

Has the introduction of nurse practitioners changed the working patterns of primary care teams?: A qualitative study

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A variety of nurse practitioner education and training programmes are currently offered. They are designed to prepare experienced nurses to undertake an expanded role and a broader range of activities. Since the introduction of this new nursing role many nurse practitioners are now working in primary care health care teams. This study aimed to investigate how the working patterns of primary care teams have been altered as a result of the introduction of the nurse practitioner into the primary care team, the ways in which nurse practitioners' skills are integrated into the primary care team and other team members' perceptions of this new nursing role. The study was exploratory and a qualitative methodology was chosen. Phase one consisted of three focus groups with three primary care teams including nurse practitioners. Phase two involved audiotaped, semi-structured interviews with nurse practitioners ($n = 4$) and general practitioners who worked with nurse practitioners ($n = 3$). The data were subsequently transcribed, reduced and analysed using a theoretical framework appropriate to the research design. Nurse practitioners operated in a variety of ways in primary care. Key clinical activities included triage, physical examination, diagnosis and decisions about the treatment and care of individuals and specific groups of patients. The conditions dealt with by nurse practitioners were generally less complex than those seen by GPs but an element of overlap occurred. The nurse practitioners emphasized the importance of offering patients a choice about whom they prefer to be seen by. Most team members were supportive of the new team member, although some were confused about the role and others were opposed to the introduction of a new specialist nurse post. The findings indicate a need for role clarity, definition and official recognition.

Key words: general practice; nurse practitioner; primary care team; role; teamwork

Introduction

A number of factors are influencing the shape of primary care. These include increased expectations from patients, the pressures of an ageing population, along with general practitioner (GP) recruitment and retention difficulties (Evans *et al.*, 2002; Simoens *et al.*, 2002). In addition, alterations to GP

contracts and working patterns have demanded a review of the delivery of primary care. The recent National Health Service (NHS) Plan advocates nurses being at the forefront of primary care in local health clinics and on NHS Direct (Department of Health, 2000). These factors, combined with increasing patient expectation, management of chronic disease in primary care and trends towards preventative health care strategies have created an environment conducive to the development of a new nursing role in primary care; that of nurse practitioner.

A search of the literature shows that there is no

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agreed definition of the role of the nurse practitioner in primary care. Indeed there is confusion regarding the extent to which nurse practitioners are liable and accountable for their practice. In addition other primary care professionals may have difficulty adjusting to this new nursing role. For example Vanclay (1997) in a quantitative study found that in one practice other nursing colleagues felt threatened, doctors were sceptical at first and some hospital consultants refused to accept referrals from the nurse practitioner. Overall however, doctors were generally supportive. Nurse practitioners have also been awarded more negative stereotypical labels such as 'mini doctors' or 'super nurses' who undertake tasks discarded by doctors or 'second rate nurses' dominated and directed by the medical paradigm (Castledine, 1995).

An anthropological study comprising interviews with nurse managers, practice nurses, GPs and a district nurse found that a number of different factors could impair the potential for introducing nurse practitioners into primary health care (Williams and Sibbald, 1999). Findings demonstrated that role boundary changes created uncertainty regarding the nurse practitioners' professional identity and highlighted concern regarding who was the most appropriate community nurse to work with particular patients as well as uncertainty regarding the legal implications of their practice. In addition, there was concern surrounding the use of the title 'nurse practitioner'. The authors concluded: 'Where professional identity is challenged, demoralization and a sense of diminished autonomy may in turn adversely affect the care given and compassion shown to patients' (Williams and Sibbald, 1999, p. 744).

Factors surrounding the role, recognition and accountability of nurse practitioners in primary care echo those found in research studies to be predictive of poor teamwork. Some aspects of the nurse practitioner role overlap with the roles of practice nurses, health visitors and midwives (for example running specific clinics, minor injuries); whilst other activities may be similar to those undertaken by GPs (for example physical examination and diagnosis). This may result in conflict between nurse practitioners and GPs or other primary care nurses.

Studies comparing the effectiveness of nurse practitioners with GPs (for specific types of

patients, for example those requesting same-day appointments) have concluded that both practitioners have similar outcomes in terms of patient health in the short term (Munding *et al.*, 2000). Nurse practitioner appointments were usually longer than those for the GP. Patient satisfaction levels were found to be similar or higher for nurse practitioners than for GPs. However, nurse practitioners were providing patients with more information and carried out more screening tests and referrals (Kinnersley *et al.*, 2000).

The introduction of nurse practitioners into primary care teams has the potential to disrupt the team by further confusing medical and nursing roles in primary care. Clearly, the introduction of this advanced nurse practitioner will bring changes to the ways in which team members work together. It is important, therefore that these changes are examined so that integration and adjustment may be facilitated. This study investigated how the working pattern of primary care teams had been altered by the introduction of the nurse practitioner. It also explored how nurse practitioner skills and knowledge were being used within primary care teams and team members' perceptions of the nurse practitioner role in primary care.

Methods

The study was exploratory in nature. A combination of focus groups and semi-structured interviews were the research instruments used. Ethical approval was obtained from the University of Ulster Ethical Committee.

The use of focus groups facilitated the examination of shared experiences and views, the semi-structured interviews allowed individuals to express personal views that sometimes differ from those of the other group members (Michell, 1999). Given the perceived divisions between nursing and medicine it was considered appropriate to interview GPs and nurse practitioners separately as well as together in focus groups in the practice setting.

Sampling

This study required a sampling frame of nurse practitioners and general practices in Northern Ireland. All nurse practitioners who had completed an education programme of nurse practitioner

preparation in Northern Ireland were asked for details of their current work. A database was developed containing details of every nurse practitioner working in a primary health care setting.

Purposive sampling was used to select the general practices for the focus groups and ensure geographical variation, variation in practice size and representation of practices in deprived and well-off areas (Rubin and Rubin, 1995). A further criterion for selection was that nurse practitioners had to be practicing full time as nurse practitioners in primary care for more than two years.

Three GPs and four nurse practitioners were randomly selected and subsequently written to explaining the nature of the study and inviting them to be interviewed. One GP refused to participate because of time constraints; another GP (from a similar practice size and location) was selected.

The same selection criteria were used in terms of practice size and geographical location. The practice managers were contacted by telephone to collect a list of practice staff and their designation. A variety of staff were selected to ensure that the opinions of different professions were expressed. Nonrespondents were contacted by telephone. Seventy-two per cent ($n = 18$) of those who were invited to participate did attend the focus groups. The focus groups were comprised as follows:

- Group 1: Three practice nurses, one nurse practitioner and one practice manager
- Group 2: Two practice nurses, one nurse practitioner, one GP, one receptionist and one practice manager.
- Group 3: One practice nurse, one nurse practitioner, two GPs, two receptionists and one practice manager.

Data collection

Following the literature search an interview schedule was developed containing broad headings to introduce topics for discussion and sub headings for use as probes for added depth (see Table 1). To avoid bias open-ended and neutral questions were asked (Britten, 1995). The framework was flexible and the interviewees remained free to lead the discussion and introduce topics that they believed to be important. The frameworks were adjusted as the interviews progressed (Pope *et al.*, 2000; Rubin and Rubin, 1995).

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Procedure

The focus groups and semi-structured interviews began with informing the interviewees that anything they had to say would be valued by us, listened to and processed. Ground rules of confidentiality and anonymity were established (the discussions remained confidential within the focus group and research team and participants' details would not be disclosed). Each interviewee received a small contribution towards their expenses. Refreshments were provided at the start of each session. Seven interviews and three focus groups were completed.

Field notes on the discussion were taken. All the focus groups and interviews were recorded and transcribed using a Sanyo (TRC-8800) transcription/dictation machine.

Data analysis

The transcripts were analysed using a process of qualitative content analyses involving the development of sets of analytical categories or themes as recommended by Rubin and Rubin (1995), Flick (1998) and Krueger (1998).

Each participant was assigned a unique code. The schedules were used initially as headings to organize the statements and each statement was coded to identify the speaker. The transcriptions and written notes were scrutinized to determine the most common themes to match the questions and any other emergent topics. Analyses concentrated on the meaning of the words (rather than the words themselves) and the context of the statement. The topics identified were recategorized into themes, linked themes and major/minor themes. The main transcripts were reread in detail seeking evidence to support each theme and checking for new themes (Pope *et al.*, 2000). The transcripts were then checked for 'negative cases', exceptions to the rule or cases which cast doubt on the rule (Patton, 1999). Each theme was assessed in detail to ensure that there was sufficient supporting evidence (statements from different individuals) and the intensity and specificity of the individual comments were considered. The main themes were finally reordered to provide a coherent description of the topic.

Table 1 Focus group topic guide

Introduction
 Names and positions
 Contact with nurse practitioner
 History, when nurse practitioner joined the team(s), how did it happen?

How nurse practitioner currently works in the primary care team
 Are there written protocols for the operation of the nurse practitioner in the practice?
 Who decides which patients see the nurse practitioner?
 Which types of patients are referred to the nurse practitioner?
 Who does the nurse practitioner refer patients to?

The role of the nurse practitioner:
 How well did the team members understand the nurse practitioner role? (THEN and NOW)
 Did the nurse practitioner feel that the role was understood? (THEN and NOW)
 What are the key differences between the roles of the GP, treatment room nurse and nurse practitioner in this practice?

Integration into the primary care team:
 How were the team members prepared for the introduction of the new practitioner?
 How did the team members feel about the introduction of a new practitioner?
 Have there been any changes in content and quantity of the workload of the other team members since the introduction of the nurse practitioner?
 Are there any patient groups that were previously seen by the GP that are now seen by the nurse practitioner?
 What changes did the nurse practitioner bring to the practice?

Minimizing researcher bias

In qualitative research the communication between the researcher and participant is an explicit part of the knowledge production (Flick, 1998). Researchers should, therefore, be aware of the potential influence of their backgrounds and experience on the data collection and analyses (Rose and Webb, 1998). We used a number of techniques in an attempt to minimize researcher bias. Two facilitators were present at the groups. Findings from the two independent analysts were compared to establish inter-rater reliability. Differences in interpretations were discussed until a consensus was achieved (Flick, 1998).

Data validation

After analyses a number of anomalies and contradictions required clarification. The nurse practitioner interview transcripts were returned to the interviewees along with a set of open-ended questions relating to aspects of the transcript which were unclear or which required further detail. The nurse practitioners were also asked to read over the transcripts, to add notes and to make changes to any parts of the transcript that they felt were misleading. The aim of the exercise was to ensure that

the transcripts constituted an accurate representation of their views and opinions on the issues discussed.

Findings

How nurse practitioners currently work within the primary care team

Who decides which patients see the nurse practitioner?

The main groups of patients to be seen by nurse practitioners are those who request the GP but cannot get an appointment. Some patients are referred to nurse practitioners by GPs whilst less complex cases are referred to nurse practitioners by receptionists. Nurse practitioners also triage patients across the telephone or on the premises. However nurse practitioners were keen to emphasise that patients remained free to choose whom they saw. Comments included:

People phoned up for appointments with their GP and if there wasn't an appointment available, the receptionists would say 'we have a nurse practitioner, she can deal with xyz and would you like to see her?' . . . so people would

come to see you, not really knowing much about you. (Nurse practitioner)

If somebody was ringing up for an appointment with the GP and we didn't have any available we would say 'would you like an appointment with the nurse practitioner?' (Practice manager)

We have a large amount of minor illness which doesn't necessarily need to see a GP. We felt it was unnecessary for them to have to queue up and wait for a doctor when the nurse practitioner could see those patients. So we started to link up to triage patients through the reception staff, who would put those patients into a consultation morning for me. (Nurse practitioner)

The patient chooses, so they are never told 'you have to see her'. That wouldn't be fair on either myself, or the patient. (Nurse practitioner)

Anybody requesting an urgent appointment that day can be put on a triage list, their telephone number taken and then (nurse practitioner) would ring them back and she would be able to ascertain . . . whether it's a problem she can sort out or whether they need to see their GP or maybe just advice over the phone. (Practice manager)

The reception staff

Receptionists were shown to influence which patients were allocated to nurse practitioners. They also pointed out that they had a role in educating the patients about the work of the nurse practitioner. Some receptionists had been given formal or informal guidelines on the role of the nurse practitioner and this appeared to work well. In one practice the team acknowledged that training and information might have helped and two nurse practitioners discussed the initial confusion among reception staff about the nurse practitioner role:

I suppose the most important people when (nurse practitioner) actually started the job were the receptionists, in terms of getting patients to her, because the receptionist is the first port of call for patients. So it was really

down to them to promote her role and offer an appointment with her as an alternative to us... So yes, they did have guidelines. (GP)

I'd say we could have planned it better. We could have trained. I think at that stage we didn't know how it would go ourselves. (Practice manager)

The receptionists here are excellent. They are the first line contact when patients phone up. I have been here nearly three years now and the patients know I am here, so they would tend to phone up and ask for me directly. Initially the receptionists were the ones to say that we have a nurse practitioner 'this is what a nurse practitioner is', because patients don't know. So the receptionists, once we educated them, they then educated the patients. (Nurse practitioner)

There was a lot of building relationships . . . and the biggest barriers were the reception staff. I felt that was maybe due to the fact that the GPs hadn't explained to them properly what this new role was as a practice nurse. (Nurse practitioner)

Protocols and guidelines

Some nurse practitioners developed their own guidelines regarding the assessment, diagnosis, treatment and referral of patients. However, these guidelines were perceived to be restrictive and eventually were discarded as the GPs became confident in the nurse practitioner's clinical abilities and judgement. Other nurse practitioners used guidelines that had already been developed.

We started off trying to write protocols for everything and it ended up there were going to be hundreds of them, so now I suppose a lot of it is a working relationship between myself and the GPs. (Nurse practitioner)

No protocols as such. I will go by the same guidance documents that the GPs will go by. (Nurse practitioner)

Work of the nurse practitioner

The main types of patients seen by nurse practitioners were patients with minor illnesses or

chronic illnesses. Nurse practitioners' also discussed their role in education, health counselling and health promotion. They felt that this was a key difference between the ways that nurse practitioners and GPs practice. However, one GP noted that health education and health promotion should not be limited to the nurse practitioner. Cervical smear testing and testing for diabetes comprised a large component of nurse practitioner work. Patients with gynaecological problems were also referred to the nurse practitioner; perhaps because most of the doctors were male. Some felt that nurse practitioners were seeing the same types of patients as the GPs. However, others claimed that there were distinct differences between the patients seen by the nurse practitioners and the doctors. The main differences, according to GPs were that nurse practitioners saw more people with minor illnesses and chronic conditions whilst GPs saw people with more serious or complex problems:

You get a lot of minor illnesses, vomiting, children with minor illnesses, sort of . . . problems presenting to the health centre which we wouldn't consider as a major medical emergencies. (GP)

A lot of times you didn't need to get a prescription for the patient. The role was very much a health education role and sometimes you would have spent a lot of time telling people why you weren't getting them a prescription. You could also advise what things they could get over the counter as well. (Nurse practitioner)

I think maybe with nurses, you tend to have a more holistic approach. I would do a lot of health promotion as well . . . I would check their smears, all these different things, immunisations and so on. I would refer them on to different areas as necessary I think in that way, nurses will work slightly different than GPs. (Nurse practitioner)

I think that (health promotion) is a role for everybody. I don't think you need to be a nurse practitioner, to be involved in that. We refer to all nurses, for that type of work. (GP)

But initially the first year, it was mainly children and mainly coughs, colds and that

type of thing. As the time has gone on, it is varied. (Nurse practitioner)

We have mainly male doctors here, so a lot of the gynae patients will be told to come in and see me, as opposed to the GPs, because if they don't want a male GP to be examining them. (Nurse practitioner)

Acute problems will be seen by the nurse practitioner. Complex and more heavier workload will be seen by the GP. That would differentiate our work. (GP)

Special interests of the nurse practitioner

Many of the nurse practitioners had special professional interests such as asthma or diabetes. In some cases the GPs would refer patients with certain problems such as asthma or diabetes to the nurse practitioner. The nurse practitioners who were consulted by doctors viewed this as an indication of respect. Experience gained prior to becoming a nurse practitioner was also considered to be important in developing general skills and specialist areas of knowledge:

Now, they respect my clinical judgement and with dermatology, they will phone me and ask me what I would recommend. I maybe see more of it than they would and nurses are good at keeping up-to-date. (Nurse practitioner)

At meetings, they (GPs) would ask my opinion on a variety of subjects. The doctors have delegated quite a lot of work now to nurses, there are some areas where they are starting, maybe, to lose their skills slightly; so they do rely on you. They will come and say 'what is current practice?' (Nurse practitioner)

I would tend to do a lot of the diabetes management and I would see only people phoning up and saying they need to be seen today, those sort of people so I would mainly in a chronic diabetes management and triage role. (Nurse practitioner)

With my long experience in general practice anyway, I was all the time preparing myself. It wasn't going into the nurse practitioner role cold and not having seen all the things you had seen in general practice. It was

adding in new extra skills – looking at the throat, looking at the ears and glands, listening to the chest and all of those things that just added in. (Nurse practitioner)

(Nurse practitioner) would be in big demand now with a lot of the patients. (GP)

Its just been a victim of its own success really. (GP)

Patients' perceptions of the nurse practitioner

The nurse practitioners spoke about patients' perceptions of the differences between the nurse practitioner and the GP. Some patients seemed to prefer to talk with the nurse practitioner about their anxieties rather than the doctor. The interviewees believed this to be related to the patients' perceptions of the doctor or alternatively, the holistic approach taken by the nurse practitioner:

The nurse has had occasions in the treatment room where people have come round and they realise when they are talking to them, that they are upset. They take them into a private room and they cry their heart out. It's hard for them to do this in front of the GP. But at least you feel you are there to soften up the edges a bit. (Nurse practitioner)

I think there is a perception among a lot of people, that GPs are really important, busy people and that you don't go to see them, unless there is really something wrong. So there is the category of people, who don't like to bother the doctor. Then there is the group of people, who are intimidated by the doctor... they find it much easier to come in and talk to you and ask you questions. (Nurse practitioner)

Our problem is not getting people to see her, our problem is getting people away from her and because of her popularity and the use we make of her, we are actually going to employ a second person in this role. (GP)

I think once they experience an appointment with (nurse practitioner), then they . . . recognize the skills and do come back, in some cases they prefer to come back. There is one of my colleagues I was speaking to and she said that there was a nurse practitioner in her practice and . . . the queue for the nurse practitioner is longer than for the GP. (Practice nurse)

Changes in the working patterns of primary care teams

Change in GP workload

Interviewees considered that the nurse practitioners were dealing with some of the same groups of patients as the GPs. This was perceived to be advantageous as GPs could develop their skills in dealing with more complex problems:

I know of one practice where the GP said he felt he was becoming de-skilled in treating asthma, because he was rarely seeing his asthma patients. (Nurse practitioner)

Its probably reduced the waiting time as well that people wait for sickness that (nurse practitioner) has taken the non urgent. It's taken the pressure off us. Yes. (Receptionist)

It has taken some of the acute minor stuff away, some of the repeat visits for prescriptions but that has been replaced by some complex cases who would have been seen in hospital in the past, so it has made the job a bit harder. Sometimes it is a relief to get a sore throat coming through the door, a sick line or something like that . . . So in a way the patients are shifted out of hospital. We see the more complex cases. (GP)

I would say that the spectrum of the illness that we see and certainly allow us to provide a more satisfying overall quality of care for patients and allowed us to fine hone our skills on more complex consultations. (GP)

Trust and respect from GPs and prescribing

The theme of respect from colleagues was also illustrated in discussions about nurse practitioners prescribing medication for patients. Most practices operated an informal system whereby doctors

trusted the judgement of nurse practitioners and signed prescriptions without assessing a patient (unless requested to). One nurse practitioner noted that having to get prescriptions signed by GPs resulted in longer consultations:

They will sign it. They know if I am not happy with something, I will ask them and give them a run down of the patient, but if they know I am happy enough, they trust my clinical judgement. (Nurse practitioner)

The GP's know that I will consult with them, if there are any problems . . . They trust my judgement. It works both ways, because very often the doctor will get patients on the phone, who request antibiotics, so she will ask the patient to see me to examine them, so I make the decision . . . whether they need antibiotics. (Nurse practitioner)

They're trained... to a very high level but the whole prescribing area needs addressed, its crazy that she has to run to us and stand outside my door waiting for me to come out so that I can sign a script. It is an absurdity that she can't prescribe antibiotics. (GP)

You still have to go back to order the prescription and that can take anything from five to 10 minutes. Which is incredibly frustrating . . . So yes, the consultations are longer but there are things like that take out chunks out of the consultation. (Nurse practitioner)

Team members' perceptions of the nurse practitioner role

Support from GPs and staff who had previously known the nurse practitioner

Findings showed that nurse practitioners experienced considerable support from most of their colleagues. This was particularly the case with staff who had known the nurse practitioner before completing the course. The support of the GP was also reflected in the ways in which the nurse practitioners were permitted to share GPs'

information in practice meetings and through computer access:

Certainly the GPs knew very well. They had instigated a lot of the training over the years with me and they made decisions to do the things I had done, so they were very clear about it. [GP] had been involved with the course and the examinations so, she was very tuned in to knowing what to expect at the end of the course. (Nurse practitioner)

I am definitely seen as more part of the team, than I was before. I feel that I have moved in more. I have my own code for the computer and things like that. I have access to more information, than other members. My own colleagues I have always worked alongside, have been very supportive of me. (Nurse practitioner)

Opposition from some colleagues

A tendency for initial opposition to the nurse practitioner role from some staff (nursing staff in particular) was noted by a number of the interviewees. This was mainly related to confusion regarding the role and perceived overlapping of the nurse practitioner role with that of other nurses and GPs. Nurse practitioners used their interpersonal skills and diplomacy to address this. Most felt that the opposition dwindled over time:

You felt isolated . . . You really were working very closely with the doctors. You had very good support and everything else, but there was also slight friction you felt between yourself, working in an extended role and referring to other nurses. Health visitors, midwives, treatment room nurses. There was always an undercurrent, but when I was in post quite a few months, things got a bit easier. By that time I had established a bit of rapport with the health visitors and the treatment room nurses.

(Nurse practitioner)

Most of the resistance has come from colleagues within the health centre, who maintain that this is not an additional service, but could be seen as an erosion of our professionalism. I have always disagreed with that and I think it is interesting now to

see that one of the practices, who were very opposed to the nurse practitioner three years ago, have now just started their own. (GP)

Initially there was a bit of wariness I would say, because again they didn't know what a nurse practitioner was 'here is this person coming in and who does she think she is?' . . . Now, it is working extremely well.
(Nurse practitioner)

Other issues

The interviews and focus groups yielded data concerning issues that were relevant to the participants but not included in the original study objectives.

The role of the nurse practitioner

The interviewees believed that the role of the nurse practitioner evolved over time, despite initial uncertainty and confusion. Frustration regarding the lack of role definition and official recognition was also noted. It was felt that official role clarification might have facilitated the transition:

I would say it took me four months to start to see 'the practice know what I am about here'. Up until then I felt that I was not really sure if this is quite working here. Not due to anybody's fault, probably because it was such a new role and we just didn't really know the boundaries. (Nurse practitioner)

I think people didn't know what it was. They don't and they still don't know what a nurse practitioner actually does and there is a mix up and this is where there is a real difficulty. What is a specialist nurse? What is a nurse practitioner? What is higher level practice? We have got different titles.
(Practice nurse)

The fact that the role is not really recognized yet by the UKCC. I think that is another big issue. The other thing is the grading. A lot of people wouldn't be happy about their grade.
(Nurse practitioner)

She can call herself whatever she wants. It doesn't make any difference. She is not a recognized entity. (GP)

If you get the fog removed from as to what all these people are, nurse specialists, higher level nurse. I think there are people trying to tackle that but it is an awful hard thing to tackle. It is really a disservice to those people who have extended their skills.
(Nurse practitioner)

The title 'nurse practitioner'

There seemed to be a degree of confusion among some of primary care team members as to the title of the nurses who had trained as nurse practitioners. Concern was also expressed about inappropriate use of the title 'nurse practitioner' and about trained nurse practitioners who were not utilising their skills:

There is a bit of confusion about the title nurse practitioner. If you have a doctor trained, he gets a qualification that everybody will know is a basic qualification. There appears to be a number of courses and routes, where people can end up with the title nurse practitioner. There are nurse practitioners turning up in all specialties, they may only take six or eight weeks to train and there is no way that you could swap these people around. (GP)

What needs to be looked at, is the names and the qualifications. There are so many people calling themselves nurse practitioners, with so many varying courses, or no course. It reads from a job title to a degree course, but I think even in that, if you are doing research, you need to look at what exactly is a nurse practitioner . . . It is looking at people who are calling themselves nurse practitioners, but aren't necessarily qualified as nurse practitioners.
(Nurse practitioner)

There are qualified nurse practitioners, who are still working as practice nurses, because of economic factors I think, more than anything. (Nurse practitioner)

The role needs to be clearly defined from that of a practice nurse and clarification of the title, perhaps a change of title. At present anyone can call themselves a nurse practitioner

whether they've done a five day course, a module, a degree or a masters.

(Nurse practitioner)

Awareness of own limitations and self-monitoring

The theme of self awareness of limitations arose many times in the interviews. The nurse practitioners claimed that they were aware of their limitations and were constantly monitoring their knowledge and skill levels so that they might redress any deficits in their abilities:

I think they (GPs) felt, I knew my own limitations, I wouldn't have dealt with anything that I didn't feel comfortable with. They felt then, that it was fine and I knew when to come to them.

(Nurse practitioner)

One of the key things, is knowing what you don't know, knowing the gaps in your own knowledge and then getting a way to fill them. What the nurse practitioners course does, it really makes you analyse your own practice and do something about it. You are in a very responsible position.

(Nurse practitioner)

Legal matters, being careful, people watching

During many of the interviews there was a strong sense that nurse practitioners felt that they had to be careful, that theirs was a new role and that people were watching. The issue of note-taking was also related to this, nurse practitioners felt that they should take extensive notes not only to allow them to audit their own work but in the event that a query or legal issue arose:

We were not sure of any of the legal consequences. There was a whole lot of, what we saw as a sort of minefield at the start.

(GP)

You always have to be careful if litigation that kind of thing.

(NP)

Documentation is the cornerstone of good practice. I did a module on legal aspects when I did the course and I became quite interested in it . . . I probably write more than the GPs would write.

(Nurse practitioner)

The GPs would maybe just write in the

treatments, whereas I would tend to write in the consultation, not copious notes, but enough that what you have examined, what you have done and what you have said, as well as the treatments . . . I think that is from nursing. Nurses tend to write more detail than GPs would, because record keeping is beaten into you the whole way through your nursing career.

(Nurse practitioner)

Discussion

The study explored the activities of nurse practitioners in primary care, the perceptions of team members and the changes in working patterns of the team. A qualitative methodology was appropriate due to the lack of previous research in this area. The findings are not quantitative and are not generalizable to all nurse practitioners.

The findings show that the nurse practitioners in this study operate in a variety of ways within the primary care team. Nurse practitioners are not only undertaking physical examinations but are making diagnoses and are involved in decisions about the treatment and care of individual patients. In general, nurse practitioners see less complex cases than GPs but there remains an element of overlap. Some nurse practitioners are responsible for the monitoring and treatment of certain groups of patients and, in a triage role, make important decisions about the urgency of a problem. The skills gained through nursing training and experience should not be underestimated. The role of the receptionist in determining who sees the nurse practitioner and the importance of patient choice is also emphasized. There appears to be value in providing the reception staff with training and guidelines regarding the role of the nurse practitioner and types of cases he/she may see.

The nurse practitioners provided consultations with patients, especially those with acute minor illnesses. However, the fact that GPs were now seeing more complex cases may have wider implications. For example the GPs perceived that consultations may need to become longer and GPs may become de-skilled in certain areas such as acute minor illnesses if nurse practitioners take over this role.

It is reassuring that nurse practitioners are aware

of their own limitations and seek to attend training to address perceived gaps in competencies. Over-concern with legal matters should not be allowed to interfere with clinical practice and, for this reason, the legal position of nurse practitioners in primary care should be revisited and clarified.

Although there has been initial confusion regarding the role and some opposition, these findings suggest that the introduction of the nurse practitioner in primary care teams in Northern Ireland has not caused considerable disruption to the team. This may have been partly due to the positive attitudes of GPs who provided encouragement and clinical supervision for practice nurses who wished to extend their role. The attitudes of GPs who do not work with nurse practitioners should be examined to determine the extent to which these GPs support the role.

In the majority of interviews the importance of role clarity, definition and official recognition was highlighted. Role clarification might help nurse practitioners to gain acceptance among both medical and nursing colleagues as their tasks would be clearly identified. The requirements for individuals wishing to use the title 'nurse practitioner' would be determined and demand for qualified nurse practitioners may increase, allowing all those who undergo nurse practitioner education and training to make full use of their skills. In the meantime, the work, experience and qualifications of nurse practitioners and those calling themselves nurse practitioners should be assessed quantitatively to inform the development of a role definition and to allow training programmes to prepare these nurses for the roles which they fulfil.

Conclusion

This qualitative study used focus groups and one-to-one semi-structured interviews to explore the views and opinions of a range of health care professionals of the role and function of nurse practitioners in primary care teams and how the teams have been altered as a result of the introduction of nurse practitioners. The findings demonstrate that the nurse practitioners in this study worked in a variety of ways and were specialists in many different areas. They carried out physical examinations, made diagnosis and ran clinics which were accessed mainly by patients

with minor illnesses or injuries. In addition they assessed and monitored patients with chronic conditions. The GPs in this study supported and valued the nurse practitioners' contribution to the primary care team as well as their clinical judgements. The provision of education and training courses needs to be addressed as a range of different programmes are available across the UK. These vary both in length and academic level. In addition, there is a need for nurse practitioners, and the work that they undertake, to be recognized formally by their professional body.

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