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A nurse led model of chronic disease care

An interim report

Background
Chronic condition management in general practice is projected to account for 50% of all consultations by 2051. General practices under present workforce conditions will be unable to meet this demand. Nurse led collaborative care models of chronic disease management have been successful overseas and are proposed as one solution.

Objective
This article provides an interim report on a prospective randomised trial to investigate the acceptability, cost effectiveness and feasibility of a nurse led model of care for chronic conditions in Australian general practice.

Method
A qualitative study focused on the impact of this model of care through the perceptions of practice staff from one urban and one regional practice in Queensland, and one Victorian rural practice.

Discussion
Primary benefits of the collaborative care model focused on increased efficiency and communication between practice staff and patients. The increased degree of patient self responsibility was noted by all and highlights the motivational aspect of chronic disease management.

Chronic conditions account for 35% of all general practice consultations.[1] By 2051, 50% of the population over 50 years of age will have a chronic condition.[2] Yet workforce projections suggest that general practice will be unable to meet this growing demand.[3] Nurse led models of chronic disease management (CDM) have been proposed as one solution.[3] These have been shown to produce equivalent or improved patient outcomes overseas.[4] A recent survey found a 59% increase over 2 years in the number of nurses working in general practice across Australia.[5]

The authors are undertaking a prospective randomised trial, funded by the Australian Research Council, to investigate the acceptability, cost effectiveness and feasibility of a nurse led collaborative model of care for chronic conditions in general practice. Chronic diseases managed in this study are type 2 diabetes (NIDDM) and cardiovascular disease (CVD – hypertension and heart failure).

In this collaborative model, nurses work from agreed evidence based protocols. The nurse works in partnership with the general practitioner (a shared care model) and each patient is reviewed on a 6 monthly basis by the GP and the practice nurse (PN). Patients in the intervention arm can see their GP if they are unhappy with the nurse led model or, of course, for other issues such as an intermittent illness. We successfully trialled this protocol as a pilot study.[6]

Method

Participating general practices comprising one urban and one regional practice in Queensland, and one rural practice in Victoria. All practice staff are involved in this research and include eight GPs, three practice managers (PMs) and five PNs. We asked all staff at each practice questions regarding their perceptions of the project, focusing on the collaborative model of care and its impact on their practice so far.

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Questions were worded: 'What do you feel...'

- was the major reason your practice got involved in this project?
- has been the major hurdle/drawback in getting the project underway at your practice?
- has been the major benefit of the project so far to your practice?
- are suggestions or advice you would give others regarding involvement in a similar project within their practice?

All responses were transcribed and a three level analysis was undertaken as described by Fossey.[7] All comments were coded and checked independently by two researchers and thematically categorised. Inter-coder reliability was checked by two coding sessions to ensure consensus of themes and integrity of coding.

Results

Initial involvement

We asked about the major reason for involvement in this research. The principal responses demonstrated a philosophy related to providing total/holistic patient care and a belief that nurses' skills complement GPs' skills in enhancing patient care (*Table 1*).

Hurdles and drawbacks

This question addressed the extra initial time commitment and workload. Responses suggest this was dependent on a stable staff or practice team (*Table 1*).

Benefits

Early benefits included improved communication between staff and patients, improved systematic care and overall practice organisation (including maintenance of records and databases). The focus of the research, ie. the concept of a PN led collaborative model of care, was an important influence and the increased self management placed on the patient through this model was attractive to many patients (*Table 1*).

Suggestions/advice to other practices considering involvement in a similar project

It is important that practice staff members are stable and committed, with regular communication processes. Although practices felt this was already in place, the research process itself improved their organisation and efficiency (*Table 1*).

Discussion

An observation across all practices is the variation in patient motivation and interest in undertaking a degree of self management and responsibility for their condition. Some patients embrace the notion and

Table 1. Major themes and representative quotes from the data

Initial involvement

- We aim to provide total patient care – PM
- To explore new options for general practice – GP
- We are always looking to the future and for new directions and processes – this [project] fits in well with our philosophy – PM
- We see nurses as having a special skill set that blends with the GP to enhance patient care – GP
- I think we all felt it would be a more complete way to manage our patients and try and work more effectively together – PN

Hurdles and drawbacks

- Time involved in setting up, the paper reading sent to us from the academics – GP
- Extra workload but this was anticipated – GP
- Time to get it all organised and understand the flow of the project – PM
- Continuity of staff was our problem initially, this was very important – GP
- Time, time, time – GP
- I thought that this would be around increasing job satisfaction for PNs but I am not sure. Perhaps when the routine is established it will become clearer – PN

Benefits

- Increased/improved attention to detail – PM
- Improved communication between staff and patient and patient and staff – GP
- This has enhanced our patients' level of care and the relationship between nurse and patient. We have found an increased willingness among patients to speak with the nurse regarding their concerns – PM
- Improved systematic care with hypertension and ischaemic heart disease patients – GP
- Follow up on patients is improved and pathology and measurements are attended to within the appropriate time frames – GP
- It seems that when the patients take ownership of the situation they are the ones asking to have an appointment with the PN. They are making a personal connection with the PNs – GP
- Better communication with patients about their overall needs and concerns – PN

Suggestions/advice to other practices

- Making sure everyone understands the process – GP
- GPs need to be committed to the concept/idea – GP
- I have gone from being a PN sceptic in the past, believing they were only financially viable in a larger practice, to being a convert – GP
- You need to keep in mind that the (research) project is running in 'real time' in a real life practice. So many things can get in the way. Staff get sick, patients don't turn up and you need to be aware of this and that it will slow the process down – PM
- I think there should be more information and training for the PM who after all runs a lot of the organisational process – PN

are proactive (*Table 1*). However, others are content having their routine reviews and are not eager to be part of a care model that requires them to make more visits to the practice or to take on more of the responsibility for their care such as watching their diet and exercising. Macdonald et al[8] also reported this phenomenon. It was suggested that in addition to the routine education already provided by PNs to patients on self management of their chronic disease, further training for PNs in CDM that includes the social, psychological, emotional and motivational impact of the disease may be beneficial.[8] As is true for numerous other health issues, changing patient beliefs and subsequently their behaviour is a monumental task. This early observation implies a further expansion of the PN role within this collaborative model of care; one which might redefine that role in CDM within general practice. Subsequent findings from this longitudinal study will provide more information around this important issue.

Limitations of this study

Study limitations include a small sample and a possible bias from participants who have volunteered to take part in this research.

Summary

- This interim report highlights the observations and advice from GPs, PMs and PNs regarding their considerations and revelations in taking on a research project within their work environment.
- These early observations provide valuable insight into the feasibility and implications of a nurse led model of care in a busy general practice.
- The authors hope this report portrays the positive image and advantage of doing research in general practice and offers encouragement and advice to GPs contemplating such a venture.

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References

1. Australian Institute of Health and Welfare. General practice activity in Australia 2004–05. Australian Institute of Health and Welfare: Canberra, 2005.
2. Australian Bureau of Statistics. Population projections Australia 2004–2101. Canberra: ABS, 2005.
3. Australian Medical Workforce Advisory Committee. The general practice workforce in Australia: supply and requirements to 2013. Australian Medical Workforce, 2005.
4. Harris DI, Cracknell P. Improving diabetes care in general practice using a nurse-led, GP supported clinic: a cohort study. Practical Diabetes International 2005;22:295–301.
5. Australian General Practice Network March 2008. Available at www.agpn.com.au/site/index.cfm?module=MEDIA&leca=16.
6. Eley D, Hegney D, Patterson E. Patient recruitment for a practice nurse study within general practice. Aust Fam Physician 2005;34:1–2.
7. Fossey E, Harvey C, McDermott F, Davidson L. Understanding and evaluating qualitative research. Aust N Z J Psychiatry 2002;36:717–32.
8. Macdonald W, Rogers A, Blakeman T, Bower P. Practice nurses and the facilitation of self-management in primary care. J Adv Nurs 2008;62:191–9.

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