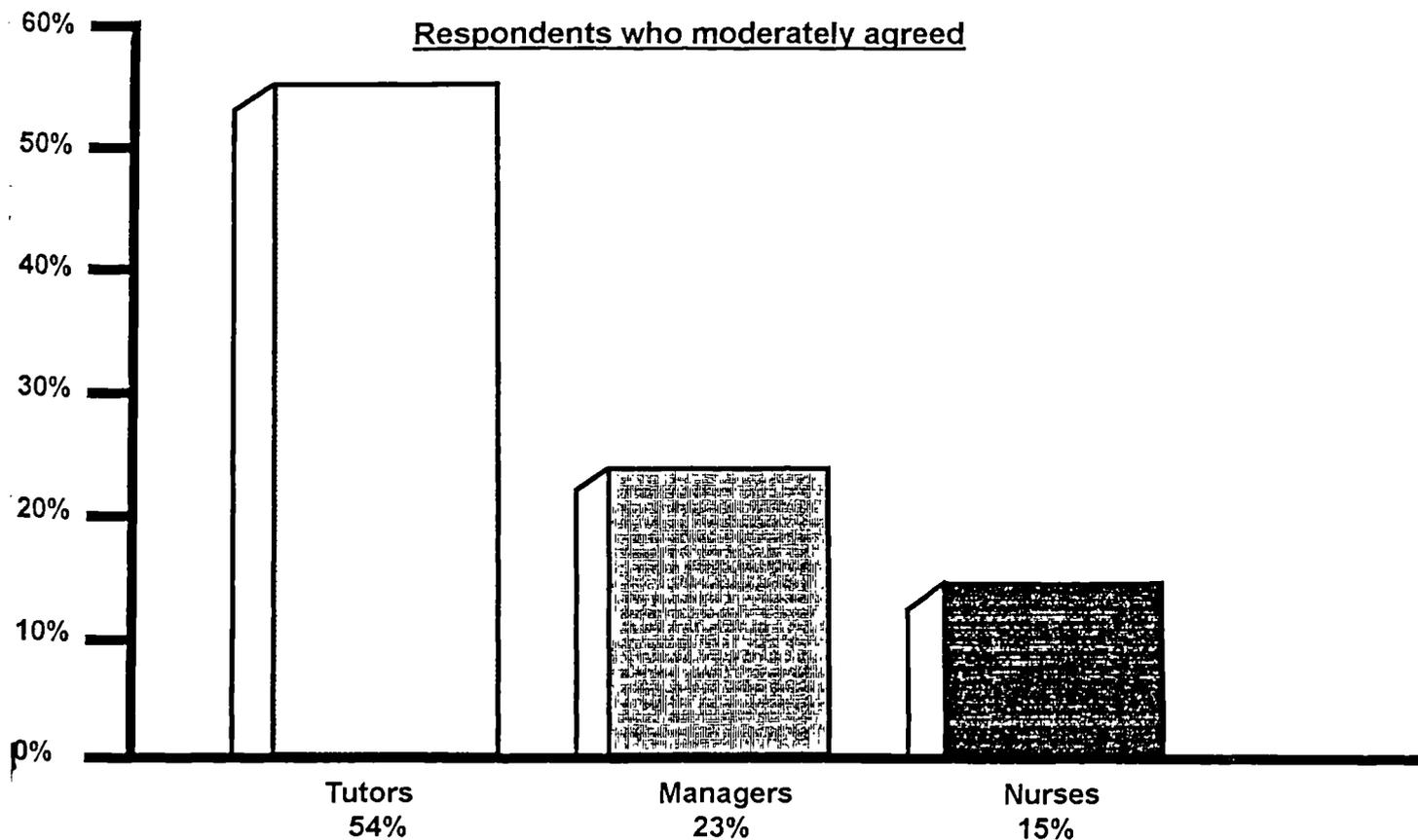
Q10 ABILITY TO MANAGE CHANGE

87 Respondents (73%) strongly agreed that their experts demonstrated this ability.
29 Respondents (24%) moderately agreed that their experts demonstrated this ability.
3 Respondents (2%) weakly agreed that their expert demonstrated this ability.

Respondents who strongly agreed



Respondents who moderately agreed



Significance arising from the quantitative results - nurses
managers and tutors

It is notable in response to the question about the PREPP statement that 27 respondents were prepared to name as an expert someone who did not meet the PREPP criteria. As the PREPP statement is about advanced nursing practice (UKCC 1991), it was anticipated that respondents would have perceived 'their' experts as meeting these criteria. Some of these respondents did not perceive expertise in the same terms as the PREPP statement presents it.

Respondents tended to rate their expert positively in terms of the key characteristics. Anomalies were evident when the ratings were compared between tutors, managers, and nurses. Question 3 for example related to the ability of the expert to use research, and nurses rated this more positively, 71% strongly agreeing, than tutors - 31% strongly agreed. Tutors rated more tentatively, 59% moderately agreeing with this question as compared to 27% of nurses.

Similar findings are evident in relation to question 5 - 'Flexible and Innovative approaches to care'. Sixty four per cent of nurses and 66% of the managers agreed strongly that this statement reflected the practice of the expert but only 45% of the tutors strongly agreed.

The majority of tutors 50% moderately agreed. An almost identical situation occurred with question 6 - 'Use of Health promotion strategies'. Sixty seven per cent of nurses and 66% of managers strongly agreed that their expert demonstrated this ability whilst 45% of the tutors were as strongly positive and 45% of tutors moderately agreed with this statement. In terms of question 10 - 'The ability to manage change' this tentativeness was further evident. Eighty five per cent of nurses and 76% of managers strongly agreed that their expert demonstrated this ability but only 31% of tutors strongly agreed. A slight majority of tutors, 54%, agreed moderately with this statement.

It can be concluded that differences are evident in the way tutors managers and nurses rated the expert they had named. All respondents felt that the practice of their expert reflected the ENB (1991a) Key Characteristics, but in terms of the extent to which respondents agreed, there were significant differences. Particularly in relation to the characteristics related to research, health education, and the ability to manage change, tutors were much more tentative in their rating of their expert's performance than either nurses or managers.

There could be many explanations for this but tutors' comments indicated that whilst they were prepared to say that the expert they had named had some knowledge and ability in terms of research, health education and managing change they felt

that the expert's theoretical knowledge base was likely to be limited. The following excerpt of a tutor discussing her expert illustrates this point.

She has a lack of appropriate educational underpinning. She has not been involved in research and her educational base is narrow. She is lacking in health policy making strategies and research and she has not got as broad a base as she should have.

Other tutors presented similar opinions.

Quantitative findings of the experts' self-rating in relation to Benner's (1984) competencies

The results of this questionnaire were inconclusive and on reflection I felt that the use of Benner's competencies as an evaluation tool was of limited value. A number of problems arose. Some experts did not understand the terminology, others did not understand the concepts. Some experts stated that the competencies would apply on some occasions and not on others. Benner's (1984) competencies reflect practice in the United States of America and are not directly transferable, for example competency 22 : starts and maintains intravenous therapy with minimal risks and complications. This is still considered the doctor's responsibility in this country. I decided that these findings were of little value and discarded them.

Findings of the expert nurses self-rating in relation to the
(i) Higher Award (ii) Learning style inventory

All of the expert nurses felt that their practice reflected the characteristics of the Higher Award. Nothing of consequence arose from the learning style inventory.

Definitions of expertise

There were a total of 171 definitions of expertise. Analysis of the respondents definitions in group A (74) and group B (97) demonstrated that expertise had been classified under the headings of knowledge, experience and skills. Nursing expertise appears to incorporate a multitude of definitions. The elements which emerged in the majority of definitions were related to :

- 1) The knowledge the expert has
- 2) The skills that the expert displays
- 3) The qualities that the expert possesses and uses in practice.

There were multiple definitions of nursing expertise. Experts are cited as commanding respect from others, demonstrating superior, updated, research based knowledge, and highly developed psychomotor and interpersonal skills in relation to patient care and staff management. Motivation, commitment, caring and a striving for quality typifies the practice of experts as does the ability to be adaptable and deal successfully with change. Full details of the analysis of definitions is provided in appendix (xiii).

Qualitative data findings

There is evidence of multiple knowledge use by expert nurses. Their knowledge is formed from a synthesis of different and changing bases which could for example include a combination of subject matter, experiential, and interpersonal knowledge. Expert nurses construct from these multiple knowledge bases appropriate responses in a given situation. I call this the 'creative response of expert nurses' and it requires complex and imaginative thought underpinned by a deep sense of responsibility.

Of considerable importance is the fact that the knowledge developed and used by expert nurses is inextricably linked to the 'world view' they hold.

World View

Practitioners' 'world views' were developed from the orientation of the expert nurse in terms of :-

1. The philosophy and values that were held and used by the expert nurse and the organisation.
2. The type of model that shaped care delivery; that is either a medical or nursing focus.
3. The goals of the expert nurse and the organisation.
4. The reflective ability of the expert nurse.

5. The level and type of education both professional and academic of the expert nurse.
6. The resources available to the expert nurse.
7. The relationship that expert nurses held with significant others such as doctors managers and patients.
8. The amount of authority the expert nurse is able to exercise.

The 'world view' exhibited by expert nurses develops in response to local conditions. When resources and educational development were limited with little or no support from management a certain type of expert and expertise developed. In another area different factors were influential and different types of knowledge and expertise developed. In some areas, because of the nature of the prevailing conditions, nurses developed expert knowledge which met basic survival needs. In other areas where conditions were more favourable nurses were able to develop expertise of a more sophisticated nature. For example knowledge use was linked to self-actualisation and aesthetic appreciations. These factors formed a 'world view' which acted like a process of selection. When one particular set of factors formed a 'world view' then a certain type of expertise was evident. When another set of factors was influential then another type of expertise was evident. The 'world view' also influenced the way knowledge was perceived and used. Different knowledge bases were used by expert nurses.

For presentation purposes I have categorised them under ten headings. In reality there are links between these categories with some overlap.

Categories of expert nursing knowledge:-

Subject matter knowledge
Personal knowledge
Experiential knowledge
Management Knowledge
Clinical judgement knowledge
Developmental knowledge
Interpersonal Knowledge
Professional Knowledge
Practical knowledge
Critical knowledge

These ten categories are now discussed in turn.

Subject matter knowledge

This includes a wide variety of subjects and is essentially 'know that' knowledge. Examples of subject matter knowledge included normal and abnormal anatomy and physiology, pathophysiology, biochemistry, pharmacology, technology, psychology, sociology, nursing theory and medical knowledge.

Experts in specialist areas had considerable knowledge about issues related to these areas. For example, anaesthetic nurses knew about anaesthetics and anaesthetic machines, ITU nurses had an extensive knowledge of physiology and biochemistry. Some experts had knowledge of research which informed their practice others did not.

Personal knowledge

Belief in their own judgement was an important characteristic of the expert nurses. Many specified that they would prefer to see a situation with their own eyes. The types of personal knowledge developed varied depending on the group they were in. Some showed considerable reflective abilities, whilst others did not. Many displayed an aura of authority, a presence which singled them out as different from others in their area. Political knowledge was a characteristic of some of the experts.

Experiential knowledge

Many experts had developed a repertoire of knowledge gained from practice. Others had drawn on wider life experience to inform their knowledge base. They were able to devise likely scenarios based on previous experience. Maxims and rules of thumb were used. This was particularly evident in the practice of some experts.

Management Knowledge

This included a wide variety of activities including organisational knowledge, leadership knowledge, strategic knowledge, knowledge of the change process , management of resources.

Clinical judgement knowledge

This included anticipatory knowledge, diagnostic knowledge, hypothesis testing, monitoring knowledge, problem solving, deductive knowledge, discriminant knowledge, priority knowledge, evaluatory knowledge, intuitive knowledge and procedural knowledge.

Developmental knowledge

This presents in different forms and includes acting as a role model, formal and informal teaching, using questioning techniques, contributing to, and developing, an environment that fostered the development of nursing expertise and quality of patient care. Analogies and images to convey the 'reality' of a given situation were also used. Word pictures and analogies made visible what had previously been invisible to students.

Developmental knowledge applied not only to developing students and patients /clients' knowledge; it also applied to innovative practice, and to pushing the boundaries of practice forward.

Interpersonal Knowledge

The way interpersonal knowledge was used again varied with each group of experts, and ranged from controlling through using knowledge as a source of power to emphasising the primacy of the nurse-patient relationship in the process of giving care. Transformative knowledge where a patient care situation could be transformed was also evident on occasions. Knowledge of how to promote and maintain morale was also highlighted as significant.

Professional Knowledge

Professional knowledge is the type of knowledge that is specified by the professional governing body (UKCC 1992) and by influential nursing commentators either explicitly or implicitly as the desirable knowledge to be used by nursing. Knowledge in relation to advocacy and accountability comes into this area, as does consideration for the work load of colleagues (UKCC 1992). This knowledge presents in differing ways in the different groups of experts. In some this knowledge was easily identifiable, whilst in others there was a deficiency on occasion.

Practical knowledge - Craft Knowledge

This was essentially 'how to do knowledge' and had strong links with experiential knowledge. Practical knowledge was linked to the psycho-motor aspect of nursing but it was also linked to intuitive aspects of nursing and the art side of nursing. Like the other types of knowledge outlined, practical knowledge was often a synthesis of several knowledge bases operating at the same time. This knowledge was displayed by experts in their daily practice.

Critical knowledge

This knowledge was closely linked to notions of reflection and insight, but included a critical dimension characterised by a challenging ability. It appeared to be closely involved with the ward culture in which it developed. Creativity in response to critical thought also was a feature of the practice of some experts. There was little or no evidence of this ability in some groups whilst it was the hallmark of others. Also important is the linkage of knowledge with philosophical beliefs and values held by expert nurses. These strongly influenced the way knowledge was viewed, used and developed.

These ten types of knowledge were evident in the practice of all of the experts but some of these categories were more marked in some experts than in others.

Pluralism of Nursing Expertise

Four distinct types of expert emerged from the data. I have named them Technologists, Traditionalists, Specialists, and Humanistic Existentialists, as these names encapsulate the characteristics exhibited. A total of fourteen Technologist experts, four Traditionalists, eleven Specialists and six Humanistic Existentialist experts were identified from the data. Exactness, is not possible in estimating why a certain number of the experts emerged in each category. However, as a member of the nursing community I can appreciate likely reasons accounting for this. Experts from Authority B were included as a deviant sample, as this Authority has a reputation for nursing excellence. The Humanistic group were all from Authority B. It is likely that such a group is atypical and likely to be found only in nursing development or research units.

Since the 1960s nursing has been developing its nursing base in terms of high technology. Nurses working in these areas are perceived as experts by other nurses, so it is not surprising that the largest number of experts should constitute this group.

Specialist nurses have been a more recent innovation in nursing. They have specific responsibility for particular client/patient groups, so again it is not surprising that this

is the second largest of the expert groups (11). The Traditionalists are the smallest group of experts in this study (4) and may be much more typical than this study implies. Enclosing a deviant group is likely to have altered the skew of experts.

Technologists

Anticipatory knowledge is an important aspect of knowledge held by technologists. An expert from a high technology area identifies her ability to detect problems before those with less knowledge would be able to. Such experts pick up warning signs earlier than other nurses and start a process of rehearsing scenarios in an effort to match up what is happening with known scenarios.

I begin to become aware that things are not quite what they were and they could either go away, or they could get worse, and I just start to think, what has he had done, what is his fluid state, and generally do a full sweep of the patient, ... subconsciously I am thinking about his IV access, has he got inotropes up, if I need to give him volume, what lines have I got, ... drains everything, really quickly run through all of his systems, ... you can just look at the monitor and work my way down quickly..

This nurse exhibits the ability to assess a complex variety of cues and to establish a diagnosis or tentative diagnosis from these findings. In this next example an expert anaesthetic nurse shows the importance of anticipating events .

It is anticipating all the time ... you are ready before you need to be and you don't end up having to sort things out ... perhaps I will just have some dopamine sitting on the side,

perhaps I will have an extra syringe pump, perhaps I will have this, perhaps I will have that and then when they actually need it and they say 'I will have some dopamine' it is in your syringe pump and there you are. Or if you think he might need an arterial line and you said to the anaesthetist will you need one and they have said 'no I don't think so ' ... it might be three hours before they come to theatre, ... [you] take a blood pressure and it is low and the anaesthetist will say 'we will have an arterial line' but it is there, it is ready, because you have anticipated you might need it.

In this example the expert identifies the importance of being prepared and having sufficient knowledge to be able to deal with all eventualities. Also the importance of trusting your own judgement as opposed to merely doing what the anaesthetist specifies is apparent. The expert explained that 'you learn to take very little of what the anaesthetist says verbatim'. Her expertness is apparent in the degree of autonomy she demonstrates as opposed to preparing for situations as directed by the anaesthetist. She is much more than a pair of hands for the doctor; she is in a sense acting as another self. She also needs a knowledge of complications that may arise so that she is able to prepare for them.

... when you have enough knowledge you will pick up the warning signs about a patient as quickly and sometimes quicker than a junior anaesthetist your hand will be on what he needs as he says and it will be in his hand.

This synchronicity illustrates aspects of the artistry of nursing which can only be accomplished if developed from a sound knowledge base.

In the next example an expert from an intensive care unit (ITU) describes a situation in which she was able to pick up early warning signals, such as the patient becoming fidgety and restless, and was able to start considering alternative scenarios before the student was able to do so. Not only was the expert nurse quicker at picking up 'cues' but she was also quicker at anticipating that a chest x-ray would be required. Information-processing was more sophisticated, quicker and involved a decision-making element as compared to that of the students, which involved a slower process dependent on limited indicators and without a decision-making or action element included.

... This lady ... had a massive infarct [coronary thrombosis] ... she needed ventilating for a while and we had literally just extubated her the day before... she was fine sitting up in bed and then she started to get quite fidgety and really quite restless and then her respiratory rate went up, it was all sorts of things like that, before you saw her saturation drop and by this time I was beginning to think it is respiratory, and I was starting to check the fluid balance, thinking when had the student last done a gas to check her oxygenation ... I was beginning to think maybe she is going into pulmonary oedema. Her sputum was clear that was OK, so by this time her sats. [saturation] were starting to drop, so I got Jacky to do a blood gas .I was already thinking we need an x-ray here. So by the time we got the doctor, I sort of decided to ring for an x-ray and they just said yes, go ahead and do it. It proved that she had got pulmonary oedema so we just gave her Lasix and sorted it out.

Not only was the expert nurse able to differentiate between normal and abnormal scenarios but she was also able to exclude other possibilities.

For example she was checking the patient's sputum to ascertain if it was blood-stained as this could indicate that a pulmonary embolism (clot in the lungs) had occurred.

Autonomy and authority

Issues to do with autonomy were frequently raised by nurses in high technology areas. Many felt that they had considerably extended their knowledge bases and were prepared on occasions if they felt the situation warranted it to take risks. Some of the situations described sound quite horrifying in terms of the risks the expert nurse in these scenario was prepared to take. As outsiders it is easy to say that this nurse was stepping beyond the realms of nursing practice, but the reality is that this is what is happening in practice.

An expert nurse in a cardio-thoracic surgery ward identified a post-operative patient scenario where everything that could be done by conventional means had been done for a patient following cardio-thoracic surgery, but the patient continued to bleed. This was a very serious situation because if the patient's blood clotted around his heart then this would cause pressure and precipitate a cardiac arrest. The patient was unfit for further surgery.

The drains were blocking, I knew the patient had been bleeding excessive amounts over night and ... I knew that if we didn't manage to get that blood out down the drains that he would just have a tamponade and a cardiac arrest ...

what we needed to do was to get the drains moving, so when you do all the normal things like stripping them as hard as you can, turning the patient to try and unblock them, the only thing left apart from opening the chest is to stick a great big suction catheter up,- which I did.

I have also done it to patients who have had by pass grafts done, usually you do not tell it to anyone till later, because the doctors tend to get very excited when they find out that you have done it. The more senior doctors are quite OK about it, but the more junior doctors tend to find it is all a bit upsetting, so quite often you just get on and do it anyway. With this particular patient, I could ... if I had poked the catheter up through the end of the graft ... have ruptured a dacron graft ... you can pull it off or you could do something ... acute and just introduce infection. What I actually did in that particular situation was to stick suction catheters up and there was no one else around and get the clots out, in fact I ended up doing that two or three times over night but that definitely stopped him from having a cardiac arrest and having his chest opened on the unit.

The expert on this occasion was taking her practice up to and, some would argue, beyond the boundaries of nursing practice. It is likely that if anything went wrong this nurse would face disciplinary action and possibly removal from the nursing register. She acknowledged that she would be prepared to put forward a supporting position for her actions, but she was also aware that she could be criticised for the actions she had taken. She explained that her actions were unique to her because she was knowledgeable and experienced in the speciality and because she was one of the most senior nurses within the unit.

... what they (junior nurses) see me doing is not something they will be aspiring to do in 6 months or next year but in 5, 6, 7, 8 years ... a lot of them find that very difficult ...

This nurse is not extending her practice mindlessly or in any sense carelessly but deliberately, as an autonomous practitioner, and she is making very serious decisions about, how she will manage the post-operative care of her patients.

... A lot of it boils down to the authority they (the doctors) have given us practising that way. Obviously if we didn't work in a unit where we have the cooperation of the medical staff to allow us to practice like that, then we couldn't, but they have given us the freedom to develop those skills.

In order for nurses to be able to develop such skills they need extensive knowledge of many factors, for example anatomy and physiology, post-operative complications and disease processes. Another expert nurse from a coronary care unit presented a scenario which illustrates some of the difficulties that occur when a nurse may have the knowledge and experience to diagnose that a situation will occur, but where she does not have the authority to overrule the doctor.

A 58yr. old ... male was admitted with an acute inferior myocardial infarction ...I noted that the patients cardiac monitor was displaying a broad QRS complex with two P waves for every QRS and a constant P-R interval. I made the diagnosis of Type II AV block ,nothing extraordinary about this. I summoned medical help. The doctor suggested that the abnormal rhythm should be observed further, with no immediate intervention. I protested, ... that in my opinion , this was a very dangerous rhythm and could result in the demise of my patient within minutes. My rationale for intervention was that without a prophylactic pacemaker the patient was at risk of sudden cardiac arrest.The doctor insisted that in his professional judgement, there was only a case to proceed in the event of the patient arresting ... The doctor walked away, so I now prepared myself for the inevitable Behold 45 minutes later the patient developed cardiac standstill and now the pacemaker was being inserted into the hearts cavity whilst the resuscitation procedure was

being performed. This makes the insertion of a pacemaker both difficult and hazardous. The patient did survive - but it was a catastrophic episode, which should not have happened and needn't have happened if I had been listened to.

The issue of authority seems to be inextricably linked to the ability of the organisation to recognise the knowledge that these experts possess. What seemed to be happening in several areas was that expert nurses were demonstrating knowledge through the activities they undertook but this knowledge was not formally acknowledged. There is a degree of ambiguity in terms of authority in the way that expert nurses are treated by doctors. On occasions they were listened to with respect, whilst on other occasions they were ignored and overruled.

knowing what the patient needs and then not being able to get that provided. I think that is the most frustrating thing that I have ever found (Expert from an Intensive Therapy Unit).

Ambiguity of authority was also apparent in the fact that not only on occasions were these experts overruled by doctors but also the experts found it necessary to monitor the actions of junior doctors. An expert from an ITU discussed the difficulties that she had encountered when her knowledge of how to deal with a cardiac arrest was greater than that of the doctor dealing with the arrest situation.

Each arrest is different and it is very difficult when you are at an arrest and you see junior doctors trying to cope and you know what drugs the patient needs or you know what should be done and you have to bite your tongue and you think to yourself, I might make a fool of myself if I am wrong, but if the patient's life is at stake I speak up. What I tend to do is draw up the injections and I say 'I have got the adrenalin here' you know, do it tactfully.

Or I would say I have got the calcium ready for when you want it and they would go 'oh yes, I'll give some calcium'. Some of them will say to get some soda bicarb, but that is out now, ... so I say 'haven't you read the research, or haven't you been to the CPR lecture', because every junior doctor should go but they don't go.

This is a good example of how complex is knowledge usage by expert nurses. The expert starts by identifying that each arrest is different, therefore it is not sufficient to have a list of instructions to follow. Rather, knowledge of principles has to be applied to differing situations. It is also likely that such scenarios because of their uniqueness will require the expert nurse to be able to reflect-in-action (Schon 1987) so that each unique case can be responded to in an appropriate manner. There is also evidence in the scenario that the expert nurse feels that she has to play the doctor-nurses game (Stein et al 1990) where she pretends for the doctors benefit that he has thought of something that was really her suggestion. This area of inequality of relationships between doctors and nurses caused considerable difficulties for this nurse on occasions.

A lot of the doctors do not do the correct compressions and constantly ... massage far too quick so they are pushing on an empty heart. I tell them sometimes especially if it is our patients because you feel more responsible for that patient, so I always say something to them or ask if they would like me to take over to give them a rest ... It is different if it is a nurse, I do not hesitate then. If it is a doctor that I know, I would tell him if he was doing compressions wrong but if it is a doctor I do not know and I'm not sure what rank he is I'm a bit dubious.

It is evident that the expert feels that she needs to handle the relationship between herself and the doctors carefully.

She is prepared to tell doctors when they are not carrying out cardiac compressions correctly but she presents this as conditional. She does this if (a) the patient experiencing the arrest is from the ITU 'because you feel more responsible for that patient', (b) if it is a doctor that she knows. It is a situation for disquiet that this very experienced and expert ITU nurse feels that if the doctor is not one that she knows or if she is unsure of his rank, then she is dubious about telling him when he is doing cardiac compressions ineffectively. In such a situation it is possible that this hierarchical, unequal relationship could lead to an unsuccessful resuscitation effort and thus the death of the patient. Also of importance is the fact that the expert nurse felt more responsible for some patients than others. This 'theory-in-use' is in conflict with the philosophical statements made by expert technologists in the workshops and during interviews, that the patient always comes first. The reality is that the patient was not always the first consideration. This is not intended as criticism of this expert rather as a testimonial to the strength of the inhibiting factors that the expert nurse feels are on her when it comes to working with doctors.

Demanding situations arise, such as the following one, where life and death decisions are made and which require them to be not only extremely knowledgeable but also assertive.

An expert nurse on a coronary unit explains about a situation where a doctor has a problem with a pacing wire and the expert nurse diagnosed that he had inserted the pacing wire with a guard on into the cavity of the heart

... I said to him that this was ... a very strong suggestion that he had left the guard over the tip of the pacing wire. 'Rubbish !' he said . I said to him let us analyse very quickly what we have here, first of all you have been two hours in the heart, you have made no contact with the heart, the pace is still going at a rate of 30. Secondly I told him I had checked out the pacemaker, there is a way we can test this and it is perfect ... I said what concerns me is that is a metal guard that you have got in the heart. 'How the hell, could I get a stainless steel metal guard through the anti-cubital fossa and round into the inferior vena cava?' He said... 'how could I go through the tricuspid valve ?' I again said to him this could be done very easily, in fact more easily than without the guard on because (a) it would be heavy (b) it is stiffer. ... At this his whole attitude changed from being very defensive initially to becoming very humble. He said 'what shall I do' and I suggested that he inform his consultant but he was adamant that he would not do this ... I said that I would be with him throughout the procedure. I said to him that he must not alarm the patient, because the patient was conscious while all this was going on. I pointed out to him that as the heart was only beating at 30 bpm he might get away with it. What we had to do was withdraw the catheter while it was in diastole, so I kept saying diastole pull, diastole pull. As he pulled it round into the arm I compressed further down the vein so that if the guard detached at this stage it would not recirculate ... Afterwards he was as nice as could be ...

This scenario like many of the others raises for consideration issues such as knowledge, authority and legal and ethical concerns. The expert nurse clearly demonstrated knowledge of anatomy and physiology, also knowledge of how to read an image of the inside of the heart on an image

intensifier. Her diagnostic ability was not only manifest but was instrumental in influencing the doctor to take alternative actions. When the doctor realised the seriousness of the situation then, and only then, was he prepared to listen to the expert nurse. There are ethical and legal implications also within this scenario. Almost implicit in the action is the nurse acting as a partner with doctor and of the doctor being saved in some sense by the nurse, as if the nurse was acting as an advocate for the doctor. What is not addressed in this scenario is the nature of the relationship between the nurse and the patient, and issues to do with patient information (presumably if the patient was aware of what was happening he could sue). But as with other technologist nurses what is evident is that the doctor nurse relationship under this model was extremely powerful. The whole area of doctor-nurse relationships is highly influential in terms of the knowledge that expert nurses use in and develop from their practice. One expert nurse from an ITU felt that

Correcting doctors happens all the time. The number of times in ITU that we have saved patients lives through stopping doctors from doing something, or from telling them to do something, is to numerous to count.

An expert nurse describes an incident where her authority was challenged not by doctors but by nursing management.

... We were very busy ... on ITU lots of critically ill patients ... one of the patients coned ... and was going down to theatre for organ harvesting and there is a lot of organising in that. My manager thought that once the patient was brain dead, then they would not require much care and the nurse could be cancelled for the following shift. I was told to cancel a bank nurse that we

had booked for the late shift and I refused to do so ... when the manager came down and saw the bank nurse I was pulled up again for it, but I felt I justified my position. I felt that as the clinical expert I was there to tell the manager the needs of my patients, which would reflect on the number of staff at the time ... It seemed as if all the manager could see was this patient who was not moving, going on a bed to theatre, for his life to be ended and she did not seem prepared to see beyond that. There is an awful lot of care needed for the relatives. Had I not had the bank nurse I feel I would have taken the incident further, but as it happened the incident fizzled out.

This incident raises issues to do with assertiveness, advocacy, resources, indeed common humanity. Lack of resources has often been quoted by nurses as the reason why holistic care is not given, but in this example the reality in terms of life and death is readily apparent. The expert nurse demonstrates a wide variety of knowledge bases and shows insight and analytical ability about resources and sensitive issues such as organ donation and counselling of bereaved relatives. This is a very moving scenario. The expert nurse is attempting to deal with the imminent death of her patient. Emotionally this must be a distressing time for her. The patient was a young man, younger than herself. Issues of mortality may not be far from her mind.

The expert nurse uses all her skill and knowledge to enable the relatives of this young man to come to terms with his death; at the same time, mindful of patients who are dying because they do not have a functioning kidney or a functioning liver, she enables the relatives to come to terms with donating their

son's organs. In the midst of this sensitive and most demanding scenario intrudes the manager who demands that the expert should cancel the bank staff even though the expert felt they were necessary to provide care. The callousness of the manager's position as perceived by the expert - 'It seemed as if all the manager could see was this patient who was not moving, going on a bed to theatre, for his life to be ended and she did not seem prepared to see beyond that', - is almost beyond belief.

Issues of conflicting values and lack of support by management are apparent in this example. What is also readily evident is that the manager and the expert nurse have very different agendas when it comes to providing care. In discussion the expert nurse felt that

As nurses go higher up in management they tell you that their concern is the budget.

Diagnosing

Allied to issues of autonomy and authority are areas of knowledge associated with diagnosis and assessing. These formed a major part of the expert technologist's work. Traditionally the province of diagnosis-setting has been the prerogative of the doctor, but during the interviews and observation visits it was apparent that expert nurses within high technology areas were constantly evaluating and forming tentative hypotheses and also potential diagnosis.

The complexity of the diagnostic process is evident in the next example which demonstrates that knowledge by rote has no place in the knowledge of expert nurses. Rather, what is used is a synthesis of knowledge, drawn from a variety of bases. An expert from an ITU describes the importance of being able to discriminate in terms of symptoms, in a sophisticated matter, post-cardiac surgery.

You could have a situation where you have a patient with a very low blood pressure and you might have two patients identical who have had the same operation who have had the same amount of fluid the same amount of blood loss same urine output and they have dropped their blood pressure, the one patient I might not worry about if he was very warm very dilated, it would not worry me at all ... if the patient next door was cold then that would worry me a lot.

This expert demonstrates that she is capable of considering varied and complex factors and is able to prioritise factors indicative of serious problems. She is also able to distinguish between changing factors in differing scenarios and from these identify the factors that are significant.

The diagnosing aspect of technological expertise was also evident during an observation visit to a coronary care unit. I asked the expert to describe her thought processes about one of the patients who had discussed his symptoms with her.

The way he has described his symptoms is very typical, that [mention of the] internal aspect of the arm where the pain was, is highly suspect, because of the nervous distribution from the heart, the cardiac plexus actually tracks down the arm and falls short of the wrist and they get paraesthesia in the hands ...The ECG can be normal but what the patient tells you can be important, I try to get this across to the students.

In this example the expert was comparing the patient's symptoms with a typical scenario. In addition she is building a case to support her hypothesis by identifying the underpinning physiological changes that will account for what the patient is saying. She was sufficiently confident in her own knowledge to teach students that a recording of normality on an electrocardiogram is not definitive. Essentially this expert was highlighting the significance of the 'lived experience' of the patient in terms of establishing a diagnosis. The medical model and influence on nursing care appeared very strong in many of these areas , understandably so since many of these expert nurses have gained much of their knowledge from medical staff.

An expert nurse from an ITU department when discussing the knowledge she used during emergency situations explained that for her, diagnosing that a patient needs to be defibrillated and then initiating that treatment was a very traumatic process. This seemed to indicate a lack of assertiveness rather than a lack of knowledge on her part.

We are extended to defibrillate. This can be a horrible experience at times, especially if you are on nights and there is no one about and a patient goes into VF (ventricular fibrillation) and you have to decide to defib just of your own bat. Its quite a big decision to have to take. We are lucky on ITU because the patients are monitored all the time and you get to know the heart rhythms and in a sense you know if a patient is going to arrest so you are geared up for it anyway.

But to go ahead and actually defib some one without any body telling me is one of my biggest ordeals. When you speak to the other nurses on the unit you see that they feel the same.

Although the expert felt that she had the knowledge to both diagnose and treat this condition the constraints that inhibited her seemed to be linked more to lack of confidence than lack of knowledge. Nursing legends (well known stories about controversial nursing situations) were instrumental in influencing her perception of her authority to prescribe and administer treatment.

I'm glad that I have got an extended role certificate because that makes me feel protected in a way. That incident with a charge nurse in A & E (accident and emergency) some time ago was quite worrying. Apparently a patient came into resuscitation and the doctor was busy resuscitating somebody else and the patient was in obvious VF and the charge nurse defibed the patient and the patient was fine and recovered but the doctor complained that the nurse had done something that he should not have done and the nurse had not got extended role, he had just done it because he knew that was what the patient needed so he was lost. In a way he did take a lot on because he was not extended.

What is particularly interesting about this example is the fact that the expert almost seems to be agreeing that the nurse had stepped beyond the realms of his practice: 'in a way he did take a lot on', even though she was aware that the consequence of the nurse not initiating care would have been that in all probability a patient would have died. This lack of assertiveness was not typical of all of the technologist experts, but it was an issue that recurred amongst the experts.

Teaching

The practice of expert nurses within technology areas was typified by an explicit teaching role. This function was evident both through formal sessions and informally whilst giving care. Many types of knowledge appeared to be transmitted through this teaching process. There was evidence of what was traditionally medical knowledge being taught; for example how to read ECGs, and how to auscultate a patient's chest. Practical nursing knowledge was also passed on. One expert nursing specialist thought her extended knowledge base had been gained from doctors.

Much of the teaching seemed to focus on physical aspects of care very often related to the disease process that the patient was experiencing. Complex questioning seemed to be a technique that was often used, as can be seen in the following scenario observed during a visit to an expert from a coronary care unit. The patient being cared for was a 76 year old woman who had experienced a cardiac arrest the previous day and had required pacing. She also had a perforated duodenal ulcer and peritonitis and there was now evidence of renal failure. Her prognosis was grave. An expert nurse monitored the care that was being given by a post-registration student who was undertaking a coronary care course. At the same time the expert nurse took the opportunity to discuss the patient's care in detail with other post-registration students and carried out

an impromptu teaching session. The teaching was carried out as an integral part of the discussion about the patient's care and condition. A questioning technique was used. Initially the questions were based around the patient's blood reports. The expert nurse identified that there was evidence of poor creatinine clearance and suggested that this might be due to one of two things. She then asked the nurses to identify what these might be. Having drawn out from the nurses explanations as to the causes of the poor clearance, she then built on this and now focussed the discussion on dehydration, shock, intracellular and extra cellular fluid and the significance of the guarding which was present in the patients abdomen. Through a process of acknowledging the nurses' responses, she built on each question, until she was able to get the nurses to establish connections between the problems the patient was experiencing in the different systems.

This type of teaching appears to reflect a pedagogical approach to learning, where knowledge is presented as being the province of the teacher and is presented in a didactic manner. Interestingly and possibly linked to this style of teaching was the fact that the experts seemed to accept responsibility for ensuring that care was given correctly, but this acceptance of total responsibility was not reflected in the actions of other nurses in these areas.

An example of this 'ownership' was apparent in a patient care situation where a post-registration student had been caring for a patient and the expert nurse was checking that all was satisfactory. The expert nurse was the one who picked up a used swab from the floor, it was the expert who tidied the drawers and provided a sputum pot. All of these activities were carried out whilst the expert was teaching, almost as if they were being carried out at a subconscious level. The expert was also the one who put the bed table in front of the patient. These were all activities which the student was well capable of doing, and would have formed part of a basic nursing programme (the student was a trained RGN and thus quite familiar with caring for patients) and the student had been with the patient for an hour before the expert went into the cubicle, but these little details were not attended to. This sense of responsibility also seemed to be tied to a form of control where the expert was showing that she considered that it was appropriate for her to carry out these activities, that is, she was showing the nurse how it should be done. The expert's actions appeared comparable to an individual when walking in their own garden, subconsciously dead-heading the roses, as they walk along, without really realising what they have been doing. This may well be linked to the fact that many of these expert nurses were the most senior nurses within department. There did however appear to be a further dimension to this sense of ownership, since it appeared to interfere with the ownership that some of the students had for their practice.

An expert nurse from a post-cardiac unit saw her teaching role very much in terms of staff development. She explained that the area she worked in had undergone a nursing reorganisation.

I have been trying to develop skills within the F grade team especially because they are the group [who are] very underdeveloped they have never worked appraisal systems, they have never worked with learning contracts, they had not worked with mentors, so what I have tried to do, is introduce them to those skills. We have been lucky in that with the diploma in critical care they have been able to gain experience in working with mentors and working with learning contracts and being taught quite formally on that area but I am trying to introduce that to the wider ward area ... I have also tried to introduce an appraisal system, using my own experience of appraising staff over the last 5 years ... we are now looking at appraising people in the four realms of professional managerial clinical and educational developments and I started that process off by working through the process with them and they are now starting to work through the process with some of their other staff.

Both of these experts appear to have in common the notion that they have a body of knowledge that they are trying to impart to those they are responsible for. The responsibility for imparting this knowledge seems to rest heavily with the experts. Teaching is viewed as integral to their role and staff were presented as people requiring educating and developing. One of these experts is a lecturer practitioner and teaching forms a major part of her role. These experts set high standards for others to follow. They also monitored others to ensure acceptable standards are achieved. The experts displayed ownership in terms of the areas they worked in and in terms of the care that was given in those areas.

Typically these experts accepted responsibility for care given within their areas. A variety of methods was used to ensure that learning took place. Some expert nurses were able to translate the reality and significance of situations to other nurses through a process of picture building and through the use of understandable every day language. In this sense the expert nurses acted as translators.

A fascinating skill demonstrated by many experts was the ability to act as a translator in terms of interpreting a scenario. This translator function was evident when the expert nurse used analogies to make patient care scenarios meaningful to students. This ability, to pass on the perceptions held by experts to novice students by using analogies, was a means by which some aspects of the 'uniqueness' of expert nursing knowledge was made explainable.

Examples of this translator function were evident when the expert nurse explained and interpreted a drop in an ill patient's blood pressure (BP). She did this by describing this as being like , 'when you are winded' and that the patient will feel as if they are in 'a constant faint'.

This appeared to bring alive the unemotive figures of the BP recording so that they developed into a picture of how the patient would feel and would appear. In a sense this made the invisible, that is the low BP, visible.

Another technique used to convey the reality of a situation was evident when she was talking to members of the nursing and medical staff. The expert nurse's every day expressions described in a very clear way the message she was trying to communicate. For example when summarizing the condition of the patient in a side ward she said that the patient ' had a lot on her plate'. When discussing this same patient's condition with one of the doctors she explained that the patient's condition was a little improved 'when you consider that she was dead yesterday' (the patient had experienced a cardiac arrest the day before). When the expert nurse was explaining a patient's ECG to a SEN as a means of describing ectopic beats and their possible consequences of causing the heart to stop, she used the expression that the heart was 'in chaos'.

It was as if the expert was interpreting events and then putting them into word pictures that could be understood by those she was talking to. These descriptions carried an immediacy that the correct medical terminology did not possess and at the same time put the whole situation into perspective.

Much of the teaching by this expert on the coronary unit was typified by what can be described as an extraction approach. The expert nurse was determined to ensure that the students learnt about nursing in the speciality almost as if 'the students will learn whether they want to or not'.

During an observation visit to a coronary care unit it was apparent that a patient had a productive cough and the expert asked the student 'what is it that this patient needs, as he has a productive cough?' (she was referring to the fact that the nurse had not got a sputum pot for the patient). This type of questioning typified much of the developmental nature of the questioning process. In this particular instance, it was as if the expert was giving a message to the student that was saying, (a) always make sure your patient has everything to hand that he needs. (b) I (the expert) will not tell you what he needs I will require you to identify this for yourself, so that you do not forget in the future and because I believe, you do know, that the patient needs a sputum pot but perhaps on this occasion you forgot or did not bother to get it.

A further message was being given almost as if the expert was saying between the lines 'I expected you to be able to deal with this, it is within your competence and control, it may not be high technology but these are the things that are important in providing patient care'. At every stage the expert encouraged the student to think and actively work at rationales for the care she was giving. This was a very active dynamic exchange with the expert eking out and developing the students' responses. The expert described some of the views that have been expressed by students who shadow her as part of the learning process.

They rehearse desperately everything about the patient because they feel no one is safe from my penetrating questioning [and] that I am a master at discovering the things they do not know.

This explanation supports the assertion that this type of teaching is largely pedagogical in nature. The emphasis seems to be on monitoring the student and on finding out what they do not know. The expert nurse suggested that

There is no Royal Road to learning specialist knowledge. The path is long 20-30yrs. long. Learning never stops, it started from when I was a spectator of role models, but learning truly sinks in when it is done at the bed side. Nurses need to continue learning new advances, and have the humility to recognise their patients courage.

At one stage the expert nurse was encouraging the student to improve her skills in palpating the brachial pulse, before taking the patients BP. Ostensibly the expert nurse was teaching the nurse about refining and developing a skill, but it was apparent that the expert was also teaching the student about the craft of nursing practice, about developing trust in her own judgement. This was evident when the expert intimated that the student should not blindly take doctors' findings as being totally correct.

The expert took the patients BP and found that the reading was significantly different from that recorded by the junior doctor a short period earlier. The expert asked the student why it was that the nursing staff had got a different recording for the patient's BP than the doctor. She emphasised that nurses take many more BPs than doctors do. Throughout this interaction the

expert appeared to be teaching the student that if you are accountable for your actions, you cannot trust anyone.

the idea is that you trust no one and at the end of the day you value your own judgements, you respect others but you don't necessarily take them on board.

The student had accepted the doctor's interpretation of the BP without question. The expert explained that she would expect nurses to undertake tasks which were traditionally the province of doctors such as auscultating patients chests or examining the fundi of their eyes if the situation warranted.

We are still the most visible care givers ...The doctor will be ten minutes at the bedside, but the nurse is there for the next 24hrs. We should be able to auscultate the lungs and try to assimilate the information of what the patient is telling us with what we are hearing so we are using all our senses and if we do hear crepitations ... then we may need to get help, the patient may be going into pump failure.

In the following example an expert from an ITU discusses aspects of 'know how knowledge', the how-to-do aspect of teaching. This type of knowledge is learnt in the practice setting.

They (staff nurses) say that their patient is not ventilating very well. The saturation has dropped and you say if they have just turned the patient on to the side just turn them back, a little bit just pull the shoulder back a little bit, and you will find that it (oxygen saturation) comes up and it does ... Its little things like how to put a nasogastric tube down an intubated patient, lots of people think it is just the same as putting it down an ordinary patient, but it is a lot easier, you just tilt the head forward and it slides in and it is little tips like this. The only way you can get that kind of knowledge is through experience. You can tell the people who have been [in] a speciality for a long time they know all the little tips, that you never find in a text book. Its like the cannulas we use for

haemofiltration sometimes they flock off ... or they are in the wrong fissure or sometimes you have to swivel it round ... and it all works and it is only if you have nursed patients having haemofiltration that you pick up these things ... Little things like with the oximeters probes sometimes the oxygen saturation is dropping and it won't pick up and sometimes this is because the probe has been on for a while so it is just blocking the circulation so you put it on another finger. You will never find that in any of the instruction manuals.

The expert draws on her knowledge from experience, and passes it on to other nurses. She could not always give a soundly based reason for why certain things worked, for example moving a patient more onto his back so that his oxygen saturation improves. It was acceptable to her that she had an answer to the problem but not necessarily the full explanation.

Technologists summary

There is a wealth of knowledge in the practice of expert Technologists. Knowledge use and development is influenced by a number of factors. These include the authority that the expert nurse holds, particularly in relation to junior doctors. There is ambiguity in the way the experts' knowledge is viewed and this has implications for patient care. At times their knowledge is recognised but on other occasions they are overruled or ignored, with serious consequences for the patients involved. Technologists spend considerable time monitoring junior doctors and they develop ways to 'protect' their patients from the juniors' mistakes. Teaching forms an

integral part of the expert technologists' role and this is largely pedagogical in nature. Experts act both as translators and image makers to explain the reality of the practice setting. One expert nurse who was also a lecturer practitioner was attempting to develop a more andragogical approach to teaching through the use of learning contracts.

Traditionalists

This group of experts was small, only four in number. They operated very much along 'traditional ward sister lines'. As a group they were the least vociferous and provided the smallest contribution to the data collection. These experts seemed generally lacking in awareness of their own worth, and in the workshops seemed surprised by the amount and type of knowledge that they used in their own nursing practice. As one expert stated

'I don't think we realise how much we do do'.

Although three of these experts worked in specialist areas they had more in common as 'traditionalists' than they had differences as specialists. Arranging observation visits to this group proved very difficult, as they also acted in a managerial capacity and found it very difficult to specify when they would be giving hands-on care. Managerial responsibility was a major factor for these nurses. They were all either sister grade or directorate nurse grade. Their expertise seemed to have developed in terms of survival.

They were mainly preoccupied with 'getting the work done' and managing care with scarce resources. They operated very much as overseers and assistants to doctors. Field notes for one of the observation visits contained these impressions following a visit to an expert nurse from this group.

General impressions rather mixed, ... appeared quite old fashioned in many respects ie needed to keep an eye on everything herself, very friendly and helpful to both staff and patients. Sat in on a report where there were huge number of patients to be reported on. Lot of time spent getting to know all of patients, almost all of morning. Seemed to feel she had to check up and keep an eye on staff. Much of the care given on ward seemed to be routinised. Doctors seemed to come before patients ie expert gave attention to medical staff when a patient also needed attention. Knowledge base seemed to be related to medical, physical aspects of care (although indepth knowledge not so obviously identifiable). Concerned to know everything. Lack of appreciation of staff. Lack of appreciation of nursing role, seems to be perceived not so much as a therapeutic process, rather as a job needing doing. Staff not actively encouraged to accept responsibility, sister still mopped up. Emphasis on petty things, eg staff were not allowed to use new envelopes, had to tell staff nurse to put letter in an envelope had to find the new envelope for the staff nurse. Lack of perception of ability to change or alter things. Little or no evidence of challenging. Nursing viewed from nurses perspective rather than patients' perspective.

These general impressions were arrived at from observation of the expert nurse in practice. Resources, or lack of them, seemed to feature prominently in these nurses' agendas and they presented themselves as powerless as a result of NHS reforms. They were concerned with trying to maintain standards but were aware that they were unable to do this in a time of cost containment. It was as if these nurses were under siege

both from management and at times from doctors, and they were concerned to protect their staff. An expert from a medical area demonstrated the need to ensure that actions carried out by nurses did not leave them open to criticism, censure or legal action.

These experts displayed a monitoring function which focussed on the nursing staff, in terms of correcting them, rather than correcting the doctors. There was also a monitoring role in respect of protecting junior staff from what the medical staff might ask them to do. Although these experts identified that they could be assertive on occasions, they were largely non-assertive and reactive when dealing with doctors. Whilst the Technologist group had extended their knowledge well into the province of doctors' knowledge, this was not apparent with this group. During a visit to a vascular-surgery ward, the expert was observed carrying out many monitoring functions. She checked notes and x-rays to make sure they were complete and available and she also ensured that any problems in pathological reports were dealt with. The expert explained that she was looking for things like prothrombin times (to monitor that it was safe for the patient to under go surgery).

When the consultants are ready to do the round I check that the x-rays are there, especially reports on barium enemas. There is one lady who has had one done at lunch time, (barium enema) that won't be reported on ... I will make a note this evening for the ward clerk to go and fetch the report first thing in the morning. There is a chance that the patient might be able to go home if we get the report.

She was observed waiting on various doctors, fetching and carrying for them and generally making life easier for them. She presented this role very much as a monitoring one, in that she ensured that situations which concerned her were brought to the doctor's attention. She explained her thinking in relation to medical rounds.

Make sure patients are on their beds make sure the treatment cards are there. I feel doing the round is our time for bringing out what the patients are feeling, because the patients wont tell the doctor Mary would never have mentioned her back pain to Mr M...I think it is our time to be the patients advocate.

This expert nurse was observed fetching patients notes from the office for the doctor. When asked why she did this she explained that

I thought in the back of my mind that the doctors could get on with examining the patient if I went and got the notes.

She was also observed telling the doctor each patient's diagnosis as they came to each patient. When asked why she did this she replied

I don't think he can remember all the patients and some times he just needs a little refresher.

From these examples it is evident that the expert nurse viewed the doctor's time as more important than her own, and that she was prepared to assume a subservient role so that she could ensure the patients she felt needed seeing were in fact seen by a doctor.

Whilst observing another Traditionalist expert nurse on a general medical ward, it was apparent that she took her responsibility as the most senior nurse in this area very seriously indeed. She felt that she had to get to know 'all there was to know' about the patients in this area. She had been on holiday for the preceding two weeks and this was her first morning on duty. She was far from satisfied with the care that had been taking place in her absence. For the first hour a report was given by the night staff to the expert nurse, and she was not entirely happy with what she was being told. At one stage in the report a staff nurse identified that a patient who had sub-acute bacterial endocarditis kept getting out of bed and walking about (this could have led to fatal consequences). This was stated very much as a statement of fact, a fait accompli, as if nothing could be done about it. In a discussion with the expert nurse later in the morning she identified her feelings about the way this situation was presented

It did not register to them, (the nursing staff) they seem to be, oh! well, she is insisting on walking about, what can we do with her, that sort of thing.

Also while the report was being given the expert nurse was keeping a watchful eye on what the auxiliary nurses were doing. When asked to describe why she had been watching the auxiliaries she explained that

I did not want them to feed inappropriate patients ... I don't want them left without any sort of guidance or instruction and normally they would not be left to get on with breakfasts on their own... I think really they (the trained staff) can become complacent.

This need to check up was demonstrated many times during the observation visit. The expert nurse described another patient situation identified in the report that concerned her. The nurse giving the report had said that a patient who was due to have an investigation was taken to the gastro-intestinal (GI) unit, but that nothing had been done. No explanation was offered by the nurse as to why this was the case. The expert nurse described her thinking

I can't understand it actually if there is nothing written in the notes, I am a bit annoyed with the staff, that they did not do some thing there and then.

A sense of needing to tell the staff how to do things properly was also demonstrated in the following transcript excerpt

INTERVIEWER : ... you told a staff nurse who was drawing up some insulin to take the insulin with him,

EXPERT : Because I noted that when he drew up the insulin he checked it with the other staff nurse, but he put the vial back in the fridge, so I asked him to take the insulin (vial) with him.

INTERVIEWER : Because ?

EXPERT: Well because obviously , obvious to me but it was not obvious to him, obviously, but if he had to put that down, no body would know what was in it. I find sometimes that the male nurses tend to do things for convenience . Maybe I am being biased there, but we have had a few problems in that way just recently. I have had more than my fair share of male nurses and maybe, that is why we are noticing it more. Sometimes they seem to do things for the easy way out, not necessarily negligent in their fashion but it could be negligent if something happened and they tend to sort of think, 'if I get rid of that now, I have not got to put it away afterwards and if I have locked the fridge I have not got to open it again to put the thing away'. That kind of thing and that was what I was trying to get at really. He

needed to make sure that he knew what was in and every body else knew what was in that syringe.

It is clearly demonstrated in this incident that the expert nurse felt that she had a strong teaching and monitoring role in relation to this staff nurse. She had strong views about how a procedure should be carried out and felt that to carry it out any other way was unsafe and poor practice. The expert nurse believed that not only did the staff nurse have to do things properly, but that it was necessary for him to do this in a way that others would know what he was doing. Also evident is the fact that the expert nurse does not appear to accept that the staff nurse is accountable by right for his own practice, rather than merely doing as he is told. The expert pointed out to the staff nurse that he should give the auxiliary he was working with a report. I asked the expert

INTERVIEWER: Would he not have done that without you pointing it out ?

EXPERT : He may have done and he may not have done well, he has not been on here himself long and he is still feeling his way as it were, he came from an ITU situation and to slip from an ITU to a ward like this , well it is very different and he has not found it very easy to slip back into that role of sort of general nurse and he thinks sort of technical, you know. I won't say that he does not look at the patient holistically, ...

He does not look at it in the way we do in a general ward area ... He was probably one of the most junior staff in the ITU, whereas here he is one of the most senior ... He tends sometimes to be not aware of the fact or aware of how little his juniors understand or know.

There are several important issues in this transcript. The expert nurse clearly feels that this staff nurse is not yet

looking at things 'in the way we do in a general ward area'. It seemed that she accepted apparently unquestioningly, the fact that this staff nurse was very junior in an ITU situation, but she does not find it inappropriate that this quite junior nurse should now accept considerable responsibility (albeit heavily monitored) on an acute medical ward, where he was perceived as 'one of the most senior'. It further became apparent that this sister was dissatisfied with many of the activities of the nursing staff in her absence. A used instrument tray with bloodstained instruments had been left in a side area.

Which I intend to take up with Heather (staff nurse) afterwards ... she was the one who told me it had been there two days ... They (the nurses) are trying to indoctrinate the doctors these days with the attitude, you must get rid of your sharps, obviously because of risks with hepatitis etc. and the doctor knows where he has used the sharps, well that is fair comment, but there were no needles there, or used syringes there, the equipment has obviously got to go to HSDU and should have been cleared away ... Some doctors do of course , I mean they clear everything away, but knowing Dr. X as well as I do, I know darn well he is not going to clear a trolley away, it is all you can do to get him to write a prescription form, (chuckle)

There are several significant points in this transcript. The expert once again feels that she needs to reprimand a member of her staff. She understands that the nursing staff are trying to encourage the doctors to clear away the instruments they have used, but felt that one of the nursing staff should have assumed responsibility for clearing the tray away. Most telling is the fact that she accepts that Dr. X not only would not clear a trolley away, but also 'it is all you can do to get

him to write a prescription form'. This comment was followed by a wry chuckle which seemed to indicate a type of indulgence towards this doctor, almost as if she accepts he is behaving in an unreasonable way but is prepared to accept this because of who he is.

The expert nurse interpreted views which were different from hers as suspect in origin. A staff nurse suggested that a patient who had experienced a sub-arachnoid haemorrhage should be catheterised.

I can't see his logic there. She had been incontinent during the night well that is fair comment the lady has had a sub-arachnoid haemorrhage and she probably went off into a deep, sleep ... To me, well to anybody really, I would think it is an excuse for catheterisation if somebody is incontinent ... I think that is just an excuse for keeping a dry bed.

Clearly the expert perceives herself as having the patient's best welfare at heart, a fact that she does not feel is shared by all of the nursing staff.

The expert was keen to ensure that patients were cared for correctly and that she was aware of everything that needed doing. She revealed that the relatives of one patient had not been happy with the care their mother had received, so when she heard that this patient's naso-gastric tube had been removed she was quite concerned.

I am a bit concerned my concern is not as real as you would expect here, I just wanted to clarify that they (the nursing staff) had ... made a sort of a sensible decision about this lady, because we have had problems not with her, because she is a sweet little soul but certainly with her family from the very beginning.

The expert nurse was trying to establish areas that might potentially be contentious in the future. She was also trying to ensure that complaints were minimalised and that nursing staff did things 'properly' and did not leave themselves open to censure. The experts primary response seemed to be to smooth the situation over and the daughter was perceived as over-protective.

I spent probably about four hours with that family because they were so concerned, in fact the daughter is over-protective, ... She wanted her observed every minute.

This need to avoid and prevent potential problems was also demonstrated when this expert nurse was overseeing other wards in the medical directorate. In the following transcript she identifies her goals and concerns.

INTERVIEWER: So what was in your mind as you were going around?

EXPERT: Mainly to make sure that they (the staff) were safe really, that they had got adequate staffing levels and that the skill mix was OK.

Well I could see for myself that the skill mix was adequate for each area they had got sufficient trained nurses to cope and they had got the number that they needed.

INTERVIEWER: Do you work that out differently every day or do you do you tend to keep a number in your head that ..?

EXPERT: We have got a number that we are supposed to be working to and the total is 5 it used to be 6 but it is now down to 5 .

INTERVIEWER: 5 ?

EXPERT: 5 total, 5 staff if we can see two trained nurses that's as much as we can expect on a shift you know, which is pretty diabolical, but this morning everywhere we have gone I have seen far more and really that has made me pleased, it is

has made my day in fact today, because I have seen 4 and 1, and I have got 4 on here, and there is three on those two across there. So that has made my day today.

INTERVIEWER: Are they working with 2 sometimes ?

EXPERT: Yes.

INTERVIEWER: With patients this ill ?

EXPERT : Yes, yes, it is very serious situation.

This transcript demonstrates the importance that the expert nurse attached to ensuring that at least minimum staffing levels are operational. Also clearly outlined is that the expert nurse identifies that at times staffing levels are 'diabolical', but she does not feel she can influence this in any way.

Whilst maintenance of standards was presented as important to these expert nurses such standards arose from the 'world view' held by these experts. For example an expert from a children's ward explained that she had her own standards and that there were certain activities that she felt had to be carried out in a particular manner.

Have to be totally honest with the parents. There are certain things on the ward that I am a stickler for, for example temperature charts. I don't see the need for a constipation to have his temperature done everyday the same with the lodger. I don't see why we should do a temperature, if the child has not got a temperature, but there again, if a child has got a temperature, then I expect the chart to be completed and I don't mean just ticks. If a child has had his bowels open I expect a description of the stool, if they are a diarrhoea. If children are on a temperature chart, then I want a respiratory rate done, because I know that the consultants especially with the asthmatic children

and the pneumonias, looks at the respiratory rate and as the temperature comes down the respiratory rate usually comes down also.

The importance of other members of staff carrying out nursing duties to the standard set by the expert nurse is clearly evidenced here. This expert places considerable emphasis on tasks being carried out in a prescribed way. Also apparent is the depersonalised way children are referred to as conditions. That is a child is a constipation, or a lodger, or diarrhoea. This reflects an approach to care which is heavily influenced by a medical diagnosis, and where the patient is viewed almost as the doctor's property. Activities are primarily being carried out because the consultant will want to know. There is an absence of any recognition that other members of the nursing staff are autonomous practitioners in their own right.

An example of a patient's relative attempting to take some control of the care of a member of their family and coming into conflict with the nursing staff was observed during a visit. A baby who was failing to thrive was crying loudly in his cot in a four-bedded side ward. The expert previously had given this baby a dummy to help settle him when he was crying and his parents were not there. The child's mother had not agreed with this approach and had left a large sheet with printed instructions on, stating that the baby should not be given a dummy. It was apparent that the mother felt the need to reinforce her verbal request that her child should not be given a dummy with a written instruction. This seems to indicate that

rather than partnership between the nursing staff and the child's mother a power struggle was taking place.

Forward planning and anticipation of likely events in an effort to be prepared for them seemed to be a characteristic of the experts in this group. One expert used lists to help her plan for activities she would be undertaking when next on duty. The experts collated information given to them and homed in on areas which they detected as significant and requiring further exploration, but which had not been presented as significant by the other nurses. The case of the naso-gastric tube having been removed is such an example. This raised queries in the expert nurse's mind not only because she was aware that there had been difficulties with this patient's relatives, but also because she was aware that a patient with paralysis down one side of the body was likely to have swallowing difficulties. Patients with such difficulties are particularly at risk from aspiration pneumonia and the expert nurse was attempting to clarify that all these factors had been given consideration.

Many of these experts seemed to spend time and energy in anticipating events in an effort to ensure the smooth running of an area.

I don't know what it is but I feel sometimes that when I come on duty it can be mad or a mad situation going on, with every body chasing round. ... but I don't know what it is that I have done to make any changes. I think it is just, that I am a quiet person and I seem to have a calming

effect. Some of the girls will say 'why does it always be so quiet when you are on duty' I just don't know what it is, it must be I think organisation ... I plan the day before, when I am on late ,I will be planning my work ready for tomorrow ...

This calming ability was also reflected in the type of activities that were considered the province of the expert nurses. An expert from a children's ward explained that

I usually do things like catheterisation of little girls.I usually, touch wood, get the catheter in and I think that's only because I'm talking to the child, and I do the catheterisation at the same time. I don't make a big drama out of it. This is just something that I am able to do, that a lot of the girls can't do. I tend to talk the child through the procedure, so that they know what is happening and I let them feel the catheter through the plastic bag, because to them it probably looks really hard, but it isn't, it is quite soft and then I just talk to them generally, saying that it isn't going to hurt, it is going to tickle ... I don't know why but most of the time it works.

It is apparent that in this situation there is much more than just an extensive knowledge base related to anatomy and physiology and child development in operation. This expert nurse identifies the calming effect she has on the child by not making a drama about the situation.It is also clear that once again the expert nurse is acting as an information-giver and interpreter to the child. By explaining that the catheter will 'tickle' she is making real an unknown sensation to the child. What is also apparent from this scenario is that this expert does not attach a great deal of importance to her role in this very sensitive procedure. She appears to be almost intuitively acting in the right way (because the child does not get

distressed) but at the same time she seems to be abdicating responsibility for the success of her actions when she says 'I don't know why but most of the time it works'. This calming and confidence-inspiring aspect of the expert nurse's behaviour was also evident in other expert nurses from other classification groups.

Anticipatory knowledge seemed to be linked to diagnostic knowledge. An expert from a vascular ward identified some of the points that she would as a matter of priority pay attention to.

The lady that had got back pain, that the nurse had said she was not sure what was wrong with her but she felt she was not right, I would be concerned about her, because back pain can indicate a leaking aneurysm. Also she did not have any lunch which indicates that she is not feeling very well. She is a lady who had an embolism in her arm. The fact that she was complaining of back pain concerned [me].

Here the expert nurse was devising and tentatively testing out hypothesis. Having set a hypothesis the expert then tested it by going to see the patient and evaluating if the verbal report about the patient and the tentative diagnosis were confirmed by obtaining further information, by direct observation of the patient, and by talking to the patient. The expert nurse concluded

when I went to see her, she said the pain was easing off and she did not look typical of a patient with a leaking aneurysm, she did not look anxious in her face, she did not look as if she was perspiring, her condition did not concern me once I had actually seen her.

Through going and seeing for herself the expert nurse has been able to establish that on this occasion there was no cause for alarm. She appears to have gone through a process of exclusion where, by matching symptoms and tentative diagnosis, she had been able to establish that the patient symptoms and behaviour although similar in some aspects to the symptoms a patient might get who was experiencing a leaking aneurysm, there were sufficient differences, to enable this diagnosis to be rejected. The need to see for themselves appears to be a trait common to many experts and perhaps indicates that they trust the evidence of their own eyes much more than a report received from another nurse. Whilst checking through the patient's notes the expert nurse identified that

Mrs A came in she was for vascular surgery and ... she had some bloods checked and her INR (prothrombin level) was 3.3 which is high. We stopped her Warfarin, but we still needed to have a check to make sure it was within normal levels before she went to theatre and this was the test that she had, which was more acceptable. It is a little bit on the slow side if anything, the control was 35 and hers was 31 secs... It is the ratio that is important if it is anything over 40, the one lady we had hers was 165, in which case I immediately stopped the Heparin and told the doctors. Often the doctors have asked for these, but they might never see the result, so we do put them out for them to see. If there was something really abnormal I would put them out for them to see. I also look for things like patients' Hbs, high urea's, glucose levels.

This monitoring and action-initiating role, in relation to pathological reports, has received scant attention in the nursing literature. The expert nurse felt it was an important aspect of her role but it appears to be an aspect that is not

formally acknowledged. The expert nurse also appeared to be establishing priorities.

I wanted to find out for my own peace of mind, I'm sure that if a staff nurse had been in charge that she would have also wanted to check that problems are not going to arise later on especially [after] five o'clock the doctors go ...

This expert operated very much as a smoother, smoothing the way and anticipating problems. This was evident when she planned the staff cover for the following day. A patient had to go for a procedure and required an escort, and the expert nurse anticipated that this would leave the ward short staffed, so she asked one of the staff to do a split shift.

These experts at times displayed a maternal role both towards their nursing staff and to the doctors.

They saw themselves as having the knowledge to be supportive to junior staff who were dealing with emotionally draining situations.

Sometimes situations can be very depressing particularly with terminally ill patients, especially with junior staff but it can be quite satisfying too, even though it is a very sad occasion, to console relatives and make them feel better, this is something positive that can be done in a negative situation.

One expert recounted how she tried to draw on her previous knowledge of patient care situations, so that she could recount positive examples such as 'talking about patients that you never ever thought would pull through and of how against the odds they made it'. She felt that this knowledge from

experience enabled her to provide an alternative perspective to more junior staff, who can be overwhelmed when caring for people with terminal illness. Evident in the practice of some of these experts was a teaching function. Patient teaching provides an example of this. An expert nurse from a urology ward described her role in terms of teaching developments.

We totally manage the care of patients admitted for ISC , we teach them and we discharge them.

The expert nurse did not seem to see anything significant about extending and developing her nursing role. She described the teaching sessions very much as explanatory practical, 'how to do' sessions, and there was no mention of discussions about more holistic aspects of care.

I teach patients intermittent self catheterisation (ISC) ...I decide which patients are suitable for ISC , also the technique for teaching them the equipment we need to use, the problems they may encounter, also how often they should do the ISC and I also teach outpatients with strictures how to self catheterize, once a week to dilate the urethra and prevent a recurrence of the stricture ... I also perform urodynamics on our patients and we do this to assess the patients bladder... You need to make these judgements as you go along. Assessment of incontinent patient, and we make a diagnosis, this is generally checked by the consultant. They usually plan where we go from here, then the treatment would be planned. You tell the consultant what you felt, obviously if he thought you were very wrong he would say so, but generally he goes along with what you say. You have to know the alternative types of treatment available to you.

Innovation in the area of self-catheterisation and uradynamics has provided an opportunity for this expert to extend her role

and there was evidence that this was occurring, but this extension seemed to be very much as a doctor's assistant.

Interpreting is seen as important by these experts. This was clearly demonstrated by one expert immediately following a ward round. She returned to a patient who had been told she could go home by the doctor, to check that the patient had fully understood what the doctor had said. This expert nurse explained

sometimes especially with a foreign doctor, they talk and the patient does not understand.

This interpreting role was concerned with much more than language difference; it seemed to be concerned with establishing the reality of the patient's comprehension, in relation to what the doctor had been saying. This involved 'interpreting' medical jargon into a form that the patient could understand.

Closely allied to this was an aspect of expert nursing behaviour in which the expert nurse demonstrated the ability to enter into 'the lived world' of the patient she was talking to.

This ethnographic ability is discussed in more detail later as it is a marked characteristic of the Humanistic Existentialist experts. It was also observed in some of these experts. The ability to enter into the real world of the patient is demonstrated in the following example.

An expert nurse from a medical area was talking to a patient in a side ward. The patient had been quite ill and was finding it difficult to eat an adequate diet and build her strength up. The expert had lapsed into the same local dialect as the patient and her accent became very pronounced during the interaction. It was as if the expert nurse was saying 'you and I are of the same stock, therefore I understand you, and you understand me and this is a strength in our relationship'.

I felt there was no point in waffling around with this little lady because that was what she understood, I don't know why I was like that with her it just seemed to be the right way with her.

In this example the expert demonstrates the ability to enter into the same world as the patient. This appeared to be an almost intuitive process where the expert nurse knew that it was appropriate to talk to the patient in a very matter of fact way and to use an accent almost as broad as the patient's.

A number of considerations arise in relation to the Traditionalist expert group. There are indications that the way knowledge is used and developed by some of these experts has implications for quality of patient care. At a qualitative level patients were referred to as conditions for example a child was referred to as 'the constipation' and another child who was staying temporarily on the children's ward was referred to as 'the lodger'. A patient with psychiatric difficulties was referred to as a 'psychotic Depression', and another

patient was referred to as 'a CVA' (cerebral vascular accident).

Certain approaches to care raised issues of concern. For example one expert nurse whilst talking to a patient who had experienced a CVA referred to the patient's paralysed arm as her naughty arm. This reflects an outdated approach to the rehabilitation process. These experts seemed largely reactive to change and appeared to have few strategies for dealing with the change process apart from endeavouring as far as possible and within the resources available to struggle to maintain standards. This lack of ability to bring about change is demonstrated by two of the experts who express a sense of almost 'helplessness' in terms of the cross-infection that was occurring in their ward areas. An expert nurse from a children's ward identifies her feeling of helplessness

Every child we have coming back from hospital following surgery, or because they have been referred to us, because we are the local hospital, always have rota-virus.

This goes around the ward like wild fire. We have found that children are coming in for one complaint, being admitted to us and then contracting a rota-virus here, so after they are discharged for say bronchiolitis they are then admitted with diarrhoea. We have had control of infection lectures here and we have had the ward washed down, but there is still a feeling that we are giving children rota-virus. Going back a few years to when I did my training, if there was an infectious child in a cubicle when they went home the cubicle was washed down or fumigated, but nothing like that happens now, so at half past eight in the morning you can have a child with rota-virus and they may be discharged and the bed and locker and everything else is washed down and the linen is changed and say about ten o'clock at night you get another child admitted to that

cubicle, because of pressure on cubicles and you can almost guarantee, that that child will pick up rota-virus, even though we are quite strict on isolation techniques.

Several factors appear influential in the development of expertise in the traditionalist group. An expert from a children's ward explained that

I think my expertise has been mainly practice based... I was a ... sister and I still hadn't got my RSCN so I went on a shortened course. The idea was that you had three years experience as a sister so you knew the practical side. It was really to let you go to those areas like cardiology or neonatology that you had not worked in and to give you an insight into those areas and then to link the theory with the practice you already knew.

This development of expertise from practice was also linked to lack of confidence at times.

I feel that I do lack confidence at times. That is why the 998 (an ENB course) did me a lot of good. But now I have to overcome that, because I feel I have to protect the role of the nurse in paediatrics, so some times that means I have to pretend to have confidence and be prepared to speak out.

In terms of influencing factors

I think my expertise just happened rather than being taught. I had to learn as I went along. I feel that some of the factors that influenced its development were doing the 998 course and applying for and getting this post.

Practice has been significant for this expert in terms of developing her expertise. She also highlighted the importance of support from her family and educational input. The influence of the socialisation process when she was a student was described.

When I started my training the sisters were the experts and I used to think that the staff nurses were little Gods. I saw them as different to the sisters of today. Sisters were very professional and you don't get that to the same extent today... I can remember Sr.Lewis on the medical ward dishing out the meals which some might say is a waste of time, but when you went for the meal with your tray, she would say , 'nurse what food values are in this meal? ', so she was teaching and acting as a role model all the time. This sort of approach made me want to be the best also.

The importance of early role models is evident in this example, where the expert nurse identifies her feelings of admiration and expresses a desire to emulate her early role models.

The students do not look upon me with the same respect, well I don't think they do any sister. If when I was a student , you were in the office and a sister came in, you would automatically stand up and you would go out or go and do something else. If you were with sister in the office and a nursing officer came in you would automatically say excuse me and go out. They don't today, they just stand there and you have to say, would you mind leaving the office , I think a bit of the professionalism has gone ... They (traditional ward sisters) were a bit hierarchical I suppose , but they really had got the patients welfare at heart.

Clearly apparent within this statement is a sense of nostalgia for traditional values and a sense that ways of behaving in the past were better. Professionalism in this statement is synonymous with outward signs of behaviour or etiquette , such as standing up when a senior nurse came into the office.

Traditionalists summary

During the observation visits and interviews it was as if these experts felt themselves responsible for everything to do with care in their areas, and inevitably they were unable to watch that everyone was doing things correctly all the time. Numerous examples were evident of poor quality of care in these areas. Such examples included the occasion where blood-stained instruments were left about for two days, where life-threatening behaviour in patients was not challenged, where the information that patients with cancer and their relatives have been given was not followed up on, and high rates of cross-infection were evident. This lack of trust and constant checking up on staff may well be linked to the fact that this area had problems such as cross-infection and patients developing pressure areas, but it would be incorrect to jump to such a conclusion. The fact that these experts had identified poor staffing levels as a problem and that they perceived themselves as being largely unable to influence this is also likely to have been influential in determining the culture at ward level.

Although the experts in these areas did their best to maintain standards because of poor staffing levels they were not able to do this. When they were off duty, standards were not maintained, and important aspects of patient care were not attended to. In one area a patient was labelled as confused and

aggressive by the staff, yet when the expert nurse had a conversation with him she was able to identify his very real and legitimate fears. This raises serious questions as to how patients are assessed by nurses in this area. Relationships with relatives in one of these areas seemed to be influenced more by preventing complaints than by establishing a meaningful relationship with them. It appears that when management does not appreciate a nursing focus, when resources are poor and the culture is doctor-orientated, and if the experts have limited educational and professional development, then care provision is poor and patient care at best minimal.

Specialists

Ten nurse were categorised under the heading of Specialists. In the main they had distinctive roles such as breast care nurses and stoma therapists, TPN (total parenteral nutrition) advisors and control of infection nurses. They were aware of their own distinctive knowledge and were used as consultants by ward and community based nurses. They had three subdivisions, which had similarities to (a) the Humanistic Existentialist group (b) the Traditionalist group and (c) the Technologist group. Whilst they had similarities with each of the other groups they also shared characteristics amongst themselves which ensured their distinctiveness as a group. One expert shared characteristics with both the technologist and humanistic existentialist group. Her knowledge base was

extended very much into what was previously medical knowledge, and she enjoyed substantial nursing management support. Her practice, although technological in emphasis, was also essentially holistic. Two nurses included in this group did not have specifically specialist roles. One was an expert nurse from an orthopaedic ward, and one an expert from community nursing.

The reasons for their inclusion were that whilst sharing similarities with the traditionalist group (that is they felt powerless in the face of poor resources) they also shared characteristics with the specialist group, and they were developing innovations in practice, valued their knowledge base, and exhibited a degree of autonomy in their work.

Criteria for inclusion in Specialist Group

1. Were aware of and valued their extended knowledge bases.
2. Acted as consultants to other nurses.
3. Were developing a degree of autonomy in their work.
4. Had agreements and protocols to enable them to extend their roles.
5. Had very distinctive roles, for example breast care nurse , diabetic nurse specialist.
6. Innovative in terms of practice.

Innovation was a characteristic of the Specialist experts. An expert TPN (total parenteral nutrition) nurse explained that the experience she had gained in ITU had enabled her to be innovative in relation to her present post in caring for patient who undergo total parenteral nutrition. The previous holders of her post had made their own mark through developing teaching and audit, and she felt that she too wanted to make her own mark. This expert decided to approach the senior surgeon with a view to receiving training to insert lines for TPN feeding.

I was quite expecting the director of surgery to fall over backwards when I suggested it.

She commented that without support from senior nursing management, such an innovation would not have been possible. The insertion of TPN lines is normally carried out in theatre by a doctor. This nurse outlined the strategies that she used to build a case to support her request.

One of the first things was to make it an economic gesture really, you see in the past it used to cost something like £400 to put a line in in theatre.

This expert was trained by a medical tutor. In terms of success

I know my business manager has got it wrong because she is only charging for my service, she is charging £23 per patient which is absolutely ludicrous but we will get it right. By the way we are doing it, we are keeping patients out of theatre, we are reducing their anaesthetic risk, because there is none, and they are able to have the lines put in on the ward that they are familiar with, with nurses around them that they know and they just feel very much more confident about the whole thing, which has to be good for them.

This expert nurse also reported that the infection rate had been dramatically reduced. There are many important issues underlying this nurse's extension of her role. She has demonstrated that she is capable of acting in an independent autonomous way. Instead of acting as an assistant to a doctor whilst he makes the incision and threads the TPN line into the vena cava, she carries out from beginning to end this invasive procedure. I observed her inserting a TPN line, and two doctors also come along for her to teach them how to do it. Her quiet confidence and composure was impressive, and there was no doubting that she was viewed with respect. She was technically proficient and demonstrated that she had the knowledge necessary to undertake such a procedure safely. Although this expert nurse had developed a belief in her own abilities as an independent practitioner, she explained that this had not always been the case.

There was a situation where we had a little girl 18 months, who was due to have her line removed and one of the doctors said 'you don't want to fiddle around just giving her some local anaesthetic, just pull it !' (the TPN line) ... because I was being pressurised and the Mother wanted to get the little girl home ... I did pull it and it snapped! That was quite an emergency, but we managed to get it out we had to get a cardiac surgeon fairly quickly because obviously atmospheric air was pouring into the heart but we managed to get it out without any damage to the child.

This traumatic situation had a considerable impact on her and she explained that from this incident she learnt

Don't ever be swayed from your judgement in the first instance. This would not happen to me now, this happened about three years ago ... you learn all the time...

This Specialist drew on a wide variety of knowledge when she was carrying out her role. This included knowledge of anatomy and physiology, knowledge of pharmacology, counselling knowledge, bereavement knowledge, teaching knowledge, knowledge of infection control, Knowledge of communication. She also placed emphasis on the more qualitative aspects of care.

Several points of interest emerged from observing this nurse in practice. On one occasion she carried out a 'round' of the patients who had TPN. Patients were included in the discussions about their care and management. The emphasis was holistic not merely focussing on the TPN administration. This contrasted strongly with the traditional approach taken by medical consultants, where patients tend to be only minimally engaged in their own treatment and care. In terms of values and beliefs she believed it was important to be constantly striving; there was no place for complacency. She describes her perceptions of quality in terms of the care that was given at the hospital where she works.

A lot of nurses [know] that they are the best, they just know that they have such a high quality of care to offer. I was talking to some purchasers the other day and I said it myself I said you will not get any better then what we have in you can go ... anywhere you like, but you will not get any better care. When the patient has to go home on TPN for example, the first night they go home, we stay with them for the first night in their own homes, we offer 24 hr. 7 day a week on call service ... that's the sort of Rolls Royce service that I like to think that we can give ... I think with other nurses, say at St. Elsewheres they strive to actually achieve their optimum standard and probably have got there, but then they don't think about the next step, or the next

threat, that is going to come along and I think that is the thing at we are constantly looking over our shoulder to see who is catching up, certainly as far as this service is concerned I would say that is true.

For this nurse it was essential that she was constantly moving forward and making developments. Innovative practice was a feature of many of the experts in this group. An expert nurse described how her role as breast care advisor came about.

I could see the need for such a service... during my nightly rounds on the surgical ward I began to see more and more women having breast surgery who were not ... being counselled ... they knew they were having something done but they did not know why they were having it done, or if there were any alternatives. ... if they were awake in the night worrying about what was going on I would just sit and have a 5 min chat with them. I then went to my boss and I said I am talking to these women and I am not quite sure that what I am saying is right, can I go on a course to develop my own skills ?

Many other expert nurses in this group were developing their roles. One from an orthopaedic ward described how she had been developing one aspect of her practice in relation to pre-operative screening with another nurse in her area.

There was an assessment clinic in the orthopaedic OPD clinic already being carried out, but the consultants were not happy with how the assessments were being done and even though patients were being assessed they were still coming in with very obvious problems ... they may have a dressing on their ankle straight away we would say, 'what is that on your leg?' and they would say 'Oh! I have had this leg ulcer for years don't worry about that sister'. Of course straight away you know that the operation will not go ahead, so problems like that were routine, ... there was one day when we had five patient [for theatre] and they were all cancelled ... so from the following week we set it (screening clinic) up put all our ideas together and then I suppose we are always improving.

This expert had extended her role in terms of need. She was essentially carrying out a medically based assessment process prior to the patient's admission for operation. She explained how she went about this process. She was drawing on medical knowledge, pharmacology knowledge and knowledge of requirements for anaesthesia. The assessment took place in two parts. First the expert nurse in consultation with another nurse read through the medical notes of the patients who were attending the pre-operative clinic and checked to see if there were any medical aspects of care that were likely to affect the patient's admission for operation.

... we tend to review the notes before we actually see the patients, who come up to be checked over by us.

The expert nurse then read the notes of a patient with rheumatoid arthritis. (Scanning the notes reading the doctor's letters)

Medical history, 'Mrs. H tells me that she has been having chest pain particularly over the last two years', so basically we will be looking at an ECG ... Has she been assessed by Dr.V..... because Dr.V....(the anaesthetist) would need to say if she is fit for anaesthetic especially because of her cardiac problems, see letter from Dr. G... Suggest to come in for right total knee replacement, in view of her cardiac status before coming in she should be seen by Dr. V.... consultant anaesthetist and ECG chest x-ray on arrival', so basically she does need assessment by Mr.V.... so we need to put this ladies notes to one side we can not say automatically that she is going to be fit.

The expert in this instance ascertained that the recommendation of the orthopaedic consultant had not been carried out, so she (the expert) could not say that the

patient was suitable for operation. She followed through communications between consultants and ensured that all aspects related to the patient being admitted for surgery were attended to. Possibly a good secretary could carry this function out equally well but it would be necessary for the secretary to have medical knowledge so that she could understand the implications of the statements that were made.

Although this expert nurse had taken on this function because she felt there was a need to ensure that patients being admitted for operation are properly screened, and this was supported by the consultant in her work area, she was professionally in a somewhat incongruous position. On the one hand she was considered proficient enough to peruse patients' notes and monitor if certain actions needed following up. For example she was considered capable of assessing if certain drugs or treatments indicated the need for further investigation. On the other hand this was carried out as if she did not exist. None of the doctors wrote directly to her, and she appeared to have authority only in relation to informing others what it was she had found.

It was acceptable for her to do the spade work and investigating, but when it came to recognition of her having the knowledge to do this, this was given in an informal manner without significant recognition of the role she had played.

In terms of developing expertise, as well as the importance of a supportive culture, one expert felt that it was important not to be too self-critical. She suggested that nurses should

Treat each patient as an individual and when something goes wrong to use that as a learning exercise, not to be too self-critical.

Such a position is in sharp contrast to Traditionalist and Technologist approaches to knowledge acquisition in nursing, where to get something wrong was considered unacceptable.

Specialists demonstrated a well developed diagnostic ability in relation to medical problems. An expert nurse from an orthopaedic ward identified a number of incidents where the fact that she was insistent that action should be taken by a doctor really made a difference to patient care. She gave the example of a patient who came to clinic exhibiting signs of a DVT (deep venous thrombosis). The expert diagnosed the condition but the doctor was refuting this. It was only by going over the junior doctor's head that the expert ensured the patient received appropriate treatment. She demonstrated that she was able to draw on a wide knowledge base and was prepared to be assertive in terms of ensuring that the patient received appropriate treatment. This expert was capable of thinking outside the normal range of knowledge that was used in this speciality, and was able to identify the situation as potentially very dangerous.

She recognised that certain cues were significant, for example a positive Homans' sign and the pain in the back of the patient's leg. She was able to evaluate that these signs were more significant than other cues which were not typical, and this determined the subsequent actions that she took. She was prepared to act as the patient's advocate ensuring that the patient received the treatment that was appropriate to her symptoms.

Specialists had developed their knowledge bases so that they were able to identify complications of disease processes and medication. The ability to identify complications may not in itself be considered an advanced form of nursing care. A relatively junior nurse might well be aware that morphine can cause constipation. Rather, their expertise is evident in that they not only remember the various complications that may arise (when others do not) but they are alerted to a possible diagnosis even when presented with apparently contradictory evidence. This identification ability is evident in the following example given by a McMillan nurse.

I can think of a lady who had been on the books for some time and she had been fairly stable she was a breast, ... I think she had received chemotherapy and radiotherapy and was getting on with living her life. We were going in intermittently at this stage because she was not needing active contact. The daughter rang and said that her Mom had been acting a bit funny, we asked what she meant and she explained that her Mom seemed a bit vacant at times, the patient was only in her 40's you would not expect her to be behaving in the way that she was.

We went in to have a chat and see what was happening and found that the doctor had been in the previous week and had given her some [anti] emetics because she was being intermittently sick. We watched her walking and her gait was altered it was fairly obvious to us that there was more going on there than just an associated nausea. So we had to go back to the doctor and report these other things that were going on and the doctor said right away that perhaps we ought to get her scanned. He had not picked up the other things in the first place.

Caudal pressure is the other one that we get hot under the colour about and is often missed .People with bone mets. (metastasis) that have not perhaps been particularly identified in the spine but you often get the situation of wide spread bone mets especially with the prostate and the breast they tend to pick up a lot of wide spread bone mets. and you get someone who is starting to say that they have got pins and needles, sensory loss or numbness or they can't walk properly or their foot keeps going cold that to us is a sign that something is going on that we need to do something about that but other professionals tend to sit on that. Like the problems of constipation in the terminally ill, it is there to the fore of your mind - is there something else going on ?

If this ladies daughter had not had contact with us as a specialist team then those symptoms would not have been picked up until much later. Her mother did have some radiotherapy and she was put on dexamethasone and she did continue to have some quality of life.

Clearly this nurse was able to recognise early warning signals that all was not well with the patient before the GP. Less experienced nurses might wait to receive further cues before progressing with any further investigations. Expertise is demonstrated in the early detection of worrying symptoms and the ability to make tentative judgements based on limited information.

In the main these experts seemed to have developed positive relationships with medical staff. Doctors were prepared to listen to these nurses on occasions. They felt that they had considerable support from medical consultants. This support appears influential in enabling them to further develop the knowledge they used in their practice. These nurses displayed varying degrees of assertiveness in relation to their practice (depending on which subgroup they belonged to). One expert wondered if having the ability to challenge medical staff was a characteristic of being an expert nurse. She asked

Do you think the expert nurse is the one who has stood up to medical staff and is prepared to say I don't agree with this. Even when I was a casualty sister the medical staff would say, this patient could go home and if I was concerned I would say are you sure and we would have this big discussion and I would say my bit and he would say his, and I would say well I am keeping the patient in anyway and I would keep him all night and do observations all night and the first time in the morning that he peed, and it was all full of blood, I would say, there - told you so ! Perhaps the people who are able to stick their neck out have always been able to stick their neck out ?

Analysis of the data indicates that several experts identified that in the past they were always in some sense different; they were prepared to intervene on their patient's behalf regardless of how junior they were. However, there was not any direct linkage between personality or motivation and expertise. Some experts came into nursing in order to have a job whereas others viewed it as a vocation. In addition, whilst some were assertive others were not.

An expert from a haematology unit described the influence she has in terms of the medication that is prescribed.

Other than signing the prescription, I recommend the drug to the houseman because I have got more knowledge generally than the houseman...

Possibly because of the distinctive nature of the Specialist nurse role, all grades of medical staff were prepared to consult and on occasion take these nurses' advice. Another expert (a diabetic specialist) described the authority she has to recommend alterations in patients medication.

We do change dosage of both oral agents and insulin and it is written in to our contract. We recommend to GPs ... I have just done it this morning... I phoned the GP surgery this morning ... and I have suggested that perhaps we ought to start some metformin. Sometimes we will ring GPs and say that perhaps they (patients) might be better not on the one oral agent but that they might have a better response to another, or it might be that they are already on an oral agent and that we could add metformin or we do very often ring and say look your patient just isn't helping on the oral agent I think we are at the stage to consider insulin. We may find that doctors have put overweight patients on inappropriate treatments.

They have put them on one of the sulphonylureas which actually encourages weight gain so if you have got a patient who is trying to lose weight and the doctor has put them on a sulphonylureas you then have to very tactfully ring up the surgery and say 'he is not coping on this and his weight is going up, could we stop it and try metformin ?'.

This expert nurse has considerably extended her practice into what was previously medical territory. It was also apparent that she was extending her practice in terms of health education and advocacy. In terms of giving advice to doctors an expert nurse who worked in terminal care explained that

I think in the present situation I feel vulnerable when that happens, (doctors ask advice about methods of treatment) ... we have all been brought up on the old school of you will do, you will not do, and those restrictions, and of course we are in to legal worries now.

This nurse has some very real concerns about giving advice to doctors because of issues of ambiguity in terms of authority. This ambiguity of authority and responsibility is demonstrated in the following example.

I do get quite alarmed with the situation that is happening sometimes... where the consultant will say to the houseman, talk to X she will tell you what to do. It is nice in one way but it is an awful responsibility and it is a responsibility I am very aware of. I wasn't in clinic the other day [and] a different decision was made on a protocol that has been pre-worked out, ... consultant junior doctor and myself have sat down and worked out a protocol of treatment and a wrong decision was made and a patient was sent for chemotherapy when he had a squamous cell and he should not have had chemotherapy. I had a phone call on the Monday morning from the junior doctor to say I did this on Wednesday, was that right ? I said well, usually it would have been radiotherapy and the treatment was cancelled, just on my say so just like that, they cancelled his chemotherapy and sent him for radiotherapy, now I think that is an awesome responsibility. It is the consultants responsibility but at the end of the day the practicality was that the junior doctor rang me

This nurse clearly conveys the sense of responsibility that she felt in this situation. She was prepared to advise the junior doctor as to what was usual in terms of treatment for a

patient with this type of condition, but giving this information was not easy. Indeed, she perceived this as an awesome responsibility. Such concerns are not linked with issues of knowledge or lack of it, for the expert nurse was party to the writing of a protocol for patient management. Rather, what is significant is that the nurse was concerned about the consequences of her actions. The consequence of this nurse giving the doctor information was that a patient's treatment was changed. It is likely that this nurse's concerns are linked to the fact that traditionally nurses acted as assistants to and for doctors. Whilst such nurses extended their knowledge bases they were none the less in a sense secure because doctors accepted responsibility for their suggestions. With the increasing proactivity and autonomy being undertaken by Specialist nurses however, these are issues that they are having to learn to address.

During a discussion with an expert nurse from a haematology area she identified some of the factors related to patient management that she considered important.

Considerable knowledge [is] required to help patients undertaking chemotherapy who experience vomiting problems ... It is assessment of the patient [that is important]. What we found was [that in] patients undergoing chemotherapy, [that] it is not just the drugs that have got an emetic effect, it is the psychological makeup of the patient. So it is doing an assessment of the patient and knowing the patient and whether you feel that this patient is going to be more at risk of emesis, than another patient who is having the same drugs .It is making that judgement, because the new drugs that are on the market are very expensive and we can't use them with everyone, so

it is making an assessment of the patient to decide who is most at risk.

This nurse is highlighting the importance of the assessment process in relation to patients who are likely to have a problem with vomiting. Assessment was about much more than just asking a series of questions. The expert nurse was also giving consideration to the cost aspect of care, and making a judgement about which patients require the more expensive type of chemotherapy that is less likely to make them sick.

Consideration and estimation of patients' quality of life were significant features in the knowledge bases held by specialist nurses. In discussion with an expert stoma therapist it emerged that being able to judge a patient's quality of life was an essential part of her knowledge base.

If I already know the patient then obviously I have an assessment already of that patients capabilities, whether they are going to be able to cope with a long term problem, or whether they are going to fold and say 'I can't cope with this any more', in that case the quality of life ... we have got to sort out for this patient , if it is going to be that bad, then its worth the risk of surgery, even if it would not be ideal.

If the patient of 80+ has a temporary stoma for acute obstruction and then four months later comes the day when the surgeon says 'Well look I don't really want to put this back for you it is going to be difficult blah, blah, blah,, ' and I know the patient is sort of saying 'I hate this I hate this' that to me says look OK, the patient knows all the odds, they know they might have problems, they know they might not come through the operation but it is worth the risk because of the quality of life .

In this example the expert nurse recognises that in certain circumstances what may appear to be an unacceptable risk to a surgeon may be perceived differently by the patient. For example, a patient whose quality of life is very poor and who has great difficulty in coming to terms with a stoma may decide that (s)he wishes to take the option of surgery.

Another expert nurse from this group demonstrated an awareness of her advocacy role in terms of limited resources. She worked as a control-of-infection nurse and put in an impressive amount of effort as a trouble-shooter, but she was also resigned to the fact that little could be done. She had a disparaging view of the way some nurses carried out their practice. Generally a feeling of powerlessness permeated her conversation. Her perception appeared to be that management are only concerned with saving money. Although this expert was disparaging about management she had in fact excellent support from her consultant. She explained that the hospital she worked for was in the middle of a large MRSA (methicillin resistant staph aureus) outbreak and with the rest of the control of infection team she was struggling to contain the epidemic. She thought that this present outbreak had started in the elderly care unit and then had spread to other units in the hospital. She considered that the present problems were due to lack of appropriate staff, and that management were concerned only with saving money.

She felt that many of the recommendations she made were at best tolerated by management, but more generally totally disregarded by them. It had recently come to her attention that half of the domestic staff who worked at a local psychiatric hospital were 'moonlighting on the agency' (carrying out a second part-time job), acting as nursing auxiliaries, and 'working all over the place'. She felt that this was a potential source for cross-infection and she was concerned that there was no formal training for nursing auxiliaries. She identified other battles that she was presently engaged in with management in terms of resources. She gave the example that the elderly care unit was being extended, but that the side wards that were being built were not having toilet facilities installed at the same time.

This expert nurse although striving strenuously to contain the cross-infection outbreak seemed to be striving against the odds. Her perception that management were not interested in infection control was most concerning; and there was considerable evidence that the consequences of such an approach to cost containment was extensive cross-infection. Equally worrying was the fact that extensive alterations to wards and areas appeared to be taking place without consultation with experts such as herself, who would be in a position to advise about the likely implications of change in terms of infection control.

The ability to listen to what the patient or relatives are saying and to transform a difficult situation into a manageable one is demonstrated in the following example given by an expert McMillan Nurse.

A GP was unhappy he kept getting called out to a terminally ill patient, for what he considered to be trivial reasons e.g. the relatives were calling him out and saying things like 'Moms got a nasty taste in her mouth or she keeps getting cramp in her legs' ... I asked the GP if he felt the relatives wanted to talk through what was happening with their mother. His response was that that 'they know that she is dying'. My feelings were that yes, they might know that she was dying but they may not be able to express their feelings about that and they may not fully understand what the process is going to be and they might need more information as to how to handle the situation...

The expert nurse consequently visited the family and explained that

the doctor had asked us to visit because they were facing a major crisis and did they understand what was happening and were there things they wanted to ask about and it went on from there ... He (the doctor) made the comment that it had been a lot quieter since you have been going in ... He did recognise that the trivial visits were a cry for help but he did not know how to handle them. Once the patient and family were able to express their feelings the trivial visits did stop.

In this example the nurse had the knowledge to recognise that the so-called trivial visits were a cry for help. Although the relatives knew that their mother was going to die, they did not know what this process might involve and needed reassurance. The expert nurse recognised that there is a difference between being aware that a relative is dying and understanding what that process may involve. It seems as if the doctor in this

instance saw acceptance that a relative is going to die as being synonymous with understanding the process. This appreciation of the family's likely concerns shares some characteristics with ethnography mentioned in relation to the expert Humanistic Existentialist experts. It is apparent that in close nurse-patient relationships the nurse is able to view the situation from the relatives perspective rather than from a distanced professional perspective. Life experience is likely to be influential in enabling nurses to perceive relatives or patients as 'another self' (Orem 1980).

The specialist group of experts permitted their work to intrude into their home lives. Many of these expert nurses had given patients and relatives their home phone numbers. The haematology nurse specialist explained that if patients had any problems they rang her at home. This particular expert nurse devoted a great deal of her time to the local Leukaemia Association and to fund-raising activities. Her husband did not approve of her giving patients her home number number. He was also an active supporter of the Leukaemia Association but he felt this intrusion into their privacy was going to far.

An expert diabetic nurse specialist started giving patients her home number because

... the parents used to say, it is no good ringing the GP there is an answer phone on, what do I do ? Well somebody has to accept responsibility and I am afraid it just evolved

This degree of support and commitment was evident with all of the specialist nurses.

Teaching patients formed a large part of the practice of specialist nurses. How this teaching was carried out again was dependent on many factors. Certainly with many specialists the medical model was very prominent, and these experts were observed operating as mini-medical consultants. In areas where the nursing focus and the nursing support network was presented as supportive and encouraging, then expert nurse specialists demonstrated a much more holistic approach to teaching. Here teaching seemed to be incorporated as part and parcel of the relationship rather than as a formal, rather self-conscious process. In areas where this type of support was not available teaching seemed to be very directive, following a pedagogical model, whereas in areas with a strong nursing focus and where nursing management was supportive, the approach appeared to be much more andragogical in nature.

Specialists used a number of strategies to assist the teaching process. One expert spent time teaching a patient how to manage her GP, as the patient did not appear to have been correctly dealt with. It was as if the specialist was teaching the patient how to be diplomatic when it came to the patient visiting her doctor. This specialist nurse also taught her patients to plan contingently.

It was as if she provided a framework for the patients so that they could establish how they should be behaving. A simple example of this contingency planning was evident when the specialist said to one patient

If you get a bit of sugar then go back to testing three times a day every day, otherwise just test once a week.

Summarising was also used as a teaching technique. During a visit another specialist diabetic nurse was observed teaching a patient. The specialist summarised to the patient that the patient had three main problems: first she needed to reduce the amount of sugar in her diet; secondly she needed to reduce the amount of cholesterol; and finally she needed to reduce her weight.

Negotiating was another technique that this specialist nurse used, which seemed to be central to the way she worked. It was as if the specialist nurse was involving the patient in negotiating what she could and could not eat whilst she was on holiday, in an effort to reinforce the notion of the patient remaining in control of her own diet.

Specialists summary

Specialist nurses are developing their roles as independent practitioners. Some operate mainly from a medical base, whilst others were operating from a more holistic nursing focus.

Characteristics such as commitment, and accepting a sense of responsibility, are particularly evident in this group.

Knowledge development is linked not only to the speciality they work in but also to the focus of care used, which in turn differed with the sub-group they belonged to and the 'world view' they operated from.

Humanistic Existentialists

There were six nurses in this group of experts. They seemed to be very dynamic in nature. A strong nursing focus, with the patient viewed holistically, was clearly apparent, both in the interviews with experts from this group and in their practice during the observation visits. They were enthusiastic about their practice. Considerable emphasis was put on the establishment of the nurse-patient relationship. They valued their own practice, and also the practice of the nurses they worked with. The nursing culture within which they gave care both at macro level and at micro level was supportive in terms of the development of autonomous reflective practitioners - thus acting as a breeding ground for expertise development. At macro level the experts felt that they had excellent nursing support and they were aware that they were actively encouraged to review and develop their practice.

It was legitimate for them to be risk-takers. To stand still was in a sense to go backwards, and they were constantly evaluating and pushing forward the boundaries of their practice. They appeared confident and assertive in the main, and they had a positive doctor-nurse relationship. There was considerable evidence that this group exercised a degree of power in relationship to their practice, and that they devised strategies to achieve their objectives.

All the nurses in this group used primary nursing as a care delivery method, and decision-making about patient care was devolved to the primary nurse providing care. In terms of professional issues there are several areas of relevance. These are explored by first examining the experts' relationship to the culture in their areas. This appeared to be a highly significant factor in the development of their expertise. An expert nurse discussed his perceptions of nurses as guardians of the ward culture:

we are the holders of the culture and we have to keep recreating that culture, we can't actually just let it rest ... because it is a very dynamic very complicated situation ...

He raises important issues related to the culture at ward level. Because of the high turnover of medical staff, nurses are a constant factor at ward level. He highlighted the importance of nurses re-creating the culture with each new intake of doctors presenting this process as essentially dynamic and evolving.

This creation by nurses of the culture seems to provide a means whereby expert nurses and their colleagues (because the expert nurse referred not only to himself but to his colleagues also) were able to establish relationships with the medical staff which ensured that nursing was recognised and valued.

I suppose from the point of view of the more senior nurses on the ward the approach we take is to keep people confronting these situations and to keep confronting them ourselves so rather than just let them rest actually ... we need to keep airing these issues we need to keep confronting these issues as they come up ... we are guardians of the culture and if we want to have a cooperative productive relationship with medical colleagues then that is something we need to keep reiterating.

This expert was motivated to do something positive about doctor-nurse relationships. He felt that nurses needed to inform the doctor about the way they worked at ward level, their philosophy and the way they organise care. Secondly the expert nurse was quite realistic about this process. He was prepared to concede that doctors were unlikely to have time to read about the nursing position vis-a-vis care provision on his ward. Thirdly, he and the other senior staff were prepared to bring about change through a process of challenging. This type of non-confrontational but assertive challenging was a hallmark of the Humanistic Existentialist group. In terms of the culture and its effect on care provision, these experts integrated their philosophy of humanism into practice.

... understanding the person, partly flags the ideas of the common philosophy of nursing that we all have, which is basically treating situation as individual, it is almost like the phenomenological approach if you like ...

I don't think any one would say I have done a lot of reading of Berger and Luckman and that is why I nurse the way I nurse. In fact it is that sort of social construction of reality, also thinking about Benner type ideas of situated meaning.

This expert nurse encapsulated beautifully the nature of the nursing relationship in this group.

A type of ethnography was in action which was seen to a limited extent in other experts but was readily evident in this group of experts. It was as if the experts are able to very quickly place themselves in the real world of the patient. They gave care which fulfilled Orem's (1980) definition of nursing, that is 'to care for another self'. A full discussion about this ethnography-in-action is presented later in the chapter. In relation to frameworks for guiding practice this expert detailed the influences on his practice.

An interesting idea that I have borrowed heavily now from Chris Johns, is that sense of getting back to a very pragmatic question, what information do I need to nurse this patient and there all sorts of things that are potentially important and might need to be checked out. But if I go in with a framework, which I then impose on the situation, what I will find out is what fits into that framework. On the other hand, if I go to that situation with a core, a sense of what do I need to know, so that I can nurse this patient, then a lot of those issues will come to me. Now obviously as professional nurses we can't just take an airy fairy approach to that, we actually have to use our knowledge to anticipate things, and there are certain things that you know you need to find out about ...

If you were entirely phenomenological you would not be finding out about discharge until the day before they were going home ... we try not to impose a framework onto somebody's experience but try to draw out their experience by I suppose using our own constructs. If that does not sound too airy fairy...

This expert demonstrates sufficient confidence to question the value of nursing models as frameworks for practice. Rather, he chose to let the patients determine their own parameters. He also identified the importance of higher education to his practice.

I would say that my academic work, for want of a better word, does inform my practice and it does so quite strongly, because my academic studies inform my values and it is my values that makes a big difference to how I work. So the academic, ... the theoretical and more abstract notions that I have internalised that inform my practice and they do flow out of humanism, they do flow out of a questioning of traditional reductionistic knowledge. They do partly flow out of growing spiritual convictions, they certainly flow out of I hope quite broad reading, ... I don't want to just know about the experience of someones heart attack. I am interested in knowing what a heart attack does to your myocardium, I am also interested in what it does to your self image. So it is a broad range ... the illnesses are part of the experience, the understanding of the experience comes out of sociology, comes out of psychology and all grey areas in between, it comes out of personal experience ... in terms of one's own life and one's own family, ... going through illness oneself, it also comes out of the extraordinary experience of looking after these people week in week out. One of the ways that knowledge is then integrated is through the process of reflection which for some people is more or less developed. In my case it is not particularly well developed.

As can be seen, this expert nurse talks about and views his nursing practice in a very different way from the expert nurses in the other groups. He demonstrates self-awareness and professional awareness, and is able to deconstruct his practice into its influencing factors .He then presents his practice as a type of synthesis of knowledge and values that determines the ethnographic approach that he takes to care.

These experts believed that primary nursing was a significant factor in the development of expertise. This was linked to autonomy and authority.

Influencing the culture of the place if you like, not only has management devolved from a central position here in nursing but as far as delivery of patient care it is very much down to individual practising nurses. They have a great deal of autonomy within their own practice. There is obviously a degree of cohesion, sharing of common values if you like

Inseparable links are evident here between the culture operating at ward level, primary nursing, and the development of knowledge. Another expert nurse explained that

You very much are an individual in practice here, you are not told by anyone else what to do and you have to contribute to a team to get support from it, you can't just be there.

According to another expert from a surgical area, nurses in her area do not do different tasks. Rather they accept responsibility for the total care of a number of patients within an area.

Part of the way we work is that we don't define particularly roles in terms of tasks or activities ... we practise primary nursing by that name or another, but basically we are taking about the prospect of a more holistic and individual approach. I do for my patients what my patients need doing, that can encompass anything. If my patients with bowel surgery and bowel prep find themselves with intractable diarrhoea and the loo needs cleaning, then I do it. I would never ever expect not to, or expect to do things that other nurses wouldn't do, or not to do things that other nurses do, ever !

This expert is aware that for a team to develop there has to be mutual respect. Professionalism is about being able to care for your own case-load of patients. This contrasts with an

expert nurse from the Traditionalist group who perceived professionalism as being linked to etiquette, such as standing up when a sister came into the room. A supportive type of supervision was in operation in the ward areas. One expert nurse who was also a ward sister explained that she worked as an associate nurse a lot and that this was in

some ways very useful [to] keep my eyes peeled, I take up a lot more in a given time than I think an inexperienced D grade associate would be able to do. I feed back to the teams, and say I have noticed this that and the other what do you think about that ? I think that is in some ways very useful both for them and for me.

In terms of providing feedback the approach this expert nurse outlines sounds friendly, open and non-threatening, and contrasts strongly with the 'telling how to do ' approach of the Traditionalist and Technologist experts. Another expert nurse felt that

What unites them (the nurses) is that they have a common purpose in their nursing and the philosophy is explicit and is worked with. It really is ... quite evident that they are working with that common purpose in the way they approach their patient and that is perceived by patients similarly on questionnaires of their experiences of the ward endorses that ... one of the things I have enjoyed is facilitating people working through challenges, and they challenge me a fair amount and I've certainly challenged them a fair amount and we have had endless tears, and happy times, and joyful times, I think that the fact that we have endless niggles is a very healthy sign. It used to worry me initially I used to say oh, ward X does not seem to be happy and I used to yearn for people saying they were happy, happy, happy, but not recently, I have actually felt happier when I hear of problems rising to the surface and then seeing how they manage those problems.

The expert nurse here signifies the value she and the other nurses put on the process of challenging. She also highlights an ability to tolerate ambiguity insomuch as she perceives niggles and complaints being talked about as a healthy rather than an unhealthy sign. Asked if she was happier when gripes came to the surface because of the sense of honesty, the expert replied

I have tended to be very open and approachable and I have worked very hard at being available and responding very quickly to any tentative half baked approaches for support or wanting to talk over a problem. Some people bottle out of it, they can't be that honest and we have not always succeeded and those people have generally left after a period of time because they become more and more uncomfortable as the problem does not get solved.

Nurses who could not cope with this culture of trust and responsibility tended to leave, as they realised that they did not fit in. This expert emphasised the importance of mutual intra-professional respect,

I suppose I am fairly supportive of Carl Rogers' view on life. In education I enjoy the open positive regard of students and I see them very much as my equals and I similarly see my ward staff as my equals.

When Humanistic Existentialist experts were talking about their patients they presented situations as if from the patient's perspective. The following example demonstrates how this ability to see a situation from the patient's or relative's viewpoint enables a transformation to take place in terms of the patient's care.

A lot of things that stick in my mind are like transformative situations.

I suppose some of my expertise is in recognising some situations as transformative and illuminating them ... For example quite a few months ago we had a young man on the ward, he had been in a RTA he was wasted, contracted, he came to us from a rehabilitation unit because he was dehydrated and he had an infection and he became quite physically ill ... Now the hand over that we were given clearly labelled his partner as a trouble maker, we had comments like 'don't let her interfere' and 'she will take control, she will take over'. Which obviously said to me straight away, you want control, that's why you feel uncomfortable with her wanting control ... there were a couple of us that were intimately involved in the first few days. What we did was, we just accepted her anxieties, so rather than trying to challenge her protectiveness, her anxieties, we tried very consciously the two of us to accept that that was a very legitimate feeling under the circumstances ... she really wanted to be there for him and we converted a sense of being threatened by her wanting to have a degree of control and involvement in his care, to actually using that energy, transforming her emotion into something we would all be working together ... and just recently we were invited to their wedding. We definitely made a significant difference, you could see her relax and start to trust by listening to her and we were actually saying we agree with you, you have had a bit of a bad deal. We accept that you want to spend a lot of time with him, we accept that often you will know how to care for him best and certainly you understand and communicate better than we will... of course we are experts in our field and we know about nutrition and we know about hydration and we know about the importance of these things we know about gastrostomy tubes and we know about pressure sores but none of that, is knowledge we can't teach to some one else. There is no point in being jealous of that professional knowledge, I don't see any of us as being the sorts of people that would hold anything back. We don't want to use knowledge as power ... She was quite happy to trust him to our care and she actually had a rest which I thought was very good.

We see here the awareness that this expert nurse has of how support and acceptance can turn a negative situation into a positive one.

The expert nurse and his colleague were not prepared to accept the labelling that was given to this patient's fiancée by carers from the home this patient was admitted from. The values espoused by this expert are also put into practice in terms of care. These included values of treating patients as equals and encouraging patients and relatives to make choices and to participate in care. This expert nurse explained

In that particular exemplar I am not just talking about sharing knowledge there was also an emotional response, both of us that were involved in looking after that particular young man and woman in that early situation, were very aware of feeling her distress. Her distress we very much saw that as a focus for our care. So our care, which my boss would actually see as something coming out of Buddhism, can also be seen as coming out of Humanism, the idea of actually confronting anxiety, distress, negative fear and trying by one's own good will, one's own unconditional warm regard ... in that situation I can say that that was what I was doing, I did go into that situation where I was accepting, but also I was trying to respond in a human way to the suffering that was going on ... The trouble is the jargon of it, the unconditional warm regard the moderated love, those sorts of things, they don't necessarily get across the reality, they don't get across how you feel in those situations and they are poor approximations of what are complex emotions and situations. But I know that I feel things very strongly in certain situations and I know that my colleagues do as well.

Here the expert nurse recognises that the nursing care he is providing is very sophisticated and complex. It is based on a considered value system and an explicit philosophy of care. The patient's 'condition' alone could have been attended to, but this would have been to deny the importance of the relationship and power distribution between the patient, the fiancée and the nurses. Qualitatively the patient's treatment was made into a

positive situation, in which the patient and his fiancée were actively involved and knowledgeable. Care therefore was not just a short term, here-and-now solution. It was also concerned with the long-term education and development of skills that would be needed for the patient and fiancée to cope in the future.

This nurse outlined his feelings about the way he works and the fact that he had been nominated as an expert for this study.

We trust people and support people in following their instincts and in doing what they think is right ... I feel uncomfortable in a way in being seen as an expert, because when I work along side [others] I feel in awe sometimes of people who are D grade nurses, the way they can articulate their values, the way that they can tackle difficult situations with alacrity, it is really brilliant to watch. You cannot always put your finger on what part you play in that, part of it you know is because that is the way that you like to work and you don't actually say I am allowed to work this way because I am the big boss, you are not, because you are a little farty. You actually say this is the way we work, if you want support in that direction this is where it is.

This approach contrasts strongly with the way junior staff are presented by other groups of experts. Here the emphasis is on valuing the staff, whereas with other groups emphasis was placed on monitoring and controlling.

Humanistic Existentialist experts were prepared to extend their role into what was previously medical territory, and to expand their role to incorporate more qualitative aspects such as massage and aromatherapy.

The Humanistic Existentialist experts envisaged taking on tasks that had previously been the province of doctors, in a way that did not compromise the nursing role.

We are looking at extending cannulation (situating a needle in a vein for treatment purposes) in our area particularly ... it is my personal feeling ... that [we] would better serve the patient if we became proficient in it.

Another expert nurse explained that as well as the patient having benefits from nurses extending their role it also

further bridges the gap in as much as God forbid we start doing things for doctors for the sake of doing it ... [but] I think it does our working relationships some good.

An expert nurse described his feelings about the advantages of extending the nursing role.

I think the relieving end of the spectrum is where my orientation in terms of nursing is. Within that you can see that putting in venflons is legitimate because dehydration is unpleasant and it's a symptom that is usually palliated ... thinking of people with neoplasms once again , hypercalcaemia, ... you want to palliate that symptom ... that actually does lead to IV fluids, that sort of thing.

For this nurse an extended role in no way makes him feel like a second class doctor. He is clear about where the fact that he can put a cannulae in, or give a patient IV fluid, is taking him, and where this fits in in terms of nursing care. Just as these nurses were confident about extending their role, so too were they confident about their knowledge bases. During discussion with an expert nurse from a surgical area it was established that in her opinion nurses were more knowledgeable about certain areas than were the junior doctors.

... I have got staff nurses who have been here here for 2, 3, 4 years ... the nurses are more knowledgeable about pre and post-operative care than junior doctors. They are not as knowledgeable as consultants are ... but in terms of managing the majority of patients through our ward the senior experienced nurses are teaching young doctors how to do it.

When asked to specify what particular types of knowledge this expert nurse was referring to, she replied

Everything, assessing, nutritional support, psychological information about ... not breaking bad news but giving patients information about their diagnosis. I ... remember I interviewed a consultant in my study and I said 'what do you feel about information giving, do you get a sense of there are certain things that certain disciplines should talk about and those are boundaries that should be maintained?'.... we had quite a long talk about nurses giving patients information about their diagnosis [and] prognosis. He said 'to be honest ... I have no problem with your senior nurses doing that, you know more, [or] as much as I do about it. But I have a problem if I go to another ward or department. So you have to take it on an individual basis, but in essence there is the recognition that some nurses do have that knowledge base and experience that is being used in managing patients whole care, probably more effectively and satisfactorily from the patients point of view, not necessarily from the doctors. They don't always like it when you steal their thunder, well some do, because they are not very good at telling patients bad news and they are quite relieved that nurses have done it and have probably done it quite well and sensitively'.

The consultant was prepared to acknowledge that in some areas the expert nurse knows as much as, if not more than, he does. This is still uncommon. The consultant was also prepared to acknowledge that nurses in this area were likely to have the knowledge to cope with diagnosis and prognostic information-giving, but he also emphasised that this did not apply to all areas. The expert nurse explained

it ... is new territory, exploring diagnosis ... but so often the questions that are asked are within nursing's domain to answer and they are not within the surgeon's or physician's necessarily and they (surgeons) are not interested in some of those questions like 'how regular will my bowels be, what kind of diet should I take ?' They are not really interested. They (surgeons) are interested if the cancer is there and what kind of operative technique they might use, so it does complement very well working together ... quite often certainly in the early days I would have junior staff nurses along-side me for these conversations. They would come and observe some of my interaction with clients and we talked about it afterwards ... I know when I [can] take an observer into a situation and when I can't. There are some conversations where I am so strung up I can't, it is bad enough being in the conversation, never mind having some one watch you with your umms and ahhs, struggling with it.

Clearly the expert nurse feels confident to push forward the boundaries of her practice into the realms of diagnosis exploration. She is mindful of the medical role in this process, but appreciates that in reality many of the worries and problems that patients wish to ask about are within nursing's domain. She also clearly demonstrates a reflective approach to her practice, as to when it is appropriate for learners to be observing and when it is not. Her open admission that sometimes she feels she would not cope with an observer, during this sort of incident, also reflects personal insight and awareness of her own strengths and weakness in a non-judgmental but assertive manner.

There was no evidence of false humility in this statement. Conversely there was no evidence that the nurse expected the doctor to deal with the 'difficult bits'. Quite the reverse: she demonstrates that she was prepared to accept responsibility for her own actions.

Self-awareness and reflective abilities were hallmarks of the Humanistic Existentialist group. They were politically aware and capable of devising strategies to enable them to develop their nursing practice. They were also very aware of the influence they had on other nurses.

I am very credible clinically because I work clinically, and it is quite significant that working clinically at a senior level gives a very clear role model... it clarifies for a number of people the vision of what nursing might be, that's not to say , I am not successful all the time, ... there are times when they see very powerful and significant nursing going on, which has been managed and determined by me and that is very important in giving them a clear idea of where they might be going.

This expert attaches importance to acting as a role model by giving hands-on care. She is aware of the impact she has on other nurses, and she is aware that what she does in terms of care provision is different in that it is 'powerful and significant'. This seems to highlight another difference between the Humanistic experts and other experts, in that Humanistic experts present the process of giving care as being the significant factor, rather than a task that is undertaken.

This group also demonstrated a heightened sense of awareness in terms of their own strengths and weaknesses, and in terms of the knowledge they use in practice.

My strength is that I can actually spot something that is not right, I can go away and think about it, not act immediately, unless it is a critical situation.

This expert identified the importance of ideas from physics which have implications for the way nursing practice is approached.

Another book by ... Capra which is you know quantum mechanics, quantum physics, ideas that try to stretch you away from seeing things as constant but actually realising that things are ever changing and that cause and effect is very complex. What you have got is an organisation and an organisation means a bedrock to sit on and to try to find some sort of meeting ground between the influences of the bedrock but that is then something that you use to shoot off into the chaos and to try to make sense of the chaos. But certainly when you start to talk about people like Schon ... you know you are talking about knowledge that is trying to help you understand the swampy low ground.

Here the expert nurse recognises that giving nursing care is a complex process which requires consideration of a variety of factors. Presenting nursing knowledge in this manner demonstrates that the expert is prepared to consider nursing practice in terms of a much wider arena than routinised care. He presents nursing knowledge as dynamic ,in a sense unformed, as if it is going through a reforming and refining process.

I think one has to credit post-basic education with actually contributing to the development of clinical knowledge. I was ... doing a research methodology course and what that was making me ... think about how knowledge is created.

When you start talking about research methodologies and epistemology you are actually starting to question the validity of some of the knowledge that you get spoon-fed and of course a lot of it is in nurse training. People tell you something is, and you believe them and you don't stop for two minutes to actually question it and this is why we were packing wounds with EUSOL paraffin wicks for years on end and none of us really knew about the physiology of the wound and the importance of oxygenation, all the old things that we are now fairly familiar with. ... we weren't actually taught to question knowledge ... when I got into further education I started to realise that the knowledge you are given is constructed in one way or another by particular paradigms ...it comes from a certain way of seeing the world and if you start looking at the world in a slightly different way you might come up with slightly different answers.

This expert nurse is able to identify the influence that education had on him in terms of encouraging a more analytical critical manner of thinking. He has also clearly thought about his clinical practice and that he considers it a legitimate area for exploration.

Another important characteristic of these experts was that they exhibited awareness and advocacy in terms of patient care. They also demonstrated integrity in their relationships with patients. Such an approach is evident in the following examples, where an expert nurse, because she had established deep and meaningful relationships with her patients, went to extraordinary lengths to ensure that what they wanted was in fact carried out.

I had two patients recently who were particularly poignant because they both asked me to be their primary nurse. I had promised them both that they could die at home and that I would do everything I could to facilitate that happening...

One was determined that she wanted to go home, she was very frightened of dying and we talked about it up to a point, but we never discussed the gory details. She knew she was dying. The other one never really admitted that he was dying ... I promised them both things and I thought about it very carefully ... about whether I had the resources to fulfil those promises and whether my own personal resources, as well as the communities resources ...

so I did a lot of heart searching about this and it was extremely painful it was really very very difficult... I think what was very important for me was that the rest of the team including the consultant ... we worked together far more than usually. I think it was brilliant both for the consultant and me in terms of credibility, and our working relationships, but for the rest of the staff to see what we did and how we did it, was invaluable. They saw how painful it was and that it was OK to be upset about it.

The woman who went home and died had an upper gastric carcinoma ... she thought she had beaten but she hadn't ... she was unable to eat or drink at all, because she was completely obstructed. Mr. A (the surgeon) had known her for five years he opened her up and could do nothing at all, absolutely nothing at all and he was devastated. He rang me personally, which he has never ever done from theatres and said please will you come down, I want to talk about this. I thought it was a bit strange, I knew it was bad because he would never ever, I have never known him to do that before ...

He said 'I want you to keep her comfortable' and I said 'what will I do when she asks me, because you know she will ask me' and he said 'tell her, you have got to tell her and if I get there first I will tell her' ... I told her husband what we had found and when she woke the next day I was with her and I told her. I had never had to do that in my professional life before ever, actually be the first person to say, you are going to die because this is what they found. ... she needed honesty, she needed to be told and she did not need any flapping around or maybe we could do this, or maybe we could do that, and we just said 'Fiona these are the options it is up to you to choose and we will do what ever you want'. She did, she chose and we did what she wanted ... she took her chances and tried to get home ...

Getting her home with TPN was the most mammoth problem I have had to deal with for a very long time but we did it, we did it. I will never forget one of the things I said to her before she left was that if she felt at any time that she wanted to withdraw from the TPN and change her mind that she really had had enough, and she knew that that was feeding her and the tumour and she couldn't keep going, all she had to do was say, so and that was absolutely fine you know, she didn't have to feel that she was committed to it for ever and ever until she died, and she did, to my amazement she actually withdrew from it before she died, she was a very brave woman. But I wonder if I had never said it to her if she would have known ?

The other case was very different again, because Raymond and his wife refused to believe that he was going to die from this cancer. They were extremely well educated articulate people, it was really quite dumbfounding to them ... Eventually his wife Naomi , by this time Raymond was away with the fairies, agreed that he was going ... he went down hill very quickly, he died very very quickly unlike the other lady ... finally his wife accepted that he was going to die, but she did have to tell her children, she had an obligation to inform them of what was going on ... That was very hard for her to accept and I had to, and the associate nurses, I must bring them in, they were all in it, as much involved as me, especially when I am not there, we have to accept that. I helped her to decide to take him home because I knew it was what he wanted although he was passed saying so by this stage, he had previously told me that he wanted to go home.

These two examples demonstrate the degree of commitment this expert nurse had to carrying out her patient's wishes. Because of her sound knowledge base and the values she espouses, she was able to operate in a sensitive, sophisticated responsive way to both patients' needs. Not only was she able to organise the support in physical and psychological terms that these patients needed, but she also maintained the trust that both of these patients had given to her. It is clear that Fiona (the

first patient) was treated as an equal and was fully informed and involved in the decisions about her care. There was no talk of decisions behind closed doors; everything was there for the patient to see and to decide on.

In the second example the expert nurse demonstrated that even when the patient no longer knew what was happening to him, she still kept her word and encouraged the patient's wife to have him home.

This signifies a deep moral and ethical commitment. It must surely come from and foster an environment in which patients feel that their wishes are paramount. The care demonstrated in these examples is the antithesis of routinised care. It is clear that the surgeon respects the nurse and treats her as a partner in care, a partner whose advice can be requested. It is apparent that this expert, the other nurses, and the consultant were able to share their feelings through this traumatic experience. The expert nurse demonstrates that the care she gave was more than a response to a given situation. She had carefully thought through what was likely to be involved before first agreeing to be a primary nurse for these patients. She had reflected on her own resources and the support likely to be available in the community. Only then had she decided that she would agree to the patients' requests.

Consideration and thoughtfulness permeate these examples and demonstrate the powerful nature of the nursing commitment shown by this expert nurse.

Another expert nurse shows awareness of the nature of nursing in the following example.

We can't pretend that some of things we do can only be done by registered nurses ... I am very proud that twelve years after starting nursing, I am still giving essential nursing care and I see myself as being quite good at cleaning teeth and washing people and things like that and of course the actual mechanical activities of doing those things can be done by all sorts of people, can be done by unqualified people, can be done by lay people,... What I can also do, is that at the same time as giving drugs, taking observations, building relationships and participating in the management of a hospital, standing up for nursing issues in the inter-professional debate, planning discharge, cooperating with physiotherapists, occupational therapists and I can do that almost all at the same time and that is the specialness of being a professional nurse

This expert is aware that tasks can be undertaken by almost any one, but what she is also saying is, 'I do many other things at the same time, than just carry out one task'. With all of the expert nurses it was apparent that they were indeed able to deal with many situations at the same time.

The experts had learnt to be political. Quite often complex and original strategies were used by these nurses to achieve given objectives. One expert nurse identified the valuable support that she received from her senior management

... that goes all the way up. Most of my support comes from my peers but I still need senior support and it is there, they are available they are approachable, I mean I still identify out of a range of people the certain ones that I feel I have a particular rapport with but then I have got a choice of four or five people ... that is partly me maintaining the relationship, I am quite a political animal, I know how to look after myself and my unit, I am quite politically active ... I probably learnt it from a very old fashioned nursing officer and this ward sister and she could run rings around this nursing officer and we still got what we wanted and this woman was none the wiser.

This expert's perception of her ability to look after herself and her unit are in sharp contrast to those expressed by other kinds of experts. She sees herself as being to some degree in control of and influencing events, and presents her nursing managers as supportive. The Humanistic Existentialists did not allow events to immobilise them. Rather they set about devising strategies to achieve their ends. When one expert was appointed ward sister the surgeon had little appreciation of the nursing role. She actively worked at convincing him that she deserved respect and that nursing deserved respect. This expert was prepared to go to extraordinary lengths to gain credibility with the consultant. She acknowledged that it may even have been influential in determining the degree she undertook.

They gave me a hard time to begin with, I expected them to and I stood my ground and I just said fine yes ... I conceded on a lot of things to begin with but I never conceded the whole way ... and then gradually as the consultants have got used to it, I have taken a step backwards.

When asked if she had chosen to do a degree in human biology because it would mean that she had more credibility with the consultant she replied

Possibly, ... I suppose having a human biology degree, particularly if you tell them you are doing a dissertation on cancer and they are ... surgeons and you go and interview them, and show that you know what you are talking about, has to lend you some credibility and kudos ... I suppose if I was even being completely honest I could even say that might have had some influence on why I chose to do it. I don't wish to become a doctor ,I wish to bridge the gap between the two professions and work for us working together for the patients.

Through establishing and sticking to her own agenda and through devising strategies to implement that agenda she demonstrated that it is possible for nurses to operate within an environment that is not always initially the most conducive to developing notions such as primary nursing.

These experts did not appear to spend a great deal of time formally teaching other nurses. Rather, they contributed to an environment in which it was possible for other nurses to grow in terms of confidence and insight. Many factors influenced this process. Good resources in terms of staff, was a major consideration, and considerable emphasis was put on the importance of continuing educational development in these areas. Nurses were encouraged to undertake projects and to feed back their findings to the other nurses. Also very significant was the nature of trust that operated in these areas. One of the experts stressed the importance of having peers who were enthusiastic and motivated about their nursing practice.

I would say that the way we have got things dehierarchialised , is a very effective way of helping develop their own expertise, providing you are not just letting them get on with it. Part of what you are doing, is letting them make their experience significant. Checking out that they are OK and supporting them .

Another expert found having a period of experimentation encouraged the development of his expertise. He highlights the importance of peers in this process.

I did my degree that was an interesting time ... I was starting to go into quite arcane areas of nursing knowledge. That was when I first encountered ideas from Benner and nursing theorists generally ... I was a bank nurse, ... as far as they are concerned you can take different approaches and I negotiated ways into different areas and spent a week nursing someone using Roy's model... Because you are not engaged in the situation you can start thinking about it ... what you can't do is do anything about it. What you can do, is keep it in mind so that when you are in a clinical situation where you have some sort of umph, then you can actually start something ... [at] other times you would actually be thinking about it, trying to develop ideas, reflecting on practice, learning from practice, watching situations with more of an observers eye, more the eye of a naive stranger, and asking quite hard questions about things that are taken for granted. It certainly was not a solo thing. There were a group of 4 or 5 of us who were quite close friends and we talked to each other about the experiences we were having.

In this extract the expert nurse recounts the richness of the time that he spent undertaking his degree. He was not only learning theoretical aspects related to nursing practice but he was also creating a practicum (Schon 1987) in which he could explore these theoretical positions. Through discussion with colleagues he was able to further evaluate the success of integrating theory into practice.

I use the term ethnography to describe the ability that some expert nurses have to enter into the 'real' world of the patient. This ability was typified by an almost instantaneous assessment of the patient through the nurse-patient interaction process.

When I am being introduced to a client, or to take over their care ... or whatever, I am not that interested in the details, I go straight for the patient, and I go over to [them] and [ask] how are you and whatever, I go straight into that, regardless of you know, endless information that the nurse wants to tell me, about what she has done and the temperature is this, and the urine output is that, the drains are this, I just go straight to the patient .

In this extract the expert nurse identifies the ability she has to go directly to a patient and to make judgements about that patient's care. She is sufficiently secure in her knowledge base to accept the 'world as presented by the patient' as a basis for her judgements. She explained that she was not particularly concerned with the patient's diagnosis at this stage

I pick that up, I don't worry about that, in looking at them and assessing them, from an observational point of view, if they are fit enough to engage in conversation with me, I get a real sense of where they are, I get a sense of whether they are unstable or not and then I prioritise accordingly, but I can go straight for the patient I think that is where I am different. I am beginning to make sense of their world .

This beginning to make sense of a patients world, is an intriguing concept.

INTERVIEWER : In other words you are establishing a shared world with them ?

EXPERT: I engage with them straight away and that is a very rapid assessment, it is almost,, well it is almost instantaneous, all though it isn't, because obviously there is some cognition and

everything else going on (laughter). But it is pretty quick, and I know that staff nurses who hand over to me can feel very uncertain of that approach ... they will be looking for external observable parameters , how much urine, how many days post op., are we in to more fluids yet, what is the pain, how much do they know about the diagnosis. They are not really going through a checklist but, depending on how senior they are, they are doing clusters of care, they are perhaps thinking about the physical care issues, they are still separating psychological issues, where as I don't think I do, I think I just take it as the patient presents it. And I will work with that, so it is my inter-personal skills and my ability to assess I think [that] are quite sophisticated and then that is supported obviously by a relevant knowledge base, and I can make sense of those observations very very quickly. I think the other thing is, that from that, I get a very clear sense of priority of care, both within the individual patient. What are the important things that have to be dealt with, what are important but can be left for a while ? And some how that combination of things, I think patients recognise being cared for by me is different, ... it is something else, a combination of those things when they all come together there is something extra as well that they recognise, that they are safe in my hands, that may or may not be true (laughs) but they perceive something about my demeanour and my approach and that is why I work in that particular way, it gives them a sense of safety, that I know what I am on about, that they are safe in my care.

Here the expert nurse demonstrates clear analytical ability in relation to her practice. She compares and contrasts her practice with that of less experienced nurses, and devises explanations for the differences in the way assessment is carried out by her and by the staff-nurses in her area. She demonstrates reflective ability in terms of how she presents to patients, and she deconstructs the processes she uses, so that she is able to provide a rationale for such an approach. In terms of the process of entering a patient world she was asked

INTERVIEWER: Are you conscious of what if anything you are thinking about when you ... go to them and immediately start making conversation, are you just sort of open, just open to whatever ?

EXPERT: I have got a a kind of set in my mind of what I might expect an individual going through this experience to be at. What stage they might be at. So I am doing a kind of matching process, I mean I have got 15 years of surgical nursing and I have come across most situations, many many times, so I have a kind of internal picture, of what some one four days post-op should be about, it is not necessarily terribly scientific or anything you know rigid, it is quite flexible, but it is non the less there, so I think when I am going in on a first encounter I have got that mental set that I refer to. I mean I am quite comfortable when people are out of that set and I can work out why, but it is when they don't fit and there is no reason why they don't fit, then my ears and whiskers are up and I am searching harder, and then I start to become more methodical to ensure that I have not missed something.

INTERVIEWER : So if a nurse was handing over to you and giving you a report on a patient, how much information do you actually want from her ?

EXPERT : I am very bored by most handovers (laughter) ... this is a longstanding problem of mine, but I switch off after about ten minutes at a formal hand over of all the patients. I don't find the information terribly helpful ... I like to know the name of the patient, if they are new patients obviously then it is more interesting, more relevant , if we are at the bedside and she is telling me about what she has done all morning I am not interested. I am sitting there observing the patient, I am making almost my own assessment in defiance of the information she is very keen to tell me.

I notice that the more senior, more experienced nurses start to move along the way I do in that they will just give you the essence of the morning and I look at some of the handovers ... between relatively junior staff and it is probably quite appropriate that it is a list of things and then that person makes sense of their own list of things because that is the way that they operate and that is the way they get their confidence to handle the situation.

The explanations about patient assessment are clearly presented and follow both a deductive and a reflection-in-action model (Schon 1987). The expert nurse shows that she comes to an interaction with an open mind informed by a mental set based on expectations of patients' conditions and responses that has been built up over 15 years of practice, which is informed by a knowledge base derived from both pure and applied sciences. She is able through a process of observation to make a very rapid assessment of the patient's condition. She is also able quickly to detect if the patient is not conforming to the mental set she uses for assessment. The confidence the expert has in her judgmental ability is clearly illustrated in the transcript.

She is single-minded in terms of establishing priorities and planning patient care, trusts her own judgement, and is rather impatient of well-meaning, but, to the expert, irrelevant, explanations about care that has been given. There is an interesting line where the expert says 'I am making almost my own assessment in defiance of the information she is very keen to tell me'. The nurse in this sentence seems to be saying that she knows that looking at and talking to the patient will tell her more than any hand-over from the staff nurse could do. Her use of the word defiance is indicative of the expert rejecting a rational explicit approach to care (or at least suspending it) in favour of an approach which has more in common with the art side of nursing and is akin to an intuitive

process. Although this is not a scientific process, from her explanation it is clear that her actions have some elements of reflection-in-action and of knowing-in-action in them (Schon 1987).

This ethnographic approach has several important characteristics. First the expert approaches the patient with an open mind. Secondly a process of matching takes place. At this stage the expert nurse is drawing both on theoretical formal knowledge for example psychology, physiology, disease processes, but also on experiential knowledge which includes mental sets of a range of 'normal scenarios'. Thirdly the expert nurse is able to detect when some of the cues do not match a normal range of scenarios and she is then able to obtain further information to establish the significance of these cues. The expert recognises that her approach gives her a degree of credibility with her patients.

Abilities such as these can be classified as demonstrating the Art of Nursing, and were readily apparent in this group of experts. Artistry presented in many forms, for example as therapeutic interventions through the use of complementary therapies such as massage, aromatherapy and meditation. In the following excerpt an expert explains how she integrates aspects from the arts into her nursing practice.

One of the important things ... that I use in my work is poetry , ... and Yates is probably my favourite poet. ... you know you work through things, like the Ode to a Nightingale by Keats ,

sort of when he describes the dying process. I can't remember the exact words but [he] talks about being able to fade away gently, ... Yates talks about sailing into Bysantium and that is about old age isn't it ?

Here the expert nurse describes the importance of poetry in her life and the influence she feels it has on her nursing practice. She also uses music when caring for patients.

I have just got some money to buy a walkman for our own team, to allow people to listen to music. I use it for giving therapy.

For this expert, nursing is about much more than just carrying out tasks. It is about caring for the whole person. This involves not only operating from a scientific basis but also utilisation of the art side of nursing as well. She further identified the importance of valuing yourself before attempting to care for anyone else. She felt that in terms of a general philosophy

In order to care for others you have got to care for yourself. I have to have respect and value in my own life, and a value for myself, then I have to have a respect and a care and maybe an unconditional positive regard for others, but coming from that there has to be an ability, even though it is unconditional, to tell people when they over-step the mark, even patients. 'Look your demands on me today are rather excessive'. I will often tell patients, sit down and tell them, what my workload is for the day and explain what is going on in the ward, not giving any confidences away and you know you often get alot of understanding that way. You make people think outside of themselves, sick people are often very introspective understandably, and so I am not afraid to point out to people when I feel they have overstepped the mark.

This expert exhibits self-awareness and self-respect in terms of the care she provides. It is evident that when

patients, as she puts it, 'over-step the mark' she is prepared to challenge them by outlining her other duties and responsibilities. The art side of nursing is illustrated in a critical incident related by this expert nurse. She explained that she had been caring for an elderly lady, who was diagnosed as having cancer of the uterus. This lady was very rational and very controlled. The expert presented her as having Victorian values. The son and daughter of this lady were very caring and visited frequently. They decided that they did not want their mother to be told her diagnosis. The expert described how she built up a close and deep relationship with this lady, who subsequently asked her if she had in fact got cancer.

Knowing the wishes of the family the expert nurse was at first evasive and attempted to contact the patient's daughter, so that she could ask her to come to the hospital, as she felt the patient should be told. The expert in the event did tell the patient and the relatives accepted this, but following this disclosure, the patient refused to talk to her family and communicated only at a superficial level with the nurse. This continued for 5-6 days and the patient seemed more and more withdrawn. This concerned the expert, as she felt she had been instrumental in bringing this about. A colleague suggested that the patient was in fact demonstrating the stages of grief as described by Kubler Ross (1973). Although this provided an explanation, it did not alter the situation, and the family and the nurse were feeling excluded. A nursing colleague had the

idea of using the ward's pictorial philosophy to 'get through' to the patient.

... we did not have a [written] ward philosophy stuck on the ward, we had a pictorial philosophy which was a lovely idea. The philosophy was in the front and there was all photographs of patients all the way through and a little bit of the philosophy was put under each page as appropriate and it shows nurses and patients together interacting.

The expert took the philosophy to the patient

... can I leave this on your table you might want to look at it ? Don't ask me why, but I had a 'gut feeling' that if I left it there and left it open, that she may look at it. I went back a couple of hours later ... and she looked ... and then she said 'this book here ...it is good isn't it ?' I said 'in what way?' and she said 'I did not know that nurses sat down and wrote philosophies like this ... I knew they cared, but I did not know that they really thought about it, these photographs ... look at that nurse especially, she really, really, cares' ...

This expert nurse with a colleague discussed if there was something that was important to this lady and that she really wanted to do. It transpired that this lady really wanted to go home and sit in her garden. All the appropriate permission was obtained and the nurse called to take the patient home. Unfortunately the patient felt too weak to cope with the journey, so the visit had to be cancelled. Arrangements had also been made for a doctor who was off duty at 5 o'clock to call and take tea with the patient, the nurses and her daughter, but this all had to be cancelled. The expert nurse described that

I spoke to the daughter and I said we can't take her to the garden can [we] not bring the garden to her?

This was exactly what the daughter and the expert nurse did they ensured that the patient's side ward was transformed into a garden.

In the event lots and lots of flowers were brought in from the garden, tulips and daffodils they were absolutely glorious .

The tea party that had been arranged for the patient's garden was carried out in the patient's room with her daughter, nurse, and doctor present. The patient died four days later. Such care is in many ways an ideal type and I wondered how this expert coped with situations such as handling difficult patients, or how she coped when she was short staffed. I asked her to describe how she handles patients whose demands appear excessive. She explained

I might say is there anything particularly bothering you today and work out what and work out why. But if there is persistent negative behaviour and you want to find out why, the idea of contracting you could think about. If he is going to call me for the commode every ten minutes because he is actually frightened and anxious ...

By the time I come for the tenth time, I might smile ... but I am not going to feel the same ... if we actually spent the ten times I went for the commode actually talking, sometimes you can find out the reason, 'I am worried, I am anxious, I am concerned' . I think we are offering them very interesting choices, but trying not to over face them with those choices.

The expert nurse in this statement illustrates how she uses a contracting approach with patients to overcome difficult situations. She looks beyond the presenting behaviour to establish its cause, rather than accepting it at face value and perhaps labelling the patient as 'difficult'.

Humanistic Existentialists summary

This group of experts present an 'ideal type' of nursing, where the patient is truly cared for as an individual who has choices. These experts use both theory and practice to inform their care. Reflection and integration of the 'art' of nursing into practice is apparent. A strong nursing focus is also evident in the practice of these nurses. Tasks traditionally the province of doctors were only taken on when they could be incorporated within the concept of improved patient care. These experts are confident, articulate, and their knowledge base is soundly underpinned by both professional and higher educational development. Authority is a requirement for this group.

Generally, relationships between Humanistic experts and medical staff were very good, although there was some evidence that this was not always as positive as the experts presented. This may well have been an attempt by these experts to present only 'front stage knowledge' (Leininger 1985 cited by Polit and Hungler 1987:270). The passion and enthusiasm that these experts demonstrated when talking about their practice was also evident in the care they gave. Indeed, passion for nursing was inherent in the culture, which was supportive and acted like a breeding ground for expertise development.

Summary of the four types of expertise development.

The emergence of four types of expertise was surprising. On initial review of the literature, expertise was presented as an ideal model. Such a model whilst reflecting the characteristics of the Humanistic Existentialists, has little in common with the other three types of expertise developed. Other factors which emerged as significant in this study have also not been previously recognised; in particular, the evolutionary influence of nurses' 'world view' on the type of knowledge they use and develop. To establish the significance of these findings I decided to revisit the literature.

Chapter 6

Re-visiting the literature

Re-visiting the literature.

In this chapter I re-visit the literature to examine the relationship between expertise emerging as four distinct types, and other work in the field. In addition I evaluate the evolutionary aspect of knowledge development. Several questions influence my exploration : What is new or different about these findings ? Do they challenge or support other work in the field ? Does a pluralism of knowledge and expertise exist in other disciplines or professions ?

Whilst other studies address different aspects of expertise (McCloskey and McBain 1988, Benner 1984, Davis 1990, Davies 1992), unique to this study is the synthesis of apparently unrelated issues into four models. This synthesis forms a 'world view' which acknowledges the influence of the practice culture on knowledge use and development. In the nursing literature there are no models of this nature in relation to the development of nursing expertise.

To date, expertise is presented as an 'importation process' (UKCC 1986, ENB 1991). That is, expertise is 'imported' into an individual through an educational programme. Assumptions within such an approach underpin the introduction of the new curriculum for nurse education.

Project 2000 (UKCC 1986) is the curriculum that is preparing the nurses who will provide the high quality, cost-effective nursing service (Roper 1994:461).

This study questions how realistic are expectations that a particular course of study will produce the type of expertise necessary for the provision of high quality patient care.

Education is viewed not only as an importation process but also as a liberating and empowering process (Freire 1968, 1970, 1973, Jarvis 1986, Moore 1989). For example the 'education of equals' model presented by Jarvis (1986) raises substantive issues.

Education from above is a process whereby the person is moulded to fit into the system, whatever the system may be. Education is, therefore, regarded as essential to the maintenance of the status quo and to the continuity of the system by preparing new recruits to take their place within it without disrupting it. By contrast, the education of equals is a means by which the individual grows and matures, irrespective of the demands of the system (Jarvis 1986: 467).

Education of equals empowers the individual enabling an active rather than reactive relationship with the social system. Education from above on the other hand promotes the development of individuals who accept the social system as given and their 'position' within it. Education of equals is therefore seen as a means for producing individuals who can direct and control their own learning (see table 3 below).

TABLE 3

The two educations as curricular models (Jarvis 1986)

Education from above	Education of Equals
<p>Aims :</p> <p>Individual should be initiated in the social system and its culture System needs must be met</p>	<p>Individual should be encouraged to achieve his human potential Individual needs should be met</p>
<p>Objectives :</p> <p>Specific and behavioural objectives employed.</p>	<p>Expressive objectives utilised</p>
<p>Content :</p> <p>Selected from the culture group by those delegated by society Initiates individual into publicly accepted knowledge, its forms and structure</p>	<p>Selected from culture of social group(s) by learners often in negotiation with teachers according to interest and relevance. Problem-based on knowledge, rather than structured</p>
<p>Method:</p> <p>Didactic, Socratic, when directed towards specific learning outcomes. Teacher seeks to control learning outcomes. Teacher's role clearly demarcated and regarded as essential to learning.</p>	<p>Facilitative Socratic, when seeking to stimulate learning. Teacher seeks no control over learning outcomes. Teacher's role less clearly demarcated and not regarded as essential to learning.</p>
<p>Assessment :</p> <p>Public examination Competitive. Teacher-set tests Emphasis upon standards.</p>	<p>Self assessment by learner. Peer assessment. Emphasis on learning</p>

Jarvis argues that the learner's relationship to the social system is inextricably linked to his or her educational development. However, the findings of this study suggest that this cannot be attributed solely to educational input of a

liberal nature. Other factors such as philosophical beliefs and degree of authority held, are also found to be influential.

... one other feature has to be taken into consideration: whether the individual learner is the product of the social system in which (s)he is located or whether the system is the product of the persons who comprise it (Jarvis 1986: 466)

Whilst the influence of social systems is recognised in this work there is scant evidence to indicate that education alone is sufficient to 'empower' experts so that they influence their social systems.

One expert was keen to operate from a nursing-focussed, humanistic model, and encourage others to do so, but was marginalised in terms of influence, because she did not have complete authority in her area. In a similar vein and developing Jarvis's notion of 'education-of-equals' Moore (1989:56) offers two conceptions of the ideal nurse.

TABLE 4

Two conceptions of the ideal nurse (Moore 1989)

Type A nurse	Type B nurse
Compliant	Thinking
Obedient	Flexible
Subservient	Problem-solving
Rule-abiding	Autonomous
Policy Adhering	Accountable
Procedure following	Self-directed
'Education from above'	'Education of equals'
Pedagogy	Andragogy
Based on the assumption that the individual is the product of the social system in which he is located.	Based on the assumption that social systems are the product of the individuals who comprise them.

The assumption within both Jarvis's and Moore's work is that individuals exposed to 'education of equals' are empowered and therefore able to control their social systems rather than being controlled by them. There are several points of departure between this study and the suggestions offered by Jarvis and Moore. Whilst the importance of the relationship of the individual to the social system is recognised, findings suggest that the situation is much more complex than utilising an 'educational of equals approach'.

Nurses also need authority, support, and resources to be able to create and control the social systems within which they work. The assumptions within 'education-of-equals', concurs with the work of Freire (1968, 1970, 1973). Freire focussed on dialogue with illiterate Brazillian peasants so that they could relate to their place in creating their culture. Awareness of this relationship empowered them, freeing them to be active in terms of their learning. Nurses in the Humanistic Existentialist group were empowered in a similar way. They were aware of their place in terms of influencing the culture they worked in, and were prepared to take action to support this.

We are the holders of the culture and we have to keep recreating that culture, we can't actually just let it rest ... because it is a very dynamic very complicated situation ...

This expert also recognised that this is an active process.

I suppose from the point of view of the more senior nurses on the ward, the approach we take is to keep people confronting these situations, and to keep confronting them ourselves, so rather than just let them rest actually ...

we need to keep airing these issues, we need to keep confronting these issues as they come up ... we are guardians of the culture and if we want to have a cooperative productive relationship with medical colleagues then that is something we need to keep reiterating.

Awareness of power in relation to creating the culture was not evident in the Traditionalist, Technologist or Specialist groups. Freire talks of the culture of silence of the dispossessed. This has similarities with the cultures within which Traditionalist nurses and many Technologist and Specialist nurses work.

Rather than being encouraged and equipped to know and respond to concrete realities of their world, they were kept 'submerged' in a situation in which such critical awareness and response were practically impossible (Shaul 1968:11).

Expert nurses in the Traditionalist group seemed to be 'oppressed' by both management and medical staff. This oppression was also evident in relation to many of the Technologist and Specialist experts. An example which illustrates this point arose during an observation visit to a control of infection nurse. The expert explained that a staff nurse had rung her from x-ray. The procedures that were being carried out in the x-ray department had been very much expanded, but the consequences of such expansion did not appear to have been thought through by management. An irate staff nurse explained that the utility room was being taken off her, as more space was required and she now had nowhere to empty used bedpans. She was seeking advice from the infection control nurse as to how to deal with this problem. The expert nurse

explained that these sorts of incidents were happening all the time and that many nurses were afraid to complain as they felt this might compromise their jobs. She said that she often had to write to management pointing out the statutory requirements, but she also recognised that management frequently ignored her concerns and that there was little she could do to influence that. In another incident in an ITU presented earlier an expert mentioned how 'as nurses go higher up in management they tell you that their concern is the budget'; this reflects what Freire referred to as 'sub-oppressors'.

Almost always, during the initial stages of the struggle, the oppressed, instead of striving for liberation, tend themselves to become oppressors or 'sub-oppressors'. The very structure of their thought has been conditioned by the contradictions of the concrete, existential situation by which they were shaped (Freire 1968:30).

Cognisance needs to be given to instances such as these when attempting to develop nursing expertise. Importation of subject-matter knowledge alone will be insufficient to produce reflective critical experts. The developmental process is much more complex than this and requires a process of empowerment and liberation to occur so that the reflective skills that are being so glibly advocated can find a place in the reality of the individual trying to use and develop these skills. In addition to critical abilities, nurses need support, authority and resources. So whilst education is important, so too are other factors which contribute to the 'world view' that the expert operates from.

Limitations of models in the field

Benner (1984) presents nursing knowledge in a relatively narrow technical operational manner. This contrasts with the primacy of philosophical and cultural factors in my work. Her definition of expertise draws on the Dreyfus model of skill acquisition and is dependent on a situational context model 'rather than a trait or talent model' (Benner 1984:22). Emphasis on context does not preclude her from describing a five stage model of how expertise can be developed.

The findings of this study suggest that Benner's model needs viewing with caution. What she is describing is the five levels required to become a skilled performer. There is an assumption within her work that this is synonymous with expertise, as if they are one and the same thing, and as if there is one fixed form of nursing expertise. This study suggests however that expertise and expert knowledge use are much more complex than this. A nurse may have excellent perceptual ability so that (s)he

no longer relies on an analytical principle (rule, guideline, maxim) to connect her or his understanding of the situation to an appropriate action ... with an enormous background of experience, [(s)he] now has an intuitive grasp of each situation and zeroes in on the accurate region of the problem without wasteful consideration of a large range of unfruitful, alternative diagnoses and solutions (Benner 1984:32)

Whilst this may indeed be the case, this activity per se is of limited value.

I question if skilled performance can be assumed to be one and the same thing as providing expert nursing care. I concur that skilled perceptual ability may be one aspect of skilled performance but other factors also require attention. My contention is that this 'skilled ability' will be ultimately influenced by the eclectic model of influencing factors; the 'world view' identified in this study. Benner describes clinical knowledge in terms of graded qualitative distinctions, common meanings, assumptions, expectations and sets, paradigm cases, personal knowledge, maxims, and unplanned practices. This study indicates that certain types of expertise favour the development of these factors more than others. For example Technologist experts cited many more maxims than other experts. The Technologists also exhibited many of the competencies identified by Benner. It is likely, because of the nature of nursing in the USA, that Benner was describing expertise development in terms of Technologists. This brings into question the validity of Benner's model in terms of developing holistic expert nursing knowledge, and her suggestions for the educational needs of students.

Nursing Philosophies

Bevis (1982) offers four nursing philosophies that have relevance to the types of expertise identified. These provide a philosophical underpinning to nursing practice, aspects of which have been validated by this study. Bevis (1982)

describes four philosophies which have been influential in nursing. Tracing nursing practice post-Nightingale, she presents these as asceticism, romanticism, pragmatism and humanistic existentialism.

There are clear links between three of these philosophies and the types of expertise development described in this study. There are indications that these value systems, as described by Bevis, have been influential in terms of the knowledge development of the expert nurses in this study.

Romanticism has direct links with the knowledge developed by expert Technologist nurses and the philosophy of pragmatism is evident in the practice of Traditionalist nurses. The philosophy of Humanism as described by Bevis is demonstrated in the practice of the Humanistic Existentialist experts in this study. This study moves beyond Bevis's identification of philosophies. For the first time the evolutionary aspects of knowledge use and development in response to the 'world view' held by expert nurses is demonstrated.

The literature related to practical knowledge (Elbaz 1981, Socket 1987) and practical intelligence (Scriber 1986) presents expert knowledge in a definitive form as 'whole'. However, the findings of this study suggest that such a perception is problematic. In addition, nursing is not alone in having divergent developments within it. Other disciplines and occupational groups also recognise professional pluralism.

In some professions awareness of uncertainty, complexity, instability, uniqueness, and value conflict has led to the emergence of professional pluralism. Competing views of professional practice, competing images of the professional role, the central values of the profession, the relevant knowledge and skills - have come into good currency (Schon 1983:17).

This concept of pluralism is further developed.

Leston Havens has written about the 'babble of voices' which confuses practitioners in the field of psychotherapy ... Social workers have produced multiple, shifting images of their practice, as have architects and town planners (Nathan Glazer 1974). Each view of professional practice represents a way of functioning in situations of indeterminacy and value conflict (Schon 1983:17)

My contention is that there is a pluralism of knowledge use in the practice of expert nurses and this is evident in the emergence of four distinct groups of experts.

To summarise, by re-visiting the literature a number of factors have been clarified. The influence of an eclectic framework of factors which form a 'world view' has not been previously identified. Also, the evolutionary nature of knowledge use and development has not been recognised. Other studies emphasise the importance of the educational process in producing ideal type nurses. This has been linked to two processes. First the importation of appropriate subject matter knowledge. Secondly, education has been presented as a process of empowerment. Whilst recognising that both claims are part of the process, my contention is that the importation of subject-matter alone is insufficient to produce an 'ideal type' expert. Whilst I recognise Freire's notion that educational empowerment needs to

focus on the relationship of the individuals to the culture they are in, other factors such as the degree of authority and power held also require consideration. Expertise is not just about the individual changing, it is, at times, about management and doctors altering their relationships to these experts also. It is about changing the culture in which care is given. Indeed, it is about empowering the whole care environment not just the expert within it. Discussion of these and other factors arising from this study now follows.

Chapter 7

Discussion and implications

Discussion and implications

What is the significance of this study for Nursing and Nursing Education ? What are the implications for professional continuing education more generally ? To answer these questions the discussion first focuses on the nature of expert nursing knowledge. Then, the eclectic factors which form the expert nurses 'world views' are used to evaluate the findings. Finally, the subsidiary but related areas of quality assurance and accreditation are considered.

The nature of expert nursing knowledge

We now see that expert knowledge is not definitive, as described in the literature. Rather, such presentations reflect an 'ideal type' which contrast with the typologies identified in this study. The emergence of four models of expertise is important and has implications for nurses, educationalists and managers. The indications are that knowledge use and knowledge development are complex and dependent on the 'world view' held by the experts. In some areas expert nursing knowledge, because of the prevailing conditions, is still at a survival level. In other areas expert nurses' full potential was fostered, providing a focus of hope for the future. Traditionalist expertise is at a basic level in terms of knowledge use and development. Moving beyond them are the other three groups, Technologists, Specialists and

Humanistic Existentialists. We need to understand how, and why, this happens, if we are to direct and control the knowledge used by nurses in practice. It is paramount that the evolutionary nature of the 'world view' through which nurses perceive their world, and consequently their knowledge use, be recognised. Without such recognition the theory-practice gap is likely to be perpetuated. Nursing knowledge is likely to remain developmentally arrested, and approaches to developing expert practice are likely to prove unsuccessful.

Can it be argued that not all of these groups reflect nursing expertise ? Each of the experts was nominated as such by an educationalist, a nurse from their area and their manager. The consensus therefore is that they are perceived as expert. However, these nurses are seen as expert by others who are likely to share their 'world view'. Much as beauty is perceived in the eye of the beholder, so too is expertise. Whilst choosing an expert is an entirely subjective process, it is likely to reflect the norms and values held within the organisation and thus supports the notion of a dominant and influential 'world view'. Experts from the Traditionalist group are no less expert than experts from the Technologist, Specialist or Humanistic group. They are each expert in terms of the 'world view ' they operate from. Therefore, if we wish to produce ideal type practitioners who will for example act as patient's advocates, use reflective skills to provide individualised care, negotiate well with management and medical

staff, and base their practice on research, we need to be aware of the importance of the experts' 'world views' in terms of expertise development.

Philosophical influences - nurses and management.

Accepting the influence of the 'world view' means that the philosophies-in-use of both nurses and management need to be made explicit, to others and themselves. This, however, is not an easy process. Nurses espouse professional values when describing the philosophies they use in practice. Also, management rhetoric is about improving care and quality assurance. Schon's (1987) use of espoused theories and theories-in-use and Leininger's (1985) suggestion that informants will attempt to present front stage information only, are both relevant here. Whilst expert Traditionalists see behind management's rhetoric and recognise that management's philosophies-in-use translate to less resources and scant support, they are unable to see the differences between their own espoused beliefs such as giving individualised holistic care, and their philosophies-in-use. These demonstrate the opposite, and show that they value care which is pragmatic, controlling, task allocated, medically dominated, and largely based on ritual and routine. This lack of insight is the antithesis of critical reflectivity and denotes a type of blindness in relation to their beliefs and practice. I call this the selective blindness of the oppressed.

In contrast the philosophies of the Humanistic Existentialist experts and their managers demonstrate that when the organisation and management structure truly support and facilitate the development of a humanistic approach to care then very powerful nursing indeed is possible. Within such a culture a professionally based approach to care is evident and knowledge use is complex and sophisticated.

Models and Goals

The models the expert nurses use to guide practice are manifestations of their knowledge, goals, and beliefs. Indeed, their beliefs are operationalised through the use of a model. How significant is it that expert Traditionalist nurses and many Specialist and Technologist experts operate from a medical model, with the illness rather than the individual as a focus ? The medical model supports the contention that 'medical knowledge' is important and under-values more holistic nursing-focussed approaches to care. Whilst the medical model to care has for many years been highly influential, in nursing its value for nursing today is questionable.

The primacy of the medical model sustains a system whereby nursing knowledge is constrained to medical boundaries. Expertise is seen largely in terms of acquiring medical knowledge.

This medical domination has relevance in terms of care provision and also for professional issues such as advocacy and autonomy. Under the medical model nurses act as advocates for doctors rather than patients. How appropriate is this ? Serious implications arise for patients when this occurs. They are kept in ignorance of situations where their life is at risk due to a doctors' negligence. Indeed, expert nurses give examples of patients dying as a result of doctors refusing to take action. Can these nurses truly describe themselves as advocates when many of them feel constrained about challenging doctors ? Further, can these experts be expected to challenge doctors when the whole focus of care is viewed through a medical perspective ? It is only when these nurses integrate the medical aspects of care within a wider nursing focus that they are able in their own right to question medical actions.

Many Technologist experts are concerned with helping patients to meet their basic needs and this is entirely right and appropriate. Such activities foster a technological instrumental approach to care, often carried out in high technology areas. Advocacy is one aspect of the nursing role in such areas. Because of their immersion in a medically dominated culture it is difficult for these nurses to distance themselves from medical influence and truly act as patients' advocates. Despite these inhibitions some experts did still challenge medical staff, but they were aware that the doctor in the final analysis has the last word.

These matters need discussion at unit level with both nurses and doctors and more widely in the literature. There are difficulties with this approach, for example, confidentiality has to be considered. However, it is only by nurses recognising and discussing the difficulties they encounter that solutions will be found.

Reflective ability

Several issues arise with regard to expert nurses' reflective ability. What are the implications of expert nurses believing they are critical thinking and reflective when they are not ? Is reflection central to professional practice ? Lack of insight about their own reflective abilities characterised the practice of many expert nurses. They assumed they were reflecting as a matter of course but this was not substantiated by the observation visits. Their reflections were mainly of a practical problem-solving nature. Links between the literature and wider social and political forces were not evident, and there was scant recognition of ethical and moral dimensions to care (Goodman 1984). Reflection of this order emerged as the hallmark of the Humanistic Existentialist experts and the Humanistic division of the Specialist experts only. Their reflections were of an ideal professional type.

Experts' ability to be reflective has strong links with their philosophies and goals.

Those who value pragmatic, non-questioning approaches to care were unwilling or unable to challenge themselves or others in a meaningful way. It is a matter for concern that experts who are not reflecting on their practice believe that they are. Again, this is linked to the notion of 'the selective blindness of the oppressed' described above. Their belief that they are reflective enables them to continue practising as they are. It is also a means of reconciling and avoiding cognitive dissonance which is likely to arise when unrealistic expectations are placed upon them. For example by using cliches such as individualised care, and holistic care, as descriptors of their practice, they convince themselves that this is what they are doing. That reality does not reflect this appears of little consequence. So, not only are such nurses uncritical of themselves and their organisational culture, they also create an illusion which acts as a buffer to the reality of practice.

The ENB's (1991b) claim that the use of reflection in the Higher Award will link theory and practice is to be viewed with caution. The findings of this study suggest that awareness of the process of reflection is not sufficient in itself. Similarly, the use of educational tools such as reflective learning contracts or portfolios, is likely to be of limited value when used by those whose 'world view' limits their vision of the possible. Reflection has to be contextualised.

It has to be an integral part of the individual's reality. It has to have meaning for the individual in terms of practice and not just at a problem-solving level. The wider issues of emancipation, justice, and political factors identified in Goodman's (1984) framework only have relevance and coherence to those practitioners who are sufficiently empowered to be able to question themselves and others.

What is the significance of the differentiation in reflective ability between experts ? Variations in reflective ability characterise a transition from a training-based to a professional model of expertise. Those with minimal reflective abilities gave care which was limited in focus and illness-orientated. In contrast reflective practitioners gave responsive care , full of warmth , based on the needs of the individual. This type of care was qualitatively much richer than that given by non-reflective practitioners. If as the literature suggests, reflection is seen as central to professional practice, then the complexity of factors found in this study that affect this ability must be recognised and attempts made to account for them.

Education - necessary but not sufficient

What is the place of education in expertise development ? Will the process of importing subject-matter knowledge, and education for empowerment, produce expertise which reflects a

professional model ? Given that different types of expertise have arisen, what are the implications for the curriculum ? The Humanistic Existentialist experts were undertaking or had achieved degree level study. Some were working at master's level and one at PhD level. This contrasts with other groups of experts where higher educational qualifications were the exception rather than the rule. When this study commenced none of the Traditionalist experts had developed themselves beyond certificate level. It is tempting therefore to attribute the difference between these groups to educational development. Much of the literature supports such a position.

Education in one guise or another is seen as the answer to developing expertise which reflects the accepted professional model. That is : nurses are accountable, and act as advocates for their patients, they use research to underpin their practice and treat patients holistically as partners in care. The assumptions behind this approach relate to sufficiency, and empowerment and are interrelated. Sufficiency implies that given sufficient importation of subject-matter knowledge a nurse will develop expertise. Empowerment recognises the importance of education as an emancipating process and is closely allied to notions of developing critical reflectivity. I agree that these factors are important, that nurses need a sound theoretical base on which to develop their practice. They also need to be able to develop reflective skills.

I accept the significance of these factors. However, whilst education is necessary, it is not sufficient.

The entirety of the 'world view' of the practitioner has to be attended to. Whilst outlining factors of particular relevance to education this discussion therefore does so within the framework of the total 'world view'. I do not see education as a prerequisite to other changes in the 'world view', rather as an integral component in that process. All factors within the 'world view' are interrelated, and to present one aspect as a prerequisite to change in the others is to present a demarcation that does not in reality exist.

Educationalists involved in curricula building need to recognise the influence of nurses' 'world views' on their knowledge development. For example, amongst the Traditionalist experts education is seen as an optional extra and not as central to the provision of practice. Education is therefore not a priority. It is something to be added on, it is not integral to the care process. The 'selective blindness of the oppressed' demonstrated by these experts prevents them from recognising the significance of their deficiencies in terms of educational development or lack of it. Value is attached to doing, not to reflecting. Their beliefs are demonstrated in their practice. As role models they show that papering-over-the-cracks is what nursing is about, and others learn to do this also.

This means that expertise development for others, in the professional sense, is minimal. The dispossessed dispossess others. Whilst I argue that education alone cannot tackle such problems, none the less nurses, educationalists, and professional bodies need to attempt to find solutions.

The differentiation in nurses' 'world views' also provides an explanation for the theory-practice gap. Within Traditionalist expert nurses' areas the dominant philosophy is pragmatism, and this negates or at best dilutes the possible benefits or relevance of education. Expertise is seen only in terms of nurses' 'world views'. Expertise is 'what works within such a setting'. As H.G. Wells so eloquently put it 'in the country of the blind the one-eyed man is king'. How can education facilitate expertise development given these constraints ? Initially, it needs to be recognised that problems exist not just at an individual level, but at management and organisational level also. Indeed, political influence needs explicit identification if change is to occur within the milieu of the expert nurse. The whole cultural environment needs to change, not just the individual. Management nursing, and medicine need to share compatible value systems.

Philosophies need to be in accord, not in opposition. If this is not possible then the effects upon care provision need clear explication. This would ensure that the consequences of such value conflicts are within the public arena and not hidden from

view, or indeed hidden from those who provide care themselves. At all levels, from the Department of Health to ward level, nurses with influence must inform management and government of the links between practice, education and culture, and strive to improve and develop these relationships.

A number of issues arise with regard to continuing education curricula. These need to be responsive to the different needs of the four types of expertise identified. For example, expert Technologist nurses integrate a medical diagnosing function into their practice. This diagnostic function of nursing is not generally recognised. Consequently there are no curriculum hours allocated to developing knowledge and skills in this area. Nurses are taught to read ECG's, but in the practice setting they go further than this. Expert nurses not only detected abnormal patterns, they also establish diagnoses and instigate actions in response to these. Changing curricula to reflect this may cause some political difficulties. It is far from clear if the ENB would be prepared to acknowledge, in curricula, what is happening in practice. Also, the medical profession might be prepared to accept that nurses can take on various tasks previously the province of the doctor, but, are they likely to accept that nurses can and do diagnose correctly? This is seen as central to the medical role, and doctors are unlikely to relinquish authority for this lightly.

In terms of doctors' tasks, there did not seem to be any particular task that expert nurses could not do. This suggests that in the future combined nursing and medical modules might be beneficial particularly at continuing education level. Expert nurses themselves have to decide to what extent they feel it is appropriate to integrate medical tasks within their role. In the case of the TPN Specialist it was evident that such integration substantially improved the nursing care this expert was able to give. However, if as is happening in some areas, tasks such as cannulation are imposed on nurses then quality benefits are likely to be minimal. If nurses are already overstretched and operating in a task-allocated way then taking on medical tasks will just add to the burden.

Negative influences of the medical model also need attention in curricula. Issues of patient advocacy vis-a-vis medical advocacy need discussion. Whilst discussion is unlikely on its own to rectify the influence of the medical model, it will surely contribute to this process.

Appropriateness and relevance also need to be demonstrated in nursing curricula. How appropriate is it to present a module or course on surgical nursing for all surgical nurses as if the speciality determined their nursing development needs? This is to deny the specific needs of the groups identified. The needs of Traditionalists are significantly different from the needs of Specialists, Technologist and Humanistic Existentialist

nurses. In the case of Traditionalists and many Technologists and Specialists nurses, it is necessary in the first instance for education to be a process of enlightenment. Practitioners need to be empowered so that they are able to see their situation with new eyes. There is little benefit in merely importing subject-matter knowledge into them. However, such enlightenment carries a price, and educationalists and professional bodies need to ensure that with new consciousness, practitioners are given support. Otherwise cognitive dissonance is likely to result and protective mechanisms be once more employed. In addition, practitioners need assistance in developing their own supportive networks as part of the empowerment process. The advantages of collegiate support and of valuing nursing colleagues need to be fostered. Nurses need to discover for themselves the advantages of a supportive peer culture and how this can be encouraged. If similar methods are used on nursing courses then nurses will have the opportunity to experience the benefits of such systems first hand. Education therefore has to be about much more than imparting knowledge. A simultaneous process of empowerment needs to take place for many nurses.

Indeed a re-evaluation of continuing education curricula is necessary. Curricula builders need to recognise the influence of the practice setting on knowledge development. Emphasis needs to move from importation of knowledge to empowerment of practitioners and empowerment of the whole learning milieu. If

curricula enable practitioners to recognise their relationship to the social system they work within, then the process of emancipation will have begun. Also the empowerment process must have credibility. For example, is it morally defensible for curricula to extol the virtues of reflective practice whilst ignoring the reality of scarce resources? The illusion of the ideal, constantly veils the reality of practice. Nurses need to learn how to deal with scarce resources and still give humanistic individualised care. If this is not possible, they need to understand that it is acceptable to say so. They need to learn to be political animals so that they can survive in the present political and economic climate without sacrificing their professional or personal integrity. They need to be able to devise novel strategies for overcoming the difficulties they encounter. This will require a new honesty in education and will demand more from curricula builders than was previously the case.

Philosophical beliefs in relation to practice needs pre-eminence in nursing curricula. Rather than being an optional extra, philosophy needs to be integral to the educational process. Combining educational and nursing posts is an ideal way for education to be integrated into the practice setting. When lecturer practitioners are in post and have authority, they are able to significantly influence the ward culture.

However, to ensure credibility it is essential that these nurses carry their own case load of patients and provide hands on care.

Primary nursing is an ideal vehicle for this function and has the added benefit of enabling a number of practitioners to develop expertise simultaneously. In addition, further development of nursing research units will provide good examples for less enlightened nurses to visit and observe. They would provide evidence of the possible, which is essential for those working in impoverished environments. Such units show how effective high quality nursing care can be. Secondment should be encouraged so that nurses can experience the reality of working where nursing and nursing knowledge is valued.

Resources

Surely it is unrealistic to expect high quality patient care when resources are inadequate ? The present ethos of value for money emphasises skill mix reviews which frequently result in staff reduction. I have found that when resources are good in terms of numbers of staff, and quality of staff, then high quality care is also evident. Ensuring adequate resources also requires management to have a commitment to the educational development of staff. Resources also need to be considered in terms of staff deployment. Humanistic experts using primary nursing flattened the nursing hierarchy. Consequently many of

the management tasks that were traditionally the province of the ward sister were devolved, thus enabling the most experienced nurses to be directly involved in care provision. By entrusting primary nurses to be responsible for the care they prescribe much of the over-seeing role, traditionally the province of the ward sister, is redundant. This provides the opportunity for expert nurses to be concerned with caregiving and not with petty bureaucracy.

Resources also have implications in terms of support for educational development. Several of the Humanistic Existentialist nurses were attached to a nursing research development unit. They were given time and resources to fulfil their educational function. Similarly, several others had combined posts as lecturer practitioners or practitioner managers. These dual roles worked well and ensured that high quality care was demonstrated by these nurses and others, in the care setting.

Resources therefore need to be considered not only in terms of numbers. They also need to be considered in terms of the quality and educational background of the staff employed. Ensuring adequate resources also applies to the milieu within which expert nurses work.

Management need adequate preparation for their posts so that they have credibility.

Some of the expert nurses in this study had scant regard for the pontification of their manager whose previous experience consisted of spending a few years running a local brewery, with no previous experience of the intricacies of care provision. Management also need to examine the resources they provide for the development of staff in terms of support, enthusiasm, and encouragement. If management is constantly suppressing and oppressing staff they should not be surprised if care becomes defensive and ritualised.

Relationships and authority

We have seen that the relationships expert nurses hold with management and doctors affect the way they use and develop knowledge. What implications arise from this ? Several factors are significant. For example when management is supportive and values a nursing focus to care, expert nurses are able to develop their potential to the full. Conversely, in many other areas management are perceived almost as 'the enemy within'. Nurses in these areas are unable to develop fully their knowledge and skills, and correspondingly the type of care they give, as they believe that they need to function defensively. Functioning defensively, by its very nature, precludes risk-taking with its consequent potential benefits to practice. Nursing knowledge does not exist in a vacuum. Management can choose to develop or constrain it. It is important that they recognise that this is what they are doing.

Three areas need specific attention with regard to management and nursing relationships. These are: trust, understanding, and agendas. We have seen that managers of the Humanistic Existentialist experts value and trust their staff and in turn these experts also value and trust their managers. Indeed, management have applauded and encouraged nursing initiatives. This trust and support has enabled nurses to undertake new challenges even if this meant they sometimes got things wrong. Because they felt secure, fear of failure was an acceptable possibility. Trust enabled them to be risk-takers on occasions. This supportive role of management is therefore important and must not be underestimated.

It can now also be seen that there are corollaries between management's philosophy of humanism in terms of nursing staff, and the philosophy used by these nurses in practice. In addition, the accord of management's espoused philosophies and philosophies-in-use provided proof that management were to be trusted. In such an environment of trust, the use of humanism in practice is likely to be a natural reflection of the way the experts were treated and not a thing apart to be imported into practice. Humanism therefore had meaning within the reality of these experts' 'world view'.

What were the implications for expert Humanistic Existentialist nurses of the positive management relationship they enjoyed ?

First, management support was not limited to ensuring adequate resources and using a humanistic approach when dealing with staff. Supportive management also ensured that nursing staff development was fostered in terms of encouraging their participation in the national nursing arena. This meant that expertise in staff was promoted through conferences and their talents recognised to the full. Secondly, as there was no management jealousy it was possible for expert nurses to take pride in their achievements. The positive management relationship also contributed to a culture where nurses valued and helped each other. Indeed, nurses and nursing were valued and supported by management and nurses alike.

A number of implications for Humanistic Existentialist nurses arise from the fact that their managers had been nurses and valued nursing. This gave management a type of trustworthiness that non-nursing managers were unlikely to have. They understood the reality of nursing practice. In addition, management's emphasis on the value of practice increased their credibility further. Management's agendas and nursing's agendas were explicit and compatible. Both aimed for the provision of high quality professionally based care.

In contrast, concerns arise when the relationship of nursing and management is considered in other areas. We have seen that Traditionalist nurses and many of the Specialist and Technologist nurses did not trust their managers and their

managers did not trust them. We need to consider the effects of the strained relationship between these expert nurses and management. We also need to address the scepticism and disillusionment demonstrated by these practitioners with regard to their managers. What is the role of management in these areas ? The absence of trust acts like a straitjacket. Experts are constrained in their practice and in turn many of them constrain others. Whilst some of these managers had been nurses it was clear that they had scant respect for the value of nursing. This had a negative effect on experts. These experts realised that their managers no longer thought as nurses, rather they thought only in terms of budgets. This fostered a sense of impotence in the experts. Many of the them spoke of hidden agendas on the part of management and believed that saving money was their only objective. Experts also recognised the incongruity of organisational philosophies which state a set of beliefs that are clearly not operational within the available resources. The conflicting messages inherent in management's philosophies gave the impression of superficiality and duplicity.

These conflicts need to be recognised for what they are. Does management really want to subjugate its workforce ? If it does the consequences and responsibilities of its actions needs clearly outlining to it. Rather, relationships of trust need to be built between educationalists, management and nurses.

However, this appears an unlikely scenario in today's NHS with its emphasis on fragmentation and cost containment. Without a change in management style and approach the outlook is bleak and unlikely to substantially improve for the better.

Doctor-nurse relationships

We have seen that the relationship between doctors and nurses influences the way expert nurses use and develop knowledge. What are the implications of this relationship for nursing knowledge ? In addition, many experts experienced ambiguity in terms of authority. On occasion they were encouraged to make decisions, for example when it was in the interests of the system. However, at other times they were over-ruled. What effect does this have on them ? We also need to ask if ambiguity in terms of authority is linked to the sustenance of medical control vis-a-vis patient care rather than to issues of appropriateness or ability.

Positive doctor-nurse relationships enable nurses to push forward the boundaries of their practice. This contributes to the development of nursing knowledge and to substantial improvements in patient care. Such relationships provide an ideal model of what is possible, in terms of nurses working effectively with medical staff and in extending their role.

In contrast however, in other areas, clashes in authority resulted in nurses being over-ruled. For many this reinforced their belief that there is little they can do about difficult situations. This has negative connotations both for patient care and for the development of nursing knowledge. Is it acceptable that expert nurses feel inhibited and reluctant to challenge doctors carrying out procedures incorrectly ? In addition, is it acceptable that expert nurses are over-ruled when they know a particular course of action needs instigating but the doctor refuses to listen to them ? Some of the Technologist experts expressed their sense of frustration in such situations, where they felt they had no authority to over-rule a doctor's decision, and they gave examples of fatal consequences for the patient because of the doctor's actions.

Having insufficient authority causes considerable difficulties for expert nurses. Traditionally nurses have viewed doctors as much more knowledgeable than nurses. This perception is shared by the general public also. However, the reality is that very experienced expert nurses are at times more knowledgeable about patient care than many junior doctors. Whether the medical profession is prepared to acknowledge this is however debatable. The most likely response is that it will refute it.

Many of the Technologist and Traditionalists experts state that they strive for recognition of their knowledge. None the less they also appear to accept that ultimately doctors will

over-rule them. Although these nurses see themselves as being patients' advocates this is conditional, within certain constraints. Any challenging appears almost token. It is as if they are striving to be free of medical domination but do not have sufficient confidence in their own ability to sustain a challenge. Reality for them is that a doctor's opinion will always be taken before a nurse's. Again this is a matter for concern.

A factor which contributes to this may well be the ambiguity nurses experience in terms of their authority. How can nurses gain sufficient confidence to challenge if in emergency situations they are expected to take on additional authority, but on other occasions are expected to revert to their previous role ? These experts demonstrate that they have the knowledge and skill necessary for such authority. It is surely inconsistent that a nurses on one occasion can order an x-ray but the following day is expected to seek a medical signature for this procedure ? If greater efficiency is really on the agenda within the NHS then the knowledge these experts demonstrate in practice must be harnessed.

Ambiguity in terms of authority had an unsettling effect on expert nurses, causing them to feel insecure and constrained about fully utilising their knowledge. Some experts are to be applauded for pushing their practice to the boundaries.

However, some took decisions which left them open to censure and possible disciplinary action. Authority and recognition were given on occasions, but generally this was informal in nature. There is considerable blurring of expert nurses' and doctors' roles in these areas. Agreements and protocols need developing so that as these nurses extend their knowledge and practice, formal recognition is given to underpin this. In addition, petty bureaucracy needs to be discarded. Such experts are quite capable of requesting x-rays, signing blood request forms and the like. To deny them this is to insult their knowledge base and to sustain outdated hierarchies. In areas where expert nurses were given extensive authority there was no evidence of them abusing it.

The way that expert nurses protect patients from junior doctors needs to be explicitly recognised by senior medical staff. Teaching programmes for medical staff should include the name of any participating nurse and the specific teaching activity (s)he undertakes. For example if (s)he gives lectures on how to read and interpret ECGs then this should be included in the programme.

It seems unlikely that senior medical staff are unaware that expert nurses are acting as mentors to junior doctors. Is it more important to save face for junior doctors, or to give formal recognition to the knowledge these experts are using in practice ? A solution which meets both criteria would be ideal.

Perhaps these experts could be nominated as nurse mentors to juniors with a specific remit to provide advice about nursing aspects of care that have implications for medical actions ? Both medical and nursing staff would have to agree to this. It would enable a degree of face-saving on both sides, yet would not deny the very important monitoring role that expert nurses carry out.

It is a matter for concern that there are no formal mechanism for nurses and doctors to consider readjustments in the boundaries of practice . I believe this is a contributing factor in the difficulties that have arisen. Indeed, there is no evidence of a neutral framework within which changes can be discussed and evaluated.

There are no easy answers to this problem. A dialogue between expert nurses and senior doctors needs to be established so that incidents of conflicting authority can be addressed. Initiatives with the authority of the Department of Health are more likely to be successful than local undertakings.

The main drawback in the present situation is that difficulties arise for nurses and patients, but not necessarily for doctors. Expert nurses having advanced their practice are now in positions to 'police' doctors' actions in a way they were unable to do before. If doctors do not like this policing they can ignore it. There are two possible

solutions to these problem. First, for nurses to become more assertive in terms of challenging doctors. Secondly, for the Department of Health to lend its support to such a dialogue. Present discussions between nurses and doctors arising from reductions in junior doctors hours provide an ideal opportunity for nurses to raise issues of authority with their medical colleagues.

Several questions arise about the influence of the doctor-nurse relationship to patient advocacy. Who do expert nurses act as advocates for and why? What effect does this relationship have on the nursing advocacy role? What can be done about these matters? We have clearly seen that expert nurses attempt to act as patients' advocates. The UKCC (1992) Code of Conduct advises that nurses should 'work in an open and co-operative manner with patients, clients and their families'. Also it states that nurses must

... report to an appropriate person or authority, having regard to the physical psychological and social effects on patients and clients, any circumstances in the environment of care which would jeopardise standards of practice;
(UKCC 1992:11)

Technologist experts described how they try to protect their patients from incorrect actions of doctors. In situations of emergency, to save the patient's life, they helped the doctor through the emergency. Missing from such scenarios however, was any mention of the patient subsequently being informed of what had transpired. To what extent then, are these expert

nurses truly patients' advocates ? Whilst I am not suggesting that the nurse should go to the patient and say 'the doctor has just put a wire into your heart without first removing the metal guard, and this put your life needlessly at risk ', it is surely necessary as an advocate not to ignore the matter. The nurse could for example approach the doctor and state that in her role as a patient's advocate she believed the doctor should explain to the patient what had gone on.

My study indicates that this does not happen. Rather, when nurses felt alienated and powerless they became defensive in their practice and their advocacy role rather than focussing on the patient, reverted to medical and nursing staff. Whilst on the one hand the UKCC (1992) exhorts them to be patients' advocates and autonomous practitioners, they are constrained in this role by the power of medical influence, and indeed by lack of management support. In times of employment insecurity, are nurses going to report doctors when things are done incorrectly? The implications are that in many cases they are not. The professions and management need to address this issue as a matter of urgency. Nurses need a forum within which they can safely discuss such difficulties and conflicts. They need support to devise strategies which enable them to fulfil their advocacy role without damaging irreparably their relationships with doctors and / or management. The UKCC (1992) not only has a duty to lay down a code of professional conduct. It also has

a duty to ensure that nurses are given support to achieve the standards laid down.

Expert nursing knowledge has implicit links with quality of care. I have found a number of issues regarding quality of patient care that need to be addressed. The assumption underpinning quality assurance initiatives in nursing today is that if certain audit tools are used, or if certain processes are carried out, quality of care will follow. This usually entails nurses being taught how to write a ward philosophy and to set standards for their area. My findings refute this assumption and suggest, instead, that quality is linked to the reflective ability of the practitioner, and this in turn is linked to their 'world view'.

Easy answers to issues of quality of nursing care are therefore inappropriate. There is no value in wards exhibiting a philosophy of care that in no way reflects the care they give. However, until experts in these areas are empowered and overcome the 'selective blindness of the oppressed' it is unlikely that they will even understand the difficulties arising from their practice in terms of quality, let alone overcome them. To substantially improve quality all aspects of nurses' 'world views' will need attending to.

This study started by examining expert nursing in order to find a means to accredit it. Although the focus changed in order to

examine the four types of expertise emerging from the data, a number of implications in respect of accreditation need consideration. In terms of academic levels and assessment of practical knowledge for the purpose of APEL, there is indeed a wealth of knowledge in the practice of some expert nurses. Whether this knowledge reflects a nursing curricular model depended on which group the expert nurses belong to. If experts from the Humanistic Existentialist group wished to claim credits for the knowledge they use in practice, because of the nature of the knowledge base they hold (reflective, theoretical nursing focussed) it is likely that such a claim would be successful against a nursing studies curriculum at all three academic levels. However, if experts from the Traditionalist group wished to make a claim they would have difficulties because of the type of knowledge they use (how to manage knowledge). The knowledge base used by these experts was not nursing-focussed, and did not use conceptual models or a theoretical framework to guide it. Such claims would be much more difficult to substantiate.

Technologist experts have a wide range of technological and medical knowledge. Claims at certificate, diploma and possibly at degree level could be made in very specific areas, for example intensive care modules and coronary care modules. What can not be claimed however is the wealth of knowledge these experts use in terms of diagnosis setting, and also in monitoring patients and junior doctors, since these activities

are not recognised in nursing curricula. Specialist nurses have developed their knowledge bases in relation to the speciality they work in, and it is likely that these experts would be able to make claims for courses related to the speciality. Accreditation of practice is likely, therefore, to be possible for three out of the four groups of experts, but there are difficulties with this approach. Whilst it is important for expert nurses to receive recognition for the knowledge they use in their practice, this can not be assumed to be compatible with academic systems of accreditation.

A number of questions arise with regard to accreditation and expert nursing practice. How appropriate are competency approaches for evaluating expert nursing knowledge ? Do competency approaches accurately reflect the knowledge used by expert nurses ? The knowledge demonstrated by expert nurses does not lend itself to narrow mechanistic approaches to evaluation. The process of giving high quality care is much more sophisticated than a mere collection of tasks. Clearly evident in this study is that tasks may be done in a variety of ways, and by a variety of people. It is the informing of these tasks with appropriate philosophical beliefs and knowledge that is significant, and not the task itself.

We have seen how nurses who lack insight into themselves and their practice are at times blind to the reality of needs within the practice setting. Such needs do not feature in their

'world view'. For example in a scenario described earlier, where relatives were concerned about care for their mother, an expert nurse could not see beyond the presenting situation, and labelled these relatives as trouble-makers to be placated at all costs. She was unable to see that if she addressed the dynamics of the situation she could transform the relatives' concern by empowering them. In contrast, reflective practitioners brought a wealth of knowledge to their care supported by a philosophy of humanism, and qualitatively the care they gave was much richer.

There is little to be gained through fragmenting care into a number of tasks. The carrying out of a task demonstrates only the mechanics of practice. Rather, it is the synthesis of knowledge and values which contributes to the total care-giving process that is important. Such factors do not lend themselves to measurement in competency terms. The complexity of nursing knowledge can, however, be captured by reflection on practice through analysis of critical incidents. Such analysis provides a means for nurses to address both academic criteria and professional aspects of care.

Carper's (1978) patterns of knowing and Goodman's (1984) levels of reflectivity can be used for identifying some of the complexities of practice. Reflective diaries and reflective contracts provide ideal vehicles for reflections and are relatively easily assessed. Whilst there is no formal link

between levels of reflectivity and academic levels it seems likely that in order to reflect in a meaningful way on issues to do with emancipation and justice, it will be necessary for practitioners to draw on the higher levels of cognitive knowledge as identified by Bloom (1964) in his taxonomy of educational objectives. This would therefore provide a means for nursing practice to be accredited at the appropriate level, certificate, diploma or degree.

This discussion has been wide-ranging, examining in turn all aspects of expert nurses' 'world views' and considering the implications that arise with regard to each of them. It can be seen that nurses' 'world views' have an evolutionary influence on nursing knowledge. Under certain conditions expertise develops to survival level only, whereas under favourable conditions expertise develops to self-actualisation levels.

This study places the debate about knowledge use and development by expert nurse in a larger context than has previously been considered. Whilst the individual has a responsibility for his or her development I suggest that professional bodies, managers, medical staff and educationalists also have responsibilities. If nursing expertise is to do more than survive in a primitive form, if it is to continue to evolve, then it requires the conditions necessary to foster this process.

Implications for further research

As a sequel to this study I would like to carry out an action research study to investigate if empowerment in nurses results in improvements in care provision. This would require the involvement and commitment of managers, educationalists, doctors and practitioners. The 'world view' held by nurses would need addressing. The aim would be to empower practitioners so that they could develop their knowledge bases and consequently the quality of care provision.

REFERENCES

- Anderson P.(1986) The Delphi Technique in Practice The Australian Journal of Advanced Nursing 3, 2, Dec.-Feb. 22-32.
- Agan D.R. (1987) Intuitive knowing as a dimension of nursing Advances in Nursing Science 10, 1, 63-70.
- Atkins S., Murphy K. (1993) Reflection: a review of the literature Journal of Advanced Nursing 18, 1188-1192.
- Baker C. Wuest J. Noerager Stern P. (1992) Method Slurring : the grounded theory / phenomenology example. Journal of Advanced Nursing 17, 1355-1360.
- Barnes J.(1992) The Accreditation of Prior Learning Education Today 42, 1, 11-17
- Barnum B. (1989) Expanded Consciousness: Nurses' Experiences Nursing Outlook Nov./Dec. 260-266.
- Beech B.F.(1991) Changes: the Delphi technique adopted for classroom evaluation of clinical placements Nurse Education Today 11, 207-212.
- Benner P. (1982) Issues in competency based testing Nursing Outlook 30, 303-9.
- Benner P.(1984) From Novice to Expert Excellence and Power in Clinical Practice Addison-Wesley California.
- Benner P., Tanner C.A. (1987) Clinical Judgement: How expert nurses use intuition American Journal Of Nursing 1, 23-31.
- Benner P. Wrubel J.(1982) Skilled clinical knowledge: the value of perceptual awareness Nurse Educator May/June 11-17.
- Benoliel J.Q. (1984) Advancing nursing science qualitative approaches. Western Journal of Nursing Research 6, 1-8.
- Berliner,D.C. (1986) In Pursuit of the Expert Pedagogue Educational Researcher, 15, 5-13.
- Bevis E.O. (1982) Conceptual Framework philosophical base Curriculum Building in Nursing a Process 3rd Ed. Mosby, St. Louis 35-53.
- Bloom B.S. Ed. (1956) Taxonomy of Educational Objectives Book 1 Cognitive Domain Longman Group Ltd. London
- Boud, Keogh and Walker (Eds.) (1985) Reflection ; Turning Experience into Learning Kogan Page, London.

- Boyd E.M., Fales A.W.(1983) Reflective Learning Journal of Humanistic Psychology 23, 2, Spring 99-117
- Bradshaw P.L. (1989) Teaching and Assessing in Clinical Practice Prentice Hall International (UK) Ltd. Hemel Hempstead.
- Brook V. and E. Champion (1992) The Reflective Nurse Practitioner Fair Way Publications, Tiverton.
- Brookfield S.D. (1987) Developing Critical Thinkers Open University Press, Milton Keynes.
- Brookfield S.(1993) On impostership, cultural suicide, and other dangers: How nurses learn critical thinking. The Journal of Continuing Education in Nursing 24, 5, October 197-205
- Burnard P. (1987) Towards an epistemological basis for experiential learning in nurse education Journal of Advanced Nursing 12, 189-193.
- Burnard P. (1989a) Exploring nurse educators' views of experiential learning : a pilot study.Nurse Education Today 9, 39-45.
- Burnard P. (1989b) Experiential learning and andragogy-negotiated learning in nurse education: a critical appraisal. Nurse Education Today 9, 300-306.
- Burnard P. (1992) Learning from Experience: nurse tutors' and student nurses' perceptions of experiential learning in nurse education : some initial findings of Nursing Studies International Journal of Nursing Studies 29, 2, 151-161.?
- Burnard P.(1992) Defining experiential learning: nurse tutors' perceptions, Nurse Education Today 12, 29-36
- Burns S.(1992) Grading Practice Nursing Times Jan.1, 88, 1, 40-42.
- Butterworth C.A.(1993) A Delphi Survey of Optimum Practice in Nursing , Midwifery and Health Visiting Executive Report The University of Manchester.
- Brykczynski K.A.(1989) An interpretive study describing the clinical judgment of nurse practitioners Scholarly Inquiry for Nursing Practice : An International Journal, 3, 2, 75-103
- Calderhead J.(1987) The Quality of Reflection in Student Teachers' Professional Learning European Journal of Teacher Education, 10, 3, 269-278.
- Calderhead J.(1989) Reflective Teaching and Teacher Education Teaching and Teacher Education, 5, 43-51

Campbell I.(1991) The reflective practitioner Nursing Standard Jan.30, 5, 19, 34-35.

Cameron B.L., Mitchell A.M. (1993) Reflective peer journals: developing authentic nurses Journal of Advanced Nursing 18, 290-297

Carper,B.A.(1978) Fundamental Patterns of Knowing in Nursing. Advances in Nursing Science 1, 1, 13-23.

Carpenter D.(1992) Professional Development Access for All? Nursing Times April 1, 88, 14, 31-32.

Carr W. Kemmis S. (1986) Becoming Critical: Education knowledge and action research Falmer Press, London.

Cervero R.M.(1988) Effective Continuing Education For Professionals Jossey-Bass London.

Cecchi S.J., Liker J. Academic and nonacademic intelligence : An experimental separation. In Sternberg R.J. and Wagner R.K.(1986) Practical Intelligence Nature and origins of competence in the everyday world Part II, 6, 119-142 Cambridge University Press, Cambridge.

Cernik K.,Evans J. (1992) Developing competency objectives as a basis for planning and assessing health visiting practice in training. Nurse Education Today 12, 37-43.

Charlesworth (1976) Intelligence as an adaption an ethnographic approach. In L.Resnick (Ed.) The Nature of intelligence, 147-168.

Chi,M.T.H. Glaser R. and Rees,E.(1981) Expertise in problem solving .In Advances in the psychology of human intelligence (Vol.1) Hills-dale, N.J.:Erlbaum.

Chi M.T.H. Glaser R. and Farr M.(Eds.) (1982) The Nature of Expertise. Hills-dale,NJ: Erlbaum.

Clandinin D.J.(1985) Personal Practical Knowledge: A study of teachers classroom images Curriculum Inquiry 15, 4, 361-385.

Clarke J.B. Wheeler S.J. (1992) A view of the phenomenon of caring in nursing practice Journal of Advanced Nursing 17, 1283-1290.

Clarke M.(1986) Action and reflection: practice and theory in nursing, Journal of Advanced Nursing 11,3-11.

CNA A (1990) Handbook 1990-91. CNA A, London.

Corcoran S. Narayan S. Moreland H.(1988) Critical care education 'thinking aloud' as a strategy to improve clinical decision making Heart and Lung The Journal of Critical Care. September, 17, 5, 463-468.

Correnti D. (1992) Intuition and Nursing Practice Implications for Nurse Educators: A review of the literature The Journal of Continuing Education in Nursing 23, 2. March / April 91- 94.

Couchman W. Dawson J. (1990) Nursing and Health Care Research Scutari Press, London.

Crook L. Marks-Maran (1993) Learning that adds up to your professional development. Academic accreditation of professional nurse study days Professional Nurse Feb. 284-287.

Crow J. (1980) Effects of Preparation on Problem Solving Royal College of Nursing, London.

Darbyshire P., Stewart B., Jamieson L., Tongue C.,(1990) New Domains in Nursing Nursing Times July 4, 86, 27, 73-75.

Darbyshire P. (1991) Nursing Reflections Nursing Times Sept 4, 87, 36, 27-28.

Davies I.K. (1976) Objectives in curriculum design McGraw-Hill Co.(UK) Ltd. Maidenhead.

Davies E.(1993) Clinical role modelling: uncovering hidden knowledge Journal of Advanced Nursing 18, 627-636.

Davis A. J., Hershberger A. Ghan L.C., Lin J.Y. (1990) The good nurse: descriptions from the People's Republic of China Journal of Advanced Nursing 15, 829-834.

Day M. (1991) Accreditation of learning experience Nursing Dec.20-Jan.9, 4, 25, 35-36.

Department of Health and Social Security (1989) Working for Patients HMSO, London.

Denzin N.K. Lincoln Y.S.(Eds.) (1994) Handbook of Qualitative Research Sage Publications, London.

Dewey,J.(1933) How we think: a Restatement of the Relation of Reflective thinking to the educational process.D.C.Heath and Co., London.

Dewey J.(1958) Experience and nature Dover Publications New York.

Dewey J. 1916 (1966) Democracy and Education Free Press, New York.

Dewey J. (1971) Experience and Education, New York, MacMillan.

Dewing J.(1990) Reflective Practice Senior Nurse, 10, 10, November, 26-28.

Dreyfus,H.L. and Dreyfus S.E.(1986) Mind over Machines Oxford, Basil Blackwell.

Dreyfus H.L. (1991) Being in the world: A commentary on Heidegger's Being and time. The MIT Press, London.

Eisikovits,Z. Guttman,(1982) Towards a Practice Theory of Learning through Experience in social work supervision.Clinical Supervisor,1,1, 51-63.

Elbaz,F. (1981) The Teacher's 'Practical Knowledge'; Report of a Case Study. Curriculum Inquiry, 1981, 11, 43-71.

Elbaz,F.(1983) Teacher Thinking a Study of Practical Knowledge. Croom Helm Ltd, Kent

English I.(1993) Intuition as a function of the expert nurse: a critique of Benner's novice to expert model. Journal of Advanced Nursing 18, 387-393.

English National Board (ENB) (1989) Credit accumulation and Transfer Scheme (CATS) The allocation of Credit Ratings to Nursing Courses ENB, London.

English National Board (ENB) The English National Board Professional Portfolio (1991a) ENB London.

English National Board (1991b) Framework for Continuing Professional Education for Nurses, Midwives and Health Visitors Guide to Implementation ENB, London.

Eraut,M.(1985) Knowledge creation and knowledge use in professional contexts.Studies in Higher Education, 10, 2, 117-33.

Evans N.(1984) Non Standard Entry CNAA, London.

Evans N.(1987) Assessing Experiential Learning A Review of Progress and Practice (F.E.U.) Longman York.

Evans N. (1988) The Assessment of Prior Experiential Learning Report of a CNAA Development Fund project conducted at the learning from experience trust. CNAA Development Services Publication 17 London.

Farrell P.and Bramadat I.J. (1990) Paradigm case analysis and stimulated recall: strategies for developing clinical reasoning skills. Clinical Nurse Specialist 4, 3, 153-157.

Farrington A.(1993) Intuition and expert clinical practice in nursing British Journal of Nursing 2, 4, 228-233.

Field P.A. Morse J.M. (1987) Nursing Research the application of qualitative approaches. Croom Helm Ltd. Kent.

Fitzpatrick J., While A.E., Roberts J.D. (1992) The role of the nurse in high-quality patient care: a review of the literature. Journal of Advanced Nursing 17, 1210-1219.

Flanagan J.(1954) The critical incident technique.Psychological Bulletin 51 327-358.

Floden R.E.Klinzing H.G. (1990) What can research on Teacher Thinking Contribute to Teacher Preparation ? A Second Opinion Educational Researcher 19, 5, 21-23.

Fox J. Nyatanga L. Ringer C. Greaves J. (1992) APL: a corporate strategy Nurse Education Today 12, 221-226

Frederiksen N. (1984) Implications of cognitive theory for instruction in problem solving Review of Educational Research Fall, 54, 3, 363-407.

Frederiksen N. Towards a broader conception of human intelligence. In R.J.Sternberg and R.K.Wagner Eds. (1986) Practical Intelligence-Nature and Origins of Competence in the Everyday World. Part 1, 5, 84-116 Cambridge University Press, Cambridge.

Freire P. (1968) Pedagogy of the oppressed Herder and Herder, New York.

Freire P.(1970) Cultural Action for Freedom Penguin Books, Middlesex.

Freire P.(1973) Education for Critical Consciousness Sheed and Ward, London.

Further Education Curriculum and Development Unit (1981) Experience, Reflection, Learning, Department of Education and Science, Further Education Unit, London.

Further Education Curriculum and Development Unit (1987) Profiles in Context a Project Report Longman York.

Gadamer C (1970) Truth and Method, Sheer and Ward, London.

Gatley E.P. (1992a) From novice to expert: the use of intuitive knowledge as a basis for district nurse education Nurse Education Today 12, 81-87.

Gatley E.P.(1992b) PREPP: from novice to expert British Journal of Nursing 1, 2, 88-91.

Gerrity P.L.(1987) Perception in nursing:The value of intuition
Holistic Nursing Practice 1, 3, 63-71.

Glaser B., Strauss,A.L (1967) The Discovery of Grounded Theory
Chicago, Aldine Publishing Co. 1967.

Glaser,R. (1984) Education and Thinking : The Role of Knowledge
American Psychologist 39, 93-104.

Glaser R. (1985) " All's well that Begins and Ends with Both
Knowledge and Process: A reply to Sternberg". American
Psychologist 40, 573-574.

Glen S. Hight N.F. (1992) Portfolios: An 'affective' assessment
strategy ? Nurse Education Today 12, 416-423.

Goodman C.M. (1987) The Delphi technique: a critique. Journal
of Advanced Nursing 12, 729-734.

Goodman J. (1984) Reflection and Teacher Education : a case
study and Theoretical Analysis. Interchange 15, 9-25.

Gore J.M. Zeichner K.M. (1991) Action research and reflective
teaching in preservice teacher education: a case study from the
United States Teaching and Teacher Education 7, 2, 119-136.

Greene M. Philosophy and Teaching (1986) In Wittrock M.C.
(1986) Handbook of Research on Teaching 3rd.ed. A project of
the American Educational Research association Chapter 17, 476-
501 Macmillan Publishing Co. New York.

Greenwood J.(1993) Reflective practice: a critique of the work
of Argyris and Schon. Journal of Advanced Nursing, 18, 1183-
1187.

Greenwood J. (1994) What is it precisely that interpretive
social research researches ? Journal of Advanced Nursing 19,
996-1002.

Griffiths E.R. (1983) NHS Management Inquiry: (letter to the
secretary of state) The Team, London.

Guba E.G., Lincoln Y.S.(1981) Effective Evaluation Jossey-Bass
Ltd. London.

Habermas J.(1970) Towards a Rational Society Beacon Press,
Boston.

Habermas J.(1971) Knowledge and Human Interests Translated by
J.J. Shapiro, Beacon Press, Boston.

Hanfling O. (Ed) (1987) Life and Meaning A Reader Basil
Blackwell in association with The Open University, Oxford.

Hardy L.K. (1988) Excellence in nursing through debate - the case of nursing theory Recent Advances in Nursing 21, 1-13 (Offprint).

Harvey S.(1993) The genesis of a phenomenological approach to advanced nursing practice. Journal of Advanced Nursing 18, 526-530.

Heidegger M. (1962) Being and Time Harper and Row, New York.

Heron J. Philosophical basis for a new paradigm. In Reason P. Rowan J.(Eds.) (1981) Human Enquiry : A Source book of new paradigm research Chapter 2, 19-35 John Wiley, Chichester.

Hiraski Akemi (1992) Tradition, rationality and power in introductory nursing textbooks, a critical hermeneutics study. Advances in Nursing Science March (3) 1-12.

Holden R.J.(1991) In defence of Cartesian dualism and the hermeneutic horizon Journal of Advanced Nursing 16, 1375-1381.

Houle C.O., Cyphert, F. and Boggs D. (1987) Education for The Professions Theory Into Practice, 26, 87-93.

Howard D.(1991) Student profiles through action research Senior Nurse, 11, 3, May/June 17-20.

Howard S. (1993) Accreditation of prior learning: andragogy in action or a 'cut price' approach to education ? Journal of Advanced Nursing 18, 1817-1824.

Howie J. (1988) The effective clinical teacher: a role model.The Australian Journal of Advanced Nursing 5, 2, Dec.-Feb. 23-26

Huberman M.(1985) What knowledge is of most worth to teachers ? A knowledge use perspective. Teaching and Teacher Education 1, 3, 251-262.

Hyland T. (1992) Meta-Competence, Metaphysics and Vocational Expertise Competence and Assessment 20, 22-24

Hyland T. (1993) Professional Development and Competence-based Education Educational Studies 19, 1, 123-132.

Isenberg,D.J. (1984) How Senior Managers Think Harvard Business Review, 62, 81-90.

James C. (1993) Developing Reflective Practice skills: The potential. National Conference - The power of the portfolio, East Midlands conference centre, Nottingham.

Jarvis P.(1986) Janforum : Nurse Education and Adult Education : a question of the person. Journal of Advanced Nursing 11, 465-469.

Jarvis P.(1992) Reflective Practice and Nursing Nurse Education Today 12, 174-181

Jasper M.A. (1994) Issues in phenomenology for researchers of nursing. Journal of Advanced Nursing 19, 309-314.

Kemmis S.(1985) Action research and the politics of reflection. In Boud D. Keogh R. Walker D. Reflection Turning Experience into Learning Chapter 10, 128-138 Kogan Page London.

Klemp,G.O.and McClelland D.C. What Characterises Intelligent Functioning Among Senior Managers. In R.J.Sternberg and R.K.Wagner (eds.,)(1986) Practical Intelligence - Nature and Origins of Competence in the Everyday World. Part 1, 3, 31-50 Cambridge University Press, Cambridge.

Knowles M.S. and Associate (1984) Andragogy in Action applying modern principles of adult learning Jossey-Bass Oxford.

Kolb D.A. Rubin I and McIntyre J.(1971) Organisational Psychology: An experiential Approach, Prentice Hall New Jersey.

Kolb D.A.(1976) Management and the learning process.California Management Review 18, 3, 21-31.

Kubler-Ross E. (1973) On death and dying Tavistock Publications Ltd. London.

Kuhn T. (1970) The structure of scientific revolutions 2nd.ed. University of Chicago Press, Chicago.

Lampert M. Clark C.M.(1990) Expert knowledge and expert thinking in teaching: A response to Floden and Klinzing. Educational Researcher June-July 21-23, 42.

Leininger M.M. (1985) Qualitative Research Methods in Nursing W.B. Saunders Co. Ltd. Philadelphia.

Leino-Kilpi (1990) Self-reflection in nursing teacher education Journal of Advanced Nursing 15, 192-195.

Lincoln Y. S. and Guba E.G. (1985) Naturalistic Inquiry Sage Publications, London.

Lindeman C.A. (1975) Delphi survey of priorities in clinical nursing research. Nursing Research Nov./Dec., 24, 6, 434-441.

MacAlister L. (1993) CATS; the way to academic qualifications ? British Journal of Nursing 2,9, 474-477.

- McCaugherty D.(1991) The Theory - Practice gap in nurse education :its causes and possible solutions. Findings from an action research study Journal of Advanced Nursing 16, 1055-1061
- McCaugherty D.(1991) The use of a teaching model to promote reflection and the experiential integration of theory and practice in first-year student nurses; an action research study.Journal of Advanced Nursing; May, 165, 534-43.
- McCaugherty D.(1992) The Gap between nursing theory and practice,Senior Nurse, 12, 6, Nov.Dec. 44-48.
- McCaugherty D. (1992) The concepts of theory and practice Senior Nurse 30 122 Mar. April 29-33
- McCloskey J.C. McCain B. (1988) Nurse performance: strengths and weaknesses Nursing Research Sept./Oct. 37, 5, 308-312.
- McManus M. (1990) A report for The English National Board Recognition of Previous Learning for Board Courses linking with Credit Accumulation Systems (Unpublished).
- Meerabeau L.(1992) Tacit nursing Knowledge: an untapped resource or a methodological headache ? Journal of Advanced Nursing 17, 108-112.
- Meleis A.I.(1991) Theoretical Nursing Developments and Progress 2nd. Ed. J.B. Lippincott Co. London
- Merleau-Ponty (1964) The primacy of perception Evanston: Northwestern University Press.
- Mezirow J.(1981) A critical theory of adult learning and education Adult education 32, 1, Fall, 3-24.
- Moore D.J. Educating Adults. In Bradshaw P.L.(Ed.) (1989) Teaching and Assessing in Clinical Practice Chapter 3, 38-63, Prentice Hall, London.
- Morse JM (1989) Qualitative nursing research : a contemporary dialogue Aspen Publishers.
- Mortimore J. (1984) Further Education Unit Profiles in action Further Education Unit Middlesex
- Morton-Cooper A. Palmer A. (1993) Mentoring and Preceptorship a guide to support roles in clinical practice. Blackwell Scientific Publications Oxford.
- Munby H. Russell T.(1989) Educating the reflective teacher: an essay review of two books by Donald Schon Journal Curriculum Studies, 21, 1, 71-80.

Munhall P.l. Oiler C.J.(1986) Nursing Research A Qualitative Perspective Appleton-Century-Crofts, Connecticut.

Nehring V.(1990) Nursing clinical teacher effectiveness inventory: a replication study of the characteristics of 'best' and 'worst' clinical teachers as perceived by nursing faculty and students.Journal of Advanced Nursing 15, 934-940.

Newell R.(1992) Anxiety, accuracy and reflection: the limits of professional development Journal of Advanced Nursing 17, 1326-1333.

Nolan J.F. Huber T. (1989) Nurturing the reflective Practitioner Through Instructional Supervision: A Review of The Literature. Journal of Curriculum and Supervision Winter 4, 2, 126-145.

Nyatanga L.(1989) Experiential taxonomy and experiential learning. Senior Nurse, 9, 8, September, 24-27.

Nyatanga L. Fox J.(1991a) Good Practice in the Accreditation of Prior Learning Unpublished research report, Midland Consortium for Credit Accumulation and Transfer.

Nyatanga L. Fox J.(1991b) Organisational factors in APEL Senior Nurse, 11, 2, March/April 9-10.

Omery A. (1983) Phenomenology: a method for nursing research. Advances in Nursing Science Jan. 49-63.

Orem D.E.(1980) Nursing Concepts of Practice: New York: McGraw Hill.

Orton H.D. (1981) Ward Learning Climate- A study of the role of the ward sister in relation to student nurse learning on the ward Royal College of Nursing, London.

Palmer A. Burns S. Bulmer C. (1994) Reflective practice in nursing ; the growth of the professional practitioner Blackwell Scientific Oxford.

Patton M.Q. (1987) How to use qualitative methods in evaluation Sage Publications Inc. London.

Pinar W.F. 'Whole Bright Deep with Understanding' Issues in Qualitative Research and Autobiographical Method, in Taylor P.H. Ed. (1986) Recent Developments in Curriculum Studies Part 1, Curriculum Theory and Theorizing 17-40 Nfer-Nelson, Windsor.

Polanyi M. (1958) Personal Knowledge Routledge and Kegan Paul, London.

Polanyi M. (1966) The Tacit Dimension Routledge and Kegan Paul, London.

Polit D.F. Hungler B.P.(1987) 3rd.ed. Nursing Research principles and methods J.B.Lippincott Co. Philadelphia

Powell J.H.(1989) The reflective practitioner in nursing. Journal of Advanced Nursing 14, 824-832.

Raya A.(1990) Can knowledge be promoted and values ignored? Implications for nursing education Journal of Advanced Nursing 15, 504-509.

Reason P. Rowan J. (Eds.) (1981) Human Enquiry : A Source book of new paradigm research Wiley, Chichester.

Rew L. (1988) Intuition in Decision Making Image: Journal of Nursing Scholarship 20, 3, Fall, 150-154.

Rew L.(1989) Intuition: Nursing knowledge and the spiritual dimension of persons Holistic Nursing Practice 3, 3, 56-68.

Rew L., Barrow E.M. (1987) Intuition: A neglected hallmark of nursing knowledge Advances in Nursing Science 10, 1, 49-62.

Roper N. (1994) Definition of Nursing: 2 British Journal of Nursing 3, 9, 460-462.

Ross M. Carroll G. Knight J. Chamberlain M. Fothergill-Bourbonnais Linton J.(1988) Using the OSCE to measure clinical skills performance in nursing. Journal of Advanced Nursing, 13, 45-56.

Rowbotham A. (1991) The use of credit and experiential learning in nurse education.Exciting opportunities for student and tutor alike. Nurse Education Today 11, 467-473.

Ryle G. (1949) The concept of mind. Penguin, Harmondsworth.

Sartre J.P. (1965) Nausea Penguin Books Ltd, London.

Salvage J. (1990) The theory and practice of the 'new nursing' Nursing Times Jan. 24, 86, 4, 42-45.

Schein E.(1973) Professional Education McGraw-Hill, New York.

Schon D.A.(1983) The Reflective Practitioner How Professionals think in Action Basic Books Inc. New York

Schon D.A.(1987) Educating the Reflective Practitioner Jossey-Bass, London.

Schraeder B., Fischer D.K. (1987) Using Intuitive knowledge in the neonatal intensive care nursery Holistic Nursing Practice 1, 3, 45-51.

Scribner S. Thinking in action: some characteristics of practical thought . In Sternberg and Wagner (1986) Practical Intelligence Nature and origin of competence in the everyday world, Part I, 2, 13-30, Cambridge University Press, Cambridge.

Shull R. In Freire P. (1968) Pedagogy of the oppressed Forward, 9-14, Herder and Herder, New York.

Shay S. Stallings K. (1993) Institute for nursing excellence: A retention model. Journal of Continuing Education in Nursing 24, 2, 66-8. March/April.

Shuell T.J. (1986) Cognitive Conceptions of Learning Review of Educational Research, 56, 411-436.

Shulman L.S. (1986) Those Who Understand : Knowledge Growth in Teaching Educational Researcher, 15, 4-14.

Simosko S.(1985)Earn college credits for what you know Acropolis Books Ltd. Washington.

Simosko S.(1991) APL Accreditation of Prior Learning-A Practical Guide For Professionals Kogan Page, London.

Smith A. Russell J.(1991) Using Critical Learning Incidents in Nurse Education Nurse Education Today 11, 284-291.

Snyder M.(1993) Critical Thinking: A Foundation for Consumer-Focussed Care. The Journal of Continuing Education in Nursing 24, 5, Sept./Oct. 206-210.

Socket, H.J.(1987) Has Shulman Got the Strategy Right? Harvard Educational Review, 1987, 57, 208-219.

Spence Laschinger H.K. (1990) Review of experiential learning theory research in the nursing profession Journal of Advanced Nursing (1990) 15, 985-993.

Stein L.I., Watts D.T., Howell T.(1990) The doctor-nurse game revisited The New England Journal of Medicine 322, Part 8 Feb.22 546-549.

Steiner N.W, Bell M.R.(1979) The Experiential Taxonomy a New Approach to Teaching and Learning Academic Press Inc. London.

Sternberg R.J. (1985) All's well that ends well, but it's a sad tale that begins at the end : A reply to Glaser. American Psychologist May 40, 571-573.

Sternberg J. and Wagner R.K. Eds.(1986) Practical Intelligence Nature and Origins of competence in the everyday world Cambridge University Press, Cambridge.

Susman G.I. Evered (1978) An assessment of the scientific merit of action research. Administrative Science Quarterly Dec. 23, 582-603.

Swanson L., O'Connor J.E., Cooney J.B. (1990) An information processing analysis of expert and novice teachers' problem solving. American Educational Research Journal Fall 27, 3, 533-556.

Tanner CA (1987) Teaching clinical judgement :journal review. Annual Review of Nursing Research 5, 153-73,

Taylor J. Taylor D.(1988) The Assessment of Vocational Training in General Practice Medical Practice, Centre for Health Economics Health Economics Consortium, University of York.

The English National Board for Nursing, Midwifery and Health Visiting, (1991a) Framework for Continuing Professional Education for Nurses, Midwives and Health Visitors Guide to Implementation ENB London.

The English National Board for Nursing, Midwifery and Health Visiting, (1991b) Professional Portfolio ENB London.

Tichen A. McIntyre D. (1993) A phenomenological Approach to qualitative data analysis in nursing research, in Changing Nursing Practice Through Action Research Report no. 6 National Institute for Nursing Centre for Practice. Development and Research Oxford.

Turner-Muecke L.A., Russell T., Bowyer J.(1986) Reflection-in-action : Case Study of a Clinical Supervisor Journal of Curriculum and Supervision Fall 2, 1, 40-49.

UDACE (1991) What can graduates do? A consultative document National Institute of Adult Continuing Education, Leicester..

United Kingdom Central Council UKCC (1986) Project 2000: A new Preparation for Practice, UKCC London.

United Kingdom Central Council (UKCC)(1989) Information on Post-Registration Education and Practice Project UKCC, London.

United Kingdom Central Council (UKCC) 1991 'PREPP' and You UKCC London.

United Kingdom Central Council (UKCC) (1992) Code of Professional Conduct for the Nurse, Midwife and Health Visitor 3rd. Ed. June UKCC, London.

United Kingdom Central Council (UKCC) PREP Recommendations (1994) April UKCC, London.

Urden L.D. (1989) Knowledge Development in clinical practice The Journal of Continuing Education in Nursing 20, 1, January / February 18-22.

Van Manen M.(1977) Linking Ways of Knowing with Ways of Being Practical Curriculum Inquiry 6:3 205-228

Wagner R.K.and Sternberg R.J. (1985) Practical Intelligence in Real-World Pursuits: The Role of Tacit Knowledge Journal of Personality and Social Psychology,49, 436-458.

Wainwright P.Ed. (1951) Aristotle New York Odyssey.

Wells H.G.(1927) The country of the blind, in The complete short stories of H.G. Wells Ernest Benn.

Yura and Walsh (1987) 5th. Ed. Nursing Process, assessing, planning, implementing, and evaluating. Appleton Century.

Zeicher,K. Liston,D.(1987) Teaching student teachers to reflect. Harvard Educational Review,57,23-48.

Questionnaire requesting respondents to name an expert.

QUESTIONNAIRE

appendix (i)

- RGN.....
- SEN.....
- TUTOR..... (Please tick as applicable)
- MANAGER.....
- OTHER PLEASE SPECIFY.....
- WARD /AREA/.....

This questionnaire aims to discover who the experts in nursing practice are. Expert is defined in the Oxford Dictionary as 'a person with great knowledge or skill in a particular thing'.

Is there an expert nurse in your area ? Yes..... No.....
If you have answered yes please name her/him and state why you feel she/he is an expert.

Name.....

Reason why.....

.....

.....

Now give your own definition of a nursing expert :

.....

.....

.....

The P.R.E.P.P. report suggests this description of advanced practice. 'Advanced practice ... involves effective leadership and sophisticated analytical ability. It reflects a wide range of skills which incorporate direct care, education, research, management, involvement in health-policy making, development of strategies. There is a fundamental distinction between being engaged in advanced practice and simply working in a speciality. Only those who have advanced their knowledge and skills through education and experience can exercise increasing clinical discretion and accept greater responsibility through advanced practice'.

Does this statement describe the practice of the expert you have nominated ?

YES.... NO.....

If you have answered no please specify why not

Questionnaire requesting respondents to name an expert.

THESE ARE THE 10 KEY CHARACTERISTICS WHICH PROVIDE THE BASIS FOR THE HIGHER AWARD:

Is there a relationship between your experts practice and the 10 KEY CHARACTERISTICS of the Higher Award?

YES..... NO.....

IF YOU HAVE ANSWERED YES, PLEASE TICK TO INDICATE THE STATEMENT THAT MOST CLOSELY DESCRIBES THE RELATIONSHIP BETWEEN YOUR EXPERTS PRACTICE AND EACH CHARACTERISTIC.

1.Ability to exercise professional accountability and responsibility, reflected in the degree to which the practitioner uses professional skills, knowledge and expertise in changing environments across professional boundaries, and in unfamiliar situations.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

2.Specialist skills, knowledge and expertise in the practice area where working, including a deeper and broader understanding of client/patient health needs, within the context of changing health care provision.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

3.Ability to use research to plan, implement and evaluate concepts and strategies leading to improvements in care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

4,Team working including multi-professional team working in which the leadership role changes in response to changing client needs, team leadership and team building skills to organise the delivery of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

5.Ability to develop and use flexible and innovative approaches to practice appropriate to the needs of the client/patient or group in line with the goals of the health service and the employing authority.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

Questionnaire requesting respondents to name an expert.

6. Understanding and use of health promotion and preventative policies and strategies.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

7. Ability to facilitate and assess the professional and other development of all for whom responsible, including where appropriate learners, and to act as a role model of professional practice.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

8. Ability to take informed decisions about the allocation of resources for the benefit of individual clients and the client group with whom working.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

9. Ability to evaluate quality of care delivered as an on-going and cumulative process.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

10. Ability to facilitate, initiate, manage and evaluate change in practice to improve quality of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below.

Questionnaire requesting respondents to name an expert.

Benner (1984) in her research study 'From Novice to Expert' identified seven domains of primary nursing practice which describe the process of expert clinical judgement and diagnostic skill. These domains are sub-divided into competences (see below). Please tick those competences that you feel apply to your expert.

DOMAIN : THE HELPING ROLE

1. Creates a climate for and establishes a commitment to healing. Yes... No...

1a. Mobilises hope for the nurse as well as for the patient. Yes... No...

1b. Finds an acceptable interpretation or understanding of the illness, pain, fear, anxiety, or other stressful emotion. Yes... No...

1c. Assists patients to use social, emotional or spiritual support Yes... No...

2. Provides comfort measures and preserving personhood in the face of pain and extreme pain and extreme breakdown Yes... No....

3. Presences i.e. simply giving care through just being with a patient Yes... No...

4. Maximises the patients participation and control in his or her own recovery Yes... No...

5. Interprets kinds of pain and selects appropriate strategies for pain management and control Yes... No.

6. Provides comfort and communication through touch Yes...No...

7. Provides emotional and informational support to patients' families Yes... No.

8. Guides patients through emotional and developmental change: providing new options, closing off old ones: channeling, teaching, mediating Yes... No.

8a. Acts as a psychological and cultural mediator Yes... No.

8b. Uses goals therapeutically Yes... No...

8c. Works to build and maintain a therapeutic community Yes... No...

Questionnaire requesting respondents to name an expert.

DOMAIN: THE TEACHING COACHING FUNCTION

9. Assesses the appropriate time when a patient is ready to learn Yes... No...

10. Assists the patients to integrate the implications of illness and recovery into their lifestyles Yes... No...

11. Elicits an understanding of the patient's interpretation of his or her illness Yes.. No...

12. Provides an interpretation of the patient's condition and gives a rationale for procedures Yes... No...

13. The coaching function: makes culturally avoided aspects of an illness approachable and understandable Yes... No.

DOMAIN: THE DIAGNOSTIC AND MONITORING FUNCTION

14. Detects and documents significant changes in a patient's condition Yes... No.

15. Provides an early warning signal: Anticipates breakdown and deterioration in patient's condition prior to explicit confirming diagnostic signs. Yes... No.

16. Anticipates what problems might arise and and what to do about them Yes... No.

17. Understands the particular demands and experiences of an illness : Anticipates patient care needs Yes... No...

18. Assess's the patient's potential for wellness and for responding to various treatment strategies Yes... No...

DOMAIN: EFFECTIVE MANAGEMENT OF RAPIDLY CHANGING SITUATIONS.

19. Exhibits skilled performance in extreme life-threatening emergencies: Demonstrates rapid grasp of the problem. Yes... No....

20. Contingency management : Rapidly matches demands and resources in emergency situations Yes... No....

21. Identifies and Manages a patient crisis until physician assistance is available Yes... No....

DOMAIN: ADMINISTERING AND MONITORING THERAPEUTIC INTERVENTIONS AND REGIMENS.

22. Starts and maintains intravenous therapy with minimal risks and complications Yes... No....

Questionnaire requesting respondents to name an expert.

23. Administers medication accurately and safely: Monitors untoward effects, reactions, therapeutic responses, toxicity, and incompatibilities Yes... No...

24. Combats the hazards of immobility: Preventing and intervening with skin breakdown, ambulating and exercising patients to maximise mobility and rehabilitation, preventing respiratory complications Yes... No...

25. Creates a wound management strategy that fosters healing, comfort, and appropriate drainage Yes... No...

DOMAIN, : MONITORING AND ENSURING THE QUALITY OF HEALTH CARE PRACTICES.

26. Provides a backup system to ensure safe medical and nursing care Yes... No...

27. Assess's what can be safely omitted from or added to medical orders Yes... No...

28. Gets appropriate and timely responses from physicians Yes... No...

DOMAIN :ORGANISATIONAL AND WORK BASED COMPETENCES

29. Coordinates, orders, and meets multiple patient needs and requests: Through setting priorities Yes... No...

30. Builds and maintains a therapeutic team to provide optimum therapy Yes.. No...

30a. Copes with staff shortages and high turnover Yes... No...

31. Plans contingently, anticipating and preventing periods of extreme work overload within a shift. Yes... No...

31a. Uses and maintains team spirit; gaining social support from other nurses .Yes... No...

31b. Maintains a caring attitude towards patients even in absence of close and frequent contact.Yes... No...

31c. Maintains a flexible stance towards patients, technology, and bureaucracy Yes... No...

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below, or overleaf.

Modified questionnaire

QUESTIONNAIRE

appendix (ii)

RGN.....
SEN.....
TUTOR..... (Please tick as applicable)
MANAGER.....
OTHER PLEASE SPECIFY.....
WARD /AREA/.....

This questionnaire aims to discover who the experts in nursing practice are. Expert is defined in the Oxford Dictionary as 'a person with great knowledge or skill in a particular thing'.

Is there an expert nurse in your area ? Yes..... No.....
If you have answered yes please name her/him and state why you feel she/he is an expert.

Name.....
Reason why.....
.....
.....

Now give your own definition of a nursing expert :
.....
.....
.....

The P.R.E.P.P. report suggests this description of advanced practice. 'Advanced practice ... involves effective leadership and sophisticated analytical ability. It reflects a wide range of skills which incorporate direct care, education, research, management, involvement in health-policy making, development of strategies. There is a fundamental distinction between being engaged in advanced practice and simply working in a speciality. Only those who have advanced their knowledge and skills through education and experience can exercise increasing clinical discretion and accept greater responsibility through advanced practice'.

Does this statement describe the practice of the expert you have nominated ?

YES.... NO.....

If you have answered no please specify why not

Modified questionnaire

THESE ARE THE 10 KEY CHARACTERISTICS WHICH PROVIDE THE BASIS FOR THE HIGHER AWARD:

Is there a relationship between your experts practice and the 10 KEY CHARACTERISTICS of the Higher Award?

YES..... NO.....

IF YOU HAVE ANSWERED YES, PLEASE TICK TO INDICATE THE STATEMENT THAT MOST CLOSELY DESCRIBES THE RELATIONSHIP BETWEEN YOUR EXPERTS PRACTICE AND EACH CHARACTERISTIC.

1.Ability to exercise professional accountability and responsibility, reflected in the degree to which the practitioner uses professional skills, knowledge and expertise in changing environments across professional boundaries, and in unfamiliar situations.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

2.Specialist skills, knowledge and expertise in the practice area where working, including a deeper and broader understanding of client/patient health needs, within the context of changing health care provision.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

3.Ability to use research to plan, implement and evaluate concepts and strategies leading to improvements in care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

4,Team working including multi-professional team working in which the leadership role changes in response to changing client needs, team leadership and team building skills to organise the delivery of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

5.Ability to develop and use flexible and innovative approaches to practice appropriate to the needs of the client/patient or group in line with the goals of the health service and the employing authority.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

Modified questionnaire

6. Understanding and use of health promotion and preventative policies and strategies.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

7. Ability to facilitate and assess the professional and other development of all for whom responsible, including where appropriate learners, and to act as a role model of professional practice.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

8. Ability to take informed decisions about the allocation of resources for the benefit of individual clients and the client group with whom working.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

9. Ability to evaluate quality of care delivered as an on-going and cumulative process.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

10. Ability to facilitate, initiate, manage and evaluate change in practice to improve quality of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below.

Questionnaire group B

QUESTIONNAIRE

RGN.....

SEN.....

(Please tick as applicable)

WARD MANAGER.....

LECTURER PRACTITIONER

OTHER PLEASE SPECIFY.....

WARD /AREA/.....

This questionnaire aims to discover who the experts in nursing practice are. Expert is defined in the Oxford Dictionary as 'a person with great knowledge or skill in a particular thing'.
Is there an expert nurse in your area ? Yes..... No.....
If you have answered yes please name her/him and state why you feel she/he is an expert (You may name yourself if appropriate or you may wish to name more than one person, if so please do).

(i) Name.....

(ii) Name

(iii) Name

(i) Reason why.....

(ii) Reason why.....

(iii)Reason Why

Now please give your own definition of a nursing expert:

.....
.....
.....

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below.

Specialist nurse questionnaire

NAME.....

appendix (iv)

TITLE.....

SPECIALITY.....

The Oxford Dictionary defines an expert as 'someone with great knowledge or skill' about a particular thing.

Can you name any expert nurses from your peers or who work as nurse specialists?

Yes.....No.....

Please name these specialists and give their titles so that they can be contacted.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Specialist nurse questionnaire

Please specify what is expert about their practice.....

.....

.....

Now please give your own definition of a nursing expert.....

.....

.....

.....

.....

Thank You for your cooperation with this study.

Questionnaire to identify if expert felt their practice reflected the Higher Award characteristics and Benner's competencies. Appendix (v)

THESE ARE THE 10 KEY CHARACTERISTICS WHICH PROVIDE THE BASIS FOR THE HIGHER AWARD:

Is there a relationship between your practice and the 10 KEY CHARACTERISTICS of the Higher Award?

YES..... NO.....

IF YOU HAVE ANSWERED YES, PLEASE TICK TO INDICATE THE STATEMENT THAT MOST CLOSELY DESCRIBES THE RELATIONSHIP BETWEEN YOUR PRACTICE AND EACH CHARACTERISTIC.

1.Ability to exercise professional accountability and responsibility, reflected in the degree to which the practitioner uses professional skills, knowledge and expertise in changing environments across professional boundaries, and in unfamiliar situations.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

2.Specialist skills, knowledge and expertise in the practice area where working, including a deeper and broader understanding of client/patient health needs, within the context of changing health care provision.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

3.Ability to use research to plan, implement and evaluate concepts and strategies leading to improvements in care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

4,Team working including multi-professional team working in which the leadership role changes in response to changing client needs, team leadership and team building skills to organise the delivery of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

5.Ability to develop and use flexible and innovative approaches to practice appropriate to the needs of the client/patient or group in line with the goals of the health service and the employing authority.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY... DOES NOT APPLY...

6. Understanding and use of health promotion and preventative policies and strategies.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

7. Ability to facilitate and assess the professional and other development of all for whom responsible, including where appropriate learners, and to act as a role model of professional practice.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

8. Ability to take informed decisions about the allocation of resources for the benefit of individual clients and the client group with whom working.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

9. Ability to evaluate quality of care delivered as an on-going and cumulative process.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

10. Ability to facilitate, initiate, manage and evaluate change in practice to improve quality of care.

APPLIES STRONGLY... MODERATELY APPLIES... APPLIES WEAKLY...
DOES NOT APPLY...

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below.

Benner (1984) in her research study 'From Novice to Expert' identified seven domains of nursing practice which describe the process of expert clinical judgement and diagnostic skill. These domains are sub-divided into competences (see below). Please tick those competences that you feel apply to your nursing practice.

DOMAIN : THE HELPING ROLE

1. Creates a climate for and establishes a commitment to healing. Yes. No...

1a. Mobilises hope for the nurse as well as for the patient. Yes.. No...

1b. Finds an acceptable interpretation or understanding of the illness, pain, fear, anxiety, or other stressful emotion. Yes.. No...

1c. Assists patients to use social, emotional or spiritual support Yes.. No...

2. Provides comfort measures and preserving personhood in the face of pain and extreme pain and extreme breakdown Yes... No....

3. Presences i.e. simply giving care through just being with a patient Yes. No...

4. Maximises the patients participation and control in his or her own recovery Yes. No...

5. Interprets kinds of pain and selects appropriate strategies for pain management and control Yes. No.

6. Provides comfort and communication through touch Yes...No...

7. Provides emotional and informational support to patients' families Yes. No.

8. Guides patients through emotional and developmental change: providing new options, closing off old ones: channeling, teaching, mediating Yes. No.

8a. Acts as a psychological and cultural mediator Yes... No.

8b. Uses goals therapeutically Yes... No...

8c. Works to build and maintain a therapeutic community Yes.. No...

DOMAIN: THE TEACHING COACHING FUNCTION

9. Assesses the appropriate time when a patient is ready to learn Yes. No...

10. Assists the patients to integrate the implications of illness and recovery into their lifestyles Yes. No...

11. Elicits an understanding of the patient's interpretation of his or her illness Yes. No...

12. Provides an interpretation of the patient's condition and gives a rationale for procedures Yes... No...

13. The coaching function: makes culturally avoided aspects of an illness approachable and understandable Yes. No.

DOMAIN: THE DIAGNOSTIC AND MONITORING FUNCTION

14. Detects and documents significant changes in a patient's condition Yes... No.

15. Provides an early warning signal: Anticipates breakdown and deterioration in patient's condition prior to explicit confirming diagnostic signs. Yes... No.

16. Anticipates what problems might arise and what to do about them Yes... No.

17. Understands the particular demands and experiences of an illness : Anticipates patient care needs Yes. No...

18. Assess's the patient's potential for wellness and for responding to various treatment strategies Yes.. No...

DOMAIN: EFFECTIVE MANAGEMENT OF RAPIDLY CHANGING SITUATIONS.

19. Exhibits skilled performance in extreme life-threatening emergencies: Demonstrates rapid grasp of the problem. Yes... No....

20. Contingency management : Rapidly matches demands and resources in emergency situations Yes.. No....

21. Identifies and Manages a patient crisis until physician assistance is available Yes. No....

DOMAIN: ADMINISTERING AND MONITORING THERAPEUTIC INTERVENTIONS AND REGIMENS.

22. Starts and maintains intravenous therapy with minimal risks and complications Yes... No....

23. Administers medication accurately and safely: Monitors untoward effects, reactions, therapeutic responses, toxicity, and incompatibilities Yes · No...

24. Combats the hazards of immobility: Preventing and intervening with skin breakdown, ambulating and exercising patients to maximise mobility and rehabilitation, preventing respiratory complications Yes. · No...

25. Creates a wound management strategy that fosters healing, comfort, and appropriate drainage Yes. · No...

DOMAIN, : MONITORING AND ENSURING THE QUALITY OF HEALTH CARE PRACTICES.

26. Provides a backup system to ensure safe medical and nursing care Yes. No...

27. Assess's what can be safely omitted from or added to medical orders Yes.. No...

28. Gets appropriate and timely responses from physicians Yes... No...

DOMAIN :ORGANISATIONAL AND WORK BASED COMPETENCES

29. Coordinates, orders, and meets multiple patient needs and requests: Through setting priorities Yes... No...

30. Builds and maintains a therapeutic team to provide optimum therapy Yes.. No...

30a. Copes with staff shortages and high turnover Yes... No...

31. Plans contingently, anticipating and preventing periods of extreme work overload within a shift. Yes... No...

31a. Uses and maintains team spirit; gaining social support from other nurses .Yes... No...

31b. Maintains a caring attitude towards patients even in absence of close and frequent contact.Yes. No...

31c. Maintains a flexible stance towards patients, technology, and bureaucracy Yes.. No...

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

If you have any comments you wish to make about expertise in nursing practice please detail below, or overleaf.

Questionnaire to obtain information about the expert

appendix (vi)

NAME.....AREA.....

NUMBER OF YEARS IN NURSING

NUMBER OF YEARS WORKING IN PRESENT AREA.....

PAST NURSING EXPERIENCE (last ten years only)

PROFESSIONAL QUALIFICATIONS.....

.....

POST-REGISTRATION PROFESSIONAL EDUCATION (most recent first)

ACADEMIC QUALIFICATIONS (and dates obtained)

AREAS OF RESPONSIBILITY IN PRESENT POST

Questionnaire to obtain information about the expert

PLEASE OUTLINE ANY MAJOR INITIATIVES CONNECTED WITH PATIENT CARE THAT YOU HAVE BEEN INVOLVED IN.

PLEASE OUTLINE ANY MAJOR INNOVATIONS (RELATED TO NURSING) OR ANY DEVELOPMENTS YOU HAVE BEEN INVOLVED IN.

PLEASE DETAIL ANY OTHER INITIATIVES THAT YOU HAVE BEEN/ ARE INVOLVED IN.

WHERE DO YOU FEEL YOUR EXPERTISE CAME FROM?.....

Questionnaire to obtain information about the expert

WHY DO YOU FEEL YOUR EXPERTISE DEVELOPED?.....

PLEASE GIVE EXAMPLES OF HOW Acquired.g. ROLE MODEL OR SPECIFIC INFLUENCES.PLEASE STATE ANY SPECIFIC INCIDENTS THAT MOTIVATED YOU.

DO YOU FEEL YOUR EXPERTISE IS MAINLY PRACTICE BASED, THEORY BASED, BOTH OR NEITHER?

DO YOU FEEL THAT YOUR EXPERTISE DEVELOPED MAINLY FROM THEORY....MAINLY FROM PRACTICE....BOTH...OR NEITHER...

WHY DO YOU THINK YOUR EXPERTISE DEVELOPED?

Questionnaire to obtain information about the expert

WERE YOU TAUGHT YOUR EXPERTISE OR DID IT JUST HAPPEN ?

PLEASE NAME THOSE FACTORS THAT YOU FEEL INFLUENCED THE DEVELOPMENT OF YOUR EXPERT PRACTICE (e.g.family, colleagues doctors nurses, undertaking a specific course at a specific time.Was it linked to a new post a specific challenge or difficulty?)

PLEASE NAME THOSE FACTORS THAT YOU FEEL HINDERED THE DEVELOPMENT OF YOUR EXPERTISE (e.g. lack of staff, lack of awareness of nursing knowledge, lack of assertiveness lack of confidence, lack of academic development.Lack of support from others-please specify, lack of development opportunities, emphasis on bringing up a family)

AT WHAT STAGE IN YOUR CAREER DID YOU FIRST PERCEIVE EXPERT PRACTICE IN OTHERS e.g. nurse doctor other please specify?

Questionnaire to obtain information about the expert

PLEASE DESCRIBE WHAT WAS EXPERT ABOUT THEIR PRACTICE.

DO YOU FEEL THIS PRACTICE WAS INFLUENTIAL IN SHAPING YOUR OWN
EXPERT PRACTICE ?

YES.....NO.....

If ans. yes please specify HOW THIS PRACTICE WAS INFLUENTIAL.

IF ANS. YES WAS THE ROLE MODEL A NURSE A DOCTOR OR OTHER
?(please specify).

WHAT COMPETENCES DID THIS EXPERT EXHIBIT ?

PLEASE GIVE EXAMPLES OF THE AREAS THAT WERE SIGNIFICANT e.g.
what did she or he do that enabled you to identify them as an
expert, please give examples.....//.....

Questionnaire to obtain information about the expert

WERE THERE KEY FACTORS OR INCIDENTS THAT INFLUENCED YOUR PRACTICE AND CAUSED IT TO DEVELOP IN THE DIRECTION IT HAS NOW ?

YES.....NO.....

IF ANS.YES PLEASE SPECIFY WHAT THESE FACTORS WERE..

WHAT DO YOU FEEL WERE THE MOST INFLUENTIAL FACTORS IN THE DEVELOPMENT OF YOUR EXPERTISE ? PLEASE SPECIFY

IF YOU WERE TRYING TO DEVELOP EXPERTISE IN OTHER NURSES WHAT ADVICE WOULD YOU GIVE THEM ?

Instructions

Learning style inventory

There are nine sets of four words listed below. Rank-order the words in each set by assigning a 4 to the word that best characterizes your learning style, a 3 to the word that next best characterizes your learning style, a 2 to the next most characteristic word, and a 1 to the word that is least characteristic of you as a learner.

You may find it hard to choose the words that best characterize your learning style. Nevertheless, keep in mind that there are no right or wrong answers — all the choices are equally acceptable. The aim of the inventory is to describe how you learn, not to evaluate your learning ability.

Be sure to assign a different rank number to each of the four words in each set; do not make ties.

- | | | | | |
|----|---------------------|----------------|----------------------|--------------------|
| 1. | ___discriminating | ___tentative | ___involved | ___practical |
| 2. | ___receptive | ___relevant | ___analytical | ___impartial |
| 3. | ___feeling | ___watching | ___thinking | ___doing |
| 4. | ___accepting | ___risk-taker | ___evaluative | ___aware |
| 5. | ___intuitive | ___productive | ___logical | ___questioning |
| 6. | ___abstract | ___observing | ___concrete | ___active |
| 7. | ___present-oriented | ___reflecting | ___future-oriented | ___pragmatic |
| 8. | ___experience | ___observation | ___conceptualization | ___experimentation |
| 9. | ___intense | ___reserved | ___rational | ___responsible |

Bring

The four columns of words above correspond to the four learning style scales: CE, RO, AC, and AE. To compute your scale scores, write your rank numbers in the boxes below only for the designated items. For example, in the third column (AC), you would fill in the rank numbers you have assigned to items 2, 3, 4, 5, 8, and 9. Compute your scale scores by adding the rank numbers for each set of boxes.

Score items:
2 4 5 7 8

--	--	--	--	--

CE = _____

Score items:
1 3 6 7 8 9

--	--	--	--	--	--

RO = _____

Score items:
2 3 4 5 8 9

--	--	--	--	--	--

AC = _____

Score items:
1 3 6 7 8 9

--	--	--	--	--	--

AE = _____

Workshop format

WORKSHOP ONE

appendix (viii)

Welcome - introductions, experts, outline of study.
Developmental aspects - negotiation re. area's of interest.

1.(i) Reasons for choice of topic a) nursing research little evidence of implementation b) nursing is attempting to identify what it is and what it does, c) Assist in the development of theory building based on practical nursing experience, d) provide a means for accrediting advanced nursing practice.

(ii) Links with WMRHA - production of a working paper on APL and APEL.

(iii) Links with Higher Award.

2. Methodology : Triangulation i) Nurse ii) educationalist iii) manager.

3. Research framework reviewed, introduction / recap on, the work of Schon (1983, 1991), and consideration of the concepts of 'reflection on action' and 'reflection in action'. Consideration of the notion of knowledge developing from practice as well as from theory. Consideration of Benner's (1984) work " From Novice to Expert ".

Workshop format

4. Participants requested to form into small groups and to record on a flip chart the different types of knowledge they feel they use in their everyday practice. Participants are requested to list those activities which they feel that they should do, rather than asking a less experienced qualified nurse to do.

5. Request to keep reflective diaries to record examples of when 'reflecting in action' and when 'reflecting on action' for next workshop.

6. Introduction to / recap on the use of critical incidents as a means of identifying nursing knowledge.

7. Examples provided of critical incidents. Group work - participants requested to give examples of critical incidents (tape recorded). Participants also requested to provide examples of significant incidents before next workshop. Hand out on how to record a significant incident to be given out also hand out to be given out on possible sources of significant incidents.

8. Introduction to questionnaire to establish similarities and differences between experts practice and (i) Benner's competencies (ii) also between experts practice and Higher Award Characteristics, (iii) the experts practice and the PREPP statement describing advanced practice

Workshop format

9. Completion of learning style inventory.

10. Request for experts to complete questionnaires (which provide background information on experts also information requested on identifying the factors which have influenced the development of the experts practice.

11. Clarification of any issues to do with study.

12. Arrangement of observation observation visits.

Workshop format

WORKSHOP TWO

1. Experts to report back on diary keeping 'reflection on action' and 'reflection in action' examples to be recorded.

2. Experts to discuss their feelings about reflection in action. Discussion focussing on the factors that influenced when 'reflection in action ' was occurring and when 'reflection on action' was occurring.

3. Report back on significant incidents. Examples taped.

4. Group work to address the following area:- (i) Discuss what is meant by expert practice. (ii) Identify the values that characterise the expert practitioner. (iii) Define the key purposes of expert practitioners. (iv) Discuss and define the ethos of expert practice. Experts to evaluate the importance of role models and coaches in the development of their expertise. Examples to be provided of the types of values and behaviour that were thought to be influential in developing expertise. Experts to identify the values and beliefs they hold and to state when and where these beliefs were developed.

5. Group work to address the following areas:- (i) Experts requested to imagine that they are compiling an in service training programme for developing expertise in nurses. The areas to be included will cover the sorts of activities that you

Workshop format

would expect a very experienced capable nurse to be able to do in your area (although other activities may be included if thought appropriate). Participants will be requested to list the content of the programme and (ii) to provide a rationale for the topics / areas chosen. (iii) Participants will be requested to devise an assessment strategy that will measure the nurses developing expertise.

(iv) List to be compiled of all the different types of knowledge used and identified by experts in the programme.

6. Experts to have list of knowledge identified by them in workshop one returned to them. Experts to be asked to add any additional knowledge that they feel should have been included. Experts requested to devise a criteria for expert practice. Group Work experts devise a criteria for expert practice.

Request experts to continue with diary keeping and recording of critical incidents.

7. The notions of theories, rules of thumb, or any other system used for developing nursing practice discussed with experts and examples requested from experts for next workshop.

Workshop format

WORKSHOP THREE

1. Report back on diaries and critical incidents.

Request and arrange observation visits to clinical areas.

2. Group discussion as to how experts identify expert practice in others. Examples obtained.

3. Experts to discuss factors that influenced the development of their own practice. Experts to identify factors that hindered development of their own expert practice.

4. Experts to be introduced to the concept of 'thinking aloud' as a strategy for identifying knowledge in practice. Situation to be presented to expert (or expert provide their own example). The 'talking through' of the patient management situation to be recorded.

5. List of knowledge and / or criteria for expert practice returned to experts to prioritise expert practice.

6. The criteria of expert practice submitted by experts will be transposed into competences and submitted to experts for approval and rating.

Workshop format

7. Experts requested to give examples from their practice which correspond to Benner's competencies the Higher Award and the PREPP statement of advanced practice.

8. Experts to report back on any personal theories, maxims, rules of thumb, or any other systems used by them to develop effective nursing practice.

9. Introduction to / recap on academic levels. Presentation of Blooms Taxonomy of educational objectives and Steiner and Bell's Taxonomy. Discussion as to what constitutes higher level competences.

10. Experts to be provided with examples of degree level outcomes and asked to consider what activities they feel would be of a similar level in nursing. Group work :- experts to identify degree type activities evident in nursing care.

11. Request experts to continue to record diaries to include 'reflection in action' and 'reflection on action'. Also to continue to record significant incidents.

Workshop format

WORKSHOP FOUR

Report back on critical incidents report back on reflective practice.

Sharing of incidents with other experts.

Analysis of diaries to establish if Reflection in action or Reflection on action is being used by experts.

Experts to use Blooms Taxonomy of educational objectives and Steinaker and Bells Taxonomy to establish three broad bands of competences from the positively rated competences, at the following levels with particular attention being directed to diploma and degree level competences. :-

(i) Certificate

(ii) Diploma

(iii) Degree

Experts to discuss the process of developing competences at advanced level.

Update on findings of study: arrangement for further feedback.

Workshop format

Negotiated information as required. Arrangements made for further interviews and observation visits (if still outstanding).

Description of workshops

Workshop Stage 1 Group A appendix (ix)

The workshops were carried out in a classroom of a college of nursing. All of the participants were familiar with the college and I knew all of the respondents on a professional basis. Light refreshments were provided by me and I endeavoured to create a relaxed atmosphere, yet at the same time maintaining a rigorous approach to the study. These experts were prepared to carry out all of the requests I made willingly and without questioning. Several of the experts in this group pronounced that 'that they had never thought of themselves as experts' whilst others acknowledged their own expertise in an open manner. This group of experts were prepared to participate in 4 times 3 hour workshop sessions. These experts attended the workshops without apparent difficulty. References were made at times to the experts 'being very busy' but at no stage did it appear that this was going to effect their attendance. Although one expert did withdraw at the very beginning and no explanation was given as to her reason for withdrawal. I had informed the experts at the commencement of the workshops that they were free to withdraw at any stage without any questions being asked. These workshops provided a forum in which expertise and expertise development was analysed and discussed. Many of these experts appeared to perceive these sessions as a form of continuing education; on one occasion an expert phoned to ask where the study sessions were being held. I became aware that these experts were unfamiliar with reflecting on

Description of workshops

their practical knowledge although they all felt that they used reflection without calling it that.

Workshop Stage 2 Group B

One of the participants was known to me slightly, as I had visited her area the previous year to examine aspects of reflective practice. I did not know any of the other participants. The workshops were to be carried out in the post-graduate lecture rooms. There were comfortable chairs and it was a quiet area. However during the second stage of the study modifications to the workshop approach were necessary. This was due to (i) the time constraints imposed on the study by Group B. These experts were agreeable to spending 2 hours only in each of the workshops. Since I particularly wanted to include this group in the study, I felt these constraints could be accommodated. Changes in the workshops were also required because of ii) the manner in which care was organised (primary nursing). This was an important factor in the study. Initially with group A in stage one I had been looking at the activities that expert nurses did that other nurses did not do, in the hope that a higher level of knowledge would be required to carry out these activities. With group B in stage two it emerged that all nurses carried out all activities. This required a considerable rethink about the methodology). A final factor that required consideration was (iii) the evolving nature of the study. During stage one with group A it was

Description of workshops

necessary to present issues to do with reflection in some depth but this was not the case with the majority of respondents in group B since they were familiar with and used reflection in relation to their practice. A number of sections were omitted these included omission of discussions on reflection-in-action and reflection-on-action as these were peripheral to the study, it was felt they could be left out without prejudicing the study.

Compiling an inservice programme for developing expertise was also omitted as it rapidly became apparent this was not relevant to this group. Experts in Group B presented expertise development much more as an active process for the neophyte expert, where all nurses accept responsibility for their own development as opposed to Group A where expertise had been presented as something that could be taught. Lists of knowledge were not collected and returned to experts in group B for their consideration because they maintained that that in terms of tasks all of the nurses did the same activities.

It was evident that expert practice , as presented by Group B, was not only about the knowledge used to carry out certain activities, it was about the philosophy and values underpinning these activities also. Experts in Group B were much less definitive about issues such as devising a criteria for expert practice than those in group A had been (apart from one). Group B were concerned to identify the complexities associated with expertise rather than devising a specific list.

GUIDELINES FOR RECORDING A CRITICAL INCIDENT

In order to establish the knowledge you use in your practice you are requested to complete examples of critical incidents so that the knowledge embedded in practice can be identified and valued. Practical knowledge can form an excellent basis for developing theories about nursing and for learning from the practice of others as well as from your own practice.

The attached form can be used to record your critical incidents. A brief description will first be given of what is meant by a critical incident.

WHAT CONSTITUTES A CRITICAL INCIDENT ?

: An incident in which your actions really made a difference to a patient care outcome, either directly or indirectly.

: An incident that went unusually well.

: An incident where a sudden emergency occurred.

: An incident where patient care went very wrong.

: An incident which is very ordinary and typical of your everyday practice.

: An incident which you feel captures the 'core' of what nursing is about.

: An incident where you had to 'think on your feet'.

An incident where you feel you acted mainly on your instincts.

WHAT TO INCLUDE IN YOUR DESCRIPTION OF A CRITICAL INCIDENT

: The context of the incident (e.g. when it happened, where it happened, resources available)

: A detailed description of what happened.

: Why the incident was significant to you.

What your concerns were at the time.

: What were you thinking about as it happened.

: What were your feelings during and after the incident.

:What did you have to know (knowledge base) in order to carry out the actions you did.

: What did you learn from the incident

: What if anything did you find most demanding about the situation.

: What were your 'gut feelings' before during and after the incident.

: What if anything did you find particularly satisfying about the incident ?

PLEASE RECORD YOUR CRITICAL INCIDENT SPECIFYING AS MUCH DETAIL AS POSSIBLE.

TYPES OF KNOWLEDGE _____ appendix (xi)

EDUCATION

Qualifications
specific courses
independent research,
observation of similar and other areas
Knowledge from links with multi-disciplinary team
Knowledge gained from seminars/forums/workshops
Knowledge in terms of reasoning and logical thinking
Knowledge of leadership-assessing/ implementing/ judgmental/
evaluating

PRACTICE

Value of research
Action research
Knowledge to provide encouragement and development
Audit knowledge to measure practice

TYPES OF KNOWLEDGE

Knowledge to interpret clinical factors
Knowledge of clinical base to practice,
Knowledge of clinical audit
Knowledge of local needs,
Knowledge of Regional strategy
Knowledge of speciality
Knowledge of how to project self

TYPES OF KNOWLEDGE IDENTIFIED BY COHORT 2.(17:11:92)

Knowledge of Research,
Knowledge of trial and error.
Knowledge of how to be assertive,
Common sense knowledge,
practical knowledge,
knowledge to be able to assess ? who or what?
Knowledge of how to negotiate to obtain optimum patient care.
Knowledge of Holistic principles.
Knowledge to contribute to and participate in Regional,
National and International Groups.
Knowledge of liaison.
Knowledge of education,
knowledge of teaching,
knowledge of procedures, knowledge of policies,
knowledge of patients symptoms
Knowledge to assess the need for SID ???,
knowledge of patients emotional needs.
Knowledge to be able to make decisions about the quality of the
patients life,
knowledge from experience of previous patients ?
Knowledge of patients prognosis

Knowledge of patients behaviour
Intuitive Knowledge in response to patient needs,
staff support knowledge,
knowledge to teach new medical staff ??
Knowledge of how to display sensitivity in providing patient care.
Knowledge to be able to act as a troubleshooter ??
Knowledge to be able to interpret patient needs
Knowledge to be able to interpret patients emotional needs,
knowledge of disease processes,
Political knowledge,
Knowledge to compile protocols and policies,
management knowledge to be able to carry out treatments.

INFECTION CONTROL KNOWLEDGE

Knowledge of Infection Control Principles,
knowledge of micro-biology,
knowledge of pharmacology in relation to wound care,
Knowledge to act as a source of informed advice on matters to do with infection control on a multi-disciplinary basis.
Knowledge to instigate management of an infection control outbreak.
Knowledge to provide informed advice to patients who have a compromised immune system.
Knowledge to create a sense of dynamism in the instigation of infection control procedures.

STOMA KNOWLEDGE

Knowledge of the different types of stomas,
knowledge of how to assess a patient preoperatively who may be having a stoma.
Knowledge to provide informed advice about the management of herniated stomas.
Knowledge to provide informed advice about stoma appliances.
Knowledge to advise about a patients likely quality of life with or without a stoma.
Knowledge to provide pre-and post-operative teaching to patients about their stomas.
Knowledge to be able to lecture on developments in the management of stomas to student nurses and peers.
Knowledge to be able to provide informed advice to nurses, doctors, patients and relatives on the care of patients with stomas.
Knowledge to be able to assess patients capabilities in relation to coping with a stoma.
Knowledge of how to use appropriate examples and experiences.
Knowledge of how to act as an interpreter for the patient, as to what the doctor meant.

PALLIATIVE CARE KNOWLEDGE

Knowledge of methods that can be used to provide symptom control for terminally ill patients.
Knowledge of pain relief.
Knowledge of pharmacology.
Knowledge of terminal illnesses.
Knowledge of psychology.
Knowledge of biochemistry??
Knowledge of the effectiveness of different methods of pain control.

SURGICAL KNOWLEDGE

Knowledge of surgical procedures
Knowledge of medication
knowledge of complications
Knowledge of haematology
Knowledge of staff management
Knowledge of vascular conditions
Knowledge of A&P
Knowledge of managing resources
Knowledge of forward planning
Knowledge of discharge procedures
Knowledge of prevention of pressure sores
Knowledge of when to sit patients out
Knowledge of symptoms
Knowledge about use of dopplers
Knowledge of how to manage a doctors round
Knowledge of priority setting.

VISIT TO MASTECTOMY ADVISOR

KNOWLEDGE

HEARING WHAT IS NOT BEING SAID

Knowledge of rehabilitation.
Knowledge of operation
Knowledge of position the patient was in during the operation
Knowledge of A&P
Knowledge of chemotherapy
Knowledge of radio-therapy
Knowledge of prosthesis fitting
Knowledge of sexuality
Knowledge of adjuvant therapy
(i) Tomoxafen (ii) xray treatment.
Knowledge of clothing.
Knowledge of backup organisations eg cancer link and the district support group.
Knowledge of resource management.
Knowledge of teaching
Knowledge of complementary therapy
Knowledge of lymphatic drainage

Knowledge of massage
Knowledge of bandaging
Knowledge of fitting of lymphoedema cuffs
Knowledge of exercises.
Knowledge of self

Remove plaster of paris, Apply traction, Teaching, Assessing
Colleagues work, communication, Personnel, off-duty, extended
role, being updated, assisting at joint injections, maintenance
and repairs, .
Knowledge of rehabilitation.

TYPES OF KNOWLEDGE 1.

Technical knowledge, lifting knowledge, experience knowledge,
drug awareness knowledge-what can't go together, self
experience, life experience knowledge for counselling skills,
education knowledge, readings mags etc, management knowledge,
nutritional knowledge, time management.

TYPES OF KNOWLEDGE 2.

WORKSHOP CARRIED OUT ON 30:07:92 WITH RENAL EXPERTS

TYPES OF KNOWLEDGE.

Home visits, health authority meetings, business management,
contracts, budget control, developing new areas of work i.e.
treatment centres, staff appointment and contracts, liaising
with outside authorities, formulation of procedures/policies,
autonomy / liability - related to clinical waste, ensuring a
safe environment, working in operating theatres-techniques,
organisation of teaching programmes, participation in
compilation of curriculum for E.N.B. 136 ,off duty / skill mix,
acquisition of journals that contain 'nursing research' and
other literature, organization of holiday analysis,
participation in decisions re. new technology, EDTNA/ERCA link
nurse, organisation/nomination for courses (dialysis and ENB)

knowledge of management of acute renal failure, setting up of displays/organising them, involvement with initial drug trials, liaison with tutors re, other ENB courses, inservice training- staff / patients booklet, counselling, of staff counselling of patients, involvement in improvements in care for ESRF, IPR's job description grading decisions, development of extended role policies and new formats.

TYPES OF KNOWLEDGE IDENTIFIED

from list compiled by experts :-

1. Nursing Care Knowledge-holistic needs, holidays, self caring
2. Management Knowledge
3. Educational Knowledge
4. Organisational Knowledge
5. Research Knowledge
6. Disease Processes

TYPES OF KNOWLEDGE IDENTIFIED IN DISCUSSION

1. Knowledge of coping with emergencies.
2. Knowledge of the ability of patients to be self caring.
3. Knowledge of counselling
4. Knowledge of biochemistry
- 5, Knowledge of medication
6. Knowledge of dialysis, shunts fistulas, CAPD

Knowledge of day to day administration, monthly stats,
induction

programmes, orientation, knowledge to act as a mentor pre-
ceptors own staff, role model to staff, knowledge of co-
co-ordination of standard setting and standard implementation
knowledge to set policies .Knowledge of and participation in
Q.A. audits both in terms of practice and management,
compilation of job descriptions.Knowledge to provide expert
advice and guidance.Participation in the organisation of
inservice training . Knowledge to apply research base to
practice and to encourage others to do same.Knowledge of most
recent advances in own area.Knowledge to implement change
effectively.Knowledge to provide legal, morale, and ethical
advice,Knowledge to act as assessor for diploma level students
and extended role

Knowledge to ensure quality of care provision within the dept.
Responsibility for and knowledge of how to build and maintain
morale,Knowledge of gut feelings about diagnosis.Knowledge to
manage an area in terms of skill mix, levels and resources.

Knowledge of and participation in selection and
recruitment procedures. Knowledge to be able to act as an
expert in own work area and act as a contact person for
college of nursing and for clinical nurse specialists and
managers.Initiation of participation in interview process for
trained, untrained, and ancillary staff.

OMITTED FROM WORKSHOP GROUP 2 .. appendix (xii)

(i) Links with WMRHA - production of a working paper on APL and APEL.

(ii) Links with Higher Award.

Participants are requested to list those activities which they feel that they should do, rather than asking a less experienced qualified nurse to do.

Request to keep reflective diaries to record examples of when 'reflecting in action' and when 'reflecting on action' for next workshop.

Participants also requested to provide examples of significant incidents before next workshop. Hand out on how to record a significant incident to be given out also hand out to be given out on possible sources of significant incidents.

Experts to report back on diary keeping 'reflection on action' and 'reflection in action' examples to be recorded.

Experts to discuss their feelings about reflection in action. Discussion focussing on the factors that influenced when 'reflection in action' was occurring and when 'reflection on action' was occurring.

Group work to address the following areas:- (i) Experts requested to imagine that they are compiling an in service training programme for developing expertise in nurses. The areas to be included will cover the sorts of activities that you would expect a very experienced capable nurse to be able to do in your area (although other activities may be included if thought appropriate). Participants will be requested to list the content of the programme and (ii) to provide a rationale for the topics / areas chosen. (iii) Participants will be requested to devise an assessment strategy that will measure the nurses developing expertise.

List to be compiled of the different types of knowledge used and identified by experts in the programme.

Experts to have list of knowledge identified by them in workshop one returned to them. Experts to be asked to add any additional knowledge that they feel should have been included. Experts requested to devise a criteria for expert practice. Group Work experts devise a criteria for expert practice.

List of knowledge and / or criteria for expert practice returned to experts to prioritise expert practice.

The criteria of expert practice submitted by experts will be transposed into competences and submitted to experts for approval and rating.

Introduction to / recap on academic levels. Presentation of Blooms Taxonomy of educational objectives and Steinaker and Bells Taxonomy. Discussion as to what constitutes higher level competences.

Experts to be provided with examples of degree level outcomes and asked to consider what activities they feel would be of a similar level in nursing. Group work :- experts to identify degree type activities evident in nursing care.

Experts to use Blooms Taxonomy of educational objectives and Steinaker and Bells Taxonomy to establish three broad bands of competences from the positively rated competences, at the following levels with particular attention being directed to diploma and degree level competences. :-

- (i) Certificate
- (ii) Diploma
- (iii) Degree

Experts to discuss the process of developing competences at advanced level.

RATING SCALE TO ESTABLISH THE VALIDITY OF THE CATEGORIES
GENERATED FROM THE DATA.

Please indicate on the scale below whether you feel the categories identified are substantiated by the data they are devised from.

A = Agree U = Uncertain D = Disagree. A resume of the characteristics of each category are on the attached sheets.

A U D

TECHNOLOGISTS.....

HUMANISTIC EXISTENTIALISTS.....

SPECIALISTS.....

TRADITIONALISTS.....

Please add any comments you feel are relevant below.

COMMENTS

KNOWLEDGE

It emerged through analysis of the respondents definitions in group A (74) and group B (97) that expertise had been classified under the headings of knowledge, experience and skills. A total of 171 definitions therefore have been used for this analysis. For ease of presentation the terms expert and expertise will be used synonymously.

Knowledge was presented as an essential component of the definitions of an expert and many of these definitions appeared to be presented in cliched terms, using oft quoted phrases from the nursing literature for example phrases such as being able "to apply theory to practice", and " someone who puts research knowledge into practice" frequently recurred. This type of terminology may well indicate a degree of superficiality in the definitions provided or indeed, quite the reverse, it may well indicate that many nurses are well read and their views are reflected by the professional journals of the day. What this cliched type of terminology does indicate is a need to treat the definitions with some caution.

Many definitions of expertise presented knowledge in a more quantitative form, describing expertise in terms of the amount of knowledge acquired e.g. wide ranging or extensive knowledge

(11), great Knowledge (14), in depth knowledge (9), excellent knowledge (1) advanced knowledge,(1) high knowledge (1) ongoing knowledge (1), vast knowledge (2) a large amount of knowledge (2), very knowledgeable (2) good knowledge (1) total knowledge (1) and knowledgeable (20).

Further analysis of the definitions supplied by the nurses identified that emphasis was also given to qualitative aspects to the knowledge base associated with expertise, presenting it in terms of research based knowledge, discriminatory knowledge, knowledge to be a patients advocate and updated knowledge and knowledge to apply theory to practice (22).

Emerging under the general heading of educational knowledge was a wide variety of definitions which identified the importance of education and training. These included the following examples, being well qualified (3), having academic knowledge (5), or mental knowledge (1), having undergone education and training (5), being well read (1), and having theoretical knowledge (14) and having attended courses (2). It was also identified by many respondents that knowledge should be updated (17). Able to teach or share with others (24) was identified as desirable. Another category which emerged from the definitions was that of subject matter knowledge and included such topics as therapeutic knowledge (10), managerial (5) and organisational knowledge (2) also knowledge of legal aspects applicable to the experts own area (1).

Emphasis was apparent in the definitions of expertise on the practical nature of expert nursing knowledge (2) and knowledge of a speciality emerged as a crucial component of many definitions of expertise (51). In addition knowledge to manage resources was also identified as significant (9).

Criteria were also presented as yard sticks against which definitions of expertise could be measured and a variety were presented e.g. the characteristics of the Framework and Higher Award, the Prepp statement of advanced practice (1), and the criteria of the UKCC Code of Conduct (1). Other respondents devised their own criteria defining an expert in terms of life saving ability as in the following statement " a person who you could put your life in their hands" (1) or in developmental terms e.g. as " a person who advances nursing knowledge"(1) or in terms of health promotion "a person who promotes preventative medicine "(1) or even as simplistically as "the ability to identify patients needs and to give nursing care"(1). This lack of discrimination was not reflected overall, as the criticism could be made that many respondents were overly depreciating of their areas failing to view their area as having an expert in situ because of the generality of the work undertaken (9). This theme was highly evident in the definitions and identified that expertise appeared to be associated with perceptions of knowledge developments in specialist areas (51). In community areas reservations were expressed about the development of expertise.

Indeed nurses from community were reluctant to name anyone as an expert and comments such as "community nursing was too general " or that "the skill mix was not right " were presented as reasons for not naming an expert. A manager of a community locality explained that "staff were not very motivated to do further training and that they were not particularly innovative".

In depth subject matter knowledge of a speciality emerged as the major theme in terms of the knowledge aspects of expertise. The point was made that the knowledge the expert had was in some sense 'superior' to the knowledge held by others in that area (6). This perception of expertise was apparent in the definitive criteria that specified that "experts should have more knowledge than others in their field" or should "know more than other nurses".

Another major theme that was significant in the definitions of expertise was the importance of experts being able to give hands on care (2). It was recognised that in order to be able to do this the experts would require indepth knowledge. The manner in which knowledge can be acquired was mentioned by some in their definitions, identifying working in other hospitals as a necessary requisite of expertise(1).

Intuitive knowledge was identified (9) as also requiring consideration when defining expertise.

In conclusion and to recap what appears to have emerged from the definitions of expertise is that in terms of knowledge an expert was presented as being knowledgeable in or about a speciality (51) and of being able to give hands on care (2) and of being able to apply research based theory to practice (19). Time was seen as an important factor in the acquisition of the knowledge associated with expertise (11). One respondent mentioned that it was necessary to spend ten years in an area to be an expert where as another respondent felt that five years was the required time for expertise to develop and another felt two years was an appropriate time.

EXPERTISE IN TERMS OF SKILLS AND QUALITIES

As part of the definitions of expertise considerable emphasis was given by respondents to skills and qualities associated with expertise. In terms of skills (51) respondents mentioned the importance of being skilled in terms of clinical practice. This included those who specified skills in terms of psychomotor skills or specialist skills, or as having high levels of skills and being super competent a variety of other terminology was also used for descriptive purposes including superior skills (2) total skills (1) a lot of skills (1) a range of skills (1) having sophisticated skills (1) and being highly skilled (1). Skills in planning delivering and evaluating nursing care were also considered important.

Other specific skills identified included the ability to be adaptable (1), to be able to give advice (1) which seems to be linked to having the skills to be an educator (14) an advisor (1) and a health promoter (2).

Competency and being effective were also mentioned as attributes of expertise (9) as was the need to be efficient (1) and to be able to maintain control in an emergency (2). Having advanced nursing skills was seen as significant by 10 respondents.

In terms of interpersonal skills a variety of skills were identified in relation to expertise. These included having good relationships with staff (1) good interpersonal skills (1), fairness to staff (1) and ensuring that staff morale was maintained (2) and being able to command respect from own staff and others (8) being confident (7) and assertive (1). In relation to communication, being able to communicate effectively was highlighted as significant (5) as was being a good listener (1).

Managerial skills were identified (9) as being associated with expertise also and this included being able to give guidance (1) being able to provide leadership and promoting and developing the speciality (2). In addition the importance of ensuring adequate resources was also highlighted (1). Thus linking expertise with the more senior nurses within an area or

unit. Maintaining standards and high quality care was also identified as important (11).

Personal qualities were also named as being pre-requisites to expertise and included being caring (2) being compassionate (3) being kind or understanding (2) being flexible (1) and being creative, having vision (3) and being imaginative (1). Acting in a professional manner and as a professional role model was seen as significant by some respondents also (10). Enthusiasm (1) for the speciality the expert worked in was also identified, as was having the ability to combine the Art and the Science of nursing (5) being innovative, (3) forward thinking (1) and dynamic (1) and creative (1). Dealing with change well and being open to new ideas were also perceived as desirable (11) and being prepared to learn from others (2) whilst having organisational ability was also seen as desirable by some (2). (1) respondent considered that having insight was appropriate whilst another felt (1) that an expert was some one who was good at their job (1) and another felt that it was being a patients advocate (1).

Consideration was given to a variety of the definitions in more depth, in order to present a flavour of the nuances of the definitions supplied. The following definitions presented by the managers and educationalists exhibit quite complex holistic approaches to expertise. One respondent identifies that an expert was

Someone who has an ability to recognise the style of nurse each individual patient needs. Has integrated scientific, personal, moral and aesthetic knowledge. The ability to work with colleagues and put knowledge into action.

This emphasis on patients needs was further identified by a respondent who identified that

Someone who makes a positive difference to a patients experience by 1) the quality of the relationship 2) the range and depth of skill invoked on behalf of the patient 3) Use of others to maximise the experience .

Another respondent suggested that an expert was someone who was "able to develop therapeutic relationships with patients".

The importance of providing support in terms of boosting morale was identified by another respondent who felt that an expert was someone who maintained and raised morale and team spirit. Others saw expertise very much in terms of having a nursing focus to care. This focus is evident in the following example

Sees nursing as a distinct discipline and their actions (as a result of knowledge) has direct effect on patient outcomes.

The complexity of nursing expertise was further identified by a respondent who stated that

It is very difficult to define nursing anyway, so many aspects of nursing are intangible and hard to quantify. Also there is an extra dimension to an acquired skill that is both intuitive and instinctive.

This recognition of abstract aspects to expertise was also identified by another respondent who stated that an expert was

one who by dint of knowledge, experience and aptitude has a sound intuitive approach achieving therapeutic care instinctively.

Whilst others elaborated on the idealistic aspects of nursing practice as was evident in the statement which said that an expert was

Someone with vision for nursing who is able to deliver a polished performance, who demonstrates a humanistic approach to their practice.

In contrast to these qualitative definitions of expertise others were more cautious with their definitions of expertise

Technical expertise is still valued above caring concerns. A sad but true fact [is] that money rules many innovative practices these days. Experts are a fairly rare breed, there are a lot of technical experts but they lack the caring concerns.

Another respondent identified the scarcity of experts and questioned the use of the term expert.

[There are] not that many experts, a few that got where they are by [their] own resources in the main. A lot of so called experts are not experts at all .

CONSIDERATIONS OF WHY EXPERT WERE CHOSEN

In addition to the pre-requisites to expertise already discussed, such as being knowledgeable, or having specialist knowledge, a variety of qualities were presented in relation to expertise. These involved personal characteristics and interpersonal skills and one respondent identified

... more importantly she is a favourite among learner nurses, she is very approachable ... you must have the ability to put across your skills.

This aspect of being approachable appeared significant and was further developed by another respondent who identified that the expert (s)he had named could " be approached by others for further information or advice " and other positivistic qualities were similarly identified eg " Kind understanding, helpful and supportive, ... loyalty, discretion and empathy " by other respondents..

The managerial abilities of the expert nurses named were also identified as a rational underpinning expertise and included such comments as

Extremely efficient in managerial roles, and displays leadership qualities ... good organiser puts staff at ease promotes confidence.

Notions of striving for quality was also presented as significant in terms of expertise with one respondent identifying that her named expert was "committed to high quality individualised care". As can be seen expertise as presented by this group of respondents is a comprehensive process that includes the combination of positivistic knowledge skills and attitudes in order for expertise to be identified.

CONCLUSION

Nursing expertise appears to incorporate a multitude of definitions. The elements which emerged in the majority of definitions were related to 1) The knowledge the expert has 2) the skills that the expert displays 3) The qualities that the

expert posses and uses in practice. Drawing on all of theses definitions it is possible to conclude that:-

Expertise incorporates knowledge skills and personal qualities and is often related to a speciality area. An expert commands respect from others, and demonstrates superior updated research based knowledge and highly developed psychomotor and interpersonal skills in relation to patient care and staff management. Motivation, commitment, caring and a striving for quality typifies the experts' practice as does the ability to be adaptable and deal successfully with change.