



ResearchSpace@Auckland

Journal Article Version

This is the publisher's version. This version is defined in the NISO recommended practice RP-8-2008 <http://www.niso.org/publications/rp/>

Suggested Reference

Lightfoot, R., Davis, P., Finn, E., Lay-Yee, R., Gribben, B., & McAvoy, B. (1999). Practice nurses in the Waikato, 1991-1992, I : Occupational profile. *New Zealand Medical Journal*, 112(1081), 26-28.

Copyright

Items in ResearchSpace are protected by copyright, with all rights reserved, unless otherwise indicated. Previously published items are made available in accordance with the copyright policy of the publisher.

<http://www.nzma.org.nz/journal/subscribe/conditions-of-access>

<http://www.sherpa.ac.uk/romeo/issn/0028-8446/>

<https://researchspace.auckland.ac.nz/docs/ua-docs/rights.htm>

IN PRACTICE

Practice nurses in the Waikato, 1991-1992, I: occupational profile

Rose Lightfoot, MPH, Graduate Associate; Peter Davis, PhD, Director; Elizabeth Finn, MPharm, Research Officer; Roy Lay-Yee, MA, Research Associate; Barry Gribben, MMedSci, Senior Research Associate; Brian McAvoy, MD, Professorial Associate, Centre for Health Services Research and Policy, University of Auckland, Auckland.

Abstract

Aims. To describe the personal characteristics, working conditions, clinical activities and professional development of a representative sample of practice nurses in the Waikato during the period 1991-1992.

Methods. The data are from a survey of practice nurses drawn from a larger study of general practice carried out in the Waikato (the WaiMedCa Study). Eighty-nine percent of the 107 practices in the region participated in the study. The practice nurse survey was carried out on the 189 nurses working in these practices. Of these 149 replied, representing a response rate of 79%.

Results. On average, there was one nurse for each solo practice and two in most other practices. Only two practices - both solo - did not employ a nurse. Practice nurses were female and aged between 30 and 50. While only one-third had received a postgraduate qualification, two-thirds had been to recent professional development courses. The majority had worked as a practice nurse for between one and ten years. Nurses averaged just under 15 telephone contacts a day and 28 face-to-face contacts a week. Nurses' workload comprised general measurements and assessments, monitoring and surveillance procedures (such as diabetes, asthma and child development), and counselling and women's health activities.

Conclusion. Practice nurses are an accepted and essential part of primary health care in New Zealand. However, their potential is probably underdeveloped and they could be more fully utilised for a wider range of nursing functions.

NZ Med J 1999; 112: 26-8

The health reforms and subsequent health policy changes have led to changing boundaries in the delivery of health care in both the secondary and primary health care settings. In the new environment contracts for primary health care provision are likely to require general practitioners to demonstrate delivery of services to defined practice populations, focusing on co-operation, co-ordination and communication amongst providers,¹ with increasing emphasis on disease prevention and health promotion. These changes have affected the way primary care is delivered in general practice by medical and nursing professionals, and requires motivational teaching skills as an essential part of nursing practice.²

The practice nurse salary subsidy was introduced as an initiative to improve rural medical services in 1970 and extended to urban areas in 1974.³ There has been a steady increase in the numbers of nurses employed in general practices and they currently form the largest group of nurses working in the community (2465 in 1995).

Although practice nurses are a key resource in primary and community care, little systematic research has been carried out on the nature and scope of the role of practice nurses in New Zealand.⁴ This paper draws on data from a larger study of general practice in the Waikato region over the period 1991-92 - the WaiMedCa survey - to establish the occupational profile of practice nurses in that area.

Methods

The data for this paper originate from a study of general practice characteristics and patient encounters carried out between

September 1991 and August 1992 in the Waikato region (the WaiMedCa Study). The study consisted of four surveys, two on general practitioners and their patients, and two on practice nurses and their clinical work. An initial questionnaire was administered to all 107 practices in the Waikato region; 89% of these practices replied and a survey of patient encounters was carried out by participating general practitioners. The two practice nurse surveys were carried out on the 189 nurses working in these practices and on their clients. The data on the practice nurses are reported here. They represent the outcome of 149 replies, a response rate of 79%. Full details of the larger study are reported elsewhere.⁵

Results

Table 1 reports data on staffing levels from the survey of general practices in the Waikato. Of the 58 practices associated with practice nurses, about a third were solo, a third financially integrated group practices and a third other types of group.

Table 1. Average staffing levels per practice, by practice type: full-time equivalents.

	Solo (n=18)	Group Financial (n=14)	Group Non-financial (n=17)	Other (n=6)
General Practitioners	1.06	3.44	2.84	3.15
Nurses	1.00	2.09	2.19	2.63
Clerical/ Reception	0.92	1.98	1.88	2.67
Other	0.49	0.99	0.51	1.17

On average, there was approximately one full-time equivalent (FTE) nurse for each solo practice and between two and three per practice in the other practice types. The ratio of general practitioner to nursing, clerical and other personnel was relatively constant over all categories of practice.

Table 2 gives background characteristics of the 149 practices nurses participating in the survey. Only one of the nurses was male. Most nurses had qualified in New Zealand but only a third had formal postgraduate qualifications. These were most commonly extramural postgraduate papers (10.7%) or post-basic training specialties such as Midwifery and Plunket (16.8%). About 56% belonged to one of two professional organisations, either the Nurses Union or the New Zealand Nurses Association. Although the majority of participants (79.9%) had worked as a practice nurse from between one to ten years, two-thirds had been in the current practice for less than five years.

Table 2. Background characteristics of practice nurses.

	Practice nurse sample (n=149)
Percent female (%)	99.3
Average age	41.2 years
Qualified in New Zealand (%)	90.6
Average service as practice nurse	5.8 years
Average service at current site	5.2 years
Percent without post-basic qualification (%)	65.1
Percentage without membership of professional organisation (%)	43.4

The principal features of the practice nurses' working conditions are outlined in Table 3. On average, nurses worked for just under 30 hours per week. Nearly half the nurses had their own room, over half had their own telephone and 40% their own booking system. On average, nurses handled 15 telephone contacts a day, with only two saying they had none at all. Nurses reported about 28 face-to-face client contacts a week, an average of one an hour. Over two-thirds of these occurred in conjunction with a general practitioner consultation; ten of the nurses (6.7%) did not see any patients independently.

Table 3. Working conditions of practice nurses.

	Practice nurse sample (n=149)
Average number paid hours per week	28.7 hours
Time on client contact (%)	86.4
Own room (%)	43.6
Own telephone (%)	60.4
Own booking system (%)	40.9
Average number daily contacts by telephone	14.7
Average number face-to-face client contacts per week	28
Seen by nurse only (%)	30

Most nurses spent the large part of their paid time in contact with practice clients; however, two nurses stated that they had no client contact at all. About a third of the nurses (32%) were expected to carry out tasks associated with practice administration and reception duties in addition to clinical duties (accounting for an average of eight hours a week).

The clinical activities carried out by practice nurses are summarised in Table 4. General measurements, assessments, monitoring and surveillance procedures were commonly carried out by practice nurses. This included measuring height and weight, blood pressure, urinalysis and blood glucose levels. For patients in whom diabetes had been diagnosed, the great majority of practice nurses counselled patients with problems arising from the condition, gave dietary support and information, and were involved with contacting diabetes support networks. Screening activities for diabetes were less frequent, with fewer than half the nurses routinely screening for diabetes. Nurses were active in the education of patients with diagnosed asthma, with a high proportion instructing patients in peak flow assessment, developing action plans and contacting networks for patient support.

Table 4. Clinical procedures carried out by practice nurses.

Procedure	Average frequency n=149	Percentage of nurses involved in procedures
General procedures	137	91.9
Diabetes surveillance	94	62.7
Asthma surveillance	121	81.2
Child development procedures	67	45.0
Counselling	90	60.4
Women's health	72	48.6
Massage	13	8.7
Minor treatments	19	12.8
Diagnostic procedures	20	13.4

General procedures: height, weight, blood pressure, visual acuity, urinalysis.
Minor treatments: ear syringing, liquid nitrogen, minor surgery, podiatry, skin treatment, sutures, warts, verrucas.
Diagnostic procedures: ECG, venesection, laboratory tests, x-rays.

The organisation and administration of childhood immunisations appeared as a responsibility of the majority of practice nurses involved in the survey. Although more than half claimed counselling as a practice nurse activity, the data suggest this constituted only 0.6% of practice nurse activity at the time of the survey. Diagnostic procedures and minor treatments were carried out by only a small number of nurses (13.4% and 12.8%, respectively).

Continuing professional development as reflected in the acquisition of specific skills or educational qualifications is reported in Table 5. A third of the sample did not cite any such activities for this section of the questionnaire. Training in the taking of cervical smears was the most frequent continuing professional activity reported, followed by first aid and minor emergency care. The acquisition of counselling skills was prominent and included grief and loss seminars, and care of the terminally ill. Some reported learning specialised practical skills.

Table 5. Continuing professional development of practice nurses.

Skills	Frequency n=96	Percentage
Cervical smears	59	61.5
Counselling	24	25.0
First aid/emergency/injuries	50	52.0
Specialised practical skills	20	20.8
Education		
Practice nurse certificate	9	9.4
Diabetes update	18	18.8
Asthma update	16	16.7
Interpreting lab results	10	10.4
Women's health issues	16	16.7
Child health issues	9	9.4

First aid: wounds, CPR, suturing, plastering.

Specialised practical skills: ear syringing, ECG, audiometry, x-rays.

Women's health issues: sexuality, contraception, pregnancy.

Nurses had gained certificates indicating attendance at courses related to surveillance activities, the interpretation of laboratory results and women's and child health issues. Fewer than 10% had recently passed the Practice Nurse Certificate. Small numbers of nurses undertook education in patient management areas. Two-thirds of respondents had attended courses over the last year in their own time, and about half in work time, averaging about six half days in each case. More than half (60%) kept up with reading in their area, amounting to about three hours a week.

Discussion

Practice nurses are an integral part of primary health care internationally. While research has been carried out overseas on the nature of their work,⁶⁻⁸ little has been written about the scope of their activities, their working conditions or their professional development in New Zealand. This paper has addressed these issues. While the study is regional in coverage and only addresses the situation in general practice at one point in time, there are good reasons to believe that general practice in the Waikato is broadly representative of the wider New Zealand picture.⁹

The key findings of this study relate to staffing levels, the demographic and professional background of nurses, conditions of work, clinical commitments and educational activities. Typically, apart from solo practices - which generally make do with a single nurse - most practices employ two to three practice nurses. These nurses are generally middle-aged and have been in the practice about five years. Few have post-basic qualifications or belong to the relevant professional organisation. While the great majority of a nurse's time is spent on client contact, they see only about one client an hour and only a third of these are not also seen by the doctor. General assessment and specialised surveillance procedures account for the bulk of the nurses' work. A third of nurses have not taken part in any professional development. Of those who have, most involve the acquisition of particular skills rather than the achievement of educational qualifications. However, it should be noted that other results from this survey show that most respondents have attended courses and kept up with their reading.¹⁰

These findings are consistent with research elsewhere suggesting that the work of practice nurses is broad, generic and ill-defined,¹¹ that much of what they do is negotiated with the general practitioner¹² and that their

skills are underutilised, perhaps by 60%.¹³ There is also some similarity with findings reported in New Zealand for the Canterbury region.⁴

Practice nurses are a valuable resource in primary care that may be underdeveloped and underutilised. The contribution of practice nurses may be maximized by defining the range of nursing services potentially available in general practice, establishing guidelines for the practice nurse role and providing training appropriate to that role.

Acknowledgements. The Waikato Medical Care Survey (WaiMedCa) was funded by the Health Research Council of New Zealand. Dr Antony Raymont was also a member of the original WaiMedCa team. We are very grateful to the nearly 200 general practitioners of the Waikato region, together with their practice nurses, who gave so willingly of their time to make the collection of the data for this study possible. We wish also to thank the members of the WaiMedCa Trust Committee chaired by Dr Linda Rademaker for their understanding and co-operation in facilitating access to the data.

Correspondence. Rose Lightfoot, Department of General Practice, Faculty of Medicine and Health Science, University of Auckland, Private Bag 92019, Auckland, New Zealand.

1. McCormick IR. Primary and second care integration. *NZ Med J* 1994; 107: 425-7.
2. Wilkinson MAG. Teaching and learning. In: *Conceptual foundations of professional nursing practice*. Creasia JL, Parker B, editors. St. Louis: CV Mosby Company; 1991. p263-81.
3. McLennan LJ. A survey of the fully subsidised practice nurse in New Zealand. Wellington: Royal New Zealand College of General Practitioners; 1984.
4. Mortlock B. The business of care: practice nurses in primary health care. [MA Thesis]. Christchurch: University of Canterbury; 1996.
5. McAvoy B, Davis P, Raymont A, Gribben B. The Waikato medical care (WaiMedCa) survey 1991-1992. *NZ Med J* 1994; 107 Suppl 2: 387-433.
6. Hibble A. Practice nurse workload before and after the introduction of the 1990 contract for general practitioners. *Br J Gen Pract* 1995; 45: 35-7.
7. Jeffreys LA, Clark AL, Koperski M. Practice nurses' workload and consultation patterns. *Br J Gen Pract* 1995; 34: 415-8.
8. Marsh GN, Dawes ML. Establishing a minor illness nurse in a busy general practice. *BMJ* 1995; 310: 778-80.
9. Gribben B, Bonita R, Broad J et al. Geographical variations in the organisation of general practice. *NZ Med J* 1995; 108: 361-3.
10. Lightfoot R. The role of the practice nurse in the New Zealand primary health care setting. [MPH dissertation]. Auckland: University of Auckland; 1997.
11. Mackereth CJ. The practice nurse: roles and perceptions. *J Adv Nurs* 1995; 21: 1110-16.
12. Atkin K, Lunt N. Negotiating the role of the practice nurse in general practice. *J Adv Nurs* 1996; 24: 498-505.
13. Jewell D. What's happening to practice nursing. *BMJ* 1994; 308: 735-6.

Long-term follow-up of the management of benign oesophageal strictures at Auckland Hospital 1990-1994

Stephen T Persson, MB ChB, Gastroenterology Registrar, Auckland Hospital; Alan G Fraser, MD, FRACP, Senior Lecturer in Medicine, Department of Medicine, University of Auckland; Mark R Lane, MB ChB, FRACP, Gastroenterologist and Clinical Director, Department of Gastroenterology and Hepatology, Auckland Hospital, Auckland.

Abstract

Aims. To audit the success of endoscopic dilatation treatment for oesophageal stricture, to determine any predictive factors for multiple dilatations and to compare data with a previous series from the same department. **Methods.** The endoscopy records of 121 consecutive patients with benign oesophageal strictures undergoing endoscopic dilatation were reviewed at Auckland Hospital from 1990 to 1994.

Results. Two hundred and thirty-eight procedures were performed with no recorded technical failures and minimal morbidity. The follow-up period from presentation ranged from 18 to 77 months (median 47 months) and the symptom-free period after the last dilatation ranged from 6 to 77 months (median 47 months). One hundred and nineteen patients had been followed for 12 months or more since their last dilatation. Sixty-three patients (52%) required only one dilatation, 44 (36%) patients required two to three dilatations and 14 (12%) patients required more than three dilatations. There was a trend for patients treated with omeprazole to require fewer dilatations than patients treated with H₂-receptor antagonists ($p = 0.07$). Patients with tight strictures (<11 mm) and Barrett's oesophagus required more dilatations.

Conclusions. Oesophageal dilatation for benign peptic strictures is a safe and effective procedure.

NZ Med J 1999; 112: 28-30

Dysphagia from an oesophageal stricture depends on the luminal diameter, the presence of oesophagitis (oedema and inflammation) and oesophageal dysmotility.¹ Most reports of long-term management of benign oesophageal strictures have concentrated on the efficacy of different dilatation methods and have given little attention to acid suppressive drug therapy and subsequent healing of oesophagitis.²⁻⁶ Treatment with proton-pump inhibitors gives more complete resolution of oesophagitis and could lead to less frequent dilatations because of a reduction in fibrous tissue formation. The purpose of this review was firstly, to determine the long-term outcome of patients with benign

oesophageal stricture undergoing oesophageal dilatation, secondly, to determine any factors predictive of the need for multiple dilatations, in particular, acid suppression treatment with either proton pump inhibitors or H₂-receptor antagonists, and thirdly, to compare the results with an earlier review (1984-88) reported from this hospital.⁶

Methods

The endoscopy records of 121 consecutive patients with benign oesophageal strictures who presented to the Gastroenterology Department, Auckland Hospital between 1990 and 1994 were reviewed. Patients with malignant stricture, achalasia, Schatzki's ring, oesophageal web or previous upper gastrointestinal surgery were excluded. Follow-up after dilatation depended on the individual gastroenterologist. Some patients had a planned endoscopy or clinic review whilst other patients were simply instructed to return when dysphagia recurred. Dilatation was performed as an outpatient procedure, under intravenous sedation, using either hydrostatic through-the-scope balloons or dilators (American or Celestin) passed over a guidewire, usually without fluoroscopic guidance. Most strictures were dilated to 18 mm (54 Fr) though tight strictures were usually dilated up to only 14 mm (42 Fr) at the initial procedure. A tight stricture was defined as the inability to pass the gastroscop through the stricture prior to dilatation (luminal diameter less than 11 mm). The presence of coexistent pathology such as hiatus hernia, oesophagitis, Barrett's metaplasia and peptic ulcer was recorded although these findings were not systematically documented in the endoscopy record. All patients were treated with acid suppressive therapy, either with H₂-receptor antagonists or proton pump inhibitor (omeprazole 20-40 mg daily or lansoprazole 30 mg daily), depending on the individual gastroenterologist. The outcome measures used were the number of dilatations required and the proportion of patients achieving a 12-month, symptom-free period after the last dilatation.

Patient groups were compared using chi-squared tests or two-tailed t-tests and p values <0.05 were considered significant.

Results

One hundred and twenty-one patients (56 males and 65 females) presented with dysphagia, including ten patients with bolus obstruction. The mean age was 73 years (range 33-92 years). Four patients had abdominal pain, regurgitation or vomiting as the predominant presenting