Outcomes of implementing primary nursing in the care of people with chronic lung diseases: the nurses' experience

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Introduction
Organization of care is one of the key factors that determine quality of nursing care. In Icelandic hospitals nursing care has mainly been organized according to a mixture of task assignments and team nursing. However, it is widely accepted that other approaches to organizing care exist which may help nurses to provide quality care to patients, e.g. primary nursing. At two units for lung patients at the National University Hospital in Iceland a mixture of task assignments and team nursing has been practised for years. To enhance nurses’ opportunities to better meet the complex needs of people with chronic lung diseases it was decided to implement primary nursing.

Primary nursing as a method for organizing nursing care in hospitals has been in use for some 30 years. Despite enormous acceptance and numerous articles on primary nursing, reports of well-designed research studies are few, and have inconclusive and conflicting results. Major methodological weaknesses that have been demonstrated include absent or inconsistent operational...
definitions, different outcome variables, premature measurement instruments, small sample sizes, incomplete data collection methods and procedures, and premature measuring of results (Giovannetti 1986; Alcock et al. 1993).

Among the benefits of primary nursing that have been reported are: (a) provision of high quality care is facilitated, (b) authority is decentralized, (c) continuity of care is increased, (d) nurses work in a professional way with responsibility for individual patients, (e) nursing is more visible and it is easier to recognize one’s responsibility, (f) nursing care plans are better used, and (g) nursing care is based on individual patients’ needs (Bets & O’Connell 1987; Pearson 1988; Perälä & Hentinen 1989; Armitage et al. 1991; Mead 1991; Manthey 1992). It has been suggested that job satisfaction and patient satisfaction increase, but results are conflicting (Giovannetti 1986; McPhail et al. 1990).

It has also been suggested that collaborative collegial relationships with other nurses and with health care professionals in general be fostered by primary nursing (MacGuire & Botting 1990; Alcock et al. 1993). However, concern has also been expressed that primary nursing may threaten the cohesiveness of nursing teams and lay open conflicts between physicians and nurses (Bowers 1989). A study by McMahon (1990) shows that nurses working in primary nursing units are more likely to report that their collegial communication is collaborative than nurses working in non-primary nursing units. McMahon concludes that power in non-primary nursing units seems to rest in the hierarchical positions, regardless of the occupant, whereas in primary nursing units power is vested in individuals, regardless of grades or positions in the hierarchy. Later, however, McMahon (1996) maintains that due to changes in the health service climate, competition between nurses instead of co-operation is emerging, which indicates that these results might be outdated.

In line with McMahon’s study (1990), Leach (1993) describes primary nurses’ strategy to develop and maintain effective interpersonal relationships with patients and to foster collegial relationships with other health professionals. Boumans and Landeweerd (1996) only partly support these results as they demonstrate a decrease in the influence of physicians on patient care, an increase in team head nurses’ influence, and finally a decrease in influence of staff nurses on patient care. There are indications that primary nurses have better knowledge of their patients and that nurse–patient relations improve (Perälä & Hentinen 1989; MacGuire & Botting 1990). Some evidence exists of improved communication and relationships with relatives (MacGuire & Botting 1990; Leach 1993), although it has been explored in very few studies.

Disadvantages of primary nursing have also been pointed out. Some of them are convincing while others may not necessarily be consequences of primary nursing as such, but may stem from factors such as ineffective management and increased administration (Bets & O’Connell 1987; Perälä & Hentinen 1989). McMahon (1996) states that in primary nursing, delivery of care may not be entirely equitable as nurses do not know all of their patients equally well. He also maintains that inappropriate planning of psychological care may occur where care plans are developed for implementation by a group of staff in instances where implementation should rest with an individual nurse. It is important that nurses think about these issues, but realize that they do not necessarily stem from this particular organization of care. Nurses report ambivalent feelings towards primary nursing referring to it as an endless job and frustrating as well as challenging and satisfying (Bets & O’Connell 1987).

The majority of writings about primary nursing indicates that it is as good as and most often better than the forms of nursing care delivery that it was meant to supersede. It is imperative that nurses acknowledge this and systematically experiment with installing ways of organizing care that exceed existing systems, such as team nursing and task assignments.

In this study primary nursing refers to a nursing care delivery system where primary nurses are accountable for organizing the total nursing care for a group of patients throughout their hospital stay. Primary nurses assisted by practical nurses provide these patients as well as three to five other patients with actual nursing care while on duty. In their absence other nurses carry out prescribed care plans. By organizing care in this way primary nurses are responsible for making accurate assessments of the patients, developing individualized care plans, and evaluating the outcomes. When primary nurses are off-duty those who take care of their patients follow their care plans, although they may need to modify the original plans due to changes in patients’ conditions. Decisions regarding nursing care are made at the bedside with patients and their families. Primary nurses are responsible for preparing patients and their families for discharge and to start discharge planning upon admission. Head nurses are accountable for overall management of patient care and management of staff, and they provide clinical leadership (e.g. Pearson 1988; Bowers 1989; Manthey 1992).

Research question
Nurses have indicated that caring for people with chronic lung diseases is demanding work (Callahan 1982; Espersen
Implementing primary nursing

1988) as complex physical, psychological, social, and existential problems call for comprehensive nursing care. Fragmented care, as provided in a mixture of task assignments and team nursing, is considered to lack opportunities for nurses to provide comprehensive care. To enhance nurses’ opportunities to better meet the complex needs of people with chronic lung diseases, the nursing staff at two hospital units for lung patients in Iceland decided to implement primary nursing. Knowledge about results of the change was necessary in order to decide whether primary nursing is better at meeting these needs than the previous form of nursing care delivery, i.e. a mixture of task assignments and team nursing. Therefore, the research question is: what is the outcome of the change?

Research methodology and implementation of the change

The methodological and theoretical framework used to implement primary nursing was the action research method (Susman & Evered 1978; Holter & Schwartz-Barcott 1993), taking the interpretative phenomenological perspective (Benner 1994) as a philosophical stance, and incorporating writings on action research from the critical theory perspective (Carr & Kemmis 1986). The main premises of action research are to create a change in practice and to develop knowledge. Action research aims at improving practice, improving understanding of practitioners of their practice, and finally improving the situation in which the practice takes place. Central to action research is active participation of practitioners in the research process. It is a process of collaborative inquiry that ‘links researchers and practitioners in a common task in which the duality of the research and practice roles is transcended’ (Carr & Kemmis 1986 p. 158). Drawing from the pioneer of action research, Kurt Lewin, the action research process is considered a self-reflecting spiral of cycles of planning, acting, observing and reflecting (Carr & Kemmis 1986). The steps in the spiral are interrelated and are processed through several times with different intensity and in this study also in a non-linear manner. In this study, the author, who was the main facilitator of this research project, was employed part-time at the organization. She facilitated the change process, brought in learning resources, collected the data, directed the data analysis and wrote up the research report. The staff nurses, the head nurses and, in part, the practical nurses, made all the major decisions on how to apply the premises of primary nursing and on the courses of action to adopt them.

The decision to implement primary nursing was made by the assistant director of nursing and the head nurses after consulting the nursing staff following a staff meeting where nurses from several units of the hospital where primary nursing was in place presented their experience. For time frame see Fig. 1. On each unit the head nurses chose two nurses to act as change agents to function as contact persons between the nursing staff, the head nurses and the author. Staff set working goals and regular meetings were held for teaching and discussion. The change agents initiated improvements in documentation and emphasized central nursing diagnosis. The head nurses and the author made information booklets for patients, and discharge planning was discussed in group meetings. Collaborative involvement in the change process by everyone involved was considered essential with care taken to discuss ideas and issues constructively and decide on them in a democratic way.

Change was implemented gradually focusing on patient assignments and the interaction with other health care professionals, particularly practical nurses and physicians. The staff decided that nurses and practical nurses that worked 70% or more would be assigned to patients as primary nurses and primary practical nurses. During regular group meetings and in their the daily nursing practice the staff went through several cycles of planning, acting, observing and reflecting as issues came up. Obstacles to practice in relation to preset goals were explored and new actions suggested along with identification of the benefits of the new organization of care.

Participants and setting

The study took place at a subsidiary unit of the National University Hospital at Vifílsstadir in a suburb of

April 1995
Decision made, planning started

January 1996
Implementation started

September 1996
Individual interviews with nurses

June–September 1997
Group discussions with nurses

Figure 1
Action path
Reykjavik, housing two units for lung patients, one acute and one long-term unit. All nurses and practical nurses on both units were involved in the change in some way. The total number of nurses was 24, nine on the long-term and 15 on the acute unit. Twenty-one nurses participated in the interviews, seven from the long-term and 14 from the acute unit. Two of those who did not participate worked night shift only and were not available and one was unwilling to participate in an interview. The total number of practical nurses was 24, 11 on the long-term unit and 13 on the acute unit. Results from interviews with the practical nurses are to be reported elsewhere.

The mean age of nurses participating in the interviews was 41.8 years (44.1 years on long-term and 40.6 on acute unit). Mean years of clinical experience with lung patients was 7.4 (5.4 years, range 1–11 on long-term unit, and 8.4 years, range 0–20 years on acute unit).

Data collection and analysis

There were two sets of data. Firstly, the research journal, consisting of issues and thoughts that came to mind in formal and informal interactions between participants and the author. Secondly, there are the transcribed semistructured interviews with the nurses. The interviews focused on any improvements and disadvantages brought about by primary nursing (Perälä & Hentinen 1989; Mead 1991; Leach 1993), as well as obstacles related to the transition period and the change in relationships between staff members. The interviews lasted 15–45 min and they started 9 months after the change was introduced and ended 21 months after the start. Group meetings where the author presented her analysis of the data and asked for confirmation and elaboration followed up the interviews. Participants also read drafts of the analysis and discussed them extensively individually with the author and in groups with the other participants.

All interviews were audiotaped and the recordings were transcribed. Transcribed interviews and information from the research journal were interpreted according to dialectical procedures of interpretation (Benner 1994). Sentences that conveyed important information were highlighted in the text and grouped into emerging themes and a comprehensive description of each theme was written. The transcribed interviews from the two nursing units were analysed separately, then compared and contrasted with each other, and finally a description of the themes of the nurses’ experience as one group was written. Information from the research journal was incorporated into the analysis to support data from the interviews and to emphasize issues that came up only in group discussions. Direct quotes are drawn from the transcribed interviews.

Encouraging an ongoing discussion with the participants as well as asking them to actively participate in the interpretation of the data preserved validity (Reason & Rowan 1981).

Findings

The following themes were identified from the data with reference to the research question; what is the outcome of the change? Close relationships with patients, continuity of care, reports of satisfied and secure patients, centrality of individual patient’s needs, constant refinement of the system, sensitivity to staffing load and ambitious and responsible nurses.

Close relationships with patients

One of the most important gains of primary nursing for the nurses was more contact and closer relationships with patients. One nurse said:

The positive things are to be able to take care of the same patients day after day and to be able to establish closer relationships with them. I know more about each of my patients and do not constantly have to get to know new ones. It saves time and provides security, hopefully both for the nurses and the patients. I find that they seek me out. They know who to look for and they are more secure. We know each other better and where each of us stands.

Some nurses reported the new organization of care was more demanding than the old one. Several said that it was difficult to introduce themselves to patients as primary nurses. This may indicate that increased responsibility of nursing care was stress-provoking to them, although it was not expressed as such. Despite this they clearly appreciated the new dimensions that primary nursing brought into their relationships with patients.

Continuity of care

To be able to take care of the same patients day after day was highly valued by the nurses. One said: ‘It must be difficult to always be changing [patients]. You are unable to follow up on things. You may be planning to do something, but may not be able to follow up on it because next time [on the next shift] you may have a different group of patients to care for’. Another one said: ‘I am very glad to be able to totally care for some patients and to follow up on them, particularly those who are very sick and need a lot of care. I find it very important, not only for me, but more importantly for them’.
At the beginning concerns were raised by staff about being responsible for the same patients day after day over their entire stay, which is typically some weeks on the acute unit and several months up to some years on the long-term unit. It, however, turned out that only in very few instances was there a need for reassignment. Even though nurses were satisfied with being able to take care of the same patients, discharge planning was not fully in place. Despite what was agreed upon nurses waited for the physicians to decide on the specific date of discharge before they started the actual discharge planning.

**Reports of satisfied and secure patients**

Most nurses felt that patients were more satisfied and secure when primary nursing was in place. One nurse said: ‘If the patients sense that we are interested in them we get very good feedback about increased security from them’. A nurse on the long-term unit said:

> I remember when I took care of [A] and some others. Even though she was disoriented I felt that she was pleased with … [the primary practical nurse and me]. She recognized us; we always took care of her. She was much more satisfied. She was always happy when those who took care of her came. The same went for [B]. I felt that she was more secure.

Talking about more satisfied patients a nurse on the long-term unit a nurse said:

> Some have said it directly to their care providers … [D] said that directly to … [his practical nurse]. After about two weeks he said straight out that this was much better …. There are more patients who have also said the same. I think that this works out very well for everyone, particularly on a chronic unit like this one.

Central to the effectiveness of primary nursing is that the nurses introduce themselves to their assigned patients as their primary nurse. A nurse said:

> He [an older man] was clearly pleased that she [his wife] could call me and ask for me when I was on duty … They [the patients] are more secure somehow, knowing that we are assigned to them. They view it positively.

**Centrality of individual patient’s needs**

Nurses reported that there were more possibilities to provide holistic care in the new system. Previously they had divided the work according to tasks; one nurse took care of administration, medications and discharge planning, while another provided hands-on care. Now nurses were able to provide more hands-on care themselves, to observe patients more closely, and to follow up problems and treatments over time. The following comment illustrates this:

> How he [the patient] moves around, his progress, yes, to really follow up on things. When you have your own patients you observe them differently, particularly when you do all the hands-on care yourself. Then you can check on everything while you are assisting the patient in going to bed, or getting up, seeing his legs, the skin, his functional capacity, and in general how he is doing … Just to check on how [he] was able to do what he needed to do without assistance. By those means I could check on how difficult all this was for his breathing.

A nurse on the long-term unit emphasized that the new method of organizing care broke up the daily routine which meant that in the old system care had been given to everyone without considering different individual needs. By knowing each patient more closely nurses said it was easier to find out what each person needed and to meet those needs appropriately.

**Constant refinement of the system**

The nurses emphasized that even though the outcomes of implementing primary nursing were promising, the results of the change were not yet fully in place. One said: ‘I find the result to be very good. I expected something in this direction, but I have to say that I am surprised how much has been gained. There are more strengths than I expected’.

One of the things that needed to be developed further was the scope of nurses’ responsibility. For instance, some were preoccupied with checking on the physicians and the nurses to see whether they did their job. One nurse explained some possible reasons for checking on nurses:

> A nurse who had an evening shift the day before comes on morning shift the day after. On the morning shift she is not supposed to be involved with all the patients whom she took care of and cared about the evening before. This nurse, however, may still want to be involved with these patients.

Co-ordination of the work of practical nurses and co-operating with them was also problematic. Several nurses were reluctant to co-ordinate the work of the practical nurses and make care plans with them. They also had difficulties redirecting some of the practical nurses from their previous role of performing technical tasks into taking care of patients as unique individuals.
Sensitivity to staffing load

The nurses maintained that primary nursing was more sensitive than the old system to inadequate staffing and that it did not work in times of low staffing, which made them dissatisfied about their work. One said:

I think that this organization of care is more sensitive to external changes such as changes in staffing ... Even though it is in many ways much, much better it is also more fragile. It depends on stability, but stability is something that we do not have.

Several nurses maintained that staffing level was insufficient. Shortage of nurses also began to take place towards the end of the study. Although the nurses emphasized that primary nursing did not work at times of low staffing, a contradiction was identified where several important gains were consistently reported even though the staffing level was lower than the nurses wanted during most of the study.

Ambitious and responsible nurses

Several nurses said that in the new system they were more ambitious at work. Some also felt it gratifying to be responsible for organizing and planning the total nursing care for their assigned patients. Talking about responsibility one nurse said: ‘I find that I think differently. If I am responsible, I am more alert. Yes, no doubt it is more challenging’. Another one said: ‘Of course I am more ambitious. I want to keep my things in good order. Then I know immediately what the problems are. This is very positive. I try to learn everything about the patient.’

One nurse pointed to the fact that in primary nursing it is more difficult to let solutions to problems wait for the next shift. She said: ‘In team nursing, however, if something was very boring, it was tempting to let it wait’.

At the same time that nurses appreciated being more independent at work, co-operation with others was emphasized since care plans needed to be discussed and explained to those who participated in carrying them out. Participants also reported taking better care of documentation. One said: ‘Thinking about my patient, I need to make sure, maybe I will not be here tomorrow, then they need to read the care plan carefully and do what I expect of them’.

Although some nurses valued increased responsibility, several still considered organization and planning of care to be a collective work. Some maintained that since they knew most of the patients well, because they had taken care of them before, they also wanted to be directly involved in organizing and planning their care although they were not assigned to them.

Discussion

Primary nursing as a mode of delivering nursing care has several advantages from the point of view of the nurses participating in this study. The most important one is the opportunity to develop close relationships with the patients and through this to get to know them as people. By practising in this way, each patient’s needs were better known and understood, the nurses observed the patients more closely, and they followed up patients’ problems and treatments better. Continuity of care was seen to have increased and the nurses valued having the same patients to care for day after day. The nurses also sensed that the patients were more secure and satisfied, although no conclusion can be drawn about the patients’ own perspective. These results resonate with the concept ‘knowing the patient’, which is maintained to be an important aspect of high quality nursing practice (Tanner et al. 1993; Radwin 1996).

The avenue that primary nursing opens for nurses is of particular importance in caring for people with chronic lung diseases. People with such diseases deal with multiple and complex health problems, such as dyspnea, fatigue, coughing, activity intolerance, anxiety, depression and social, emotional and physical isolation (e.g. Dudley et al. 1973; Kinsman et al. 1983; Beck et al. 1988; Jonsdottir 1998). The burden of these health problems may be eased when individual patients have a nurse assigned to them who knows them as a person, knows their pattern of responses, understands their situation and has contextualized knowledge to implement interventions with them and their family (Tanner et al. 1993). For these patients it is of particular importance to be able to rely on staff for safe care when they get a breathing attack. Then they are unable to express themselves and knowing them as a person and their pattern of responses becomes essential.

Manthey (1992) emphasizes that primary nursing ‘does not define or guarantee the quality of nursing care. As a system, it facilitates a very high level of quality by enabling and empowering individuals to perform at their maximum capacity. Whether they do so or not depends on them, not on the system’ (p. 26).

This observation is vital in discussing primary nursing. The nurses frequently talked about the new system as more challenging; that now they were more committed to their patients. They also recognized and several of them valued increased responsibility. Benefits of increased responsibility that have been reported are that nurses are more in control of their work, have confidence in it, are
able to use their initiative, make decisions, prioritize care and it fosters continuity of care (Webb & Pontin 1996). At the same time that some of the nurses in this study valued being more independent, several emphasized co-operation. Both issues should go together; nurses must be responsible for their patients’ care and at the same time they need to co-operate and consult other nurses. However, the warnings by McMahon (1996) are important. He maintains that there are aspects of patient care planning which should be carried out by the primary nurse only. This private interaction between the nurse and the patient is made feasible in primary nursing and is crucial in meeting patients’ needs.

The literature indicates that primary nursing brings both positive and negative influences to the primary nurse’s relationship with nursing colleagues and other health care professionals (e.g., Bowers 1989; MacGuire & Botting 1990; McMahon 1990; Alcock et al. 1993; Leach 1993). In this study no changes in relationships between the nurses were identified and the nurses unanimously reported satisfaction with their interaction both with other nurses and the physicians.

The nurses emphasized that primary nursing is more sensitive to low staffing than the old system and maintained that it did not work at times of low staffing, which is one of the main concerns that has been raised about primary nursing (Manthey 1992). A contradiction in the nurses’ reports exists, however, where extensive benefits were identified at the same time. It is also likely, although it was not systematically examined that only parts of the premises of primary nursing were yet in place. Thomas and Bond (1990) developed an instrument to identify and discriminate between methods used in hospitals to organize care and demonstrated that only one out of 17 hospital units met all six criteria for a particular method. Exploring how these criteria coincide with the author’s understanding of the situation on the units participating in the study, three out of six criteria of primary nursing were in place. Those that coincide are that the primary nurse is responsible for individual patients during their stay in the hospital, the duty rota is organized to enable the primary nurse to be responsible for individual patients and that the primary nurse decides (most of the time) what care to give to her patients.

Regarding responsibility for writing patients’ notes, it is not only the primary nurse who writes them but also the nurses who provide care for her patients in her absence. The component ‘liaison with medical staff’, indicating that it should only be the primary nurse who does this, partly applies, since it is only at times that the patients’ primary nurses are available to communicate with medical staff. The last component ‘accountability for patient care’ is not congruent with the definition of primary nursing used by Thomas and Bond who referred to accountability of the organization as well as the provision of the total patient care. In this study, however, the primary nurses were supposed to be accountable only for the organization of care of patients to whom they were assigned. Despite differences in definitions accountability should not be shared, which was the case in this study.

The dissatisfaction expressed by the nurses over not being able to care for patients in a way they felt was needed at times of low staffing is of serious concern and raises the question of whether nurses have necessary autonomy to exercise accountability for their work (Bowers 1989; Perälä & Hentinen 1989; McCormack 1992). McCormack (1992) demonstrates that there exist several factors that prevent nurses from exercising autonomy. Among them is the organizational structure and demands made on the nurses’ time. Similarly, Bowers maintains that ‘it would be in certain respects grossly unfair for individual nurses to be held accountable for the care they give since the “bedside nurse has little control over her work situation, e.g. resource allocation, staffing levels, etc.”’ (Bowers 1989 p. 16). It is pressing to explore further how nurses’ autonomy and accountability can be strengthened to increase quality care.

Disadvantages of primary nursing did not come through clearly in the nurses’ reports of their experiences. Some issues, however, need consideration. Firstly, what happens to patients and nurses when a close relationship is unexpectedly discontinued, e.g. because of the absence of a nurse or the death of a patient. Secondly, the development of a too close relationship between a nurse and a patient. Finally, the length of time needed for instituting primary nursing, which may be up to 10 years (Sander 1985). This project has been in place for less than 4 years so disadvantages may not yet have become apparent, which the nurses had clearly realized.

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References
