AUSTRALIAN GENERAL PRACTICE NURSES STUDY
PHASE I

Overview

The Australian General Practice Nursing Study (AGPNS) is a three year, two stage project examining how nurses work in general practice, with funding from the Australian Primary Health Care Research Institute (APHCRI). The study reflects a unique research collaboration between the Australian Divisions of General Practice and the Australian National University.

The results of this research will firstly describe the ways in which nurses work [Phase 1], and then explore ways in which practices can maximize the benefits nurses bring to general practice [Phase 2].

This document summarises the preliminary findings of Phase 1 of the study. More detailed analysis of the data is continuing and further, more comprehensive, results will be made available as this is completed.

Aims of the project

The project aims to look specifically at nurses' current roles within general practice, and at the local and structural factors influencing these roles. The specific questions the research aims to answer are:

1. How do nurses operate within the structure of general practice?
2. What are the local, individual and structural factors that determine the success or failure of activities undertaken by nurses in different in general practice settings?
3. What contribution do practice nurses make to safety and quality in general practice?
4. How might the introduction of new models of practice nursing be facilitated?

Phase 1 of the AGPNS was conducted as a mapping exercise and collected data to develop a better understanding of the ways that nurses in general practice work.

Phase 2 of the study, a change management intervention, will consist of a series of detailed case studies of incremental, low-cost change in seven general practices.

Methods

Sample selection

The sample of practices chosen for the study was intended to be illustrative rather than representative. The research team attempted to capture the widest range of possible models, rather than the most common or typical.

The sampling frame for this project was designed to include variations in: location, local demographics, rural or urban orientation, size, business structure, GP & nurse workforce size, and types of nursing role. The group of study practices includes a mix of rural, urban, remote, large and small, with a wide range of nursing models.

Practices were recruited through Divisions of General Practice in New South Wales and Victoria. Of the 25 included, 8 are in NSW, and the remaining 17 in Victoria.

Of these 12 are urban, 12 are rural and one is classified as remote. The majority of practices are group or partnership structures, with 4 solo practitioners. An effort was made to include more unusual or innovative practice nurse models, including practices with high nurse to doctor ratios, male nurses, corporate and community health based practices.

Figure 1. Distribution of practices in Phase 1

Data collection

Data collection was undertaken by one of two trained researchers who undertook a single practice visit, during which the researcher collected a range of data:

- Interviews with nurses, doctors, and practice managers
- Photographs taken by nurses of "the most important aspects" of their workplace
- Structured observation of the nurses' activities for two periods of one hour
- Floor plans of the practice
- Public access documents such as the practice leaflet
- Social and health service indicators (number of doctors in the region, unemployment rate, mix of health care services)

During this process, the research team:

- conducted 83 interviews with 37 nurses and their colleagues (24 GPs and 22 Practice Managers) in 25 practices
- undertook 50 hours of structured observation of 36 nurses in 25 practices
- documented nursing workspaces (including photographs and floorplans) in 23 practices.

Analysis

Interview data were analysed through a coding system set up using NVivo software. Observation data were first collated through a spreadsheet, and then visually represented using elements of movement notation, through pictograms which summarized and annotated movements between location.

Photographs were analysed with a particular focus on key elements of nursing workspace compared with doctors' workspace, and compared and contrasted with floor plans. The various elements were then analysed as a whole using the constant comparator method at meetings of the collaborators, looking for thematic coherence across the different data.

Several validation strategies were then used. A summary of each practice was prepared and then returned to each practice for their comments. Preliminary data were placed on the AGPNS website, and public comment was invited. At numerous public presentations of the data, nurses and general practitioners were invited to comment on the work.

Box 1. *Example of feedback at AGPNS website, in response to item on practice nurse workspaces*

"As a practice nurse I think the space allocated to the nurse is a reflection of their acceptance of the team approach to primary health care. I have worked 4 years plus at my present location and have always had a room allocated from which to practice and operate. I had input into how the desk and drawers were to be built when I needed to move to a new room. This practice embraces a holistic approach to health care and values my input especially in regard to preventative health care."

Results

Nurses as agents of connectivity.

During observation, nurses were encouraged to undertake their normal activities however many reported that the observation was a slightly "slowed-down" version of their typical work over an hour, as they paused to explain their work to the observer.

Given the comments that this was not nursing work at full pelt, it is interesting to see how active the nurses were. In general, tasks were distributed across three domains:

- Clinical work (giving immunisations, taking blood, antenatal and emergency assessment, home visits)
- Administrative (faxing referrals, scanning results, arranging patient recall, relieving the reception desk)
- Servicing activities, which ensure that the general practice infrastructure is maintained (monitoring the vaccine refrigerator, sterilising instruments, even fixing a radio)

Practice nurses cycled rapidly between activities, often undertaking multiple tasks simultaneously. A nurse assisting in a minor procedure (clinical activity), might break the activity to take phone calls about a patient's results, or to stock the drugs cupboard, although this was most often related to patient care rather than administrative tasks. Nurses were extremely responsive to the requests of others. Nurses seemed to act as the central reference point for patients, receptionists, doctors and other staff members asking questions, and almost without exception they altered their tasks in order to respond rapidly to these requests. There were an average of 15 intercurrent encounters with patients/doctors/reception staff and others per hour (range 9, 36). In one practice, there were 36 brief contacts over one hour, a rate of one contact every 100 seconds, most of which required a response.

All staff referred to the nurse as the "go-to" person to solve immediate practice problems. What constituted a "practice problem" ranged from coordinating patient transfer to hospital, locating lost files, and fixing the waiting room radio.

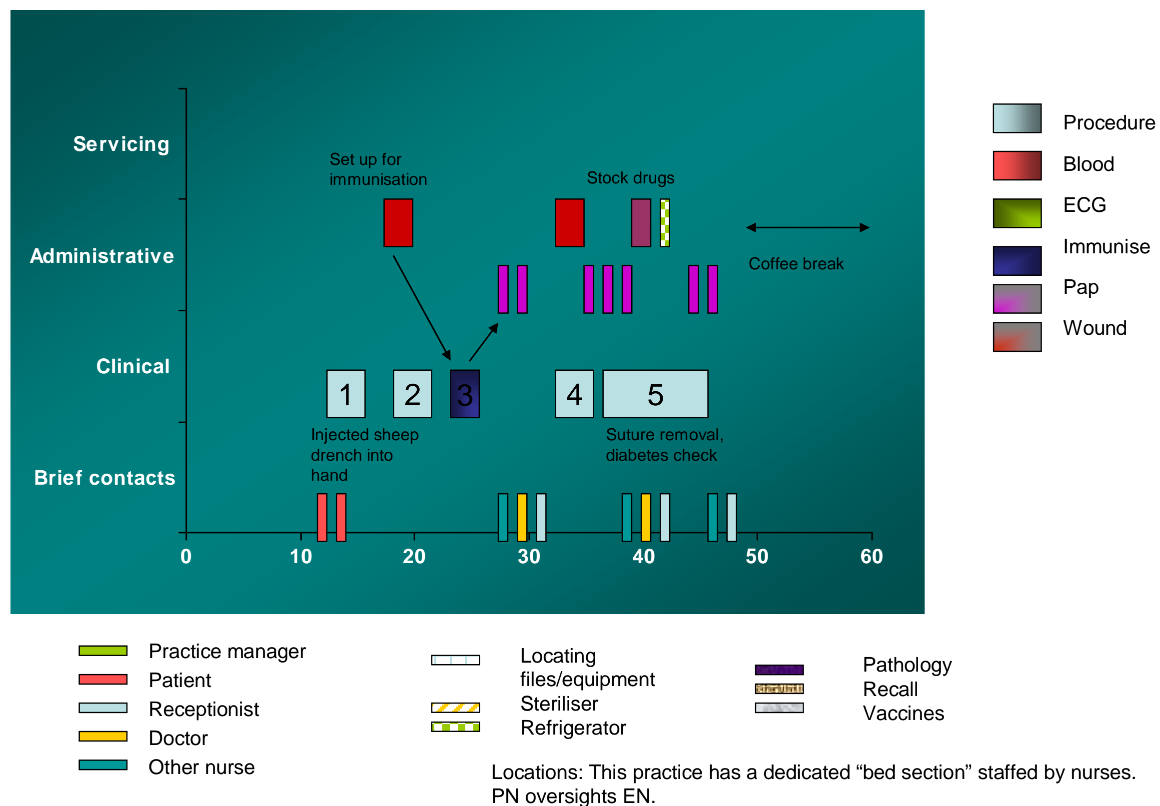

Figure 2. *Example of pictogram detailing one hour's work undertaken by practice nurse. This pictogram illustrates the rapid cycling between clinical and administrative work undertaken simultaneously (note how the suture removal and diabetes check occurs in the same ten minute period as a number of other administrative tasks, checking the vaccine refrigerator and stocking drugs).*

During the hour, nurses often ranged across all the spaces of the general practice, entering and working in the receptionist area, the waiting room, the store cupboard, the consultation rooms. This licence to 'access all areas' may be one of the reasons why nurses seemed to commonly be the people who would go in search of lost files, or mislaid equipment.

Nurses as users of clinical space

Our preliminary analysis has suggested that the floor plan of the clinic may be one feature determining how rapidly the nurses cycled between activities. In practices with dedicated floor space devoted to the nurse's activities (generally in purpose-built facilities) the clinical work undertaken by nurses appeared to be interrupted less, and some of the servicing tasks were undertaken by other team members.

There are some strictures placed on nurses' workspaces, in that many practices have located nurses' workspaces in transitional sites, such as corridors, or parts of another office. Many nurses also have a desk located in the treatment room, indicating the importance of clinical care in the definition of the nurses' role. Desks tend to be very crowded, and filled with work tasks, similar to nurses' desk stations in hospitals. Where nurses had desks in treatment rooms, doctors tended to exhibit "threshold behaviour", by standing at the entrance in order to talk, or knocking.

These threshold behaviours did not occur if the nurse had a desk in a transitional site. There was a difference of opinion among nurses about the relative merits of having a consultation room as their main worksite, or a treatment room.

Figure 3. *Example of nurse's station in transitional space, part of the 'backstage' of a general practice.*

Figure 4. *Example of nurses station located next to a patient bed*

When asked to take photographs of their worksites, nurses tended to photograph backstage areas such as the store room, or their desks, or the treatment room. These sites are the engine rooms of a practice, rather than the public spaces, such as the waiting room.

Nurses as quality control

When asked the best aspects of having a practice nurse, doctors tended to focus on the role of the nurse in clinical governance areas, such as preparation for accreditation. Many doctors expressed the view that nurses were better at systems and procedures, and were ideally placed to develop policies and procedures suitable for accreditation. This was not a view contested by practice nurses, who discussed their "watchdog" role, making sure that doctors were sufficiently observant of infection control. However, there was often some disquiet with the limits of the watchdog role, with a few nurses giving accounts of quality improvement initiatives they had tried to introduce which had foundered.

Quality of patient care was addressed slightly differently by both professions. Neither raised the notion that there might be differences in the ways nurses conceptualised a good patient-health provider relationship. Nevertheless, many nurses gave accounts of prolonged consultations with patients in crisis, which would have been difficult for doctors following a busy appointment schedule.

Nurses as outreach

Nurses are often engaged physically or by telephone in the process of connecting the practice with its community. The regularity of intercurrent contact within the practice also supports the outreach role of the nurses. In the practice visits, more nurses than doctors left the practice during working hours to undertake home visits, or to visit other members of the community.

Limitations to the role of the nurse

The nurses' role can be limited through a range of factors, some easier to mould than others. The internal architecture of a practice is difficult to change, and there may be a financial preference to find extra room for another doctor than for a nurse. We found that urban practices tended to have more limited space, and were more likely to have the nurse in a transitional space. A potential advantage of the transitional space, is that it enables the nurse to continue to unite the diverse elements of the practice.

Other practices with more generous floorplans occasionally resulted in the corralling of nurses to one part of the building, resulting sometimes in a belief that nurses were less able to impact upon the running of the practice, as they were less deeply connected with the running of it. It is possible that better internal IT connections may have the capacity to overcome some of the spatial limitations.

In this study, there were a range of social structures. As a rule, the more ingrained industrial democracy principles, the more likely the practice was to have nurses who felt their roles were not constrained.

Conclusion

Nurses' time is seen by both nurses and doctors as being more flexible than doctors' time, and they are regarded as being "available" to patients in a way that doctors, with more rigid appointment structures, are not. The location of practice nurses' desks in areas of traffic flow, such as administrative stations, or in the treatment room, underpinned this valuable unstructured contact with patients.

Both doctors and nurses perceive that nurses have an important role in 'policing' standards and compliance within a practice. This is reflective of the role nurses frequently undertake within hospitals.

The frequent work-related, productive interaction by practice nurses with other practice staff creates important linkages within the practice. This connectivity work is not formally recognised as part of the suite of work done by nurses, but is probably a core feature of stable and successful practices.