

Australian practice nurse immunisation scholarships: an evaluation study

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ABSTRACT

Objective

This paper reports on an evaluation of an Australian Government program to improve immunisation services in primary care settings through the provision of scholarships to support access to education for Practice Nurses (PNs).

Design

The study used a constructivist evaluation methodology to evaluate satisfaction with and effectiveness of a scholarship program to support PNs access to immunisation education and changing nursing immunisation practice.

Setting

Australian Divisions of General Practice and General Practices

Subjects

Twenty seven PNs who had received immunisation scholarships completed an online survey. Sixty four Division of General Practice (DGP) staff, representing state and territory, urban and rural regions of Australia, participated in telephone focus group interviews.

Results

The scholarships and scholarship processes were viewed positively by PNs. The access to scholarship information, the selection process and the time the scholarship allowed to complete an immunisation course were rated highly. Online learning was seen as an effective means to undertake immunisation education particularly for PNs in the rural sector. Overall, there was overwhelming support for the continuation of scholarships to assist PNs access to education opportunities to improve immunisation services. These opportunities were reported to improve their knowledge and skills which lead to changes in immunisation practice and the quality of care they provided to patients. They also helped overcome geographical and professional isolation.

Conclusions

As PNs emerge as key players in the improvement of immunisation services in Australia, the provision of government assistance for continuing education is an important strategy to produce this appropriately skilled workforce.

INTRODUCTION

Immunisation is acknowledged worldwide as an effective public health measure to reduce the incidence and severity of vaccine-preventable diseases (VPD's) (Smailbegovic et al 2003). Immunisation coverage rates, however, continue to fall short of World Health Organisation recommendations, and short of targets determined by national governments (Petousis-Harris et al 2002; Gore et al 1999). Australia has been successful in eliminating and/or controlling some of the common vaccine-preventable diseases (Department of Health and Ageing 2006a). This success is contributed to the national Immunise Australia Program established in 1997 which aims to increase national childhood immunisation rates so as to reduce the incidence of vaccine preventable diseases in the Australian community.

In Australia, general practices provide 71% of all childhood immunisations and are the major providers of immunisation services. Other major providers are councils (17.1%) and community health centres (8%) (Medicare Australia 2008a). PNs working in general practice, many of whom are key immunisation providers, are in a strategic position to increase vaccination coverage rates and to do this they need support and assistance to undertake continuing education.

Practice Nurses and immunisation

Globally, nurses play a fundamental role in immunisation practice, whether in mass community immunisation programs, workplace or school-based programs, or maternal and child health centre-based programs. All immunisation programs must aim to safely and effectively immunise 100% of a country's population, however, to control vaccine preventable diseases, 'a rate of 95% immunisation coverage is necessary' (Lawrence et al 2004 p 568).

In Australia, the PN role is undergoing significant growth in contributing to the provision of health care in general practice (Britt et al 2008). It is evolving from a task-orientated role assisting general practitioners to, reportedly, a professional role where they make

informed nursing decisions and take responsibility for their own competence (Keleher et al 2007).

At the end of 2005, nearly 5,000 PNs were employed in Australia (Sweet 2006) and this has continued to grow by 59% over the past two years. Having nurses practising in primary care settings is now recognised as an indispensable and increasingly critical part of keeping Australia healthy (APNA 2008). In building their capacity to better respond to population health needs, PNs have diverse responsibilities and roles, encompassing 'immunisation, health assessments, care plans, health promotion, triaging, wound management, chronic disease management and preparing for practice accreditation' (Sweet 2006 p12). This is particularly so in rural and remote regions where the rapidly expanding role has been labelled a 'quiet revolution' (Sweet 2006).

The introduction of Medicare Benefit Schedule (MBS) item numbers in Australia in 2004 played an important part in the expansion of practice nursing. These items allow General Practitioners (GPs) to claim for specific activities such as immunisation, performed by a PN under general practitioner direction (Britt et al 2008). In 2006 there were 3.4 million claims against the PN Medicare item number (Keleher et al 2007 p108) with approximately 58% of these claims for immunisation services (Medicare Australia 2008b).

Immunise Australia—an Australian Government initiative

The Immunise Australia Program and the General Practice Immunisation Incentives Scheme, were designed to provide financial incentives to encourage general practitioners to improve immunisation rates for children under the age of seven (Department of Health and Ageing 2006a). Success was highlighted in May 2003, when the target of 'at least 90% of practices to achieve 90% proportions of full immunisation' was achieved (Medicare Australia 2007).

The expansion of the PNs' role and the ageing PN workforce raised questions about education to support nurses in this role (Keleher et al 2007). In

response, the Department of Health and Ageing funded scholarships through the Nursing in General Practice Training and Support Initiative: 2005-09. The scholarships were to equip PNs with the knowledge and skills to meet workforce needs, including support to undertake immunisation education. Benefits of the scholarships included reimbursement of course costs and fees and financial assistance meeting course requirements such as travel to attend workshops (Department of Health and Ageing 2006b).

AIMS

This study was a component of a larger evaluation examining the effectiveness of wound management and immunisation education for PNs and was part of the Nursing in General Practice Training and Support Initiative: 2005-09.

The aims were to evaluate:

- satisfaction with and effectiveness of scholarships to support PNs' access to immunisation education
- effectiveness of scholarships to support changing nursing immunisation practice.

METHOD/METHODOLOGY

The study design was constructivist evaluation methodology (Guba and Lincoln 1989), incorporating a mixed method approach primarily qualitative with a descriptive quantitative component. Constructivist evaluation is a democratic framework that provides for the elicitation of stakeholder 'claims, concerns, and issues' and the establishment of knowledge as to how pervasive these are by identifying levels of consensus among the target group (Guba and Lincoln 2001).

This mixed method approach involving a combination of online surveys and telephone focus groups was used to add rigour and credibility to the study. It also provided data from multiple sources offering 'thick descriptions' (Johnstone 2004) as well as descriptive statistical accounts about the activities, features and outcomes of the PN scholarships and immunisation education.

Participants

Using a purposeful sampling technique, an open invitation was sent to all recipients of the Australian Practice Nurse Association (APNA) Practice Nurse Scholarship Scheme. Invitations were sent through the PN and general practice communication networks including government and non-government communication networks such as e-News and the Friday Fax, published by the Royal Australian College of General Practitioners. Invitations were also posted on the APNA website. From 136 successful applicants for immunisation scholarships, 27 PNs responded to the online survey.

For the telephone focus groups, an invitation to participate was extended to DGP staff in practice nurse support, and continuing education coordination positions. There were 64 focus group participants from the 115 Divisions of General Practice in Australia with distribution by state and territory, urban and rural representation.

Data collection

There were two phases to data collection. The first took place through an online survey of PNs; the second through telephone focus groups with DGP staff.

Online survey of practice nurses

The online survey included a combination of a four-point Likert scale, and closed and open-ended questions. PNs rated their satisfaction with, and effectiveness of, the scholarships they received to support their access to immunisation education. They rated the logistical elements of the scholarship applications, which included access to scholarship information, quality of the application material, selection process, and amount of time provided by the scholarship to complete an immunisation course. The survey was made available on the APNA website to all respondents (N=27) with the opportunity to complete the survey in hard copy and return by post, if desired.

Telephone focus groups

The researchers conducted eight telephone focus groups, each consisting of eight participants (N=64). Questions included:

- effectiveness of the provision of scholarships in supporting PNs' access to education (including the scholarship advertising and application process)
- suitability of scholarships (covering course requirements, accreditation, completion rates, timing, course information, and accessibility)
- effectiveness of immunisation courses funded by the scholarships in changing immunisation practice.

Ethical considerations

Approval from the University of South Australia Ethics Committee was granted prior to conducting the study. Information about the study and a letter of invitation to participate in the online surveys and focus group interviews were posted on the APNA website. Information sheets stated that participation was voluntary with potential participants having the opportunity to speak to any or all members of the research team to discuss or gain additional information regarding the study before they agreed to participate. Participants were informed that they could withdraw from the focus groups at any stage without penalty. Consent to participate was indicated by completion and return of the survey or voluntary attendance at the focus group interviews. Privacy was respected at all times during the advertisement, recruitment, conduct and reporting stages of the study.

Data analysis

Data analysis was guided by the project aims. Quantitative analysis involved preparation of descriptive statistics to present frequencies of responses to all survey items. Qualitative data from focus groups and open-ended survey questions were read as individual data sets at the time they were generated, to identify emerging issues and themes related to the research aims.

Rigour

Validity and credibility were established by use of triangulation of method (survey and focus group interviews); triangulation of sources within the same method (different groups and individual participants within the survey group, and within focus groups); and analyst triangulation (review of findings by multiple analysts).

FINDINGS

The total sample for this component of the study comprised 64 DGP staff and 27 PNs. The PNs who participated in this study all received a scholarship to support immunisation education. The findings presented here report the outcomes of the study as they relate to the study's aims of satisfaction and effectiveness.

Satisfaction with and effectiveness of scholarships

The scholarships and the scholarship processes were viewed very positively by PNs as indicated by Table 1.

Table 1: Practice Nurses levels of satisfaction with the immunisation scholarship processes (N=27)

Item	Very satisfied (%)	Satisfied (%)	Not very satisfied (%)	Not satisfied at all (%)
Access to information about the scholarships	55.56	40.74	3.70	0
Scholarship selection process	70.37	25.93	3.70	0
Amount of time provided by the scholarship to complete a course	51.86	44.44	3.70	0
Scholarships as an effective way to support practice nurses access to education	85.18	14.82	0	0

They rated highly the logistical aspects associated with access to scholarship information, the selection process and amount of time the scholarship allowed them to complete an immunisation course.

Additionally, scholarships were seen as an effective way to support nurses' access to further education, especially for those working in rural and remote locations. Four percent of respondents expressed

concerns about operational matters. The application process and forms were lengthy, complicated and not easily accessible. The APNA website for application was difficult to navigate and PNs were asking the Divisions of General Practice to provide hard copies of the application form. There were problems with the timing as 4% of participants found that scholarships ended prior to the completion of some courses. The breadth of scholarship advertising was highlighted as an issue for 18% of participants and there was some confusion about who was eligible to apply for a scholarship and how it could be used.

PNs' satisfaction with the effectiveness of scholarships related to the quality of the immunisation course, particularly, the modes of course delivery, course content and opportunities for regular continued immunisation updates. Most participants highlighted the value of choice and multiple modes of delivery of immunisation courses. Online learning was regarded as an effective means to access and complete immunisation education. Eighty six percent of PN respondents indicated online courses provided an opportunity to extend their knowledge and skills in immunisation, while also enhancing their information literacy skills. All these participants indicated they would undertake another course in this mode. PNs in the rural sector, requested more funding for non face-to-face learning opportunities to assist in overcoming the constraints of geographical isolation as illustrated in the following response:

I live in the country and this online course made it possible to do the course from home without having to travel too much. [It] helped to broaden my computer and internet skills of finding information [and] was great for interaction with other participants.

The quality of the various immunisation courses was an issue for the DGP staff. All these participants, highlighted confusion about the consistency and application of various service delivery and course accreditation regulatory requirements at national, state and territory levels. One participant captured this succinctly, stating that *'If [the course is] not*

accredited nurses will not touch it'. With the exception of the participant who thought nurses should have optional levels of practice as *'...not all nurses want an independent level of practice so maybe it is OK to have non accredited course'*, the majority of participants were aware that immunisation best practice was research and policy driven.

Division staff described the need for sustainable expertise and development of the practice nurse role suggesting that continuing education opportunities should be provided as part of an award or university course. This approach had the potential to expand the role of PNs, providing them with the knowledge and skills to take the initiative and make informed, evidence-based decisions, rather than continue the traditional, delegated-task approach that prevails in Australian general practices (Halcomb et al 2006).

Scholarship supporting change to nursing immunisation practice

PNs recognised that undertaking a scholarship supported immunisation course lead to changes in immunisation practice, as evidenced by the quality of care they provided to patients. The following statements are examples of ways their practice changed:

- *'was able to make more independent decisions',*
- *'can now provide better information to clients',*
- *'am able to demonstrate improved assessment skills',*
- *'have improved documentation and evaluation skills'.*

For one PN, support to undertake immunisation education had identifiable results that were *'... very effective, very important skills that need to be regularly updated with evidence-based research to facilitate up-to-date clinical practice'*.

Improvements in immunisation practice had a flow-on effect, where expertise developed by those who had completed immunisation courses was passed on to others:

I am the first nurse in our organisation to receive (or apply for) a scholarship. However, I believe the information I will now be able to pass on to all our health services will ensure best practice. This should apply to all nurses who have access to these Scholarships.

Support received from General Practice staff including GPs also influenced practice change. While 70% of PNs acknowledged existing support from general practice staff, 30% of respondents identified tensions between the demands of their private sector employment and meeting their continuing education needs. They described poor recognition of their value to primary care provision at the local level suggesting the following reasons; low levels of financial reimbursement, limited employment of PNs in ratio to the numbers of GPs lack of GP awareness or support for continuing education needs of PNs and medical dominance. One participant described 'a lack of voice in a lot of practices of practice nurses' with another participant suggesting it was necessary to 'make waves' to get appropriate education. One participant suggested it was "ok to have standards but not if they were not supported by the GPs - [as this was] a waste of time". Others suggested the need for better information and assistance for general practitioners to help them assist PNs meet their continuing education needs.

DISCUSSION

Scholarships were highly rated as a satisfying and effective means of support for PNs to access immunisation education (table 1) because they provided a previously unavailable opportunity. This helped to improve their knowledge and skills about immunisation service delivery and computer use, change things they could do for patients and the way they worked with GPs and thus provide more accessible and better services.

Geographical isolation has long been recognised as a significant factor shaping the working lives of health professionals and health care delivery in Australia (Gibson and Heartfield 2005). Participants in this study also described how the scholarships helped

PNs in country areas access education, although issues of computer access, lack of technological skills and limited broadband access were challenges for these PNs. These findings were consistent with other studies that found lack of computer competence (Harris et al 2003; Mamary and Charles 2000) and technical difficulties (Bennett et al 2004) were barriers to the online delivery of continuing education programs, and suggest the need to up-skill PNs in the use of computer technology, particularly since for many this was the first time they had undertaken an online course.

Both PNs and DGP staff recognised the importance of immunisation education opportunities in improving knowledge and skill acquisition and the quality of services they provide to the community. Levett-Jones (2005 p229) found investing in continuing education for nurses not only resulted in 'enhanced knowledge and skills' but also found a 'positive correlation between professional development and factors such as staff satisfaction, staff retention and quality patient care'.

In considering the broader issues of role development, it is interesting to return to the recently released 2006-2007 data about general practice claims and PN activity. Britt et al (2008) report that the majority (91.9%) of reported PN activity was procedural in nature with over a quarter (28.1%) of all PN activities involving such things as giving injections, doing dressings or incisions, drainage or aspirations. Only 9% of PN activities met the Medicare clinical treatments category, with examples including giving advice, education or counselling. While this data implies an expansion in PN activities, it is unclear whether expansion in procedural activities constitutes role development.

The scope of nursing and midwifery practice is internationally recognised as not limited to specific tasks, functions or responsibilities (International Council of Nurses 2004) and includes 'direct care giving and evaluation of its impact, advocating for patients and for health, supervising and delegating to others, leading, managing, teaching, undertaking research and developing health policy for health care

systems' (International Council of Nurses 2004 p1). Immunisation is an area of nursing practice amenable to all of these roles and requires ongoing continuing education opportunities. There is the possibility of growth in this more broadly conceptualised role for PNs in Australia. In reports that of 3.66 million claims for practice nurses in 2006-2007, a further 1.3 million services provided and claimed for as PN activities were conducted independently of any general practitioner - patient consultations (Britt et al 2008). While clearly not denying the benefits of interprofessional and collaborative practice, perhaps such details signal an emerging professional role for PNs.

Limitations of the study

The study was limited to evaluating satisfaction and effectiveness of a scholarship program from the perspectives of PNs and Divisions of General Practice staff. General practitioners and practice managers, though invited to participate, did not take up the offer: their input would have contributed other dimensions to understanding changes to immunisation practice. Online surveys and telephone focus groups, though effective in bringing together a disparate population and generating satisfaction ratings and descriptions, inhibited the ability to gather detailed data about immunisation practice changes and in particular, changes in the behaviour of scholarship recipients. According to Kirkpatrick (1994), evaluating practice behaviour changes is difficult and requires the use of observational data collection strategies conducted over a sustainable period of time. If the necessary time and scope to gather observational data had been available for this study, insight into practice behaviour changes would have been strengthened. Emphasis on data collection by surveys has also limited the detail available about some of issues raised by PNs.

CONCLUSION

In Australia, GPs have traditionally been the key health providers of immunisation services. Growing numbers of PNs employed in general practice, recent government initiatives to provide continuing

education support and Medicare rebates provide a context for PNs to play an increasingly key role in improving immunisation coverage. The majority of practice nurses in this study were satisfied with the Scholarship program. Both PNs and DGP staff acknowledged the positive impact the educational opportunities offered through Scholarships, had on the quality of services provided to the community. Apart from some of the logistical aspects associated with the Scholarship process, online learning was regarded as an effective mode of delivery. However, issues of computer access, lack of PNs technical skills and limited broadband access were major inhibitors. This study highlights the achievements and areas of improvements for the Australian Government scholarships offered through the Australian Practice Nurses Association. The success of this program will only be realised as more PNs are awarded Scholarships to gain access to continuing education and further studies undertaken to determine the impact Scholarships have on practice change and improving primary care through general practice.

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