

Developing the Nurse Practitioner role in a rural Australian hospital - a Delphi study of practice opportunities, barriers and enablers

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KEY WORDS

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ABSTRACT

Objectives

To gain a consensus view of potential roles for Nurse Practitioners (NPs) in a rural Australian hospital and identify the barriers and enablers in their development and implementation.

Design

A three round Delphi study.

Setting

A rural hospital.

Participants

Twenty eight nurses, five doctors, four consumers, two health service managers, two allied health practitioners, one midwife, three community workers, two administrators and three others with hospital affiliation.

Main Outcome Measures

Consensus at 75% level of agreement or greater, identifying service gaps which might benefit from NPs and the barriers and enablers impacting on the success of developing and implementing the role.

Results

Introduce mental health, aged and critical care NPs initially. Barriers and enablers identified as impacting on the development and implementation of the role were:

Educational access for isolated rural nurses - local cohort learning with employment contracts encompassing fee assistance and designated study time.

Acceptance from doctors - supported role provided the proposed service is sustainable. Small teams of NPs would achieve this.

Inappropriate Recruitment - NP role matching service need, not individual.

Policy and Funding Constraints - clients are best served by NPs working across the care continuum. Co funding by acute and community providers could overcome the current constraints of commonwealth/state payment.

Conclusion

In developing and implementing NP roles at a rural health service the issues of access to tertiary education, creating a sustainable number of NP positions and financial cooperation from community and acute providers must be taken into account. Only then can nurses who wish to take on this NP role in a rural health service have the possibility of success.

INTRODUCTION

Australians living in regional and remote areas have poorer health than metropolitan populations (AIHW 2008). They are disadvantaged with regard to educational and employment opportunities, income and access to goods and services. This impacts not only on the community seeking health care, but on the health care staff who support that community in particular nurses (Smith 2007; Mahnken 2001). It is not surprising therefore that the Australian Productivity Commission (2005) reports serious challenges to recruitment, professional development and retainment of workers across rural health.

The potential value of Nurse Practitioners (NPs) in the Australian rural setting has previously been discussed (Turner et al 2007; Roberts 1996), however the organisational acceptance and recognition that we cannot recruit tailor-made people to fulfil these roles in an already depleted rural workforce has not been adequately explored. The implementation of NPs in rural health is thwarted by many obstacles -some covert and some overt (Turner et al 2007).

Acceptance of NPs is increasing (Pearson and Peels 2002; Offredy 2000), however the growth of NPs in rural Australia has been slow despite state efforts to cultivate and support organisations in placing the position into their services (Gardner 2004). Currently in Victoria forty-seven Nurse Practitioners are endorsed, forty-one in metropolitan settings and six rural (Nurses Board of Victoria 2009).

In 2005 as part of their goal to develop the NP role, the Victorian Department of Human Services (DHS) requested the development of organisational service plans to implement NPs. The Delphi Study was one of the approaches used to determine such a plan in a rural setting.

AIMS AND OBJECTIVES

The aim was to gain a consensus view of the opportunities for practice and the barriers and enablers which would inform the development of a service plan for the implementation of NPs at a rural hospital in Victoria. We also aimed to provide a

platform for engaging key clinical and health service leaders in discussion and understanding of the possible NP roles.

METHOD

A Three Round Delphi study was utilised. This design was chosen for its capacity to gain consensus from health care practitioners and consumers on issues relating to the local implementation of NPs. This method gathers group opinions about a complex issue without face-to-face interaction (Rayens and Hahn 2000). Stakeholders generally considered as being expert about the topic or issue to be discussed are formed into a panel. As described by Rayens and Hahn (2000) the panel are anonymous to one another throughout questionnaire rounds. Commonly three to four rounds occur before consensus is reached.

The use of the Delphi technique within nursing research to forecast and to gain consensus, has been steadily increasing (Lofmark and Thorell-Ekstrand 2004). It is well known for engaging clinicians who are traditionally difficult to organise into mutually agreeable meeting times to discuss and agree on issues and actions (Keeney et al 2006; Hasson et al 2000). The Delphi method has precedent in NP policy research. It was used by Roberts-Davis and Read (2001), to establish the similarities and differences between NPs and Clinical Nurse Specialists and in identifying the activities of NPs in primary care (Holcomb 2000).

In addition to the organisational advantages, the iterative approach of the Delphi was a useful means for the participants to learn about NPs, as those with less of an understanding of the detail of the role and endorsement criteria learnt from those who had this knowledge.

The study was approved by the local NHMRC Human Research Ethics Committee.

Expert Panel

Fifty-one experts were invited onto the Delphi Panel. Fifty people agreed. They were purposively selected by the project steering committee from within the organisation, from other health agencies in the region

and from a consumer advisory group (Table 1). Of the fifty experts who agreed to participate 48 returned the first questionnaire, thus establishing the panel at 48 members. In keeping with the notion of the panel being experts 58.3 % (n = 48) of the participants had twenty years or more experience in health care and held senior clinical or administrative positions. Some junior clinicians who had been identified as leaders were also included. All panellists were actively working in or were consumers of rural health services.

Table 1: Delphi Panel Participant Characteristics

	Frequency	Percent
Role		
Consumer	4	8.3
Acute Care Nurse	9	18.8
Nursing Administration	3	6.3
New Graduate Nurse	1	2.1
Community Nurse	5	10.4
Mental Health Nurse	4	8.3
Medical Specialist	2	4.2
Palliative Care Nurse	2	4.2
Aged Care Health Professional	3	6.3
GP	3	6.3
Nurse Academic	1	2.1
Allied Health Professional	2	4.2
Community Health Worker	3	6.3
State Health Policy Maker	2	4.2
Midwife	1	6.3
Other	3	6.3
Total	48	100
Years of Practice		
1st Year	1	2.1
2-5 years	5	10.4
6-10years	3	6.3
11-20 years	8	16.7
>20 years	28	58.3
N/A	3	6.3
Total	48	100
Age groups		
20-30	2	4.2
31-40	8	16.7
41-50	28	58.3
51-60	7	14.6
61-70	3	6.3
Total	48	100

Round One

Broad questions were asked to generate initial discussion (Table 2). Reminder letters were sent out to all panel members one week after the return date for the questionnaire in each round.

Table 2: Round 1 Questions

1. Please identify clinical areas where there are gaps in service delivery that might be improved with the introduction of Nurse Practitioners
2. What do you see as the barriers to implementing Nurse Practitioners into our health service?
3. What could be done to overcome these barriers and enable the success of Nurse Practitioner roles at our health service?

All responses were entered verbatim into the NVIVO 7© (QSR 2007) software program where content analysis and inductive reasoning (Trochim 2006) elicited key themes. Agreement around the coding and identification of themes was achieved through examination of the text by the principal researcher and members of the steering committee.

Round Two

The second round used statements under the themes developed from responses to the first round questionnaire utilising the panellists own words. The panel was then asked to rate their level of agreement on each statement on a 1 to 5 Likert scale with 1 being agree strongly and 5 being disagree strongly. An arbitrary level of consensus was agreed to by the steering committee and set at 75% prior to the commencement of the study (Keeney et al 2006, Hasson et al 2000, Roberts-Davis and Read 2001; Rowe et al 1991).

The panel was provided with feedback indicating where their opinion sat in relation to the group. Many Delphi studies report results using central tendencies and levels of dispersion (Keeney et al 2006) however given there is contention in the literature (Hasson et al 2000) around reporting Likert Scales as interval data, the Likert responses in this study were considered ordinal and we chose not to represent the data with the standard deviation, instead presenting our panellists with the descriptive

statistics including the median and mode. This was represented as bar graphs and percentages showing the member where their opinion sat in relation to the rest of the panel.

Round Three

The panel reviewed the statements where consensus had not been achieved and rated them again on the Likert Scale. The Delphi was halted after round three as very little shifts had occurred. Consistent with recommendations to enhance Delphi findings (Powell Kennedy H, 2004), supplementary stakeholder interviews (individual and group) were held to explore the findings of the Delphi and further inform recommendations for the service plan using

deductive reasoning (not reported here). The Panel was provided with a comprehensive report of the findings and a copy of the final service plan report. No incentives were offered.

FINDINGS

Three rounds were needed to reach consensus on the key barriers and enablers and the clinical areas where service gaps might be addressed. Response rates for the three rounds were 96%, 96%, 72%, respectively (n= 48).

Round 1: Seven themes (Table 3) emerged from the initial broad questioning under which forty-four statements were generated.

Table 3: Round One Themes

1.	2.	3.	4.	5.	6.	7.
Communication of the Role	Acceptance/ Rejection from doctors	Difficulty in accessing education and training	Organisational Need Vs. Individuals career desire	Recruitment	Sustainability including Evaluation	Commonwealth /State funding

Round 2: Consensus on thirty-two of the initial forty-four statements was achieved.

Round 3: Aged Care, Mental Health, Critical Care and Emergency Department (ED) were the areas identified with significant service gap however no agreement could be reached on the client group to be targeted in the ED thus it was eliminated.

Six more statements reached consensus giving - a total of thirty-eight of the initial forty-four. No significant shift in the remaining six statements which included issues of NP role evaluation, clinical supervision, conflict and peer jealousy, occurred. The thirty-eight statements were further consolidated from the original seven themes into four key barriers with suggested enablers as described below forming the basis of the DHS requested service plan.

Educational Access for isolated rural nurses

The median age of our local nursing workforce (45 years), the tyranny of distance to universities, the loneliness of on-line learning and economic disadvantages associated with living in a rural community all hamper tertiary study. Combining Masters Education and the development of

competence in extended clinical practice with an already overloaded professional and private life was seen as onerous for the rural nurse. In addition many nurses are already financially burdened by the cost of supporting their children studying away from home.

The panel proposed developing a supportive culture for learning, including an employment contract with information on tertiary scholarships, regular study time to complete the Masters and the opportunity to work with mentors. The contract would limit the candidacy to an agreed period of time for completion and guarantee the effort would be 'worth it' with a NP job upon endorsement. If teams of NP candidates were appointed then a cohort community of learning approach would address the difficulty of isolated, distance study.

Acceptance from Doctors

Every member of the panel raised the issue of acceptance of the role by the medical profession. It was perceived that doctors would be opposed to NPs. When stratified out, the responses from the doctors on the panel reflected a more positive attitude. While

the major Australian professional medical body actively opposes much of the NP role (AMA 2005), this study showed a more pragmatic outlook from doctors with agreement that NPs working in areas of Aged Care and Mental Health would lift the burden of rural practice for GPs.

Important to the success of the NP/Doctor relationship was a surety that once established these new roles would be sustained and could meet the referral demand.

Small teams of NPs should be developed rather than individual roles which would prevent burnout and provide a reliable service model.

Appropriate Recruitment

To be sustainable from a service delivery perspective, NP roles need to evolve from an existing or projected service gap. Aged Care, Mental Health and Critical Care were agreed to be the starting point. Developing the scope of practice and establishing a formal candidate position to recruit to from organisational and community need rather than matching an individual's particular skill set to a new NP position, was favoured. Communicating these new roles by the respective clinical executive directors was seen as important to addressing the confusion that exists about what NPs do, ensuring this new role is understood and fits with the overall workforce strategy and service profile.

Flexible Models of Practice

The full benefit of NPs would be seen if they could practice in the acute and community setting, following the patient journey. Lack of access to Medicare Benefits Schedule (MBS) and Pharmaceutical Benefit Schedule (PBS) were a major concern. Co-funding of NP positions between the local health service state funded acute inpatient services and commonwealth funded community services could work in overcoming some current restrictions to practice.

LIMITATIONS

The principal researcher was responsible for undertaking the preliminary education sessions about the study and engaging the Delphi Panel. This

could have introduced bias as many of the panel attended these sessions. While this study focused on one health service, the underpinning economic and workforce conditions are resonated across small rural or regional locations as evidenced by the Indicators of Health Service Performance (AIHW 2008). The findings therefore have wide relevance across the rural health sector.

DISCUSSION

ED is the most common practice setting for metropolitan NPs (Nurses Board of Victoria 2009). No consensus could be achieved on the NP scope of practice in the rural ED and it was therefore rejected as one of the first places to start developing the role. This may point to some key differences in the rural and metropolitan ED contexts. The metropolitan emergency NP roles were established to better manage lower acuity patients and reduce wait times. The rural ED in this study is staffed with junior doctors with limited access to emergency physicians. The most experienced nurses, including NPs, may in fact be needed with higher acuity patients.

Critical Care as a practice setting also differs from the metropolitan experience to date. Metropolitan Critical Care are largely closed units with access to medical intensivists. Continuity of critical care expertise lies with the nurses in the rural setting who manage care in collaboration with various disciplines from the medical team. NPs were seen as strengthening the governance and timeliness of interventions in this context.

While this Delphi study took place in 2006, local consensus that NP roles should be first developed in Aged Care and Mental Health is now consistent with subsequent Commonwealth policy priority areas for NP (Commonwealth Department of Health and Aging 2008).

The findings point strongly to the importance of supporting members of the existing nursing workforce financially with scholarships and dedicated study time. Recognition of family commitments, lack of time, both personally and professionally remain a key barrier to rural nurses taking up further study

and professional responsibility. This finding is consistent with the literature around rural workforce recruitment, retainment and satisfaction (Francis et al 2001; Hegney 2000; Hegney et al 1997). Rural nurses in Australia consistently report that employer support for further education and training is not widely available to them for reasons of financial constraint or unsatisfactory management practices (Haslam McKenzie 2007). Rural nurses frequently experience extended shifts and on call, no breaks during shifts and requests not to leave the locality during off duty hours (Mahnken 2001). A call for supported education and training combined with a mindfulness of a workforce under significant social and professional pressure is a finding well supported by the literature and is applicable to any rural nurse attempting education as a NP.

The consistency of responses questioning how doctors would view this new role was not surprising given the well publicised reactions of professional medical bodies such as the Australian Medical Association (2005). What was surprising though was this same opinion was not a view shared by the doctors on the panel. This discussion on medical acceptance was very valuable as it lead to a key enabler, in so far as the sustainability of the role could be achieved by developing teams of NPs rather than solo roles.

Recruiting to an area of service need rather than finding a role to fit an individual is consistent with the current policy direction of the Victorian Department of Human Services (2009). Confusion around what the NP is and is not has been a hall mark of NP development (Gardner 2004; Gardner et al 2007). Building NPs into the overall workforce strategy and the engagement of executive directors as champions, is crucial to ensuring the NP role is understood and communicated to all staff within the organisation.

Access to MBS and PBS has been called for repeatedly since the emergence of the Australian NP. Subsequent to the time of this study the Australian Government policy has changed to accommodate this, effective 2010 (Kearney et al 2009). This groundbreaking change to the Australian health

system will allow NPs to work in community and acute settings as was called for in this study. In addition to this however, the research identified opportunities for providers funded by state and commonwealth to co fund NP roles thus allowing the NP to follow the patient journey.

The areas where consensus was not achieved will perhaps only be resolved with the implementation of the role when the candidates begin to explore the opportunities for clinical supervision, experience peer jealousy or conflict and can demonstrate key indicators of effectiveness.

The high response rates were most likely achieved because of the time allowed for initial engagement of the panel, an observation also described by Keeney et al (2006). It may also indicate the high level of interest in the NP role and the desire of the panel to have a voice in development.

Further follow-up to the findings to ensure applicability and external validity (Powell Kennedy 2004) occurred with individual and group interviews to check that the four policy action statements could be achieved at an organisational level and led to an enthusiasm to implement the research findings.

CONCLUSIONS AND RELEVANCE TO CLINICAL PRACTICE

This Delphi Study identified mental health, aged care and rural critical care as the initial areas for developing NPs. The fundamental importance of actively supporting the educational needs of potential rural NPs in an environment under significant workplace and community stress is highlighted. Teams of NPs will not only offer a sustainable service but will provide a cohort of candidates that will lessen the loneliness of long distance learning.

Doctors will accept the role providing it functions reliably. Cooperation between providers of state and commonwealth funded services can facilitate the NP moving in and out of the acute service model. Further, the Delphi approach served as an effective vehicle for engaging with health care professionals and consumers in communicating and facilitating subsequent understanding of the NP role.

Additional studies are required to provide information on the impact of the rural NP, the availability of clinical supervision to rural candidates, experiences of inter-professional conflict or jealousy and the best use of NPs in the rural ED.

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