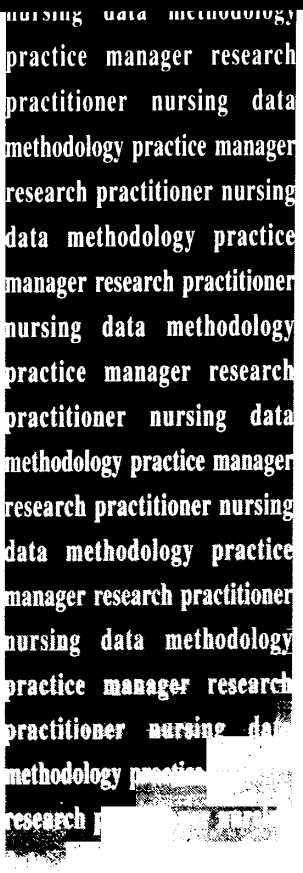

Nursing
Developments

PRIMARY NURSING IN **ELDERLY CARE**

Jillian MacGuire with Elizabeth Adair and Deborah Botting

KING's FUND CENTRE

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The King's Fund Centre is a service development agency which promotes improvements in health and social care. We do this by working with people in health and social services, in voluntary agencies, and with the users of these services. We encourage people to try out new ideas, provide financial or practical support to new developments, and enable experiences to be shared through workshops, conferences, information services and publications. Our aim is to ensure that good developments in health and social care are widely taken up. The King's Fund Centre is part of the King's Fund.

This book is dedicated to the memory of Ursula Inman,
nurse, researcher and cellist.

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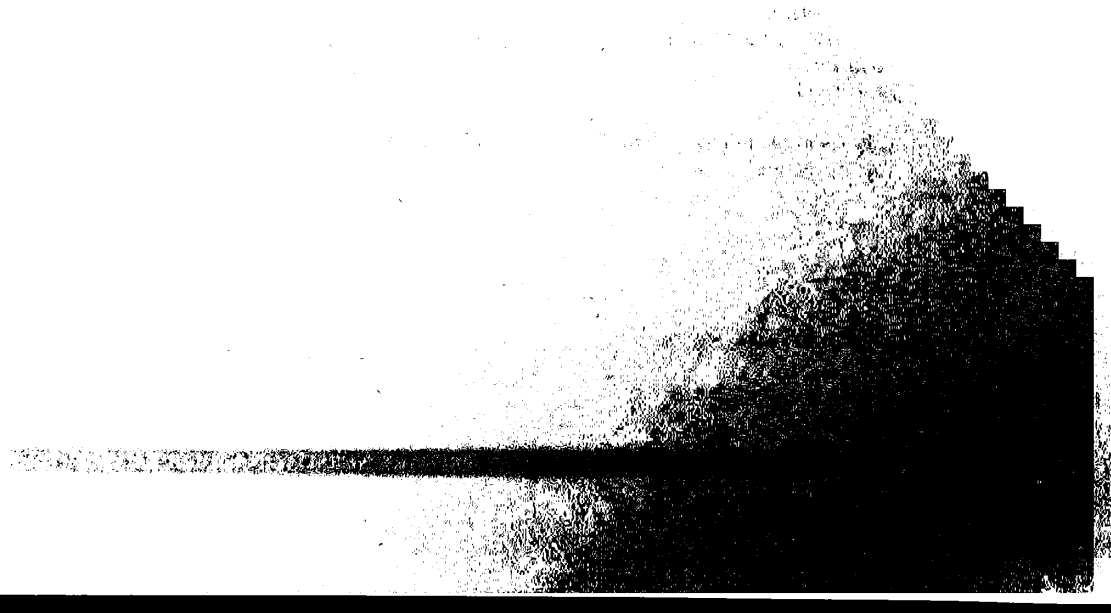
Epigraph

Many people have mistakenly equated the concept of a system of care delivery with the concept of quality of care. The quality of nursing service in primary nursing can be good or bad, comprehensive or incomplete, co-ordinated or spasmodic, individualised or standardised, creative or routine.

Marie Manthey, *The Practice of Primary Nursing*, 1980.
(Reprinted in 1992 by the King's Fund Centre, London.)



Foreword

A feature of modern nursing is its energetic pursuit of developing new ways to further patient care through changing practice and the utilisation of the research process to discover the effects of such changes. The growth in these areas is dependent on the leadership of scholars and researchers in nursing.

This report brings all of these together - the introduction of primary nursing in an elderly care ward, the evaluation of this change through the use of the research process, and the rigorous leadership of one of nursing's stronger researchers, Jillian MacGuire. Given my own interest and involvement in primary nursing and my respect for Jillian MacGuire's work, I was delighted to be asked to write this foreword.

Primary nursing and the 'named nurse' concept are becoming increasingly popular in the UK and elsewhere, and it is important that the introduction of this system of care organisation be rigorously and repeatedly examined and evaluated to ensure that the energy needed to institute such a change is well spent.

The study reported here is well-grounded methodologically and has a strong focus on the process and the outcomes of change. The outcomes are of particular importance. While there is little reported difference between the ward which introduced primary nursing and the other wards which did not in the areas of overall quality and patient satisfaction, there are fascinating, positive differences. Primary nursing seems to have increased the amount of time spent by nurses on talking to patients and their relatives and nurses themselves felt that they 'knew' their patients and relatives 'better'. Of most interest, in these times of cost containment and outcome measurement, is the finding that primary nursing appears to have reduced length of stay, accelerated the rehabilitation process and reduced mortality. While the later finding is largely unexplainable a similar result has been reported elsewhere (1).

As in all social research such as this, it is not possible to attribute directly the positive results to the specific change itself and this report quite rightly suggests that more research into the effects of organisational change in nursing care delivery *per se* be pursued. It is, none the less, intriguing to observe the emergence of research results from this and a growing number of other studies which seem to demonstrate that nursing in itself has demonstrable beneficial effects on rehabilitation, recovery and even mortality rates.

This report is a major contribution to contemporary nursing and reflects nursing's growing maturity in generating practice change and in substantiating the need for such change though instigating evaluative research.

Alan Pearson
University of New England
Australia
June 1993

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Acknowledgments

The data collection phase of the project was partially funded by the Mid-Staffordshire Health Authority and partly by the Department of Health through a post-doctoral research grant. The detailed analysis of the data was funded by a grant from the Sainsbury Family Charitable Trusts, administered through the King's Fund Centre Nursing Developments Programme, with some additional monies being made available in 1989/90 by Professor Christine Chapman, then Dean of the School of Nursing Studies, University of Wales College of Medicine.

The authors would like to thank the nursing staff on the three wards who allowed themselves to be watched and questioned on numerous occasions and, in particular, the nurses on Ben Jonson Ward who were so enthusiastic in adopting the new form of organisation of care. We should like also to thank the nurse management team and the members and officers of the Mid-Staffordshire Health Authority who supported the innovations in care and the research programme. The authors would like to thank, too, the assessors who gave great commitment to the study over three years. Particular thanks go to Maureen Spinetto who co-ordinated the assessments in 1989 and to Tabita Shokai who collated the 1989 data.

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Executive summary

This report describes a two-year study of the introduction of primary nursing in one of three matched elderly care wards.

The process of change is outlined in Chapter 1. The objectives of the ward in making the change to primary nursing and five research questions are set out. Of particular importance is the way in which the change was integrated into the strategy for the unit and the personal objectives of senior staff. Support was given by the health authority which also provided some of the finance for the research. The change was made with the existing staff and without increasing running costs. A small sum for equipment was made available from trust funds.

The shift from team nursing to case assignment was made within 6 months. Each patient was allocated to a named nurse responsible for his or her care from admission to discharge.

Chapter 2 looks at the way in which the nurses spent their time on the three wards. Over half of all the nurses' time on all three wards on day duty was spent on 'direct care'; that is, helping patients with the activities of daily living such as washing, dressing, eating, elimination and getting around.

More time was spent communicating with patients and relatives on the primary nursing ward.

Quality of care is assessed in Chapter 3. Assessments were carried out three times in each ward; in the pre-pilot, pilot and post-pilot periods. The standard of care was already comparatively high in the hospital before any changes were made. The study demonstrates the value of repeated assessments of quality of care.

Quality of care improved on the pilot ward with the introduction of primary nursing. However, there were also marked improvements in the two other wards.

Interviews with nurses on the primary nursing ward are reported in Chapter 4.

The nurses felt that they got to know patients and their relatives better and that communication between nurses and patients was improved.

Chapter 5 looks at what the patients themselves thought of their care. Response rates to the survey were poor and many questionnaires were incomplete. A standard questionnaire was used and patients were not asked specifically about primary nursing.

Patients on the primary nursing ward were no more and no less satisfied with their care than patients on the two other wards. There was some indication that patients on the primary ward saw their care as being more flexible.

Outcomes for patients are described in Chapter 6. Information on diagnosis, dependency, length of stay and discharge arrangements was gathered on two thousand patients as they left the hospital over an eighteen month period. Data on deaths in hospital and re-admission rates were also collected. Essentially, the three wards treated the same kind of patients; people of the same age, diagnosis and initial dependency.

More patients were treated in the primary nursing ward during the pilot and post-pilot periods than on the two other wards. More of the patients on the primary nursing ward were in hospital for only short periods of time. More patients were successfully rehabilitated, fewer patients died while the same re-admission rate was maintained.

An attempt to put the study in the context of the literature available at the time it was planned and to evaluate the findings is made in Chapter 7. The problems of field experiments are discussed and the difficulties of using existing research tools considered.

It is argued that long term research on the effects of organisational change in the delivery of nursing care continues to be necessary and that monitoring of the quality of care and patients' experience and perceptions of care should be encouraged. This provides a necessary and effective spur to the improvement of care.

Introduction

Innovations in the care of elderly people in hospital tend to be nursing led. The overriding objective of many of these changes has been to provide more individualised care for patients in the older age groups. The introduction of primary nursing, with its promise of providing comprehensive, individualised care through the medium of the particular nurse–patient relationship, is the logical continuation of such trends in nursing practice.

Primary nursing as a mode of organising the delivery of nursing care was pioneered in the United States. The 1980s have seen the enthusiastic adoption of this approach in a variety of settings in the United Kingdom. The movement has the support of the Department of Health[1] and the Welsh Office[2] in their respective strategy documents. Although not mentioned by name, the Scottish Office Home and Health Department[3] and the Department of Health and Social Services, Northern Ireland[4] are also supportive of innovations in the organisation of care which are broadly based on the principles of primary nursing. Primary nursing is also being helped forward by the imaginative creation of the King's Fund Primary Nursing Network, now the Nursing Developments Network, whose function is to exchange information about nursing initiatives throughout the United Kingdom.

The initial seeds of interest in primary nursing in Mid-Staffordshire were sown during an ENB 941 Course, Care of the Elderly, in the winter of 1984-85 when a group of staff visited Burford Community Hospital, where Alan Pearson and his staff had made major changes in the way in which they were working. The idea of introducing primary nursing in one of the three wards at Kingsmead Hospital, Mid-Staffordshire, was talked about on and off during 1985-86 but it was only in 1987 that serious plans and preparations began to be made. The philosophy and practice of primary nursing was discussed in earnest during the second six months of that year and case allocation was introduced in one ward, Ben Jonson, on 1 January 1988, while the two other wards, John Donne and George Herbert, continued to be organised on team nursing lines. After six months they too began their own change process.

Manthey[5] warned against expecting quality of care and outcomes for patients necessarily to be improved. Nonetheless, the rationale for making the change was that quality of care, job satisfaction for staff and outcomes for patients would be improved. None of the United Kingdom material on evaluating primary nursing in medical wards[6], in intensive care[7], in psychiatric wards[8] or community hospitals[9] was then available and it seemed important to attempt some evaluation of this change in an elderly care setting.

The questions which the research set out to answer in the elderly care setting were:

- Did the nurses in the pilot ward use their time in a different way ?
- Was the quality of care improved?
- What did the nurses on the primary nursing ward think about the change?
- What did the patients think about their care?
- Were the outcomes for patients any different on the pilot ward?

Each of these questions is addressed in one of the chapters of this report, which begins with an account of the process of implementing primary nursing in one ward. Activity sampling based on the categories used in *Criteria for Care*[10] was used to explore the pattern of work. Senior Monitor[11] was already being used in the hospital to assess the quality of care and provide a baseline for looking at any changes which might be associated with primary nursing. Nurses — and learners — on the pilot ward were interviewed about their perceptions of primary nursing. The views of patients were

gathered from a postal survey using the questionnaire developed by Moores and Thompson.[12] Arrangements were made to collect information on patients as they were discharged from the hospital so that comparisons could be drawn between the wards on such indicators as length of stay, dependency on discharge, destination on discharge and re-admission rates. There is a final chapter in which the questions posed in this introduction are re-considered, the methodological issues raised by the study explored and the important elements of any strategy for change to primary nursing discussed.

The intention behind the research design was to demonstrate any changes in the pilot ward over time and to make comparisons between the pilot ward and the two other wards. Baseline data were collected for the three wards before the start of the project. The three wards involved were similar in most respects which meant that comparisons could legitimately be drawn between them.

It is now several years since the innovation described took place and the data were collected. The hospital has been closed and elderly patients are now treated elsewhere. The material might, therefore, seem to be out of date. It is important, however, when so much change is taking place that accounts and evaluations should be widely available so that nurses may fully understand the complexities involved and researchers have access to previous work even though it may only provide them with an illustration of how not to proceed.

The changes did bring some benefit to the patients being nursed in Kingsmead Hospital. It is, therefore, apposite that this report should finally be published in the European Year of Older People and Solidarity between Generations.

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1
Implementing primary nursing

Introduction

In 1988 Kingsmead Hospital was part of the Elderly Care Unit, Mid-Staffordshire Health Authority, set up under a management re-organisation post-Griffiths, bringing together the acute and continuing care in-patient services for elderly people. It comprised three 28 bedded wards and a day hospital in purpose-built accommodation which was maintained at a high level with a regular programme of upgrading and refurbishing. The building, which was all on one level, set back from the road and surrounded by grass and mature trees, was located on the same site as the new district health authority headquarters and the psychiatric hospital.

Setting the scene

The three wards were identical in layout and shared common support and backup services from the Occupational Therapy Department, Physiotherapy Department, Pharmacy and X-Ray, and had topping up systems for drugs, sterile supplies and laundry. Meals were delivered in bulk from the kitchens of the psychiatric hospital. The physical environment for both staff and patients in the three wards was very similar.

While there was no formal system for rotating staff between wards, many nurses had worked on more than one ward. They often went to the other wards to borrow or reclaim equipment or with patients when they were being transferred. Trained staff were sometimes moved to cover temporary imbalances between workload and staffing. Despite such experiences the nurses were often fiercely partisan about their own ward and critical of what was going on elsewhere.

Access to the beds was through two consultants and their respective teams. Each consultant covered a defined geographical area consisting of half the urban area of Stafford and the adjacent rural areas north and south respectively. They had one ward each and shared the third. Patients were admitted to any empty bed in an emergency but were transferred as soon as possible to an appropriate bed.

A large proportion of the admissions, over two-thirds, were emergency admissions at the request of the general practitioners. Other patients were admitted following domiciliary visits by the consultants or through the Accident and Emergency Department of the District General Hospital. Each consultant also had access to beds in a continuing care hospital. At the time the research was being carried out there were 56 such beds in the northern area and 95 in the southern area.

Nearly 1,500 patients were admitted to Kingsmead Hospital in the year leading up to the introduction of primary nursing. Their average age was over 80 and the length of stay was about 18 days.

The whole-time equivalent nursing staff was 66.75 with separate groups on day and night duty. Student and pupil nurses were also allocated to the hospital during their training programme. Numbers depended on the pattern of intakes to the school and varied from six to fourteen at different times in the year. While they were at the hospital they were rostered as part of the cover for the wards. Regular study days were incorporated into their programmes and on these days they were not included in the staffing complement for the wards.

The three wards and the day hospital were managed as a single unit with any changes in the organisation of nursing in one ward being rapidly introduced into the two other wards. Prior to the implementation of primary nursing a number of changes had already been made which helped to produce a climate in which primary nursing might flourish. Some of these may seem relatively unimportant but they are indicative of the involvement of staff in the running of the hospital.

Nurses had been invited to suggest names for the wards which had previously been known simply by number. A 80:20 ratio of trained to untrained staff had been achieved on day shifts. Ward clerks had been appointed. Self administration of medication had already been pioneered on one ward[1] and changes had also been made in the way meals were presented in an effort to improve both choice and levels of nourishment.[2]

Free visiting was the norm. Patients were encouraged to get dressed in day clothes and to have their own clothes brought in from home where possible. Patients could choose to have most meals in bed, by their bed or in the day room. There were no set times for getting up or going to bed. Routine observations had been dispensed with. Each ward had one bay of six beds which had been divided into cubicles to give more privacy to patients as they became more independent. Patients referred to these areas as 'my room' rather than 'my bed' and appeared to experience some ownership over the space. There were large day-rooms attached to the wards in which meals could be taken and visitors entertained. Each ward had two side wards which were furnished in a more homely way and patients who were independent were encouraged to use such rooms as a bridge between hospital and home. It was also possible for terminally ill patients to be admitted to these side wards and for visitors to stay overnight. The hospital had two resident cats who made frequent rounds of the wards and the day hospital.

Staffing

In the run up to primary nursing, ward establishments were carefully reviewed and adjusted to try to bring each ward to the same staffing level and structure. This was done firstly because monitoring of the workloads on the three wards had shown no great differences, and secondly to meet the requirements of the research design that the three wards should be comparable in all essential features save for the organisation of nursing care.

Table 1.1 shows the staffing levels at the start of the pilot period. One of the enrolled nurses on Ben Jonson Ward was on long-term sick leave throughout the pilot period making effective levels the same. Staff were not specially recruited to Ben Jonson Ward for the pilot period nor were existing staff moved other than in the normal process of promotion. Once the pilot period started every effort was made not to change staff and apart from different groups of learners no changes were initiated by management during that six months. One RGN did, however, leave and a new appointment from outside was made.

Excluding learners there was a ratio of 80:20 trained to untrained staff on each ward. There were at least ten nurses on each ward who were qualified at the first or second level and who might take on the primary nurse role in the elderly care setting.

TABLE 1.1 STAFFING COMPLEMENT ON THE THREE WARDS AT THE START OF THE PILOT, WTE STAFF COVERING THE DAY SHIFTS

	Ben Jonson	John Donne	George Herbert
Sister	2.00	2.00	2.00
Staff nurse	1.80	1.80	1.80
Senior enrolled nurse	1.00	1.00	1.00
Enrolled nurse	5.44	5.02	4.71
Auxiliary	1.80	1.73	2.04
Ward clerk	.53	.53	.53
Learners	2.00	2.00	2.00
	14.57	14.08	14.08

Post-basic training

The nurses had always been encouraged to take advantage of opportunities for post-basic education and several people on each ward had further qualifications. Of the qualified staff on Ben Jonson Ward, one had a Diploma in Nursing, four had the ENB 941 Certificate (Care of the Elderly) and one had the ENB 923 Certificate (Professional Development). On John Donne Ward six had undertaken the ENB 941 course, two the ENB 923 course, one held the Orthopaedic Nursing Certificate and another was a Registered Mental Nurse in addition to being on the general part of the register. On George Herbert Ward four held the ENB 941 certificate. One sister was also an RMN and held the ENB 923 and 998 certificates in addition to the 941. Overall the staff on the three wards were of a similar level of qualification.

Patient dependency and bed occupancy

TABLE 1.2 WORKLOAD AND BED OCCUPANCY, 1987

	Ben Jonson		John Donne		George Herbert	
	Work load	Bed occupancy	Work load	Bed occupancy	Work load	Bed occupancy
Quarter 1	385	25.7	391	26.0	371	25.2
Quarter 2	339	23.5	324	24.1	340	23.3
Quarter 3	339	24.0	329	24.2	349	23.6
Quarter 4	342	24.3	372	25.4	378	24.7
Mean	351	24.4	354	24.9	360	24.2

In 1984 a system of monitoring patient dependency had been introduced in the wards[3]. By the start of 1988 this was an integral part of the patient record as well as providing estimates of workload. Over a period the dependency levels in the three wards were very similar. Bed-occupancy was also very similar, averaging about 86 per cent.

In general the wards were functioning with similar workloads and similar numbers of patients in the year prior to the change.

Patient throughput

Table 1.3 gives the information on the number of patients treated and the length of stay in 1987. More patients were treated in Ben Jonson Ward over the year than in each of the two other wards. Considerably fewer patients were treated in John Donne Ward. Data from the discharged patients survey (chapter 6) shows that there was no substantive difference in age, acuity or diagnosis between the patient populations on the three wards. There does, however, seem to have been some difference in the speed with which patients were discharged from the wards. The pattern for Ben Jonson Ward and George Herbert Ward was very similar in the six months directly leading up to the change. Fewer patients were treated on the other ward and, on average, stayed in hospital four days longer. Length of stay was similar on Ben Jonson and George Herbert Wards in the six months preceding the change. Patients tended to stay longer on John Donne Ward.

TABLE 1.3 PATIENT THROUGHPUT AND LENGTH OF STAY, 1987

	Ben Jonson		John Donne		George Herbert	
	Number	Days	Number	Days	Number	Days
Quarter 1	128	*	103	*	122	*
Quarter 2	150	*	105	*	116	*
Quarter 3	112	17.9	99	23.1	120	17.4
Quarter 4	124	18.8	90	20.8	117	20.1
Total	514		397		475	

* Comparable figures not available

Making the change

The introduction of primary nursing was made one of the objectives of the Quality Assurance Team, an interdisciplinary unit management team, and was included in the personal objectives of the unit general manager, the director of nursing services and the research and development officer. The proposals were also presented to the Elderly Care Unit Panel, a group of health authority members who at that time had responsibility for helping to develop unit policies.

A keynote speech was given by Professor Baroness MacFarlane of Llandaff in July 1987 at the Post-Graduate Medical Centre in Stafford to an audience of nurses and other health care workers from across the district. She spoke of the development of the

profession and the inter-relationship of nursing models, nursing process and modes of care delivery. Her lecture was video-taped and subsequently used in later meetings to stimulate discussion.

Once the decision to go ahead had been taken an informal planning group consisting of the director of nursing services, the nurse tutor attached to the unit and the research and development officer was set up. A programme of short seminars was arranged which gave interested staff from all wards the opportunity to discuss the idea and to talk about the principles of primary nursing. The ten principles set out in Figure 1.1 formed the basis of these discussions.

FIGURE 1.1 TEN PRINCIPLES OF PRIMARY NURSING

1. Each patient is allocated to a named nurse — the primary nurse — who is responsible for and accountable to that patient for the whole of his or her need for nursing care.
2. The primary nurse has a 24-hour responsibility for the patient.
3. The primary nurse is responsible for carrying out the nursing assessment of that patient, planning the nursing care to be given and evaluating the outcome of the nursing care given.
4. Planning and evaluation of nursing care is carried out in collaboration with medical staff and in conjunction with the patient and the patient's relatives.
5. The primary nurse is responsible for co-ordinating the contribution of other health professionals to the care of the patient.
6. A major part of the direct personal care given to that patient is given by the primary nurse.
7. The primary nurse is assisted in the direct care of that patient by an associate nurse who takes over the giving of care when the primary nurse is not on duty. The associate nurse carries out the care as detailed in the care plan and must consult with the primary nurse before any major changes are made. A nurse may act in the capacity of associate nurse in relation to some patients and as primary nurse in relation to other patients.
8. Each learner nurse is assigned to work with a named primary nurse and her patients.
9. The primary nurse is supported in her work by a clinical specialist to whom she looks for advice in planning and evaluating care and and for personal and professional guidance in her work.
10. The primary nurse is supported by care assistants, clerical staff and other non-nursing staff in the creation of a suitable environment for patient care.

Source: J M MacGuire, 'An approach to evaluating the introduction of primary nursing in an acute medical unit for the elderly', International Journal of Nursing Studies, 1989.

The planning group tried to get across the idea that the particular organisational arrangements which would need to be made by staff on each ward depended on the requirements of that ward but that they should be consistent with the principles. Issues which gave rise to a great deal of discussion at this stage included how nurses would cope if they could not get on with a patient allocated to them, what was really involved in the notion of 24-hour responsibility and whether enrolled nurses would be restricted to the associate role. Nursing auxiliaries expressed a lot of concern about the erosion of their role if trained staff were going to give more hands-on care to patients.

The real work of preparation for primary nursing was undertaken by the ward staff and the two sisters and though a lot of effort went into the planning many of the problems did not emerge until the pilot period was under way and people were trying out changed roles and new responsibilities.

The change strategy

Draft job descriptions were prepared for the primary nurse, associate nurse and support worker. These were not at the time formally adopted by the health authority but helped to clarify the new roles for the nurses concerned. It must be remembered that the new clinical grading structure did not come into existence until after the pilot period was complete.

As the ward had two sisters their roles were differentiated into a management role and a clinical nurse specialist role. Both worked as primary and associate nurses as well.

The following sections describe the main areas in which changes were made. The most important of these was, of course, the introduction of the concepts of primary and associate nurse.

Primary and associate nurse

The introduction of primary nursing has often been coupled with the recruitment of new staff and with the employment of teams made up of only registered (first level) nurses and support staff. Felton[4] argued that the apparent superiority of primary nursing could be attributed largely to the higher educational level of the nurses assigned to the primary nursing ward rather than to the form of organisation as such.

Kingsmead Hospital had a very stable workforce with considerable experience and expertise in the care of elderly patients. Many had undertaken some post-basic education. The retention, protection and further professional development of the staff was seen as very important and not to be compromised by an experimental change in the organisation of care delivery.

Cost containment meant that no additional monies would, in any case, be made available for the employment of additional first level nurses. Equity ruled out any suggestion that staff should be moved from other wards to create a complement of first level nurses for Ben Jonson Ward. The proposed research design also made it imperative that the staffing levels and grade-mix should be identical. Despite the planned equalisation of staff between the three wards in terms of hours and grade some nurses were convinced that the primary nursing ward had been specially staffed up for the pilot period and this caused a measure of ill-feeling which staff found hard to dissipate.

Initially, a staffing model was developed in which first level nurses would take on the primary nurse role, second level nurses would take on the associate role while the nursing auxiliaries and ward clerks would share the support role. This would have provided a maximum of four primary nurses on the ward with an average of seven patients to each primary nurse.

This model was soon abandoned, partly because the enrolled nurses showed a great deal of interest in the primary nurse role. Enrolled nurses had always been used interchangeably with staff nurses in the hospital, and to restrict them to the associate role would inevitably have been seen as a loss of status and a failure to recognise the skills which they had developed in the particular work setting. It was also realised that in practice having only four primary nurses would produce at best a modified form of team nursing since there would never be more than two primary nurses on any shift.

It was, therefore, decided that all first and second level nurses who worked 20 hours or more should have the opportunity of working in the primary nurse role if they so wished. Those working less than 20 hours, whether first or second level nurses, would not be able to function as primary nurses as they would not be working on the ward a sufficient number of shifts to undertake the planning and co-ordinating functions nor provide continuity for their patients. As assessment, planning and evaluation of nursing care were specifically excluded at that time from the competences of second level nurses as laid down by the UKCC[5], these aspects of the primary nurse role had to be carried out under the nominal supervision of the clinical nurse specialist and the ward sister.

Nine staff were designated 'primary nurse' on Ben Jonson Ward at the start of the pilot period. Each of these nurses had a case load of three patients. Each primary nurse was also an associate nurse to two other primary nurses. There were four other trained staff who were initially assigned to the associate role and worked across the ward with any patient. The nine primary nurses included the clinical nurse specialist and the ward sister. It was argued that their clinical credibility would be undermined if they were not themselves practising as primary nurses.

Triads and rotas

The ward staff on the pilot ward had been organised as two teams for well over a year. Each team cared for patients in half the ward. Every four weeks they 'changed ends' because the more dependent patients were nursed in the bays and side-wards nearest to the nursing station. As patients became less dependent they were moved to the other end of the ward and were nursed by the other team. In this way one team did not always have the heavier workload. Concern about the 'unfair' distribution of work re-surfaced early in the pilot period.

The crucial step was to create three staff groups instead of two. These groups were balanced in terms of grade of staff and hours worked. The strengths and weaknesses of the individuals were also taken into account and membership of a particular group was negotiated between the staff and the senior sister. The senior sister had the final say in the composition of the three groups and changes were made during the pilot period in the light of experience of working together.

The change to three groups made it possible to construct duty rotas in such a way that one of a triad of primary nurses would always be on duty. Barring unforeseen circumstances each patient could expect to be nursed on each shift by either his or her primary nurse or one of two associate nurses. The framework on which the real duty rotas were based is shown in Figure 1.2.

In addition to scheduling sufficient nurses per shift to provide safe cover levels, the duty rotas were planned in such a way that:

- individual primary nurses and their associate nurses between them covered all the shifts
- individual primary nurses were on duty on the days and times when the consultants were scheduled to see their patients and at times when the discussion clinics and discharge meetings at which their patients were discussed were held
- learners were on the same morning shift as the primary nurse to whom they were assigned during their placement

- the clinical nurse specialist and the ward sister were on opposite shifts to provide the necessary support, advice and co-ordination
- there was at least one member of the support staff group on each shift.

Each of the primary nurse triads was responsible for nine patients between them.

The layout of the duty rotas was changed so that the names of the nurses in each group were together. This made it easier to plan cover from the group for each shift. Colour highlighting was used on the duty sheet to indicate the different groups.

FIGURE 1.2 ASSIGNMENT OF PATIENTS TO PRIMARY NURSES

	Patients								
	123	456	789	123	456	789	123	456	789
Nurse A	PN	AN	AN						
Nurse B	AN	PN	AN						
Nurse C	AN	AN	PN						
Nurse D				PN	AN	PN			
Nurse E				AN	PN	AN			
Nurse F				AN	AN	PN			
Nurse G							PN	AN	AN
Nurse H							AN	PN	AN
Nurse I							AN	AN	PN
Learner	Attached to PN A			Attached to PN D			Attached to PN G		

Adapted from original figure published in the International Journal of Nursing Studies (MacGuire 1989).

Information

Considerable effort was put into trying to make the change intelligible to patients, relatives and other people coming to the ward. The colour codes used on the duty sheets were extended to name badges, names on lockers, the allocation board, the notice board at the entry to the ward and to files for patients' nursing notes. Colour photographs of ward staff were also displayed. An information card giving the name, address and phone number of the ward with space for the name of the primary nurse was also produced. The hospital already had an information booklet for patients.

Nurse to nurse handover

Direct handover from primary nurse to associate nurse was probably one of the most difficult aspects of the change in organisation for the nurses to come to terms with. A considerable degree of anxiety was expressed by nurses at different levels about departing from the formal all-staff handover sessions. This topic was raised by several nurses in the interviews (see chapter 4). The principle is that information should go from the person who knows to the person who needs to know without being filtered through a third party. For people who prided themselves on knowing about everything that was going on in the ward, this represented a major threat. How the problems associated with this change are dealt with and resolved lies at the heart of any successful transition to primary nursing.

Costs

The investment of time and effort in the planning stages for the change to primary nursing was considerable. Such investment did not stop on a given day but continued to be necessary as primary nursing developed and the nurses sought to change and extend their practice.

Financial costs were kept to a minimum. No additional staff were recruited and changes to the skill mix on all three wards were made within a fixed nursing budget. There were costs associated with the provision of medicine cabinets, baskets to hold notes, display boards, engraved name badges, letters for the lockers and improvements to the day room. The total cost came to just under one thousand pounds and the money was taken from trust funds. Cards for the primary nurses were provided free by an equipment company. The two other wards were subsequently allowed similar sums to prepare for primary nursing. This money provided what has been termed the 'trappings' of primary nursing.[6] Such signs and symbols are important in the early stages of developing primary nursing in a ward. At the best of times nursing is difficult to see and such visual evidence is an important marker of the intention to change.

Planning, preparation, discussion and progress meetings took place partly in nurses' duty time but partly in their free time. It had been hoped to support the preparation phase by the use of bank nurses but, in the event, finance was not forthcoming. The nurses were not able to visit let alone work in one of the units which had already changed to primary nursing outside the district.

Objectives

The change to primary nursing was not made as an end in itself but with the aim of improving the care given to patients admitted to the ward. The objectives are set out in

Figure 1.3. These objectives were formulated by the ward sisters in collaboration with the ward staff. The success or failure of the change can be assessed in terms of whether or not these objectives were achieved.

The change was not set up primarily as a research project but a number of studies were carried out over an eighteen-month period in attempt to evaluate the change. In planning the research account was taken of the criticisms levelled at earlier research. In particular, the change was made with existing levels and numbers of staff and final assessments were not carried out until a full year after the initial planning.

FIGURE 1.3 OBJECTIVES IN INTRODUCING PRIMARY NURSING

1. To allocate each named patient to a named nurse who would be responsible for assessing, planning, co-ordinating and evaluating nursing care for that patient.

2. To devise a rota system which would allow for the designated primary nurse or associate nurse to give care to that patient on each day shift.

3. To provide a higher level and more consistent quality of care for patients in the ward

4. To provide more individualised patient care

5. To provide a more co-ordinated approach to care by having one nurse responsible for planning from admission to discharge

6. To increase the level of communication between nurses and patients and their relatives

7. To integrate patient medication into the programme of individualised care

8. To get nurses to accept responsibility and accountability for the care of specific patients

9. To improve levels of patient satisfaction

10. To discharge more patients to their own homes at low levels of dependency

What particularly interested the nursing staff about the idea of primary nursing was that it would enable them to have closer and longer term relationships with individual patients. Some nurses were concerned about the possibility of being allocated patients they just could not get on with but, on the whole, they felt that to see someone through from admission to discharge ought to offer more job satisfaction and provide better patient care.

SUMMARY AND DISCUSSION

In this chapter the way in which primary nursing was introduced in one ward has been described. It has been shown how the three wards were similar in essential features and could, therefore, reasonably be compared with each other. The pilot was set up without altering existing staff numbers or grades. The number of whole-time equivalent staff was equalised across the wards during the pre-pilot phase. This was partly to meet the exigencies of the research design but also to prevent the staff on the other wards feeling hard done by.

No additional money was made available to support the change except for small sums to pay for items of equipment. The two other wards were allocated similar amounts at a later stage to support their change to primary nursing.

The principles adopted and the specific objectives of the changes in ward organisation have been laid out. The change to case assignment was made at the start of the pilot period and the responsibility for assessing, planning, co-ordinating and evaluating the nursing care for each patient was assigned to a particular nurse. The rota system was changed to ensure that the primary nurse or an associate nurse for each patient was on duty on each of the day shifts. Patient medication was integrated into the programme of individualised care. The extent to which the other objectives were met is the subject matter of the following chapters.

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2

Patterns of activity

Introduction

Part of the purpose of carrying out the activity study described in this chapter was to see if the nurses in the pilot ward used their time any differently and whether those differences were in line with the objectives of the primary nursing ward as set out in Chapter 1.

Activity sampling

The activity analysis was carried out by the Management Services Division of the West Midlands Regional Health Authority. Observations were made on the three wards simultaneously over a period of seven days and one night. Prior to the study, nursing staff, ward support staff and patients were informed of its purpose.

The activity analysis was conducted by twenty-one professional work study practitioners who were not nurses but who had had some previous experience of observing in hospital wards. One observer was present at any one time observing each nurse in turn using a time cycle of four minutes. As each nurse was observed her activity was recorded according to the list of activities derived from *Criteria for Care*, the manual of the North West Nurse Staffing Levels Project.[1] These activities were grouped under the major headings as follows:

Major categories of care

Direct care - those tasks involving personal contact with a patient. This includes activities which require trained staff such as drug administration as well as activities which might be carried out by both trained and untrained staff such as communication with the patient.

Indirect care - those activities which are necessary for and relate to the care of specific patients but are carried out away from the bedside, for example, communication about patients.

Domestic work - includes a number of activities which could be regarded as 'non-nursing', for example cleaning, making unoccupied beds, washing up and making tea for meetings.

Clerical work - includes a wide variety of clerical tasks such as completing the daily bed return and assembling records.

Other work - includes errands off the ward. This category also includes activities which are the responsibility of the nurse in charge, for example, completing student appraisals and supervision of staff.

Miscellaneous - includes paid and unpaid meal breaks and personal study as well as unoccupied time.

Most of the analysis will use these six categories but the overview of the work in the ward will make use of the 22 intermediate categories which are listed in Table 2.3. A fuller list of items making up the categories is given in Appendix A.

All observers were made familiar with the activities prior to the study to minimise errors in consistency. All wards were studied in the same way. Nurses and ward support staff, with their permission, were identified by their name badges and their uniforms. The patients agreed to wear labels bearing their name and code number, to facilitate observation when patients were away from the bed areas.

The following information was recorded:

- the grade of the nurse involved in the activity
- the nursing activity
- the name of the patient (if any) with whom she was working.

On occasions when the observer was unable to see the nurse to note her activity, no recording was made.

A very large number of observations were made during the survey week. Differences between the wards in the overall pattern of activity can, therefore, be accepted as real ones.

The observation week

The staffing levels and skill mix for the three wards have been shown to be comparable in overall terms at the start of the pilot period (chapter 1). Table 2.1 shows the hours for the observation week and it is evident that staffing levels were higher on Ben Jonson Ward.

TABLE 2.1 STAFFING COMPLEMENT ON THE THREE WARDS DURING THE PERIOD OF OBSERVATION (HOURS ON DAY SHIFTS)

	Ben Jonson	George Herbert	John Donne
Sister	57.1	72.6	63.4
Staff nurse	58.7	16.0	36.3
Enrolled nurse	201.6	193.8	168.0
Auxiliary	49.3	43.5	22.4
Ward clerk	12.1	16.1	22.5
Learner	273.8	238.7	279.7
Prenursing student	55.3	54.4	50.8
Total	707.9	635.1	643.1

The imbalances in the number of hours contributed to the total available by each category of nursing staff, shown in the above table, make it difficult to see whether there were any real differences between the wards in the amount of care patients received from different types of nurse.

Patient dependency in the three wards has been shown to have given rise to similar workloads (chapter 1). The dependency of patients on admission was also very similar in the three wards (chapter 6).

Table 2.2 shows the average patient dependency levels on the three wards during the observation week.

TABLE 2.2 DEPENDENCY OF THE PATIENTS IN THE THREE WARDS DURING THE OBSERVATION WEEK

	Ben Jonson	John Donne	George Herbert
Number of patients in week	33	30	28
Mean number of patients in ward	24.0	23.3	24.8
Mean patient dependency on admission	15.4	15.8	15.3
Mean patient dependency in week	13.0	14.4	14.3
Mean patient dependency on live discharge	7.6	7.0	12.6
Mean daily dependency of all patients	312	336	394
Dependency per nurse hour (day shifts)	3.09	3.70	4.29

Bed occupancy on George Herbert Ward was higher than on the two other wards. More patients were treated on Ben Jonson Ward. Patient dependency on admission was very similar. The patients on George Herbert and John Donne Wards were more dependent than the patients on Ben Jonson Ward. Dependency per nurse hour (hours available/total dependency) was also higher. Ben Jonson Ward had the lightest work load and the highest staffing hours giving them the lowest dependency per nurse hour. This should be borne in mind in the context of the differences in activity between the three wards though it must be stressed that none of the wards was full nor particularly short of staff during the observation week.

Overall patterns of work in the wards

Table 2.3 shows the proportion of time spent on each ward by all the nursing staff on various activities. The 22 sub-categories listed account for all the time of all the nurses, including the clerical staff and pre-nursing students, working on the day shifts during the seven day observation period.

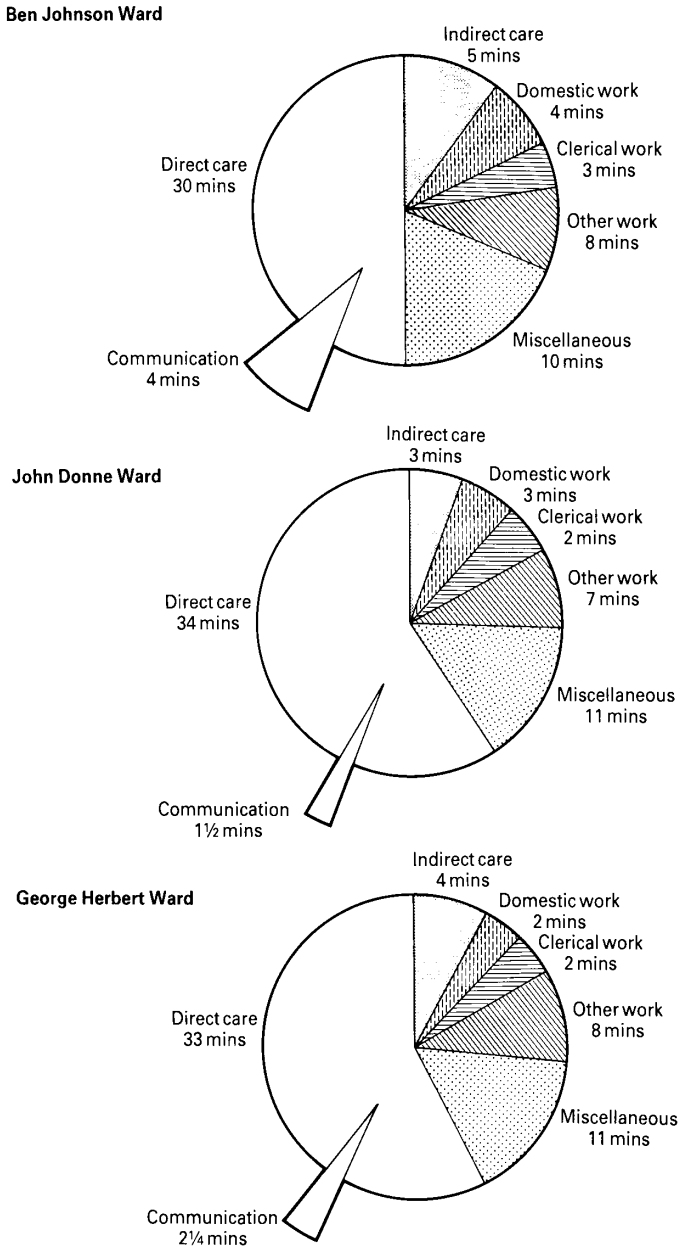
The first thing to notice about the work of the nurses on all three wards is the amount of time which was spent in patient-centred work. Together, direct care and indirect care accounted for 59 per cent of all the nurses' time on the day shifts in the pilot ward and 61 per cent in the other wards. Relatively little time was spent on domestic and clerical work. The other work of the ward (33—36) accounted for about 12 per cent of nurses' time and about 18 per cent was classified as miscellaneous.

There are some important differences between the wards. Considerably more time was spent communicating with patients and their families (1) in the pilot ward, on communicating about the patient (22) and on charting (21) which is also an important

TABLE 2.3 THE PROPORTION OF TIME SPENT BY NURSING STAFF IN THE THREE WARDS ON EACH OF 22 ACTIVITIES (DAY SHIFTS ONLY)

	Ben Jonson	John Donne	George Herbert
DIRECT CARE			
1. Communication with patient/family	6.9	2.7	3.8
2. Medication and IV administration	5.2	6.4	5.5
3. Feeding and elimination	1.4	4.9	4.0
4. Food and drink preparation and clearing	11.5	11.0	11.2
5. Patient hygiene	13.8	17.5	20.3
6. Movement of patients	4.2	5.1	2.8
7. Turning and exercise	0.7	1.4	1.7
8. Assisting other professionals with patient	1.1	0.7	0.7
9. Routine checks and observations	0.3	0.6	0.7
10. Vital signs	3.0	1.9	1.5
11. Specimens (collect and test)	0 1	-	0.1
12. Procedures (preparation and clear)	2.3	4.5	1.7
Sub-total	50.5	56.7	54.0
INDIRECT CARE			
21. Charting	3.4	2.8	3.1
22. Communicating about patient	4.5	2.0	3.7
23. Preparation of medicines	0.6	-	0.3
Sub-total	8.5	4.8	7.1
DOMESTIC WORK			
31. Housekeeping and cleaning	6.3	4.4	3.3
CLERICAL WORK			
32. Clerical work	4.6	3.6	3.7
OTHER WORK			
33. Communication with others (unit)	3.0	1.5	1.0
34. Errands	2.1	1.5	1.6
35. Meetings/supervision. Personnel	8.1	8.0	10.2
36. Supplies	0.4	0.7	0.6
Sub-total	13.6	11.7	13.4
MISCELLANEOUS			
40. Personal/miscellaneous time	16.5	18.8	18.5
TOTAL	100.0	100.0	100.0
Number of observations	10465	9452	9537

FIGURE 2.1 MINUTES PER HOUR SPENT IN DIFFERENT ACTIVITIES



form of communication. In all, 15 per cent of time in the pilot ward was spent in activity which could be classified as communication related to individual patients. In the other wards such communication accounted for 8 per cent and 11 per cent respectively.

Less time was spent in the pilot ward on helping patients with feeding and elimination (3) and on helping patients to wash and dress (5). In all, 15 per cent of time was spent on these two activities in the pilot ward in comparison with 22 per cent and 24 per cent on the other wards.

It is of particular interest that not much more time was spent on charting (21) and meetings (35) in the pilot ward than in the other wards. A criticism often made of primary nursing is that too much time is taken up in meetings and handovers.

One way of fully appreciating the extent of the different activities undertaken is to see them in terms of minutes per hour of nursing time. The information is presented in this way in Figure 2.1. The differences between the three wards are less than the similarities though the fact that in Ben Jonson Ward only half of every hour was spent on direct care shows up clearly. The importance of patient related care (direct care and indirect care) in all three wards is clear. On the pilot ward 4.1 minutes per nurse per hour was spent in talking to patients and their families in comparison with 1.6 minutes and 2.3 minutes respectively on the two other wards.

Although some time was spent on domestic work it is relatively small. The amount of time that could not be classified seems quite substantial when gathered together into a block in this way but should not be interpreted as 'time-wasting'. In any work situation there are always brief periods in which people are waiting, engaged in social conversation or simply thinking. When put together these activities amount to about 10 minutes per person per hour on each of the wards.

Analysis of care given by different staff groups

The data were further analysed in order to see if there were any differences between the way in which different groups of staff in each of the wards used their time. For each group the amount of time spent in the main activity categories — direct, indirect, domestic, clerical, other and miscellaneous — is shown in the following tables.

Sister

Table 2.4 shows the distribution of activity for the sisters of each ward.

TABLE 2.4 ACTIVITY OF SISTERS IN EACH OF THE THREE WARDS (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	41	47	43
Indirect care	(21-23)	14	10	15
Domestic work	(31)	1	3	2
Clerical work	(32)	4	2	4
Other work	(33-36)	25	26	21
Miscellaneous	(40)	15	12	15
		100	100	100

All the sisters spent less than half their time on direct care but they did spend more of their time (41—47 per cent) on giving direct care to patients than on any other activity. Although the sisters as 'primary nurses' on the pilot ward had their own case load of patients they did not spend any more of their time with patients than their colleagues on the other wards. Other work, that is meetings and supervisory work, also took up a great deal of their time. Despite the re-organisation on Ben Jonson Ward the sisters did not seem to spend more of their time on these sorts of activities than did the sisters on the two other wards. On all three wards they spent only small amounts of time on domestic and clerical work. Less of their time was spent in miscellaneous activities than on average for the nurses as a whole.

Staff nurse

Table 2.5 shows the distribution of activity for the staff nurses in the three wards.

TABLE 2.5 ACTIVITY OF STAFF NURSES IN EACH OF THE THREE WARDS (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	50	55	44
Indirect care	(21-23)	11	11	14
Domestic work	(31)	6	2	5
Clerical work	(32)	3	4	6
Other work	(33-36)	17	12	17
Miscellaneous	(40)	13	16	14
		100	100	100

This shows that on all wards the staff nurses spent a greater proportion of their time (44—55 per cent) on direct care than on any other activity. On Ben Jonson Ward the staff nurses spent a significantly greater proportion of time on direct care than did the staff nurses on George Herbert Ward. However, the staff nurses on John Donne Ward spent more time on this activity than their colleagues on either of the other wards. This may simply reflect the staffing position in the survey week where more 'sister' hours and fewer 'staff nurse' hours were available on this ward than on the two other wards.

The similarities are more striking than the differences but the staff nurses did spend less time on clerical work than on the two other wards. One of the changes associated with primary nursing was an attempt to reduce the number of interruptions to patient contact time made by having to answer the telephone. The lower proportion of time spent on clerical duties by staff nurses does suggest that this was successful to some extent.

Enrolled nurse

Table 2.6 shows the distribution of activity for the enrolled nurses on each ward.

The enrolled nurses spent a greater proportion of their time (47—54 per cent) on direct care than on any other activity. On the pilot ward the enrolled nurses spent a significantly smaller proportion of time on direct care than the enrolled nurses on the other two wards. This is consistent with the lower amount of time in general spent on

TABLE 2.6 ACTIVITY OF ENROLLED NURSES ON EACH OF THE THREE WARDS (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	47	54	53
Indirect care	(21-23)	9	5	6
Domestic	(31)	5	4	4
Clerical work	(32)	7	3	5
Other work	(33-36)	16	11	13
Miscellaneous	(40)	16	23	19
		100	100	100

direct care on this ward. More time was spent on indirect care on the pilot ward. Again this supports the idea that the nurses were slightly more likely to stand back from direct care and encourage patients to do things for themselves. Enrolled nurses also spent more of their time on clerical and other work on the pilot ward, again emphasising the supportive role. There were no significant differences between the wards for the time spent by the enrolled nurses on domestic activity.

The enrolled nurses on the pilot ward spent a significantly smaller proportion of their time on miscellaneous activities than on the other two wards. The difference was particularly marked for this group and suggests that because the enrolled nurses had taken on the primary nursing role their activity was less fragmented and, therefore, more likely to fall into one of the major categories.

Auxiliary

Table 2.7 shows the distribution of activity for the auxiliaries on each ward.

TABLE 2.7 ACTIVITY OF AUXILIARIES ON EACH WARD (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	56	68	62
Indirect care	(21-23)	2	-	1
Domestic work	(31)	12	8	9
Clerical work	(32)	2	-	1
Other work	(33-36)	9	7	6
Miscellaneous	(40)	19	17	21
		100	100	100

This table shows that the auxiliaries spent a greater proportion (56—69 per cent) of their time on direct care than on any other activity. On the pilot ward the auxiliaries spent significantly less time on direct care than on the two other wards. It had been the intention to cut down on the amount of direct care given by auxiliaries and to redirect their energies into a support role. This does seem to be reflected in the table which also shows that they spent more time on domestic and other work. The auxiliaries on the pilot ward had deliberately taken on board, as part of their new role, the improvement of the ward environment. This involved additional work which could be classified as 'domestic'.

Ward clerk

Table 2.8 shows the distribution of activity for the ward clerks on each ward.

TABLE 2.8 ACTIVITY OF WARD CLERK ON EACH WARD (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	1	12	3
Indirect care	(21-23)	2	1	8
Domestic work	(31)	-	1	-
Clerical work	(32)	56	68	42
Other work	(33-36)	28	14	27
Miscellaneous	(40)	13	4	19
		100	100	100

On the pilot ward the ward clerk spent very little time on direct or indirect care of patients. This is a direct result of the re-definition of roles on the ward. Her time was divided between that which could be defined as 'clerical' and the 'other' category which includes errands off the ward and dealing with supplies. On the two other wards the ward clerks spent around 10 per cent of their time in patient care. While this may not seem very much it does mean that nurses, often the staff nurses (see Table 2.5), were doing more clerical work than they might otherwise have done. The ward clerks made no contribution to domestic work on any of the wards. The table shows that the time of the ward clerks was being properly used on all the wards apart from their involvement in patient care on the control wards.

Learners

In terms of hours worked (Table 2.1), the student and pupil nurses made the largest contribution to the staffing of all the wards. Table 2.9 shows that their time was used in the same way across the three wards. Two-thirds of all their time was spent in patient care. However, the learners on the pilot ward did spend less of their time on direct care and more on indirect care which is consistent with the pattern of activity for the ward as a whole. It also suggests that they did follow through all aspects of care for particular patients.

Only small percentages of time were spent by learners on domestic and clerical work. However, because learners contributed so many hours to the labour force the

TABLE 2.9 ACTIVITY OF LEARNERS (DAY SHIFTS COMBINED)

		Ben Jonson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	56	60	61
Indirect care	(21-23)	9	5	6
Domestic work	(31)	4	4	3
Clerical work	(32)	3	2	1
Other work	(33-36)	11	10	12
Miscellaneous	(40)	17	19	17
		100	100	100

hours spent in these activities amount to the equivalent of more than one full-time staff member across the three wards. 'Other work' includes teaching and being supervised as well as shift handovers and team conferences which learners on all wards were encouraged to attend.

Pre-nursing students

Table 2.10 shows the pattern of activity for pre-nursing students. The wards did not always have students from the college on work placement but there were students on all three wards during the survey week. A disproportionate amount of time was spent on 'miscellaneous' activities by this group on George Herbert Ward which suggests that a proper role had not been fully worked out.

TABLE 2.10 ACTIVITY OF PRE-NURSING STUDENTS (DAY SHIFTS COMBINED)

		Ben Johnson	John Donne	George Herbert
		%	%	%
Direct care	(1-12)	52	69	58
Indirect care	(21-23)	2	-	1
Domestic work	(31)	24	7	4
Clerical work	(32)	3	1	-
Other work	(33-36)	-	5	9
Miscellaneous	(40)	19	18	28
		100	100	100

On the pilot ward a quarter of the time of pre-nursing students was spent on domestic work. Some of this time was spent in improving the look of the day room, tidying and wiping lockers and tables and arranging flowers. While not the most exciting of tasks for the students it did mean that things of importance to patients were done. During the survey week nearly a third of all domestic activity carried out by the nursing staff on the pilot ward was done by the pre-nursing students though they contributed the same number of hours work on each ward.

SUMMARY AND DISCUSSION

Table 6.5 in chapter 6 shows that on admission patients were equally dependent on all three wards. Table 2.2 shows that *on admission* the patients who were in hospital during the survey week were of similar dependency on the three wards. It is, therefore, argued that the patients on Ben Jonson Ward were inherently no less dependent than the patients on the two other wards.

Helping patients wash and dress was the single most time-consuming part of the nurses' work on all wards, closely followed by the serving and clearing away of meals. On Ben Jonson Ward, where patients were slightly less dependent during the survey week, significantly less time was spent on patient hygiene than on the two other wards.

The patients appeared, however, to get less physical assistance from nurses. This in borne out by the consistent differences in the proportions of nurses' time spent on helping patients with feeding and elimination, with turning and exercise and with movement. Patients on Ben Jonson Ward seemed to manage with less nursing assistance than their counterparts on the two other wards.

The amount of time which is labelled 'miscellaneous' was similar to that found in other studies.[2] Most people do not and can not work all the time. Only when under scrutiny does the time spent between activities emerge as a quantifiable period of time. It should not necessarily be regarded as wasted or unprofitable time nor should over-zealous attempts be made to reduce it. The amount of time recorded as 'miscellaneous' on Ben Jonson Ward was lower than on the two other wards.

Other studies have also found that *less* time is spent on direct care in primary nursing wards and wards practising individualised patient care.[3] Because patients are being assessed by the same nurse there is more consistency of approach and patients are encouraged to maintain gains in self-care. The nurse can more often stand back and give advice rather than do things for a patient. The nurses in their interviews (chapter 4) spoke of knowing the capabilities of their patients and standing back from giving direct care.

Maximising the amount of time spent in contact with patients might seem to be a desirable objective and it could be argued that further reductions could be made in the amount of domestic and clerical work done by nurses. The eight to ten minutes per hour spent in meetings and supervision might also be seen as an area of activity which could be reduced. One of the earliest studies of nursing activity[4] suggested that even when more staff are available or other staff are brought in to do domestic and clerical work the proportion of time spent on direct care does not increase. More recently Ball[5] has suggested that it may be counter-productive for some kinds of wards to have staff spending more that about 50 per cent of total activity on direct care. The survey wards were comparable to the elderly care wards described by the NHS Management Consultancy Services[6] where the proportion of nursing time spent on direct care in ten elderly care wards was shown to range from 46.8 per cent to 62.8 per cent with a median of 53.1 per cent. High levels of direct patient care are not necessarily associated with high levels of quality of care and may indicate that staff are doing things for patients which they should more properly be doing for themselves.

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3

Quality of care

Introduction

This chapter looks at the quality of care achieved on the three wards over a two year period starting with an assessment made before it was decided which ward should be the pilot ward. The final assessment was carried out a year after the end of the pilot period.

SENIOR MONITOR[1] was developed from the original MONITOR[2] for use in wards for the care and rehabilitation of elderly people and is a set of questions requiring a 'Yes' or 'No' answer which relate to the practice of assessment, planning, giving and evaluation of nursing care. It is described by its authors as 'an augmented and modified version of Monitor'. Both SENIOR MONITOR and QUALPACS[3] were considered by the district for use in the elderly care wards and a decision was taken at unit level to use SENIOR MONITOR in all wards designated for the care of elderly people. It has also been used within the same authority in continuing care settings and in wards for elderly people who are mentally infirm. The findings for two consecutive years for six wards have already been reported[4] and this chapter is based on an article which originally appeared in the Journal of Advanced Nursing.[5]

As SENIOR MONITOR was already in use in the three wards at Kingsmead Hospital it was decided to continue to use this tool in an attempt to evaluate changes in the quality of care subsequent on the introduction of primary nursing in the pilot ward.

The first round of assessments had been carried out prior to the decision to introduce primary nursing and before any discussion of which ward might be the first to implement any such change in the organisation of care. The baseline measures were, therefore, not affected by prior knowledge of which ward was to be the trial ward.

The emphasis of the assessment is on nursing records and directly observable aspects of care though some questions are asked of patients and nurses. The main part of the tool comprises 232 questions which may be asked in relation to the care of each patient. These are arranged in seven sections, as follows:

- Planning nursing care
- Meeting patients' physical needs
- Meeting patients' non-physical needs
- The patients' needs for rehabilitation
- Care of the dying patient
- The last offices
- Evaluation of nursing care objectives

There is also a set of questions which relates to the management and organisation of the ward and a section which gives a profile of the ward in terms of such items as staffing, layout and support services.

Scores are produced for each patient assessed under the above headings. These are termed INDEX scores and are in the form of percentages. 'Yes' answers score '1', partly correct answers score '1/2' and 'no' answers score '0'. Where questions are not applicable

they are omitted and the devisor in subsequent calculations is reduced appropriately. The number of points for each section is divided by the number of applicable questions to give the score or index for that section for each patient. The sum of these scores produces a total score for each patient. The ward score or INDEX is the sum of all the points for all the patients divided by the number of applicable questions. In practice the procedure is straightforward and takes into account not only the variation in the number of questions in each sub-section but also the fact that not all questions may be relevant to every patient. Unlike MONITOR, SENIOR MONITOR does not 'differentiate patients into dependency groups but rather offers a single master checklist of questions, some of which will not be relevant to particular patients'.[6]

It is possible to compare the overall INDEX scores for a ward from one assessment to another and to compare the scores of each individual patient assessed within that ward. The higher the INDEX scores and the less variation between scores for individual patients the better and more consistent is the quality of care.

With the introduction of primary nursing all the aspects of care covered by SENIOR MONITOR become the responsibility of one nurse in respect of the patients who are allocated to her. It might be expected that the quality of care as measured by SENIOR MONITOR would be improved after the implementation of primary nursing and that a primary nursing ward might achieve higher scores than comparable wards organised on different lines.

Conducting the assessments

The assessments were carried out following the procedure laid down in the MONITOR and SENIOR MONITOR handbooks. The researcher acted as co-ordinator and arranged training sessions for the assessors. Assessors were chosen from staff who worked in elderly care settings. Sisters and charge nurses working with elderly people in the local psychiatric hospital carried out the assessments. None of the assessors was in line relationship to the staff on the ward they were asked to assess.

A number of preparatory meetings were held with the assessors in the first year. Each question was discussed. Some changes to wording were made and a list of amendments circulated to the assessors. Agreement was reached about what would constitute a 'yes' answer to each question. Since the group of assessors stayed with the project throughout only two meetings were held — a planning session and a debriefing session — in each of the subsequent years.

The intention was to retain the same two assessors for each ward over the whole period to ensure reliability from one year to the next. The two pairs of assessors on Ben Jonson Ward and John Donne Ward stayed the course and on George Herbert Ward one assessor took part in all three years with the same partner on the second and third occasion. This, together with the training sessions, helped to maintain consistency between one year and the next. No formal trials were carried out to assess inter-rater reliability. Each assessor rated half the sample of patients assessed in each ward. The expectation is, therefore, that the two groups of patients within one ward would get similar ratings on the INDEX as a whole. The degree of agreement between the pairs of assessors can be gauged from the data presented in Table 3.1.

These figures suggest that in most cases the pairs of assessors were reasonably consistent in the way they were using SENIOR MONITOR.

The first time the assessment was carried out the procedure was discussed in detail with the ward sister and handbooks were made available for staff. Each time an assessment was carried out the wards were given advance notice and letters of explanation were given to the patients. Results were fed back within a short period by the senior nurse manager and action plans agreed.

TABLE 3.1 INDEX OR MEAN SCORES ON SENIOR MONITOR GIVEN BY PAIRS OF ASSESSORS ON EACH WARD

	Ben Johnson Assessor		John Donne Assessor		George Herbert Assessor	
	1	2	1	2	1	2
1987	77.71	69.35	68.75	76.06	62.98	64.09
Number of patients	7	7	7	7	7	7
1988	80.20	73.07	79.95	77.72	80.02	83.02
Number of patients	7	7	5	5	8	8
1989	88.45	83.16	70.90	86.79	74.60	82.43
Number of patients	8	8	8	8	9	9

Assessors were asked to sample every other patient in the ward unless the person in charge of the ward felt there was any reason why a particular patient should be excluded. In this way a mix of patients at various levels of dependency was included. Assessors were asked to enter the dependency score of each patient from their nursing notes. A locally developed dependency measure was in use in the wards at that time.

Findings

INDEX scores for the three wards are set out in Table 3.2. These are in the form of percentages arrived at in accordance with the detailed instructions set out in the SENIOR MONITOR handbook. In each year there were insufficient observations on the two sub-sections relating to the care of people who were dying and last offices so these sections were excluded from the scoring calculations altogether. Table 3.3 gives the median INDEX scores for the three wards. Following Todd, Reid and Robinson[8] the median was chosen to represent the central point of each set of scores as the data do not meet the strict requirements of random selection and normal distribution. In some cases the figures in Tables 3.2 and 3.3 are very close but in others there are wide differences as the median excludes extreme values.

Although comparisons were being made between the same wards, different nurses and different patients were involved and there were some changes in the assessors from one year to the next. Since it was not a true matched pairs design, the Mann-Whitney U Test for small samples appeared to be the most appropriate test. This test is used to evaluate the difference between two distributions not the difference between means.[9] Tables B.1 - B.5 in Appendix B give the U values on the Mann-Whitney test for independent samples.

What is immediately apparent is the similarity between the three wards. Each of them shows an improvement over the period as a whole though the improvement for John Donne Ward and George Herbert Ward came in the first year while that for Ben Jonson Ward came in the second year. The computed U values on the Mann-Whitney test show significant differences between the first and second assessments for John Donne and George Herbert wards but not for Ben Jonson Ward. The improvement is sustained

TABLE 3.2 INDEX OR MEAN SCORES OF SENIOR MONITOR IN THREE WARDS OVER THREE YEARS

	June		
	1987	1988	1989
Ben Jonson Ward			
Primary nursing introduced in January 1988			
A Planning nursing care	67	62	72
B Meeting patients physical needs	88	94	96
C Meeting patients non-physical needs	70	82	90
D Meeting needs for rehabilitation	49	77	95
G Evaluation of objectives	80	68	81
Overall score for the ward	73	77	86
Number of patients sampled	14	14	16
John Donne Ward			
A Planning nursing care	52	57	70
B Meeting patients physical needs	87	94	90
C Meeting patients non-physical needs	87	85	78
D Meeting needs for rehabilitation	81	90	88
G Evaluation of objectives	60	85	63
Overall score for the ward	72	79	78
Number of patients sampled	14	10	16
George Herbert Ward			
A Planning nursing care	49	64	62
B Meeting patients physical needs	77	94	80
C Meeting patients non-physical needs	75	92	98
D Meeting needs for rehabilitation	54	82	93
G Evaluation of objectives	61	77	68
Overall score for the ward	64	82	78
Number of patients sampled	14	16	18

Note: In each year there were insufficient observations under E and F to provide a meaningful score for the wards. Sections E and F relate to the care of the dying patient and last offices.

TABLE 3.3 MEDIAN SCORES AND INTERQUARTILE RANGES (IQR) OF SENIOR MONITOR IN THREE WARDS OVER THREE YEARS

Ben Jonson Ward	1987		1988		1989	
	Median	IQR	Median	IQR	Median	IQR
Section A	68.0	9.5	61.0	4.0	71.5	5.5
B	91.0	4.5	93.0	3.5	98.5	1.5
C	74.5	7.0	88.0	13.5	93.0	8.0
D	65.0	21.0	82.5	17.5	94.5	5.0
E	76.0	9.5	67.5	6.0	82.5	9.0
Overall score for ward	74.0	8.5	76.8	4.0	86.5	3.5
Number of patients sampled	14		14		16	
John Donne Ward						
Section A	52.0	5.5	56.5	5.5	71.0	7.0
B	87.5	4.0	96.5	5.5	83.5	5.5
C	87.5	5.5	84.0	3.0	96.2	1.5
D	85.5	9.5	92.5	4.0	89.5	6.0
E	64.0	17.0	85.0	5.0	84.0	24.0
Overall score for ward	72.5	4.0	78.0	6.0	84.5	5.0
Number of patients sampled	14		10		16	
George Herbert Ward						
Section A	50.5	7.0	67.0	8.0	58.5	8.5
B	76.5	9.0	96.5	5.0	89.0	5.0
C	76.0	12.0	96.3	4.0	99.6	1.5
D	57.0	7.0	86.5	9.5	94.5	2.5
E	63.5	8.0	78.8	10.0	70.0	5.0
Overall score for ward	63.8	6.0	81.5	7.0	81.5	8.6
Number of patients sampled	14		16		18	

in both wards in the third year but is not significantly different from the second year. Ben Jonson Ward, on the other hand, shows a slight but statistically non-significant improvement on the second assessment with a larger and statistically significant change between the second and third years.

Table 3.2 also gives the median scores for the three wards on each of the sub-sections. All three wards had the lowest median values for sub-section A which relates to the planning of care. The figures for Ben Jonson Ward show very little real change over the period. There was an improvement between the second and third year but this just re-established the level achieved in the first year. John Donne Ward also shows an improvement in the third year while George Herbert Ward has a distribution of scores significantly lower in the third than in the second year.

All the values on sub-section B, which relates to the physical care of patients, are high. Ben Jonson Ward had the highest scores on this section in the first year and the U values show a significant improvement between year two and three and between the first and third year. John Donne Ward shows a significant improvement between year one and two but this was not sustained into year three. The distributions for the first and third years are not significantly different. The pattern for George Herbert Ward is similar but the difference between the distributions for the first and third years is significant.

Sub-section C relates to the non-physical care of patients. All three wards show significant improvements with the medians in the third year being very similar to those for sub-section B.

Sub-section D concerns rehabilitation. Medians for Ben Jonson Ward and George Herbert were low in the first year with both making significant improvements by year three. The distributions for John Donne Ward showed no significant differences between the three years. Again medians for the third year are comparable to those of sub-sections B and C.

The final sub-section, sub-section G, relates to evaluation. This was the only section on which all three wards made no improvement in the third over the first year. Ben Jonson Ward showed a significantly worse distribution of scores in the second year from a relatively good initial position while the two other wards did less well in the third year.

Table B.4 in Appendix B gives the U values on the Mann-Whitney test for comparisons between the score distributions for the three wards in 1987 prior to the introduction of primary nursing. The overall distribution of scores for Ben Jonson Ward and John Donne Ward was not significantly different but there were significant differences on four of the five sub-sections though these were not all in the same direction. On sub-sections A and G the median score was higher on Ben Jonson Ward than on John Donne Ward while on sub-sections C and D it was lower. The overall distribution of scores was significantly better on Ben Jonson Ward and John Donne Ward than on George Herbert Ward.

Although the mean and the median INDEX scores for Ben Jonson Ward (Tables 3.2 and 3.3) are higher than those for the two other wards in the third year the two distributions are not significantly different. The only significant difference between Ben Jonson Ward and John Donne Ward is on sub-section B suggesting that the distribution of scores for meeting patients' physical needs is better. The only significant difference between John Donne Ward and George Herbert Ward is on sub-section A where the latter had a better distribution.

There are significant differences between Ben Jonson Ward and George Herbert Ward on all sub-sections except sub-section D. On sub-section C the distribution for George Herbert Ward is better than for Ben Jonson Ward. This helps to explain why the computed U value for the comparison between the overall distributions for these two wards does not achieve significance at the 5 per cent level.

Inspection of Table 3.3 shows that on all three assessments for all three wards there were considerable differences between the scores on the different sub-sections of the instrument. The highest scores were achieved for sub-sections B and C. While this has not been explored statistically for the purposes of this chapter these differences seem to be as great in year three as they were in the first year.

On Ben Jonson Ward there was less variation in the assessments for individual patients in the second and third years. The inter-quartile ranges were lower suggesting a greater consistency in the quality of care delivered. Inter-quartile ranges were higher in the two other wards in both the second and third years. A lower inter-quartile range was not achieved in all the sub-sections over the three years even by Ben Jonson Ward.

SUMMARY AND DISCUSSION

The quality of care as measured by SENIOR MONITOR was relatively high in all three wards before the introduction of primary nursing. While there are no published norms for SENIOR MONITOR, Illsley and Goldstone[10] report that the mean score on MONITOR for wards in the United Kingdom is 65, with a range from 38 to 85. Todd *et al*[11] report a median score for the ten wards in their study of 67.1. Scores of over 70 may, therefore, be regarded as being towards the top of the range and scores of over 80 as being high.

Ben Jonson Ward and John Donne Ward had INDEX scores above 70 before the move to introduce primary nursing was first discussed. George Herbert Ward had the lowest score in the first year and this appears from the figures to have been associated with a low score on planning nursing care. There are 46 questions in this section and, therefore, a low score tends to pull down the INDEX score for the ward. The overall distribution of median scores did not differ significantly between Ben Jonson Ward and John Donne Ward. The distributions for each of these wards were, however, significantly different from and higher than those for George Herbert Ward.

As the results were fed back to each ward and discussed with the ward sister who, in turn, discussed them with her staff, each ward had the opportunity to introduce changes aimed at improving the quality of care. What the overall findings suggest is that each of the wards responded to the results by making efforts to improve the quality of care and were successful in so doing. It is particularly noticeable that all three wards showed an improvement in the section relating to rehabilitation and discharge planning (Section D). This had been identified as a weak area in the first assessment and specific action had been directed at discharge planning on all three wards.

There is an extensive body of research which suggests that a knowledge of results affects subsequent performance. Similarly, knowledge of prior results may affect the assessors' judgement giving rise to a 'drift' in the assessments over time. The assessments were carried out with a gap of 12 months between each and neither wards nor assessors were specifically reminded of the previous year's results. Wainwright and Burnip[12,13] make it clear that at Burford the initial QUALPACS results were discussed with staff. Reports of other studies fail to state whether ward staff were informed about results of base line assessments. Knowledge of prior results could be an element in subsequent performance though it is not clear how this might operate. SENIOR MONITOR is not a 'knowledge' test and it is difficult to see how any kind of practice effect could influence the results.

Giving wards advance notice of the dates for assessment means that efforts may be made to *improve* the presentation of the ward

on the day. As the wards retained their results from the previous year the staff could have looked up their weak points and, particularly in relation to the planning section, could have made short-term efforts to improve. That this section was consistently the weakest while being the most susceptible to manipulation does suggest that such activity was limited or, at least, limited in its effect. The large bank of questions does militate to some extent against this sort of manoeuvre.

Harvey[14] has asserted that the process of implementing the quality assurance tool is more important than the tool itself. She suggests that factors such as staff involvement and participation, the perceived credibility of the assessment, constructive feedback of results and management support may have major affects on reported assessment scores. Reid[15] supports the view that staff attitudes to an intervention may well influence the effect of that intervention as measured by MONITOR.'

The conditions for the assessments, preparation of ward staff, advance notice, the assessors, were essentially the same on all three occasions and it seems reasonable to accept that within each ward the changes as measured by SENIOR MONITOR are real rather than artifacts of the assessment process.

The quality of care in the ward in which primary nursing was being implemented was not significantly improved by the end of the six month pilot period. This is in marked contrast to studies which have shown major short term improvements using QUALPACS. This could be because the initial enthusiasm generated by the 'experiment' had been dissipated. Most follow-up assessments reported in the literature were undertaken very soon after the change to primary nursing had been made. This finding does suggest that longitudinal studies even with all their attendant methodological difficulties are needed.

The sub-sections on planning and evaluation for this ward achieved poorer scores than before though only that on evaluation was significantly worse. This may be because some nurses who would not previously have developed care plans and evaluated outcomes were now being asked to do this as part of their new role. By the end of the following twelve months, during which time the changes in the way the ward was organised had become fully integrated and people had had time to grow into their new roles, there was a significant improvement in the overall score. Though the scores on planning and evaluation were significantly improved over those at the end of the pilot period this improvement was insufficient to show a significant difference between the pre (1987) and post (1989) assessments. These are both areas which rely heavily on written accounts and it is possible that because communication about patients is easier within the primary nurse—associate—patient triad less gets put on paper, or it may be that the primary nurses still needed more training in the preparation of care plans and in the recording of their evaluation of the care given.

The two other wards showed a significant improvement in their scores in 1988. This was particularly marked in the case of George Herbert Ward which made the most dramatic improvement over the whole period. The ward INDEX score in the third year was

14 percentage points higher than the initial score while the median score had gone up from 63.8 to 81.5. A different senior sister had been appointed to the ward since the first assessment.

There may be some arguments against using MONITOR and SENIOR MONITOR to draw comparisons *between* wards but these three wards were matched in all significant characteristics and there was no reason to expect any major difference in the measured quality of care at the start of the project. The initial differences between the wards were not anticipated. Though Ben Jonson Ward and George Herbert Ward started with a similar overall distribution of scores the fact that there were significant differences in the sub-sections does call into question the value of drawing comparisons even between these two wards.

What is of importance here is not so much the precise differences between the wards but the relative improvement which each ward appears to have made over the period. If the assessments had been carried out only in Ben Jonson Ward the data would have supported the view that the introduction of primary nursing, once consolidated, had brought about an improvement in the quality of care. In the context of the results for the two other wards which also showed commensurate improvement, an equally tenable interpretation is that the seminars and discussions about the principles of primary nursing together with the SENIOR MONITOR assessments which put the spot light on certain aspects of practice, particularly those relating to discharge procedures and rehabilitation (Section D), affected performance on all three wards in a positive way. Staff on the two other wards knew about the primary nursing initiative and had been involved in the training programme. Many of them were sympathetic to the ideas and this may have carried over into their practice even without the attendant organisational changes.

The organisational changes associated with primary nursing on Ben Jonson Ward may well have been the vehicle for that ward's improvement but the other wards were also able to improve even though they were organised on more traditional lines. Manthey, one of the prime advocates of primary nursing, observes that: Many people have mistakenly equated the concept of a system of care delivery with the concept of quality of care. The quality of nursing service in primary nursing can be good or bad, comprehensive or incomplete, co-ordinated or spasmodic, individualised or standardised, creative or routine.[16]

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4

The nurses' view

Introduction

This chapter describes interviews carried out with the nurses on Ben Jonson Ward at the end of the pilot period. Two-thirds of the trained staff and all of the students were interviewed. This chapter was originally published as a paper in the Journal of Advanced Nursing.[1]

The original research design did not include the systematic interviewing of nursing staff because the focus of the research was on quantitative and measurable changes in work patterns, quality of care and outcomes for patients.[2] However, towards the end of the six month pilot period the change in practice received some adverse publicity in the local press following a meeting of the health authority in which the research programme had been an agenda item. The nursing staff on the ward concerned were upset and wanted the opportunity to put on record what they thought about the change. Advantage was taken of this situation to invite all the nurses to talk about what they understood and felt about working in this new way.

Interviews were scheduled within work time and were structured round a set of defined topics (Figure 4.1). A copy of the topic list was given to each nurse at the start of the session. Each interview was tape recorded for later transcription. Interviews lasted from 15 minutes to one and a half hours allowing all informants to say as much or as little as they wanted to. Of the 15 permanent staff in post at the time, ten were interviewed along with all seven of the learners allocated to the ward.

The nurses were interviewed by the principal researcher who had worked as a sister and then as a research and development officer in the unit. They knew she was an enthusiastic advocate of primary nursing and they, as one of them put it, 'always had time' if she wanted to talk to them. This did not seem to inhibit them in raising the difficulties as well as the advantages of working in the new way, but it must be recognised that the relative status of researcher and informant may affect the material offered.[3] The material was analysed by a second researcher who had not been involved in the data collection. She visited the research site and immersed herself in the material to the extent that she felt she really knew the nurses. This is an unusual division of research labour and one which requires a real effort of understanding. Separating the stages in this way does help to counter the bias of the first researcher's known stance.

The interviews were transcribed and analysis carried out using the Ethnograph, a computer programme designed to assist the qualitative researcher in some of the mechanical aspects of data analysis.[4] Analysis involved consideration of the responses overall rather than replies to particular questions asked during the interview. The data were organised into broad areas of interest and subsequently into 58 categories. For example, the area of communication was subdivided into five categories depending on whom it concerned. The Ethnograph then allowed the transcribed data to be coded, and later sorted, into the analytic categories. Inevitably, there was some overlap in the content of the categories.

FIGURE 4.1 TOPIC LIST FOR INTERVIEWS

1 General reaction to primary nursing

How do you feel about working on a ward that is organised on primary nursing lines?

2 Understanding of primary nursing

How would you describe primary nursing?

3 Perceived benefits for patients

What do you think are the benefits for patients?

4 Perceived disadvantages for patients

What do you think are the disadvantages for patients?

5 Perceived advantages for staff

What are the advantages for you personally?

6 Perceived disadvantages for staff

What are the disadvantages for you personally?

7 Perceived differences

What differences do you see between working in the primary nursing ward and working in other wards?

8 Other issues

Analysis of findings

During the course of analysis of the interview transcripts, it became possible to group the 58 categories of the ethnographic search into a limited number of main components which concerned the nursing staff. This chapter looks at knowledge of patients, communication, relationships and responsibility. In the discussion of the findings which follows, the quotations from the nursing staff interviews have, intentionally, not been altered. Words enclosed by square brackets have been added only where necessary for clarity.

Knowledge of patients

The nursing staff felt that, since the establishment of primary nursing, which for them entailed nursing the patients throughout the acute stages of their admission to rehabilitation and eventual discharge, they had an improved knowledge of the patients to whom they were primary or associate nurses.

SR: I mean [before primary nursing] you knew a bit about what everybody was capable of but you did not have an accurate ongoing knowledge of what those people were capable of.

EN: I feel very happy about this [primary nursing] because I feel that I am getting to know my patients, I know what's happening to them all along the line and I'm really, really happy because I get more involved and you know all about them, and they get to know you and, as far as I'm concerned its really great, have much more job satisfaction than I've ever had before.

EN: A lot better [primary nursing] you get a lot more into the working of looking after the patients, you know more about them from the start, it's a lot better.

They felt better able to monitor any changes in the physical and psychological condition of their patients; in particular mention was made of the changes in their mood and of monitoring the effects of analgesia. Similarly they felt that they were more able to assess the capabilities of their patients. Improved knowledge of the patients' home circumstances enabled them to anticipate problems the patients might face on discharge and to resolve these with help from other members of the health care team. They viewed these factors as being beneficial to themselves as nurses and to their patients.

EN: Besides that you get to know more about their own care, to what you're sending them to, and also the relatives. You know if they're going to have any problems when they go home, which is a lot better than us just looking after them, washing them, dressing them, we know everything about them.

The nursing staff at all levels expressed the need for a briefing about all patients since there were inevitably times when the primary/associate nurse was temporarily unavailable and therefore another nurse was required urgently to attend to a patient's needs. Likewise it was felt necessary to inform all nursing staff if a patient were diabetic since the patient's primary/associate nurse did not necessarily distribute or assist the patient with meals.

Opinions differed regarding the adequacy of information about patients other than those specifically allocated to them. One sister indicated that, since the introduction of primary nursing, she was able to learn more about these patients by listening to the verbal reports of their primary/associate nurses, enabling her to gauge what was happening in the ward as a whole. However, the staff nurses expressed the concern that at times, when they were the most senior member of staff and thus in the ward co-ordinator role, it was difficult to know what was going on in the ward as a whole since they were occupied in the care of their own patients.

SN: I think from a nurse's point of view one major disadvantage is that you could very easily lose touch of what is happening on the rest of the ward because you are so concentrated in your own little area.

SN: ...obviously yes we are still one ward. Maybe it's me not interpreting it [primary nursing] properly that we are sort of one team caring for, well we have the welfare of all the patients in the ward in our minds.

Nurses clearly felt that their greater responsibility for specific patients did not absolve them from a more generalised responsibility for all the patients in the ward and that, therefore, they did need to know some crucial facts about all patients.

Communication

All grades of staff from sister to auxiliary, including learners, made reference to communication during the course of the interviews although they were not directly asked about this.

Generally, nursing staff expressed the view that communication had improved since the introduction of primary nursing but there were areas where further improvement could be made. Continuing responsibility for, and involvement with, their patients enhanced nurse—patient communication.

EN: Instead of being a nurse that looks after 28 [patients], and they don't really get to know you because they see different nurses all the time, they get to know their one nurse and the associate nurses in detail so they're able to talk to them easier.

Learner: You can get to know relatives, relatives get to know you and you just get on better with everyone involved really.

Patients were more likely to ask for the primary nurse, who would talk to them and discuss and attempt to resolve problems. Mention was made of patients being more involved in their own care.

EN: Well, I think they're more involved in their nursing care as well. They've got more say, where if they've got a relationship with one nurse they can sort of say to her 'I don't want to do this'.

Communication was felt to be better in the smaller groups involved with patients. There was also less chance of different nurses making different arrangements for the same patient.

SR: I think communication is better and continuity of care is improved because you're now working with a smaller group of people so the care is bound to improve isn't it ?

EN: It is good [primary nursing] you get a better level of communication with your patients as well because, like before, they were going to anybody on the ward and they're now looking for the nurse involved so there's no mix up with problems going home - you've no contradiction.

Encouragement to sit and talk to patients and the fact that they had more time to do this, were mentioned. Auxiliaries now felt more involved in talking to patients and passed information relating to the patient to the primary nurse.

Improved communication between primary/associate nurses and patient's relatives was felt to be evident when the relatives were aware of the primary nursing system.

SN: The relatives do find it very useful. For example when they ring up. Now they actually ask 'Can I speak to nurse so and so who is looking after my mother or my father'. And if she is not there they would ask for somebody else from that group.

SN: Knowing the relatives better - most of the relatives come in the ward very late from work or because of distance or because of transport - when they ring up to talk to you well you have a sort of mental picture of who you are talking to, what they are like, you feel as if you know them better than just a voice you are talking to on the phone.

Relatives would then ask to speak to the primary/associate nurse. The nurses felt that sometimes, if relatives were themselves confused or patients had large numbers of relatives, these might not be aware of the responsibility of the one nurse for that patient. The relative was referred to the primary nurse but might initially ask questions of other members of the nursing staff or learners, who frequently had insufficient knowledge of the patient concerned. The sisters mentioned that they were normally available to support their staff when talking to relatives.

Where possible, nursing staff were on duty for the consultant rounds of their particular patients and were thus able to provide 'honest and accurate information' (SR) regarding a patient. The doctors generally asked for the primary nurse and nurses found it easier to discuss aspects relating to their patients with the doctors.

A report during the morning for nurses on duty provided for an exchange of information about patients and enabled staff to be briefed about all patients. Nurses found this helpful as it meant that they would have some knowledge of even those patients for whom they were neither primary nor associate nurse. However, some of those who worked part-time were unable to attend this report and felt that they were missing out. The sisters pointed out, in all fairness, that this would be a problem whatever system of care delivery was in operation.

A further problem of communication for part-time staff was that they were often unable to hand their patient over directly to an associate nurse on the following shift.

EN: Some days it is great, we do sit down, we have a proper report and handover. Some days it's not so easy, it depends on the staff, whether it's part-timers coming on at half past three. If we have three nurses on for each group at half past one then it's fine, we can hand over. But some days we have to hand over to others to hand over to the ones that come in at 6 o'clock, which may present problems if there is a gap in information.

Because of the hours they worked it might be necessary to hand over details of a patient to another nurse on the same shift who would then hand over to a nurse on the following shift.

Learners were able to gain practice at verbal handover of patients which they felt was beneficial to them.

Learner: Well you get the chance to do your own report, don't you. I mean, on the other wards [in the DGH] you didn't do handover at all, only very occasionally if you were team leader. Here, if there's only you on the morning you can actually hand over to the qualified staff in the afternoon.

It was generally felt that the written care plans had improved since the implementation of primary nursing, something not entirely borne out by the results of the quality assessment reported in chapter 3. Every patient now had a care plan and accountability for care planning meant that it was no longer necessary for the sisters to prompt the staff to do them. Care plans were more detailed and staff were better able to assess and plan care.

SR: The care plans are actually done because you know you are only responsible for three directly. So it's psychological although you are not actually doing

any more than you were before, the care plans are being done because you have got to update the other six, you haven't got to write reams about them.

Their improved relationship with the patient provided a more in-depth knowledge and enabled them to plan the care more easily. The care plans were actually being used and this enabled staff to obtain information relating to patients in the absence of the primary nurse. Sisters provided any advice required for care planning. Learner nurses gained experience of care planning under supervision.

The staff nurses in the ward co-ordinator role experienced difficulty in obtaining information about other patients from some members of staff.

SN: ...then you find there is a lack of communication ...it's trying to get a feed back from them regarding their patients because they think you are interfering.

Information regarding occupied bed numbers was regularly required and it was necessary for the ward co-ordinator to know which patients were going to be discharged. The staff nurses felt that while they had the welfare of all the patients in mind, some members of staff viewed their attempt at acquiring information as 'interference' (SN).

Relationships

Nurses of all grades expressed the view that, since the implementation of primary nursing, the patient was able to relate to a particular nurse and this provided a more personal atmosphere. The nurse—patient relationship was described by some members of staff as a friendship, the nurse having individuality and being 'someone they can actually relate to' (SR).

SN: I think it is nicer in that you do have the continuation, we have a much better opportunity to get to know the patients and the relatives and I think we can give better care under these conditions.

EN: The patients get to know you a lot better than before, when you were just an aide to them. Now you're a sort of person.

EN: But even the confused patients know their nurse very well, they don't always call them by their actual names, they have kind of nicknames for them. But they do know who to call out to and who to actually ask for. The relatives do find it very useful. For example when they ring up.

The nurses mentioned that both patients and relatives had commented that they had noticed an improvement in the nursing care given to patients who had been re-admitted to the ward since the introduction of primary nursing.

EN: So it is a lot better because when you've got a friendly atmosphere you seem to cope better, they seem to get better quicker and you can have a laugh and joke with them and they say things to you that they wouldn't normally say because you're more of a friend once you get to know them better.

Nurses suggested that, as a result of an improved nurse—patient relationship, the patients felt more secure and were better able to build up their confidence.

SN: ...you are still their nurse while you are on duty. I think it builds their confidence. They do have an opportunity to get to know us and they can

talk to relatives more about their nurses and they know who they are talking about and the relatives also get to know their nurses.

EN: I had a lot to do with him and he used to tell me about his problems where he didn't tell anybody else, so then you can sort them out before they go home.

For example, in the process of rehabilitation, patients were able to re-develop mobility skills with the assistance of their primary nurse until they were ready for discharge from the ward. In addition, nurses felt that the patients now could have more influence in decisions relating to their care.

Sisters also carried a case load as primary nurses. However, at times when they were required to 'act up' (SR), they felt they gave their patients less attention than usual. They viewed this as a problem especially when staffing levels were low.

SR: No, but I do have to leave my patients very often, yes. I manage to do my own patients but if I'm the associate for the other two in my group I do feel I neglect them sometimes. I am part of those two nurses for that team of patients.

Nurses generally felt that they had a good relationship with the relatives and were involved a great deal with them. Relatives were now more likely to be involved in the care of the patient.

SN: When they [the relatives] ring up to talk to you, well you have a sort of mental picture of who you are talking to, what they are like, you feel as if you know them better than just a voice you are talking to on the phone.

The nurses mentioned good working relationships with the doctors and other members of the health care team. Dealing with the whole team resulted in an improved knowledge — 'true picture' — (SN) of the patient's care. The nurses no longer had continually to ask the sister for information relating to their patients.

Responsibility

In expressing their understanding of primary nursing, primary nurses were aware of their personal responsibility for their three patients.

EN: You want your patient to get up, you want your patient to get going, you want them to go home.

Student: It is you that is responsible for seeing the patient through the whole process.

Nurses were aware of their accountability for their actions and were no longer laying responsibility for actions on to other members of staff.

AUX: The nurses do feel they're responsible rather than keep passing the buck.

EN: Also I find there's no relaying the responsibility from one member of staff to the other because the responsibility is yours so you can't say 'That nurse should have done that'.

The sisters felt that they were able to rely on their staff, who now had total responsibility for individual patients. Thus the sisters were not so involved in doing care

plans and making sure that everything was done and had more time to fulfil their teaching and managing role.

SR: So even if you haven't been on duty there is a plan of care there to follow whereas before it was touch and go, it was always somebody else's job to do it.

They felt able to ensure that everything was being done correctly and to provide support for their staff, which were aspects which they previously had little time to address.

SR: Everything is tending to get done far better than it was done before even though I've got exactly the same staff as I have had before.

They were available for staff to ask their advice regarding aspects of nursing care. If staffing levels were improved, sisters felt that they would be better placed in the associate role and able to provide support where the need was greatest.

Enrolled nurses appeared to prefer their increased responsibility and acknowledged the fact that people believed them capable of being primary nurses.

EN: It depends on the individual, really, what they are prepared to do. I think its great that people are thinking we are capable of doing it... I enjoy it. That's basically it, I enjoy it.

They felt able to obtain advice concerning patient care from the sisters or doctors as required. However, they were particularly concerned that they were unable to administer intravenous drugs or to administer oral medications unless accompanied by a registered general nurse. While they were aware that this would be the case in whatever system of care was being practiced, they felt that it was a disadvantage for their patients whose drugs might be delayed if an RGN were unavailable.

EN: ...the only disadvantage I've come across mainly because enrolled nurses are being primary nurses, we're not allowed to give intravenous drugs and if we haven't got a nurse who is giving these drugs on duty at the time, we've got to wait for somebody else to come from another ward. Sometimes we might have to wait two or three hours if the nurse isn't free. That is the only disadvantage.

Auxiliaries felt that their roles and responsibilities had changed considerably. They felt that they now had responsibility specifically for activity in the dayroom but still maintained contact with the patient. They expressed the feeling that other members of staff were less likely to 'bother' (AUX) them since nurses now had individual responsibility for patients' needs.

Other issues

A large amount of information was obtained in the interviews described and it is not possible to detail all of the findings in this chapter. Other issues included the effect of the changes on the staff personally. The nursing staff at all levels expressed that they experienced greater job satisfaction since the implementation of primary nursing. This appeared to result from the continuity of care, the increased knowledge of and responsibility for, the patient.

SN: I think with primary nursing you are so involved and responsible, I think there is much more job satisfaction coming out of it.

Nurses felt that they could see their own patients getting better and that this was as a direct result of greater continuity of care.

SR: I think people did get better [before primary nursing] almost in spite of the system rather than because of the system. I think the care was far too fractured.

Pain control was mentioned specifically as an aspect of care which had improved through greater continuity.

SR: And I think with the pain control, it is more easy to control people's pain because the nurse knows the patient better. It is not a different nurse each time giving her interpretation of what the pain control is, its the same person.

The nurses unanimously were in support of primary nursing and did not want to go back to the previous way of working. Aware that it was a developing system of care, their concerns were about how they could improve it.

SUMMARY AND DISCUSSION

Interviews of this length give rise to much more material than can conveniently be summarised in a short chapter. Using the Ethnograph programme ensured that all the material was coded and categorised. The findings as presented do not reflect the amount of work that went into transcribing, listening to tapes, coding and categorising the material. In categorising much of the immediacy of the conversation is lost but through this process it is possible to communicate some shared understanding of the concerns and views of the respondents. Presentation is still selective. Meaning and interpretation depend on the good faith of the researcher and the reader.

The nurses talked in a very positive way about primary nursing though there were things about which they expressed some concern. None of them wanted to go back to previous ways of allocating work. A secret ballot of the ward staff gave overwhelming support for the change. The nurses derived satisfaction from being responsible for specific patients and their relatives from start to finish. They felt that more contact with fewer patients over a longer period gave them a better knowledge on which to base their care. They felt that the greater familiarity with patients and relatives improved communication and this resulted in better relationships which, in turn, led to more effective and speedier rehabilitation. Communication with doctors and consultant was based on more accurate information about patient and family. The results of the activity analysis confirm that the nurses were spending more time in communication (see chapter 2).[5]

Certain findings mentioned above are in agreement with those of previous studies: improved knowledge of patients[6,7] and improved communication.[8,9] The Job Characteristics Model[10] suggests that the essential elements which need to exist if high general job satisfaction is to occur, include knowledge of and

responsibility for the results of work. The improved communication and knowledge of their patients which are evident from the interviews might well have contributed to the feeling of increased job satisfaction which was apparent among the ward staff.

There were problems for some in reconciling the greater responsibility for and knowledge of a few patients with that of 'being in charge' of the ward. This was a difficulty expressed by staff nurses but not by enrolled nurses and sisters. Although staff nurses have been shown to have problems in reconciling being in charge of the ward on some shifts and giving basic care on others[11], running the ward is, at least in the early stages of their career, an important confirmation of their newly acquired status.

What the staff nurses in the study seem to be expressing is their fear of loss of control over information and possibly their loss of face if they had to admit to not knowing something. This may have been a transitional problem in that the difference between being the ward 'co-ordinator', in a primary nursing setting, and being 'in charge', in a more hierarchical setting, had not yet been fully accepted. Other people coming into the ward still expected someone to be 'in charge' and the staff nurses were simply responding to the pressure of such expectations. Added to which, when the staff nurses were in charge they often lacked the back-up of the kind of support that they themselves would have provided to the sisters when the latter were running the ward. While on the one hand they got satisfaction out of deeper relationships with a small group of patients, on the other hand they did still feel a responsibility for all the patients. When a visit was made to the ward a year after the change it was found that many of the problems which had seemed so difficult in the early stages had been resolved.

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5

Patients' views

Introduction

It has been claimed that patients will be more satisfied with their care if they are cared for in an environment which values individualised care and the person as a whole. Primary nursing as a method of organising care focuses on the particular relationship between a named nurse and named patient. It might, therefore, be expected that in-patient satisfaction would be affected by this mode of care delivery.

This chapter describes a survey of patient satisfaction among patients discharged from the three study wards. The evaluation tool used was the 'What the Patient Thinks' questionnaire.[1] This questionnaire was developed at the University of Manchester Institute of Science and Technology. It is a comprehensive tool for measuring patients' perceptions of the care they have received at hospital. The questionnaire has been employed by more than twenty health authorities leading to the accumulation of a database with a thousand patient opinions. This national sample provides valuable comparative figures as it comprises all ages and most specialties, and although it is not specific to elderly patients it does provide some comparative information on a geriatric ward.

The aim of the study was to identify any variation in patient satisfaction levels between the pilot ward and the two other wards. A questionnaire was sent to patients shortly after discharge to elicit their perceptions of the care they had received while in hospital. A 'discharged population' sample was chosen to overcome some of the difficulties of getting truthful opinions from in-patient populations.[2] It was hoped that by approaching people after discharge — when they are no longer dependent on staff — any bias occasioned by being a captive population would be avoided. The questionnaire was designed to identify those areas which cause common dissatisfaction as well as satisfaction among patients. The results of the survey were explored by comparing the patients' evaluation of each of the three wards and also by comparison with the results from a geriatric ward provided from the database of findings from 'What the Patient Thinks'.

A small pilot study, with a return rate of 65 per cent, suggested that the questionnaire was suitable for use with an elderly population.

Sampling frame

Patients were considered eligible to be included in the study if they fulfilled all of the following criteria:

- age greater than 65
- hospital stay greater than one day
- hospital stay less than three months
- discharged from hospital after 1 July 1988
- discharged to their own home.

Sample selection

The 'Patient Administration System', a computerised list of admissions and discharges, was used to obtain a weekly printout of in-patient names. Serial sampling of patients was initiated by using random starting numbers for the three wards. Following this every third patient discharged 'home' was selected. Questionnaires were then sent to the sample in the week following discharge.

Sample size

A total of 225 questionnaires was distributed to 75 patients discharged from each of the wards over a three month period. Reminders were sent out one month after the original mailing date.

Response rates

In total, 85 valid responses were returned; a disappointing response rate. However, the returns did include patients from all three wards. The proportion of patients from each ward who completed valid returns are shown in Table 5.1. This response rate was poor especially in contrast to the successful return achieved in the pilot study. Poor response rates from ex-patients is something which has caused difficulties in previous studies.[3,4] In view of this, information was sought to try to explain the non-responses. Some of the reasons included incorrect or incomplete information about the patient's address on discharge. This occurred when patients were not discharged to their original address, but, for example, went to stay with relations. Inaccurate information in respect of the date and location of discharge was occasionally problematic. Inevitably, returns for a self-completion questionnaire are affected by literacy difficulties and some of the patients may have had difficulty in reading the small type as well as in understanding some of the questions. Details were received from over twenty relatives explaining that the non-return of questionnaires was due either to a deterioration in condition or to death since discharge.

TABLE 5.1 WARD RESPONSE RATES

Ward	Ben Jonson	John Donne	George Herbert
Number of questionnaires distributed	75	75	75
Number of questionnaires returned	28	23	34
Response rates for each ward	37%	31%	45%

The overall response rate to the study was 42 per cent. A poor response rate is usually considered less than 40 per cent and where this is the case results should be interpreted with caution. Although 85 of the 225 distributed questionnaires were returned not all were fully completed. The number of useable responses varied, therefore, from question to question. The 'total valid response' (TVR) for each question is therefore the number of useable answers given. These were expressed as percentages of the TVR for

each ward's response to the question. Reasons for the variation in the TVR to some questions were obtained from the pilot study. These related to the sample being an elderly population who may have found the questionnaire, which was quite lengthy and detailed, difficult and tiring to fill out. The later sections of the questionnaire were not as fully completed as those at the beginning. Notes from relatives indicated that respondents had found the questionnaire difficult; for example, one relative wrote that 'his memory is not very good and he is unable to concentrate for many seconds'.

Throughout the pilot and main study it was interesting to find that questions of a factual nature or relating to physical aspects of care received higher response rates, perhaps because these questions were easier to answer as their meaning was clearer. Questions concerning attitudes by and to nurses and other staff did not receive as good a response. This is perhaps because answering these questions required more thought and the forming of opinions about relationships. Respondents may not have wanted to make critical statements about their carers. Comments such as 'didn't notice' or 'can't remember' were frequently made by respondents in reply to these questions.

Characteristics of the sample population

Of the 85 patients who returned valid responses, 70 per cent were female and 30 per cent male. Respondents from both Ben Jonson Ward and John Donne Ward were mainly female while from George Herbert Ward a majority were male. This simply reflects the different female/male bed ratios. The three wards had similar age group profiles for their respondents; all were older than 65 years and over 70 per cent of each ward's patients were over 75 years old; clearly indicating an elderly sample group. Patients from all three wards had similar degrees of physical difficulties. In common with the pilot study the majority of patients from each of the wards (over 80 per cent) had been unplanned admissions. Respondents returning a questionnaire had been in hospital for a similar length of stay. No one had a stay of less than two days and no patient had remained in hospital longer than one month (see Table 5.2).

TABLE 5.2 LENGTH OF HOSPITAL STAY OF RESPONDENTS

Wards	Ben Jonson	John Donne	George Herbert
Length of stay:			
< 1 week	48%	65%	56.2%
> 1 week < 1 month	52%	35%	43.8%
> 1 month	0	0	0
Total valid responses (TVR)	25	20	32

Findings

The questionnaire format divided the data from the survey into certain categories of care; arrival at hospital, ward environment and facilities, food, nursing care, medical care and leaving hospital. The findings were considered in relation to these and any variation between the level of satisfaction of those patients who had been cared for on the pilot ward and the others. Of importance to this study were any significant variations between the pilot ward and *both* of the other wards. Where it was useful, the results from the

three wards were also compared with those from a Care of the Elderly ward taken from the national database of questionnaire results. Because of the size of the respondent sample and variation in TVR to questions, only a descriptive picture can be given.

Arrival at hospital

Ben Jonson Ward did not achieve any greater or lesser patient satisfaction than the other two wards in relation to the provision of information about what it would be like in hospital and what facilities were available. There was no difference in the patients' overall opinion about the care received between arriving at hospital and being admitted on the ward. However, there were some variations in patient experiences on the pilot ward compared with both the other wards.

The majority of all patients from the three wards described their first reaction to being on each of the wards as a 'feeling of being made to feel very welcome'. The patients were asked how long they had to wait before being admitted to the ward: the majority of all the respondents described is as 'no time at all'; all of the pilot ward's patients recorded their waiting time as 'perfectly reasonable'; while only 70 per cent of the patients from the other wards were as satisfied. This is consistent with how long patients recorded their wait to be. The pilot ward had fewer patients who were required to wait longer than one hour.

Patients were asked whether anyone had enquired about their home to see if they needed anything done while they were in hospital. The majority of responses to this question were 'no'. However, more patients from the pilot ward answered 'yes'.

There was an indication of lesser satisfaction among patients who had been on Ben Jonson Ward when they were asked about settling into the ward. Fewer patients chose the option 'I was able to adapt quickly to the new way of life'. Rather more selected 'I was confused for quite some time as to what was going on around me' to describe how they found arriving at hospital. This was interesting especially since the overall satisfaction with their care was not lower than that of patients on either of the other wards. Similar numbers of patients from the three wards had been in-patients in hospital before so inexperience among respondents from Ben Jonson Ward could not explain this finding. However, they had not all been in hospital as recently as the sample patients on the other wards. Considerably more of them had not been in hospital for two years or longer. Although it is impossible to tell, perhaps this unfamiliarity together with the change in the organisation of care from the introduction of primary nursing led to a degree of confusion in relation to patients' expectations of their role.

Ward environment and facilities

Those questions which asked about satisfaction with the physical ward environment and provision of facilities received a good response rate. There was little variation in the level of satisfaction about each ward's decor, lighting, toilet/washing facilities, privacy and visiting arrangements. All of these features indicated a great deal of patient satisfaction. Some variations between the pilot ward and the others appeared in relation to certain specific details. Perhaps these were aspects over which the nursing staff were able to exert some influence.

When asked about the comfort of their bed, a higher level of satisfaction was recorded among Ben Jonson Ward's patients. This was explained by fewer of these patients reporting the use of 'plastic or rubber undersheets' on their beds. In reality, there was no difference in practice between the wards.

From the responses to questions about the turning out of lights in the evenings, the pilot ward did not appear to have any set routine as to what time 'lights out' was. This was recorded as an irritation by some patients, who perhaps took comfort from a ward's routine.

Respondents were asked about rest periods during their stay on the ward. Fewer respondents who had been patients on the pilot ward reported having to have rest periods during the day when they felt fit enough to be out of bed.

The variability in both satisfaction and dissatisfaction appears to be indicative of a more flexible ward routine on the primary nursing ward. This finding relates to those of Bond *et al*[5] which also showed variations in the pattern of the day on the primary nursing ward.

More patients from the pilot ward reported access to 'games and handiwork'. The majority of patients from both the other wards reported that 'the hospital didn't provide things to occupy them'. However, comparing overall opinions, patients from the other wards did not indicate any greater feelings of 'boredom' than respondents from Ben Jonson Ward.

More patients from the pilot ward also indicated that they had access to the use of a private room if they needed to talk confidentially. There were no differences between the facilities actually available on each ward.

It would seem that the changes in the organisation of care did affect the ward environment and facilities and that these changes did influence patient satisfaction.

Night sedation

The use of night sedation is an important indicator of how well a ward is able to maintain 'normal patterns of daily living'.

Fewer patients on the pilot ward reported taking night sedation for the first time during their stay.

Some patients on the pilot ward, who on admission had stated they took night sedation 'all the time', stopped taking night sedation as frequently while they were in hospital. On both the other wards the number of patients who described their taking of night sedation as 'all the time' increased after admission.

Despite the tendency for fewer patients to have night sedation and for these patients to have it less frequently on the pilot ward, respondents did not record any less satisfaction in their quality of sleep at night compared with the other wards.

Although the number of TVR to this question were low, a smaller proportion of patients from the pilot ward reported noise at night from staff chatting among themselves than those patients from other wards.

There is, then, some evidence that sleep patterns were being managed more effectively on Ben Jonson Ward.

Food

All the wards had the same catering arrangements but it was not surprising to find differences between them in levels of patient satisfaction concerning 'food'. Food is a well known surrogate for patient satisfaction in hospitals. Although there was little variation among the responses to questions which asked about overall satisfaction with the quality of food, certain specific questions indicated some differences between Ben Jonson Ward and the other two wards. In the pilot ward the auxiliaries were specifically taking the trouble to set tables properly, provide napkins and generally make meals social occasions.

Ben Jonson Ward received greater patient satisfaction concerning eating arrangements than the other wards.

More respondents who had been patients on the pilot ward recalled being asked about their diet on admission.

However, fewer patients from the pilot ward were satisfied with the timing of their evening meal. Perhaps this was related to the lack of routine which they also experienced in the timing of 'lights out'.

Fewer of the pilot ward's patients were satisfied with the variety of food and fewer recorded being asked about the size of portion they were given.

It would appear that the efforts being made to provide a more personalised approach to care on Ben Jonson Ward were influencing the patients' perception of care.

Nursing care

The questions about satisfaction with nursing care were of great importance in the present context. There was no variation in patient satisfaction about each ward's routine, nursing team spirit and overall care or concerning those questions which asked about relationships. Both Ben Jonson Ward and one of the other wards received greater levels of satisfaction about the help patients received from nursing staff and the time nursing staff had available to talk with them than the third ward. Both these wards scored higher than the national average in these areas. This may be because nursing staff in elderly care wards realise that their patients need more help than the average patient population. The amount of time spent by all nurses in direct patient care in the three wards was higher than the average for medical and surgical wards. The level of satisfaction expressed would suggest that patients were being well supported in all three wards.

One question asked whether patients felt that their care was arranged to suit the ward routine or whether their care was given more importance than routine. Patients from all three wards were more likely to report that their care was given more importance than did the comparison care of the elderly ward provided by the database of national results. The respondents from the pilot ward were more in agreement about this than the patients from the other wards. All three wards also received satisfaction levels greater than the national database figures in relation to the patients' perception of nursing staff dedication. Again, the pilot ward had the greatest level of satisfaction.

Certain areas of nursing care did indicate some variation in patient satisfaction between Ben Jonson Ward and both the other wards.

Patients from the pilot ward indicated greater satisfaction with the availability of staff. This was reinforced by the responses obtained to questions on the promptness of nursing staff answering patient call bells during the day. On the pilot ward greater patient satisfaction was recorded although satisfaction levels were similar between the pilot ward and one of the other wards on the promptness of answering call bells at night.

Respondents were questioned on their perceptions of the ward sister/charge nurse on each ward. Fewer patients from the pilot ward ward chose the description of the ward sister as 'Quite strict, but well respected by the other nurses' compared to both other wards. Patients from these wards were more likely to choose the option 'Not very strict but they were thought of highly by the other nurses'.

Several questions asked patients to describe relationships between nurses and doctors and also domestic staff. More patients who had been on the pilot ward described the way doctors treated nurses as either equals or superiors. Although only one patient from the other wards described it as inferior, more patients from these wards answered 'don't know'. More patients from Ben Jonson Ward also described the nurses' treatment of medical staff as being that of equals. This may indicate that on the primary nursing ward relationships with doctors were better or that nursing staff were more involved with medical staff in the planning of patient care. However, when asked about the nursing staff's relationships with domestics/auxiliaries, more patients from the pilot ward answered 'didn't know' and fewer described the relationship as being one of equals.

Respondents were questioned about the availability and quality of information they received during their hospital stay. A mixed picture of satisfaction emerged. Slightly more patients from the pilot ward indicated that they felt they had to ask for information and were less happy about the detail they received, although this level of dissatisfaction was lower than recorded for the care of the elderly ward from the national data base. More patients from the pilot ward also felt that staff were not always sure about the

information they gave to patients. This apparent dissatisfaction from respondents who had been patients in the pilot ward conflicted with the results of other questions which explored satisfaction about information received.

The pilot ward achieved greater patient satisfaction with regard to the patients' perception of the nurses' insight into their condition and also with regard to patient satisfaction concerning the amount of warning given of discharge or investigation. Also, fewer patients from the pilot ward reported having not been told about their drugs.

This variability in satisfaction among Ben Jonson Ward's patients may be explained by more of its patients recording difficulty in understanding both what they and the nurses were saying due to hearing and speech difficulties. However, another explanation might lie in the very process of change which was being undertaken in the ward. As the nurses were adapting to a new role patients could have perceived them as being less sure of the information they were giving. Giovannetti[6] also found that in a comparison of team nursing and one ward practising primary nursing, patients on the team nursing ward were more satisfied with the information received than were their counterparts on the primary nursing ward.

The majority of questions concerning nursing workload indicated little variation between the three wards. Two differences concerned the patients' perception of whether the nursing staff coped with the workload. More patients from the pilot ward recorded that 'nurses appeared to find it difficult to cope with the workload' while Ben Jonson Ward was alone in having no respondents record domestic staff workload as being excessive. Again perhaps this reflects changes in the organisation of the ward team and patients not identifying this pattern of care delivery from their previous experiences of being in-patients.

Another feature which indicated differences between the pilot ward and other two wards concerned the respondents' perception of patient involvement. Patients were asked about 'helping the staff'. Fewer respondents from Ben Jonson Ward replied that 'situations when the staff needed help never arose'. Rather more chose 'fitter patients were encouraged to help with such simple chores as making beds, or clearing away meal dishes', or 'it became necessary at times for patients to help the staff look after the ward due to staff shortages'. Such patient perceptions might be taken to reflect a greater emphasis on 'self-care' on the pilot ward.

Fewer patients from Ben Jonson Ward described the care they received from the nurses as 'kind, gentle and sympathetic at **all** times' than either of the other wards or the comparison ward from the national database. More patients from the pilot ward chose to describe their overall nursing care as 'reasonable care'. Yet Ben Jonson Ward had similar or fewer numbers of respondents indicating that they felt 'there was room for improvement in the nurses' care', compared to both the other wards. To encourage patient independence and participation in care can be seen as part of the philosophy of primary nursing. However, it may be that elderly patients with set expectations of care can misconstrue these initiatives.

Medical care

Those questions which sought information on patient satisfaction concerning medical staff across the three wards received lower levels of satisfaction than might have been expected, especially in comparison with the levels of satisfaction recorded in the national database. Patients from Ben Jonson Ward appeared to be less satisfied concerning several features of medical care than the other two wards. These features were,

- the duration of the doctors' visit
- the overall care and approach of medical staff
- patient confidence in doctors' care.

However, despite these findings patients from the pilot ward indicated greater satisfaction with the explanations given by medical staff. There was also little variation in patient satisfaction about feeling they were told the truth about their conditions. Patient satisfaction on the pilot ward was greater than that of the care of the elderly ward from the national database concerning these issues. Bond *et al* [7] found that patients on a primary nursing ward were more clear about what doctors were doing for them. Perhaps it is this increased awareness which explains why this patient group while being similar in their overall satisfaction with medical care were more critical of some aspects.

Social workers

Several questions concerned the input of other members of the multi-disciplinary team. These were medical support staff, chaplains and social workers. Those questions which concerned the latter group indicated a variation in the levels of patient satisfaction on the pilot ward.

Although patients from the three wards had similar views of their need to see a social worker, more patients from Ben Jonson Ward recorded that they had been visited by a social worker. This was re-inforced by the finding that all the sample from the primary nursing ward were aware of the availability of a social worker. This was not the response from all respondents who had been patients on both other wards. There was also greater consensus among those patients who had been cared for on Ben Jonson Ward, that if they had wanted information about matters such as social services they would have been able to get it easily from a social worker.

Leaving hospital

There was no apparent difference in patient satisfaction about the experience of leaving hospital. Ben Jonson Ward did not receive greater patient satisfaction than the other wards with regard to the advice patients were given on discharge or patients' overall opinion about the way they were cared for when leaving hospital. Nor did there appear to be any variation in the opinion of these patients concerning the planning of any community link on discharge.

It has already been mentioned that patients from the pilot ward received more notice of their discharge date than patients from the other wards. This was reflected in the patients' satisfaction with the adequacy of this warning. There was complete consensus among Ben Jonson Ward's respondents that they were given 'plenty of advance warning'; while not all of the patients from the other wards were as satisfied.

Fewer respondents who had been patients on Ben Jonson Ward reported having to go to outpatients after discharge than the sample groups of the other wards. This was interesting as the three wards have been shown to have had similar patient populations.

The lack of variation between the three wards in the organisation of discharge and the planning of community links was surprising in view of the findings from the study of patient outcomes and the use of the community services (see chapter 6).

SUMMARY AND DISCUSSION

Patients' overall opinions of their nursing care on the three wards did not reflect the change in organisation on Ben Jonson Ward. However, the responses to specific questions would seem to indicate that this group's experience of care was different.

The limitations of the study are considerable. The response rate was poor and many of the more complex questions were not completed by all the respondents. Because of these limitations it has been difficult to evaluate whether the practice of primary nursing significantly improved overall patient satisfaction. However, the survey has been valuable in highlighting areas of difference in patients' perceptions of care on the pilot ward. The introduction of primary nursing appeared to result in a more flexible ward routine allowing greater individualised care, improved staff relations and better planning of patient care.

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6

Rehabilitation and discharge

Introduction

The true challenge in caring for elderly people is to keep them at home in the community with a high degree of functional ability.[1] With today's 'aging society', debilitated by chronic illness and disease, it is essential that health care services rise to the demand. The delivery of effective services will minimise the cost not only for the individual but also for society as a whole.

Unfortunately, elderly patients are sometimes more dependent on discharge than they were before admission to hospital. Often this is because of the catastrophic experience, such as a heart attack or stroke, which brought them into hospital in the first place, sometimes it is because they are slow to recover from the dependency generated just by being in unfamiliar surroundings, and sometimes it is because care arrangements at home have broken down while they are in hospital.

The study reported in this chapter looks at length of stay, the number of patients treated, discharge patterns, re-admissions and rehabilitation to see if Ben Jonson Ward was more effective than the two other wards.

Data collection

Details about patients on discharge were gathered by ward staff using a 'Discharged Patient's Information' form. This provided a record of patient throughput on the three wards over an eighteen-month period which included the six months before the change to primary nursing on Ben Jonson Ward and the subsequent twelve months. Details included age, gender, final diagnosis, length of stay, dependency on admission and discharge, address on admission and discharge and services on discharge.

This produced a large data set of 1927 cases with 24 variables per case. The information was analysed using the Statistical Package for the Social Sciences (SPSS/PC+) allowing manipulation and transformation of the data for simple statistical analysis.

In this chapter information relating to the first six months — the pre-pilot phase — is presented to establish a baseline profile of each of the three wards. This is followed by information relating to rehabilitation and discharge.

Ward profiles

The wards will be compared on the following factors; gender and age of patients, number of patients per consultant, final diagnosis, dependency on admission and discharge, address on admission and discharge and destination on discharge.

Gender

It will be recalled that each of the three ward had 28 beds. These were divided geographically into four bays with four side-rooms. Twelve beds were used exclusively for male patients on George Herbert Ward and six beds on each of the other wards. In addition the four side wards on any of the wards could be used for male patients as the need arose.

TABLE 6.1 PATIENT GENDER

Ward	Male	Female	Total
Ben Jonson	75	161	236
John Donne	56	133	189
George Herbert	123	114	237
Total	254	408	662

The larger number of male patients treated on George Herbert Ward reflects the number of beds designated for male patients while the larger number of female admissions overall reflects the general demographic situation. In terms of patient gender the wards may not be strictly compared. This would matter only if dependency were related to gender. While it is the perception of many nurses that this is so, the evidence suggests otherwise.[2]

Age

The average age of patients discharged from each ward was similar; the majority of patients being between 71 and 90. The average age of all patients was 80.

TABLE 6.2 AGE OF PATIENTS

Ward	No	65-74 %	75-84 %	85+ %
Ben Jonson	236	20	54	26
John Donne	189	15	55	30
George Herbert	237	18	57	25

There were no significant differences between the wards in terms of the age of the patients treated.

Patients per consultant

Ben Jonson Ward admitted patients under Consultant 2 and John Donne Ward admitted patients under Consultant 1. Officially George Herbert Ward had eight beds allocated to Consultant 2. Table 6.3 indicates that there was little difference in the use of beds in that ward by either consultant.

TABLE 6.3 NUMBER OF PATIENTS PER CONSULTANT

Ward	Consultant 1	Consultant 2	Missing data
Ben Jonson	4	222	10
John Donne	171	11	7
George Herbert	127	109	1
	302	342	18

Length of stay

The number of days patients were in hospital on average was 22.2 days on John Donne Ward and 18.5 days on the two other wards. To see whether the difference in length of stay was related to the ward or to the consultant the data for George Herbert Ward, where both consultants had patients, were examined separately. No statistically significant difference was found between the length of stay of the two consultants on that ward. Consultant policy, therefore, could not be adduced to explain why patients on John Donne Ward should have spent an extra four days in hospital.

Diagnosis

The diagnosis given on the discharge letter was used to establish the comparability of the patient populations on the three wards.

TABLE 6.4 DIAGNOSTIC CATEGORIES ON DISCHARGE

Diagnostic category	Ben Jonson	George Herbert	John Donne
Infectious diseases	5	4	4
Neoplasms	14	5	14
Endocrine, nutritional, metabolic & immunity diseases	8	8	12
Blood disorders	2	3	2
Mental disorders	3	2	5
Diseases of nervous system	15	10	4
Diseases of circulatory system	68	73	87
Diseases of respiratory system	48	29	41
Diseases of digestive system	12	8	6
Diseases of genitourinary system	8	7	7
Diseases of the skin	1	3	2
Diseases of muscle and connective tissue	9	8	4
Undefined	23	7	28
Injury and poisoning	16	13	16
Holiday stay	2	6	4
Missing data	2	3	1
	236	189	237

Diagnosis on discharge was categorised using 'The International Classification of Diseases'.[3] Where patients had multiple diagnoses, the first diagnosis listed was used. The information showed that patients had similar conditions on all three wards. The most frequent diagnosis was diseases of the circulatory system followed by diseases of the respiratory system.

Patient dependency

Dependency scores were recorded for the patients on both admission and discharge. The KTC formula was used to measure dependency (see chapter 1). Assessments using this tool are descriptive of the amount of assistance needed by a patient in six major areas. The classification scheme is related to the Orem model and similar to the Aids to Daily Living assessments used by occupational therapists.[4] The scale runs from 6 (low dependency) to 24 (high dependency).

TABLE 6.5 DEPENDENCY OF PATIENTS ON ADMISSION

Ward	Ben Jonson	John Donne	George Herbert
	%	%	%
KTC score			
6-9	7	17	10
10-14	25	33	28
15-19	55	40	49
20-24	13	11	14
Number of patients*	184	144	175

* 6 missing observations

The majority of the patients discharged in the pre-pilot period had been in the two middle dependency categories on admission. The median (most frequent) dependency score on admission was 17 on George Herbert Ward and 15 on the two other wards. This suggests a slightly higher dependency level on the former ward in the pre-pilot period.

Dependency on discharge during the pre-pilot period was very similar.

TABLE 6.6 DEPENDENCY OF PATIENTS ON DISCHARGE

Ward	Ben Jonson	John Donne	George Herbert
	%	%	%
KTC score			
6-9	54	55	54
10-14	27	28	25
15-19	13	13	24
20-24	7	4	7
Number of patients*	184	144	173

* 7 missing observations

Whatever the dependency of their patients had been on admission the three wards achieved the same pattern of dependency on discharge. Over half the patients were in the lowest category and four out of five scored under 15 on each ward. Neither dependency on admission or discharge was found to be related to the consultant. Nor was dependency related to either gender or age.

Deaths in hospital will be considered later in the chapter but there was no significant difference in the death rate between the three wards in the pre-pilot period.

Destination on discharge

Those patients who survived — the majority — were discharged to a wide variety of settings. Well over half the patients from all three wards were discharged home. Rather more of the patients from George Herbert Ward were discharged home. This probably reflects the fact that more of them were men and, therefore, more likely to have support at home.

TABLE 6.7 PATIENT DESTINATION ON DISCHARGE

Ward	Ben Jonson	John Donne	George Herbert
	%	%	%
Destination			
Home	61	61	71
Community care*	16	27	18
NHS continuing care	18	6	7
NHS acute hospital	3	6	3
Other	2	1	2
Live discharges	189	144	175

* included sheltered accommodation, rest/nursing home and Part III accommodation

Fewer NHS continuing care beds were available for patients discharged from John Donne Ward and more use was made of community care options for these patients. This pattern was not related to differences in dependency on discharge.

Some patients had, of course, been admitted from community care or transferred from continuing care because of an acute episode. The address of each patient on discharge was matched with the address on admission to see if the admission had brought about any change in their usual living arrangements. About three-quarters of all the patients were discharged to the same address from which they had been admitted. Eighty-one per cent of patients from John Donne Ward returned to the same address. Just over 70 per cent of patients on the two other wards went back to the same place.

Overall the three wards were rehabilitating a significant proportion of their patients to quite high levels of independence and sending them back to their usual places of residence. If it can be shown that the introduction of primary nursing on Ben Jonson Ward has brought any additional improvement from this already high baseline it will be a major achievement.

From these profiles of the three wards it would appear that there was sufficient comparability between them in terms of patient clientele to allow comparisons to be made in the pilot and post-pilot periods. Ben Jonson Ward and George Herbert Ward appeared to be very similar. The most notable difference between the three wards was

that fewer patients were treated in the pre-pilot period in John Donne Ward. These patients also spent longer in hospital.

The main study

Following the initial six months of preparation, Ben Jonson Ward started to practice primary nursing. The data on the succeeding twelve months was, therefore, examined in an attempt to ascertain whether there were any differences in outcomes on the pilot ward and between the pilot and the control wards

The following information was analysed:

1 dependency on discharge
2 difference in dependency from admission to discharge
3 patient throughput
4 length of hospital stay
5 destination on discharge
6 destination on discharge in relation to address on admission
7 destination on discharge in relation to dependency on discharge
8 use of services on discharge
9 use of services in relation to dependency on discharge
10 use of services in relation to destination on discharge
11 re-admission patterns
12 rehabilitation of patients.

The information is analysed and presented in three periods of six months — pre-pilot, pilot and post-pilot. Not all of the information is presented in detail in this chapter. Attention has been focused on that material which does show up some differences between the pre- and post-pilot periods on the pilot ward and on differences between the wards.

Dependency on discharge

The degree to which patients are restored to a reasonable level of functioning is an important indication of the effectiveness of their care. It must be remembered that these were acutely ill patients with only a few having been admitted from long stay care. Dependency on discharge is a useful indicator of functional ability.

During the months prior to the introduction of primary nursing on Ben Jonson Ward the distribution of patient dependency scores on discharge was similar to the other wards. During the pilot phase Ben Jonson Ward managed to discharge a higher percentage of people with low scores (KTC 6-9) than the two other wards but this was mainly because the percentage in the lowest group on both these wards had fallen. Although this relative position was maintained in the post-pilot period the proportion in the lowest group on the pilot ward dropped slightly. However, in the post-pilot period 110 people were discharged from the pilot ward in the low dependency group in comparison with 139 from both the other wards. Though the pilot ward did not really achieve a higher proportion of low dependency patients it was the same level for a greater number of patients.

TABLE 6.8 PATIENT DEPENDENCY ON DISCHARGE

Ward	Ben Jonson		John Donne		George Herbert	
			Pre-pilot period			
KTC score	*No.*	*%*	*No.*	*%*	*No.*	*%*
6-9	99	54	79	55	94	54
10-14	49	27	40	28	43	25
15-19	23	13	19	13	24	14
20-24	13	7	6	4	12	7
	184	100	144	100	173	100
			Pilot period			
6-9	108	56	56	42	75	51
10-14	41	21	48	36	33	23
15-19	31	16	22	16	27	18
20-24	14	7	7	5	12	8
	194	100	133	100	147	100
			Post-pilot period			
6-9	110	52	57	46	82	50
10-14	46	22	43	34	40	24
15-19	32	15	18	14	27	16
20-24	23	11	8	6	17	10
	211	100	127	100	166	100

6 missing observations

Length of stay

Length of stay was considered to be a variable which might be affected by the introduction of primary nursing. The pattern of length of stay for surviving patients was established for the pre-pilot period and then compared with the pilot and post-pilot periods.

It is not easy to see how length of stay as such has been affected. The pilot period covered the winter months and the percentage of short stay patients decreased on all three wards. In the post-pilot period the pattern for Ben Jonson Ward reverted to the pre-pilot period. In comparison with the two other wards the differences do not seem very great though a smaller proportion of patients were in hospital for more than a month. However, during the post-change period 214 patients were treated in Ben Jonson Ward over 12—30 days in comparison with 131 and 153 respectively on the two other wards.

TABLE 6.9 LENGTH OF STAY FOR SURVIVING PATIENTS

Ward	Ben Jonson		John Donne		George Herbert	
			Pre-pilot period			
Number of days	*No.*	*%*	*No.*	*%*	*No.*	*%*
0-11	90	38	40	28	100	42
12-30	120	51	71	49	100	42
31+	26	11	33	23	37	16
	236	100	144	100	237	100
			Pilot period			
0-11	90	30	24	18	43	29
12-30	99	51	72	54	70	48
31+	26	19	37	28	34	23
	194	100	133	100	147	100
			Post-pilot period			
0-11	72	34	43	34	53	32
12-30	115	55	59	47	83	50
31+	23	11	24	19	30	18
	211	100	126	100	166	100

Throughput of patients

Table 6.10 gives the information on the number of patients treated in the three wards throughout the study period. It is the key table in this chapter demonstrating the success of Ben Jonson Ward in treating patients

Total throughput of patients increased on the pilot ward during the study period. The discharge rate was higher and the death rate lower in the post-pilot period. Discharge and death rates remained the same on the two other wards. Moreover, in comparison with both of the other wards the throughput of patients was significantly higher and deaths were lower on Ben Jonson Ward.

TABLE 6.10 THROUGHPUT DURING STUDY PERIOD

	Ben Jonson	John Donne	George Herbert
		Pre-pilot period	
Total throughput	236	189	237
Monthly average	39	32	40
Live discharges	189	144	175
Monthly average	32	24	29
Live discharge rate	80%	76%	74%
Total deaths	47	45	62
Monthly average	8	8	10
Death rate	20%	24%	26%
		Pilot period	
Total throughput	241	181*	199
Monthly average	40	30	33
Live discharges	194	133	147
Monthly average	32	22	24
Live discharge rate	80%	73%	74%
Total deaths	47	48	52
Monthly average	8	8	9
Death rate	20%	27%	26%
		Post-pilot period	
Total throughput	249	173	224
Monthly average	42	29	37
Live discharges	211	126	166
Monthly average	35	21	28
Live discharge rate	85%	73%	74%
Total deaths	38	47	58
Monthly average	6	8	9
Death rate	15%	27%	26%

* Some beds were closed briefly during redecoration

Discharge

The pattern of discharge was explored to see if there were any systematic differences between the three wards.

Destination on discharge

Here the pattern was identical across the three wards for the whole of the study period. In the summer months three out of five of the patients were discharged home. In the winter months this dropped to half. A higher percentage of patients from Ben Jonson Ward went to continuing care beds rather than to nursing homes or Part III accommodation, but the proportion going into some kind of supported care was the same across the three wards over the whole period.

Just under three-quarters of all discharged patients returned to the address from which they had been admitted, indicating no dramatic change in circumstances as a consequence of admission to hospital. The pilot ward improved slightly in the post-pilot period relative to the pre-pilot period but this change was not statistically significant.

Dependency on discharge

A higher percentage of patients from Ben Jonson Ward were discharged with a low dependency score (6-9) in the pilot and post-pilot phases than from the two other wards. However, the pilot ward did not increase its own proportion of low dependency discharges over the pilot and post-pilot periods.

While the pilot ward did not have a higher percentage of patients going home, more of those who did go home were in the lowest dependency group.

Services on discharge

A range of services could be arranged for patients on discharge. Over the period under review Ben Jonson Ward *reduced* the proportion of discharged patients who had services from 39 per cent to 21 per cent. There was also some reduction but not so marked for patients discharged from the other wards. Patients with a low dependency score on discharge from the pilot ward were much less likely to have services arranged for them in the pilot and post-pilot period. Patients discharged at medium high or high dependency levels were more likely to have services arranged in the pilot and post-pilot periods. This suggests an improvement in discharge planning on the pilot ward.

Rehabilitated patients

Patients were discharged throughout the whole range of dependency. In general, the less dependent were discharged home while the more dependent were discharged to some form of community care. However, some very dependent patients were discharged home where there were relatives to care for them while some relatively independent people were discharged, for example, to sheltered housing. This, in turn, affected the level of services provided on discharge.

As it was difficult looking at each item separately to see if patients cared for in Ben Jonson Ward did any better than those in the two other wards, a number of items of information about each patient were grouped to create a category of 'rehabilitated patients'.

The following criteria were used to identify patients who could be regarded as 'rehabilitated' on discharge. Only patients who fulfilled *all* of the following criteria were considered fully rehabilitated:

- discharged 'home'
- no services organised on discharge
- length of hospital stay less than 20 days (the length of stay on average across the three wards)
- dependency on discharge less than 15 (the average dependency score on discharge across the three wards)

Table 6.11 shows the number of patients who fulfilled these criteria. On Ben Jonson Ward the proportion of patients rehabilitated to this extent increased in the pilot and post-pilot periods. Over one in four of all discharged patients were fully rehabilitated in the post-pilot period. These differences were statistically significant.

At first sight this looks as if the change to primary nursing had resulted in more patients being fully rehabilitated.

TABLE 6.11 REHABILITATED PATIENTS

a: Total live discharges b: number of rehabilitated patients

	Ben Jonson			John Donne			George Herbert		
	a	b	%	a	b	%	a	b	%
Pre-pilot	189	34	18	144	9	6	175	40	23
Pilot	194	43	22	133	13	10	147	27	18
Post-pilot	211	56	27	126	25	21	166	35	21
Post-change	405	99	24	259	38	15	313	62	20

However, Table 6.11 also shows that the proportion of patients fully rehabilitated had also increased on John Donne Ward over the same period though not to quite the same degree. Though Ben Jonson Ward did better in the post-pilot period than both the other wards this difference was not statistically significant at the conventional (5 per cent) level.

While the higher percentage of patients rehabilitated may not reach statistical significance it is clear from the table that Ben Jonson Ward rehabilitated the same *number* of patients in the pilot and post-pilot period as both the other wards put together. It has already been shown that the patients were comparable in dependency, age and diagnosis. The data for George Herbert Ward were analysed by consultant and no statistical difference was found between the rates of rehabilitation.

Clearly, more patients were being treated and rehabilitated on Ben Jonson Ward. This could not simply be explained by reference to patient characteristics or consultant policy.

Re-admissions

The final aspect of the study considered in this chapter is the information on re-admission rates. If patients discharged from the pilot ward could be shown to be no more likely to be re-admitted despite the greater numbers having been treated this would be a further indication of successful rehabilitation.

TABLE 6.12 RE-ADMISSION OF PATIENTS

	Live discharges	Re-admissions	% re-admitted
	Pre-pilot period		
Ben Jonson	189	30	16
John Donne	144	22	15
George Herbert	175	34	19
	Pilot period		
Ben Jonson	194	30	15
John Donne	133	24	18
George Herbert	147	24	16

The first two groups of discharged patients were each followed through for six months. Unfortunately it was not possible to follow through the patients discharged in the post-pilot period. Re-admission rates showed little difference between the wards for either period though the pilot ward did have the lowest admission rate for patients discharged during the pilot period. The pilot ward maintained a low re-admission rate together with a higher throughput. This does confirm that patients were being effectively rehabilitated before discharge.

SUMMARY AND DISCUSSION

Prior to the introduction of primary nursing on Ben Jonson Ward the profiles of the wards were sufficiently similar to allow for comparisons to be made between them. John Donne Ward had a lower patient throughput and a higher average stay than either of the other wards. However, these variations could not be explained by reference to consultant practice.

The proportion of patients meeting the criteria for being fully rehabilitated on discharge increased on the pilot ward during the study period. Effectively more patients were discharged at lower dependency rates, more were discharged home and fewer had support services arranged for them. While the differences in these respects between the pilot ward and the two other wards were in the right direction they were not statistically significant. Overall the use of services on discharge from the pilot ward appeared to have been rationalised with the introduction of primary nursing with more services being provided for the more dependent patients and fewer for the more independent ones.

While there was little effect on the average length of patient stay the pilot ward discharged more patients under 20 days and fewer over 50 days. This resulted in a throughput of patients which was significantly higher than in the pre-pilot phase and significantly higher than that for the two other wards. The death rate was also significantly reduced over the period and in comparison with the two other wards. Re-admission rates appeared unaffected.

The change to primary nursing appeared to have brought about an improvement in outcomes for patients on Ben Jonson Ward, not the least of which was that more patients were being discharged sooner and at lower dependency levels. Services were being arranged for patients discharged at high dependency levels while fewer low dependency patients had such services. In addition, there was no increase in re-admission rates. This suggests that the overall planning of care had improved and that arrangements for discharge were much more effective. That the responsibility for co-ordinating the care of each patient resided with a particular nurse is the most likely explanation for this improvement. Case assignment was certainly well established on Ben Jonson Ward during the pilot and post-pilot periods.

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7

Evaluation

Introduction

In this the final chapter, some of the methodological issues involved are discussed, the major strands from the separate chapters are presented and an attempt is made to answer the questions posed at the beginning of this report.

Primary nursing has been described as a system for delivering nursing care which incorporates these four fundamental principles:

1 allocation and acceptance of individual responsibility for decision-making in respect of a particular patient to one individual
2 assignment of daily care by case method
3 direct person-to-person communication
4 one person operationally responsible for the quality of care administered to a patient for twenty-four hours a day, seven days a week.[1]

As Manthey pointed out, it is one system of organising nursing care among several and does not necessarily of itself bring about improvement in patient care. It must be evaluated in operation each and every time it is introduced before any assertions may be made about its success or failure. The question 'Is primary nursing a good thing?' cannot be answered once and for all but must continue to be asked wherever it is the chosen form of organisation. Evaluation must be on-going. The answer also depends on what is understood by 'primary nursing'.

The study context

There is a growing literature on primary nursing in this country, much of which was not available when the present study was carried out. At that time the research-based studies were mostly American. They did, taken together, raise a number of methodological problems, with some of which the study presented in the foregoing chapters tried to deal.

Primary nursing had been extensively implemented in America despite insufficient evidence to demonstrate that it was beneficial as a method of care delivery.[2] Much of the published material in support of primary nursing was only descriptive. Reviewing material on primary nursing published from 1970 to 1984, Giovannetti isolated only 29 studies which met her criteria as being research-based and found the methodology of much of even that work to be flawed. Consideration of nurses' and patients' perceptions and satisfaction levels was the main subject in 12 of the studies. The terms 'perceptions' and 'satisfaction levels' were frequently interchanged. In most studies these were investigated in relation to both patients and staff in acute care settings. Studies frequently involved comparisons with other modes of care delivery, in particular team nursing.

The findings of the 12 studies described by Giovannetti were generally inconclusive, with results inconsistent in their advocacy of primary nursing as the preferred mode of

care delivery. Authors frequently explained their failure to achieve expected outcomes by suggestions that primary nursing had not been fully implemented by the time of data collection. Many of the studies were over very short periods of time. McAdam[3] suggests that it is unrealistic to accomplish a change in the organisation of care delivery in less than 12 months.

Reed[4], in the UK, attempted to compare team and primary nursing in units with established modes of care delivery but it was necessary to utilise units in different health authorities in order to achieve comparison groups. Primary nursing resulted in improved quality of care and in increased job satisfaction for nurses. Blenkarn *et al* [5] found that significantly increased job satisfaction for nurses occurred after three years of practising primary nursing. They suggested that it takes considerable time for staff nurses to adapt to their new role as well as for their superiors to accept a shift in responsibility for decision-making and for other members of the health care team to gain insight into the expanded role of the primary nurse.

Sellick *et al* [6] provided some support for primary nursing, reporting that it resulted in significantly increased levels of patient and staff satisfaction. Nurses practising primary nursing were perceived to have an increased knowledge of and improved communication with the patient and relatives and to give greater consideration to discharge planning. Increased job satisfaction was a result of their ability to accomplish something worthwhile, to state opinions, to partake in decision-making and to set the pace of their work.

The research studies reported by Giovannetti[7] exemplify the difficulties encountered when using conventional research methods developed for other disciplines to evaluate primary nursing. In assessing the perceptions of staff and patients most researchers have made use of different questionnaires, without a common measure of job satisfaction.[8] There was, at that time, a dearth of measures developed specifically for nursing in general or primary nursing in particular which could have been used. Such measures take time and adequate funding to develop.

Felton[9] had made a plea for on-going assessments of practice:

> *The idea of a self-contained, one-shot study of the quality of nursing care is inappropriate. Evaluations should be continued — semi-annually and annually. The use of the same criterion measures will allow the comparison of sequential evaluation results with base data.*

Reports of assessments over any period of time are notable by their absence. This may be because such data, where they are collected, are not considered as research data but as quality assurance data and thus do not get published. Alternatively it may be that once a change has been introduced and the initial impact evaluated the researcher moves on to other things and no further work is done.

The use of patient satisfaction as the dependent variable to evaluate the impact of primary nursing on patient care has been used widely. Evaluative studies carried out in America (for example, Marram[10], Daeffler[11], Giovannetti[12], Mayer[13]) looked at patient satisfaction. As yet, despite such work, it is difficult to draw any conclusions as to the effect of primary nursing on patients' satisfaction with their care, as findings have been equivocal. Some studies have, however, indicated that the practice of primary nursing resulted in higher levels of patient satisfaction.[14,15]

Many of the studies have utilised self-completion questionnaires while others employed interviews. Daeffler compared patients' reports of omissions in care. A 50-item checklist developed by Abellah and Levine[16] was used to compare the number of reported omissions on one ward practising primary nursing with five team nursing medical/surgical units. Daeffler indicated certain significant differences between the wards and concluded that the practice of primary nursing did lead to increased patient satisfaction. Many of the other studies, however, have failed to find agreement with this conclusion, indicating no difference in patient satisfaction as a result of primary nursing.[17,18,19,20] A study by Young, Giovannetti and Lewison[21], while finding no statistical significant difference in patient

satisfaction on a team nursing unit with that on a ward practising primary nursing, did highlight differences in areas of satisfaction between the two wards. Team-nursed patients were more satisfied with the information they received, while primary nursed patients were more satisfied in the respect of having had their own nurse.

It is understandable why in the evaluation of primary nursing its effect on patient satisfaction has been considered of such importance. The patient is, after all, the crucial central focus of care:

> *the evaluation of the system must ultimately be made in terms of its impact on patients.* [1]

Patient satisfaction as an outcome criteria for evaluation is also considered as another measure of quality: 'it provides a different measure of quality'.[22] With changes in the organisation of the health services involving the introduction of free market policies, patient satisfaction is important to the 'marketing and management point of view'.[23] However, there are well recognised problems in the use of patient satisfaction as an indicator of quality. These difficulties affect the measurement, analysis and interpretation of findings.

Greene[24] argued that patient satisfaction is difficult to measure as it is not a 'unitary phenomenon'. The term can have different meanings and is used in different ways by many people. Various instruments have been used to measure patient satisfaction. Findings generally tend to indicate high levels of satisfaction. Hefferin's study[25] indicated that patients are inclined to over-estimate their own levels of satisfaction with respect to the quality of their care.

Many explanations have been given for this apparent skewness in patient satisfaction levels. Sellick *et al* [26] attributed it to patient vulnerability while Ventura[27] considered the patients' desire to please and to not appear ungrateful as being responsible. Studies of patient satisfaction which have used self-completion questionnaires often distributed them to patients on discharge to minimise such difficulties. However, the distribution of resulting scores still tended to be positive. One of the possible reasons for this may be that the intensity of unsatisfactory experiences fades with time, especially when patients have returned to the security of their homes. These types of tools also depend on the patient's understanding of 'quality of care' which may be different from that of the investigator. Despite these limitations, patient satisfaction is an important aspect of patient care. Due consideration must therefore be given to it in the light of changes such as the implementation of primary nursing.

Published studies did not concentrate to any great extent on changes in nurses' activities nor on such questions as patient throughput, dependency, rehabilitation, deaths and re-admissions.

Methodological issues

Experimental design requires either comparison over time of the same subject or comparison of matched pairs. An attempt was made to do both in this study but the design was not fully realised. Insufficient baseline data were collected before the change was introduced on the pilot ward. Two control wards were used as it was not possible on ethical grounds to leave one out. The results showed up differences between the control wards themselves making the analysis more difficult. This could have been overcome at the data handling stage by pooling the data from the control wards; but this procedure would only have masked the variability of the real situation.

Great efforts were made to establish comparability between the three wards. Ward layout, staffing complements, skill mix and client groups were shown to be similar not only at the start of the investigation but throughout the study period. One of the chief

criticisms of much of the earlier work was that primary nursing wards were specially staffed with more and better nurses and that this probably accounted for any improved outcomes demonstrated for patients.

The activity study was only carried out once on all three wards therefore it is not possible to establish how much change had taken place on the primary nursing ward over time. It is only possible to draw comparisons between the wards in the post-pilot period. While the study of discharged patients covered pre-pilot, pilot and post-pilot periods the re-admission rates of patients discharged during the post-pilot phase were not available. The quality audit and the outcome measures provided three sets of data for each ward covering eighteen months in total. Altogether this provided a massive body of data and because areas of interest were approached from different angles it is possible to draw from more than one source in trying to assess how far the pilot ward had progressed. Without the data from the two control wards it would, however, have been very easy to over-estimate the effect of the organisational change on the pilot ward.

Field experiments are notoriously difficult to control. The ward environment, staff and patients were very closely matched in this study. Attempts were made to 'offset' the experimental effect on the pilot ward by drawing staff in all wards into the study and discussion programme and all the wards were investigated and observed. This level of interest may have stimulated the two control wards to improve their practice and the data do suggest something along those lines did take place. Individual staff changed, people shared their experience, competition to improve patient care developed between the wards and feedback on the quality audit was given so that all the wards were put on their metal to improve performance. Each ward had sent staff to lectures and discussions groups on primary nursing and all the sisters had made some changes in the light of this new awareness. It was not possible to prevent the 'control' wards from making changes in a situation where they all belonged to one unit. What was gained in comparability was, to some extent, compromised by shared knowledge.

Among the more important problems is that of the influence of the researcher, interviewer and observer. In this particular situation the principal researcher was a known member of the hospital staff with some managerial responsibility. There was a degree of trust between the staff and the researcher which is not always easy to establish. At the same time the known enthusiasm of the researcher for the change to primary nursing may well have affected the perceptions of staff and their willingness to take a positive approach to change. Ideally the person helping staff to bring about change should not be the person directing the research programme. The activity study was large enough and the observers were sufficient in number and experience to overcome any idiosyncrasies in recording. In the study of quality care observers were given training sessions and there was at least one common observer on each occasion. There was no systematic attempt to assess inter-rater reliability. In the study of nurses' views while the principal researcher carried out the interviews the material was transcribed and analysed by a second researcher. Similarly although the pilot study of patients' views was carried out by the principal researcher the data were analysed and the report compiled by one of the others. The data for the survey of discharged patients were collected by the ward staff, and analysed and written up by one of the other researchers.

Relative to many other studies of the introduction of primary nursing the period of investigation was lengthy. However, primary nursing does take a long while to become fully established and a much longer time-scale is required. The nature of field situations of this kind makes such long-term follow-up extremely difficult.

Although an operational definition of primary nursing was not established, ten 'principles' of primary nursing were put forward which guided the research. The data collected did not always relate specifically to these principles nor was it specifically established that the principles were in operation on the pilot ward in the follow-up period. This is clearly a weakness in the design and conduct of the study. It must, however, be pointed out that at that stage there was no existing measure to determine whether a ward could be said to be 'practising primary nursing'. Such a tool has now

been developed.[28] It was the intention that the data should relate to the principles as set out but because existing tools were used which were not specific to primary nursing nor designed specifically for the study, the information collected was often tangential rather than direct. However, informal checks, discussions, observations and interviews showed that the ward had achieved a form of primary nursing.

The research answers

Five specific questions were posed in the introduction. An attempt is now made to answer them drawing on material from all parts of the study.

Question 1

Did the nurses in the primary nursing ward use their time in a different way from those in the other two wards?

Nursing staff of all levels on all three wards spent the greatest part of their time on direct patient care. However, on the primary nursing ward both qualified and unqualified staff spent less time on direct care than they did on the other two wards. This was especially true of the direct *physical* items of hygiene, feeding, elimination and help with mobility. One gets the impression that the nurses were more likely to stand back and give encouragement rather than do things for patients. This is reflected in the slightly higher proportion of patients discharged at the lowest levels of dependency and in the greater number of patients who were treated in the ward during the pilot and post-pilot periods. More time was spent on communication with patients on the pilot ward. In their interviews nurses spoke about better communication with patients and 'meeting patients' non-physical needs' was one of the areas in the quality audit which showed the greatest improvement. Slightly more time was spent on clerical and domestic work but less time was classified as miscellaneous.

Overall the similarities were greater than the differences. The latter were subtle and only have meaning in relation to some of the other findings. The work of all wards was dominated by the needs of this patient group for direct care. There was some evidence of flattening of hierarchy on the pilot ward with enrolled nurses, auxiliaries and learners spending proportionally less time on direct patient care than they did on the two other wards. On all three wards over half of the direct care was given by untrained or trainee staff. The introduction of primary nursing by itself cannot deliver more trained care unless the ratio of trained to untrained staff is radically changed.

Question 2

Was the quality of care improved on the primary nursing ward?

The overall quality of care on the primary nursing ward showed a statistically significant improvement over the survey period. Care improved from what was already a high level. Planning nursing care and evaluation of objectives received lower scores in the pilot period than in the pre-pilot. This was probably because the enrolled nurses were now taking on responsibility for these for the first time in their new roles. In the post-pilot assessment scores on both these items were much better suggesting development in the role. In particular, the quality of direct physical care and the quality of rehabilitation improved over the period. In addition there was less variability in the assessments of care for individual patients. In other words each patient was getting a similar standard of care rather than some patients getting really good care and others getting relatively poor care. Improved quality of care had been achieved even given a greater throughput of patients.

Although the index scores for the pilot ward were higher than those for the two other wards on the third assessment the difference is not statistically significant. The two other wards had made a similar improvement in the quality of care delivered over the same period. This does suggest that it is being under scrutiny itself which helps to bring about improvement. The cycles of assessment and feedback not only show that an interest is being taken in the work of the ward but also point up where improvements may be made.

Question 3

What did the nurses on the primary nursing ward think of the change?

Overall the nurses were very positive about the change. None of them wanted to go back to the previous form of work organisation. They felt that their knowledge of the patient had improved and that this was beneficial for the patient and for themselves. They felt that communication had improved and that they were able to make better relationships with patients. The activity data show that they did spend more time communicating with patients and the quality assessments show improvement in planning and evaluating care. They also felt that they had more personal responsibility. Taken together these can be seen as giving more job satisfaction for the nurses and better care for the patients.

Question 4

What did the patients think about their care?

Responses suggest that patients found the care to be flexible, meeting their individual needs. Care was seen as well planned and relationships with staff as satisfactory. Their views were slightly more positive than the views of patients on the two other wards.

Were the outcomes for patients any different on the primary nursing ward?

Twelve specific indices were investigated. On the majority of these the outcomes on the primary nursing ward were better than those on the other wards. In particular, patient throughput was increased as a result of more patients being discharged after short periods and more patients were rehabilitated. Use of services on discharge appeared to have been rationalised. More patients survived and re-admission rates showed no signs of increasing with greater throughput.

The achievement of primary nursing

The strands from the various studies can be brought together to show that Ben Jonson Ward had made considerable progress towards the achievement of the comprehensive, individualised care through the medium of the one to one nurse patient relationship which is the promise of primary nursing. Each patient on admission was assigned to the care of a particular nurse and was cared for by that nurse and a limited number of associate nurses. Rotas were re-arranged such that the primary nurse or associate nurse for a given patient was normally on duty during the day shifts. Responsibility for assessment, care planning, evaluation of progress and the arrangements for discharge were vested in the primary nurse. The organisational changes were made during the pilot period to allow individualised care to be practised on the ward.

Implicit in the provision of individualised care is effective communication between nurse and patient and between nurse and nurse. A key finding of the activity study was that staff on Ben Jonson Ward spent more time talking to patients and relatives, teaching

patients, reporting on patients, working on care plans and communicating about patients in conferences and ward rounds than did staff on the two other wards. *Improved* communication was highlighted by staff in their interviews. The nurses felt that improved communication enabled them to get to know patients and their families better and that this in turn facilitated the continuity of care which is the principal feature of primary nursing.

Continuity of care, which implies that plans are carried through, should contribute to more effective care the outcome of which is better rehabilitation and a higher survival rate. The KTC dependency assessment was used on all three wards. This reflects the changing capacity of patients with respect to self-care and encourages both nurses and patients to move towards self-care. The activity study showed that *less* time was spent on direct physical care on Ben Jonson Ward. Given the initial similarity in the dependency of patients on admission this suggests that patients were being encouraged to do as much as possible for themselves. More time was spent on Ben Jonson Ward on indirect care and on clerical work suggesting a commitment to self-care which involves explanation, teaching, care planning and verbal encouragement. This interpretation is supported by the quality audit which demonstrated better physical care, better non-physical care and better rehabilitation on the primary nursing ward, both in comparison with the ward's past performance and in comparison with the two other wards.

For rehabilitation to be effective, the environment must be supportive. Several findings taken together indicate the existence of such an environment. The activity study suggests that talking to patients was seen as more acceptable. This is reinforced by the nurses saying that they had better relationships with patients and understood their needs better. This enhanced relationship between nurse and patient appeared to lead to a greater acceptance on the part of the nurses of their responsibility for the rehabilitation of and discharge arrangements for their patients. In this context it is worth noting that the level of services arranged for patients on discharge from Ben Jonson Ward was directly related to their degree of dependency on discharge. Rehabilitation and discharge planning were more effective on Ben Jonson Ward than on the two other wards.

The development of the one to one nurse patient relationship on Ben Jonson Ward appears to have facilitated a more comprehensive and individualised process of care which led to improved outcomes for patients.

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Appendix A

Categories for activity analysis

The following list shows the sub-categories of activity that went to make up the main groupings used in the activity analysis. They were adapted from *Criteria for Care* (Ball *et al*, 1984).

Direct

1. Communication with patient and/family
   - 1.1 Conversation, support, reassurance
   - 1.2 Teach patient
   - 1.3 Explain treatment
   - 1.4 Demonstration
   - 1.5 Admission, orientation
   - 1.6 Relatives/friends
   - 1.7 Care plan and assessment
   - 1.8 Prepare for religious service
2. Medications and IV administer
3. Feeding and elimination including prep special diets
4. Food and drink - prepare, distribute, clear
5. Patient hygiene (ie change and tidy beds)
6. Movement of patients (inc. lifting)
7. Turning and Exercising
8. Assist other professionals with patient
   - 8.1 Consultants visits
   - 8.2 Other medical staff visits
   - 8.3 Other hospital staff visits
   - 8.4 Medical round for own benefit
   - 8.5 Doctor with procedure/treatment
   - 8.6 Others with procedure/treatment
9. Routine checks and obs/rounds
10. Vital signs (WT, TPR, BP, neuro, ECG)
11. Specimens - collect and test
12. Procedures (inc. prep. and clear)

Indirect

21. Charting
    - 21.1 Kardex, care plan
    - 21.2 Fluid bal, drug box, check/distribute all charts
    - 21.3 Diagnostic requests
    - 21.4 Dependency

22. Communications about patient
    22.1 Team conference
    22.2 Ward round
    22.3 Study case history
    22.4 Teach learner
    22.5 Care plan - develop
    22.6 Phone calls
    22.7 Instructions (give/receive)
23. Medications IV prepare

Ward/unit

31. Housekeeping
32. Clerical ie stats, TPR lists, menus/diets, deceased property
33. Communications with others (unit-related)
    ie Sisters' rounds
34. Errands
    34.1 Visit hospital open day
35. Meetings, supervision, personnel, handovers
36. Supplies (order, check, put away, issue)

Personal

40. Personal/misc
    Meal and coffee breaks
    Private study
    U/O time
    Changing - on and off duty

Appendix B

Mann-Whitney Tests

TABLE B.1 U VALUES ON THE MANN-WHITNEY TEST FOR INDEPENDENT SAMPLES

INDEX or Mean Scores of SENIOR MONITOR - Ben Johnson Ward over three years

	Total score		Section A		Section B		Section C		Section D		Section G	
1987/88	69	ns	54.5	ns	52	ns	64	ns	43	*	35	*
1988/89	19	**	31	**	40.5	**	59.5	ns	62	ns	41.5	*
1987/89	15	**	76	ns	19.4	**	42.5	**	4	**	107.5	ns

* significant at the 5% level ** significant at the 1% level

INDEX of Mean Scores of SENIOR MONITOR - John Donne ward over three years

	Total score		Section A		Section B		Section C		Section D		Section G	
1987/88	25	**	42.5	ns	32	*	54	ns	42.5	ns	10	**
1988/89	47	ns	12.5	**	49.5	ns	3.5	**	73	ns	73	ns
1987/89	23	**	1.5	**	78.5	ns	25.5	**	66.5	ns	82	ns

* significant at the 5% level ** significant at the 1% level

INDEX of Mean Scores of SENIOR MONITOR -George Herbert ward over three years

	Total score		Section A		Section B		Section C		Section D		Section G	
1987/88	0	**	18.5	**	8	**	20	**	17	**	37	*
1988/89	105.5	ns	90.5	n.	66	ns	68.5	ns	36.5	**	61	*
1987/89	0	**	27.5	**	32	**	5	**	0	**	80	ns

* significant at the 5% level ** significant at the 1% level

TABLE B.2 U VALUES ON THE MANN-WHITNEY TEST FOR INDEPENDENT SAMPLES

INDEX or Mean Scores of SENIOR MONITOR in three wards 1987 only

Wards	Total score		Section A		Section B		Section C		Section D		Section G	
Ben Jonson & John Donne	85	ns	13.5	**	87	ns	40	**	31	**	33.5	**
John Donne & George Herbert	14	**	73	ns	30.5	ns	38.5	**	14	**	94	ns
Ben Jonson & George Herbert	27.5	**	9.5	**	37	**	88	ns	84	ns	25	**

* significant at the 5% level ** significant at the 1% level

TABLE B.3 U VALUES ON THE MANN-WHITNEY TEST FOR INDEPENDENT SAMPLES

INDEX or Mean Scores of SENIOR MONITOR in three wards 1989 only

Wards	Total score		Section A		Section B		Section C		Section D		Section G	
Ben Jonson & John Donne	93.5	ns	116.5	ns	38.5	*	93.5	ns	78	ns	100.5	ns
John Donne & George Herbert	139	ns	59	**	120	ns	98	ns	91.5	ns	136	ns
Ben Johnson & George Herbert	89.5	ns	62	**	49.5	**	80.5	*	129	ns	66.5	**

* significant at the 5% level ** significant at the 1% level

Nursing Developments

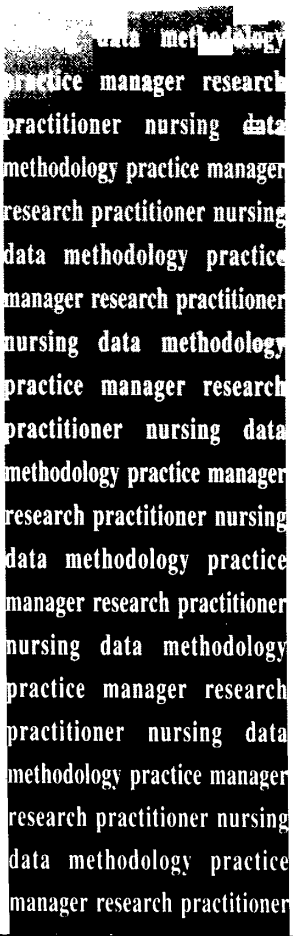
PRIMARY NURSING IN **ELDERLY CARE**

The report describes a two-year study of the introduction of primary nursing in one of three matched elderly care wards. It argues that long-term research on the effects of organisational change in the delivery of nursing care continues to be necessary.

The book includes sections on:

- the process of change to primary nursing
- how the nurses spent their time while on the ward
- quality of care and how this was assessed
- patients' views of their care
- the outcomes for patients on the three wards
- problems with field experiments and methodology.

The lessons to be learnt from this evaluation should be of interest to anyone involved with the current changes in nursing practice.



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