# Enhancing the roles of practice nurses: outcomes of cervical screening education and training in NSW


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## KEY WORDS

practice nursing, cervical screening, education and training



## ABSTRACT

**Background**
There is a dearth of information about the roles practice nurses (PN) undertake in Australian general practice and what impact these roles have on patient health outcomes following specific education and training programs. Accurate data is vital to evaluate the usefulness and cost effectiveness of item numbers for PN and funding for PN education, in addition to providing some direction for the future education and support of PN.

**Methods**
An anonymous postal survey was sent to all PN who had completed the Family Planning NSW *Well Women's Screening Course* (WWSC) between 2003 and 2007.

**Results**
Over three quarters of respondents reported their clinical role had expanded, that there was need for ongoing education on all aspects of women's health, and for some PN there are barriers to role expansion.

**Discussion**
Role expansion has occurred for PN following education and training that contributes to patient outcomes. Existing methods for collecting specific activity of PN are incomplete. Barriers exist in the utilisation of PN which could be overcome with education of both general practitioners and the community regarding the role of PN and the valuable contributions they can make to general practice.

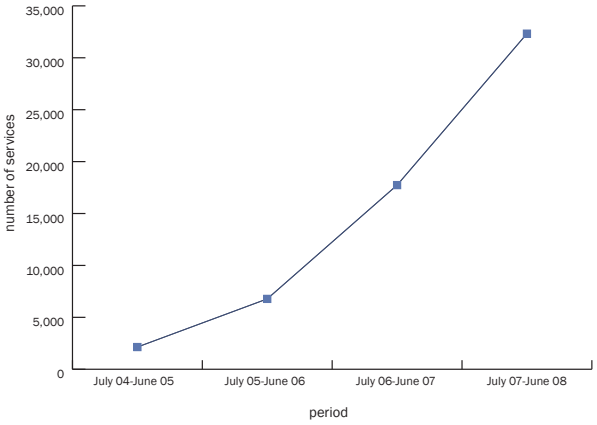
## INTRODUCTION

The importance of the role of the practice nurse (PN) is well recognised by government (Jolly 2007; Hall 2007). Since 2001, the Australian Commonwealth government through the Department of Health and Ageing has allocated funding to develop and enhance the role of the PN, through the Nursing in General Practice Program (NiGP). In 2001-2002 $104.3 million was allocated over four years for nurses working in general practice, and a further $15.6 million was allocated for the training and support of PN for 2005-2009 (AGPN 2008). Additionally, between 2002 and 2008 in NSW, the Cancer Institute NSW Cervical Screening Program has funded course positions for PN to complete the Well Women's Screening Course (WWSC), conducted by Family Planning NSW (FPNW).

Although PN are employed in nearly 60% of general practices, there has been little examination of the effectiveness and impact of their role in general practice (Keleher et al 2007). This lack of evidence is particularly apparent in relation to the role expansion of PN to include cervical screening. The allocation of Medicare item numbers for cervical screening for PN occurred without a national system in place for accurate data collection which means that the impact of this role extension cannot be examined. In addition, considerable investment has been made for the education and training of PN to conduct cervical screening but as yet there has been no evaluation conducted by funding bodies on the effectiveness of PN conducting cervical screening. Data in relation to the impact and outcomes from MBS practice nurse item numbers is vital to evaluate their usefulness and cost effectiveness in addition to providing some direction for the future education and support of PN.

PN have been identified as having the potential to improve cervical screening rates in the primary care setting (McGoldrick et al 2007), and considerable investment has been made in education and training, yet the outcomes of this education and training are not known. Unfortunately, there is no national systematic data collection on nurse-provided Papanicolaou (Pap) tests, and it is only in Victoria this data is available routinely through the Victorian Cytology Service. Medicare data for NSW indicates that participation of PN in cervical screening and women's health checks has increased significantly in recent years (figure 1). However, not all activity data is collected, and the contributions that PN make cannot be measured without it (Keleher et al 2007; Halcomb 2006).

**Figure 1: Number of Pap tests performed in NSW by general practice nurses (MBS 10994, 10995, 10998, 10999)**




Source: Medicare Australia.

Mills and Fitzgerald (2008 pp. 20) have noted the genderisation of medicine has led to women's health being the primary domain of female doctors and it may be a potential source of conflict within a practice when the expansion of the role of the PN comes to include women's health. At the time of the endorsement of any education and training program by an employing General Practitioner (GP), the potential conflict and change management process needs to be considered.

It has been acknowledged that population based screening programs have contributed to the reduction in cervical cancer mortality and morbidity in Australia (Taylor et al 2006) and PN have been one of the providers delivering population based screening for more than five years, thus contributing to it's success. They may also contribute to the success of population based screening by virtue of their gender

as cervical screening rates ar 'encouraging' in areas with female GPs, implying the gender of the provider is one influential factor for women to undertake screening (Duncombe et al 2007).

The *Well Women's Screening Course* is an education and training course developed and provided by FPNW for registered nurses (including PN) and midwives who intend to provide cervical screening and breast awareness education and clinical breast examination to women.

## STUDY AIMS

To conduct long term follow up of PN who had participated in specific education and training WWSC which assessed the impact on their roles as PN, their utilisation of skills learned during the course, barriers to utilising these skills, and areas where further training was needed.

## METHOD

### Data

An anonymous postal survey was sent in March 2008 to all 292 participants who had completed the WWSC from 2003 to 2007(n=292). A reply-paid envelope was supplied for respondents to return the survey. A combination of closed and open ended questions was used; results reported here are for closed ended responses unless otherwise specified. Course participants were asked to report their experiences as a PN since completing the course, including demographic details, characteristics of the practice where they are employed, and their current Pap testing activity. Course participants consented to long term follow up on the completion of the course. The survey was developed by one of the authors and initially piloted in early 2008.

### Analysis

Statistical analysis of quantitative data was conducted using SPSS Version 16. Data were analysed using $\chi^2$ tests and evaluated against a significance level of 0.05. Open-ended responses were collated and categorised thematically post hoc using a grounded theory approach (Glaser 1998).

## RESULTS

149 survey responses were received, giving a response rate of 51%. Results here refer to the 131 respondents who reported currently working as PN.

### Characteristics of PN and practices where they are employed

Of those currently working as PN, 82% were aged between 40 and 59 years. 65% completed the course in 2005 and 2006, and 85% were performing at least 1 Pap test per week at the time of the survey. Respondents were employed in a wide range of locations. Of the respondents who gave their postcode (n=110, 89%), 18% were employed in major cities, 54% in inner regional areas, 26% in outer regional areas and 2% in remote areas, as classified using the Accessibility/Remoteness Index (ARIA+). On average, respondents performed 5.7 Pap tests per week, range from 0 to 20 (table 1).

**Table 1: Numbers of Pap smears performed per week by WWSC participants (N = 131).**

| Numbers of Pap smears | N | % |
|---|---|---|
| 0 | 17 | 13.0 |
| 1-5 | 58 | 44.3 |
| 6-10 | 31 | 23.7 |
| 11-15 | 9 | 6.9 |
| 16+ | 7 | 5.3 |
| Not Specified | 9 | 6.9 |

Of the respondents who indicated their GPs gender (n=116, 84%), 53 respondents (46%) were employed in exclusively male general practices, 59 (51%) in practices with both male and female GPs, and 4 (3%) with female GPs only. 77% of respondents indicated they used Medicare item numbers specifically for PN when performing Pap tests. Most of the Medicare claims were for a Pap test and preventive check. We asked PN 'Does your GP claim a Medicare item for the Pap tests that you do?', and 50% indicated 'Yes'.

### The PN changed role in the practice

One hundred respondents (76%) indicated their role had expanded since completing the WWSC. Respondents were asked to describe how their role had changed (open-ended response, more than

one response allowed). Of these, 28 (28%) reported their role had expanded in more than one way. Respondents most commonly reported performing more clinical procedures, and providing more information and education about women's health (table 2).

**Table 2: Types of role expansion after completion of WWSC (N = 100)**

| Type of role expansion | N | % |
|---|---|---|
| Performing a greater number or range of clinical services | 74 | 74 |
| The nurse has become a source of information, education and advice on women's health | 33 | 33 |
| Running a Well Women's Clinic | 10 | 10 |
| More women are attending the practice for screening now that a female nurse is available | 7 | 7 |
| Coordinating Pap smear reminder/recall | 4 | 4 |

### Barriers to role expansion

Respondents who reported their role had not expanded were asked to identify reasons why this was the case (open-ended response, more than one response allowed). The most common reason (43%) was that GPs prefer to perform Pap testing themselves (table 3).

**Table 3: Reasons for PN role not expanding after completion of WWSC (N = 28)**

| Reason role has not expanded | N | % |
|---|---|---|
| GPs prefer to perform Pap smears themselves/reluctant to give PN this responsibility | 12 | 43 |
| Female doctor can perform testing | 6 | 21 |
| Lack of resources/space/time to set up a clinic | 3 | 11 |
| GP fear of litigation | 2 | 7 |
| Patient preference for GP | 3 | 11 |
| Not seen as financially viable for nurses to do Pap testing | 1 | 4 |
| Other | 3 | 11 |
| Not specified | 7 | 25 |

The gender of the GPs working in the practice also impacted on the role of the PN. Compared to PN working in practices that had one or more female GP, PN working in all-male practices were significantly more likely to perform one or more Pap test per week, ($\chi^2$ = 15.03, 1df, p<0.001), and significantly more likely to report that their clinic role had expanded since completing the WWSC ($\chi^2$=7.52, 1df, p=0.006). Practices with one or more female GP were also significantly less likely to have a Well Women's Clinic ($\chi^2$ = 5.14, 1df , p=0.02).

### Areas for further education

90 respondents (69%) reported they needed further education in some areas of clinical practice since completing the WWSC. Seventy eight of these respondents (80%) described areas where further education was needed (open-ended response, more than one response allowed), and of these 27 (35%) indicated two or more areas (table 4). The most common areas where respondents lacked confidence and would like further training included contraception, STIs, menopause, and detecting and responding to abnormalities. Sixteen participants had enrolled in the FPNW Certificate in Sexual and Reproductive Health after completing the WWSC.

**Table 4: Areas where WWSC participants would like further education (N=78)**

| Areas for further education | N | % |
|---|---|---|
| Ongoing education and updates on all issues | 20 | 26 |
| Contraception | 17 | 22 |
| STIs | 17 | 22 |
| Menopause | 14 | 18 |
| Abnormalities – detecting and responding | 14 | 18 |
| Cervical sampling techniques | 7 | 9 |
| Bimanual examinations | 6 | 8 |
| More practical experience | 6 | 8 |
| Breast awareness/examinations | 4 | 5 |
| Women's general sexual health | 2 | 3 |
| Other | 6 | 8 |

## DISCUSSION

Over three quarters of course participants reported their clinical role had expanded although there are barriers that exist that inhibit the expansion of the role of practice nurses. PN expressed the need for ongoing education in all aspects of women's health.

A limitation of the present study was the sample size was small, and thus unlikely to represent the PN workforce in NSW who have undertaken this particular education and training program. A further limitation was that by not surveying the GPs employing PN who are conducting cervical screening, only one view is being heard, in particular when surveying the barriers to role expansion. However, the results do highlight some issues that warrant further research.

The WWSC targets PN working in rural, regional and metropolitan locations, and the results indicated that a high proportion of PN from outside the major cities of NSW participated in the survey. This is not surprising as PN from metropolitan areas (or ARIAs 1 and 2) did not have access to MBS item numbers 10994 and 10995 until November 2006, and consequently fewer numbers of those nurses had completed the WWSC prior to that time.

It was encouraging that 76% of respondents indicated their role had expanded after completion of the WWSC, with PN reporting performing more Pap tests and women's health checks, and providing more information and education to patients since completing the WWSC. The results indicated that in some areas with no female GP, there was an in increase in the number of women screened, and suggested that training female PN can increase access to cervical screening for some women, particularly for those attending male-only GP practices. The small numbers limit the reliability of this finding, although this is consistent with the finding that cervical screening rates are 'encouraging' in areas with female GPs, implying the gender of the provider is one influential factor for women to undertake screening (Duncombe et al 2007).

It was encouraging also to find that most respondents were still employed as PN, and most were performing one or more Pap tests each week, and 85% were performing one or more Pap tests each week. It was notable that 65 respondents indicated that GPs are claiming Medicare item numbers other than those specific to PN, which indicates there are PN who do not claim for the Pap tests they perform both for and on behalf of their GP. Clearly, education is required regarding the utilisation of item numbers by PN. Further research is also required to investigate the extent of this practice and the contexts in which it is occurring, but it is clear that systems need to be developed to accurately record and report those procedures performed by PN, since the present study indicates that Medicare records are likely to underestimate the proportion of Pap tests performed by PN.

Respondents indicated they would like to receive updates and ongoing education in particular areas. The provision of education and training on STIs, contraception and other aspects of women's health has the potential to increase PN activity further, to reduce workload of GPs and to improve service access for women.

This study has also identified some barriers that prevent PN from expanding their role in the practice and the utilisation of their skills. The most commonly reported barrier to role expansion was that the GP preferred to perform screening themselves. This may be a cause of conflict and confusion for those PN, as their employing GPs would have provided their endorsement for the PN to undertake the education and training. Other identified barriers were that patients preferred to be screened by the GP or that there was a female GP available who performed screening. This is possibly a barrier because historically cervical screening has been seen as the province of female GPs (Mills and Fitzgerald, 2008), and the expanded role of the PN may be seen as threatening by some female GPs. Some negotiation of roles may be required and education of patients on the expanded role of the PN. The results reported here may also reflect possible ambivalence about the role of the PN on the part of GPs, suggesting there is a need for further education of GPs and patients about this role.

## RECOMMENDATIONS

The collection of data regarding the role of PN needs to continue, as currently there is limited information about the impact and the outcomes of education

and training of PN within a general practice setting. Advocacy is needed for improved reporting of PN activity. One possibility for better recording of PN activity is the allocation of unique identifying codes by pathology providers to nurses providing Pap testing so that accurate and objective data collection on Pap testing can be used for outcome measurement. Legislative change may be needed for the allocation of unique identifiers to all Pap test providers, including PN.

Education is an important strategy to further enhance the role expansion of PN and to provide the highest quality data possible. To ensure that Medicare data accurately reflects the number of Pap tests performed by the PN, all staff in general practice need to undergo training in the appropriate use of Medicare item numbers. Educational programs that meet the specific needs of the PN workforce need to be designed, delivered and evaluated. GP training highlighting the benefits of updates, and their obligation as an employer to provide professional education and training to employees, will assist this process. Further education of GPs and patients about the role of PN, and the valuable contributions they can make to general practice needs to be conducted.

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