Nurse Practitioner provision of patient education related to medicine

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KEY WORDS

Nurse Practitioner (NP), nurse prescribing, patient education, Consumer Medicines Information

ABSTRACT

Objective
To describe the perceptions of Australian NPs and NP candidates (student NP and NPs in transitional roles but not yet authorised) in regards to their confidence and practice in providing medicine information to patients / clients.

Design
An electronic survey related to prescribing practices.

Setting
The survey was open to all Australian NPs (n=250 at time of survey) and NP candidates.

Subjects
The survey was completed by 68 NPs and 64 NP candidates (student NP and NPs in transitional roles but not yet authorised) across Australia.

Main outcome measures
Survey findings.

Results
Sixty seven percent of NPs and 54% of NP candidates identified feeling very confident in providing their clients with education about medicines. Of the NP respondents 78% identified they generally do inform patients of the active ingredient of medications and 60% of NP respondents indicated they provide or discuss CMI leaflets with their patients.

Conclusion
The results suggested that NPs and NP candidates are providing some of their clients with medicine information and using CMI leaflets in some prescribing consultations. Although confidence in the area of provision of education to patients related to medicines is high this may be incongruent with actual concordance supporting nursing behavior. Person centered patient education is central to the principles of building concordance. The incongruities between confidence in the provision of medication education to patients and self reported concordance building NP prescribing behavior needs to be a focus of critical reflection on NP prescribing practice.

INTRODUCTION

In Australia, the Nurse Practitioner (NP) is defined as, 'a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role' (Australian Nursing and Midwifery Council 2006). The NP role was first introduced in the state of New South Wales (NSW) in 1998 (Cashin 2007). To date, legislation protecting the title 'Nurse Practitioner' has been passed in all Australian states and territories. The NP has three legislated extended roles under which they are able to initiate diagnostic investigations, prescribe medications and make direct referrals to specialist medical practitioners (Australian Nursing and Midwifery Council 2006). Nurse Practitioners have gained prescriptive authority in all states and territories except the Northern Territory where this legislation is under review.

From an international perspective, in the US the NP role was introduced in the 1960s and has established title protection in all 50 states (Phillips 2007). Nurse Practitioners in the US are one of the three defined Advanced Practice Nursing roles (APN). Nurse Practitioners can not only diagnose and treat, but also have the authority to prescribe in all states (Phillips 2007; Kaplen et al 2006). However, in only 27 states can NPs prescribe independently while the other 23 states NP prescriptive authority is linked to a collaborative agreement with a physician (Plonczynski et al 2003). In the UK the NP role is unregulated by the Nursing and Midwifery Council with no title protection, agreed role functions or established educational standards. However, since 2006 registered UK Independent Nurse Prescribers have unlimited access to the entire British National Formulary with the exception of controlled and unlicensed medicines (Courtenay 2007).

Evidence from Australia, US and the UK has shown that nurse prescribing can increase efficacy, maximize resources, improve patient access to medicines and enable nurses to provide more timely and comprehensive care packages (Courtney 2007; Phillips 2007; Towers 2005; Bailey 2004; Jones 2004; College of Nursing 2003). Nurse prescribing also has benefits for improving retention of this valuable workforce through increasing prescriber autonomy and job satisfaction (Wand and Fisher 2006).

The philosophical essence of nursing includes holistic, patient centred, care in which providing education is paramount and partnership in decision making is valued (Wilson and Bunnell 2007; Wand and Fisher 2006). NP prescriptive authority has enhanced the opportunities for NPs to provide holistic care in which patient medicine education and concordance is promoted (Bradley and Nolan 2007; Courtenay 2007; Nolan et al 2004).

Concordance is a term used to describe a partnership between patient and prescriber in which views and beliefs are exchanged and an equal understanding about medicine taking is developed (Stevenson and Scambler 2005). The principles of concordance include promoting equality of knowledge on a medicine through information giving, utilizing the expertise of both patient (lived experience) and prescriber (professional experience), valuing the patient perspective, and ultimately shared decision making (Latter et al 2007a; Hobden 2006). These principals are in keeping with the National Strategy for Quality Use of Medicines (QUM) which sits within the framework of the National Medicines Policy in Australia. The QUM recommends selecting medication management options wisely, taking numerous factors into account so the most suitable medicine is chosen, and using medicines safely and effectively to get the best possible results (Commonwealth of Australia 2002).

Are nurse prescribers providing medicine education?

Few studies have explored in detail how NPs or nurse prescribers provide patients with information and education on medicines. Research into the practices of concordance has largely focused on the prescribing practices of doctors (see for example Skelton et al 2002; Gwyn and Elwyn 1999; Liaw et al 1996).

Stevenson et al (2004) carried out a systematic review with the aim of determining the extent to which health practitioners were practicing in a manner

that promotes concordance. The review focused on research that explored two-way communication about medicines between consumers of various health services and a range of health practitioners. From a review of 134 articles included in the study, the authors reported a number of studies suggesting patients would like to share their health beliefs, experiences and preferences with their health practitioner but are often not given the opportunity to do so, or are reluctant to do so due to lack of confidence. In addition health practitioners failed to seek information central to concordance such as patient preferences and ability to adhere to the recommended health regime. In relation to prescribed medications, the benefits of a medicine were discussed more often than potential side effects and precautions. This imbalance of information provided by prescribers resulted in patients being more likely to take a passive role.

Latter et al (2007a) completed a study of 400 independent nurse prescribers in the UK investigating principles of concordance within their prescribing interactions. Ninety-nine percent of respondents agreed or strongly agreed they applied the principles of concordance. The study reported in 89% of consultations, participants gave clear instructions to patients on how to take their medicines, and 73% of consultations nurses checked patients' understanding and commitment to their treatment. However, only 48% of participants discussed medication side effects and only 39% explained the risks and benefits of treatment. While 93% of patients in the study identified feeling they had been given enough information, and 82% believed the information given was easy to understand and follow, only 60% of patients stated they received information on the side effects of medicines. The authors concluded that while UK nurse prescribers appear to have awareness of the principals of concordance, practice tends to continue to focus on the provision of information related to medication promotion while information that may lead to patients making an informed decision not to take a medicine is often withheld.

Little is known of NP prescribing practices in Australia, or to what extent NPs are providing comprehensive medicine information to clients. A potentially valuable tool for Australian NPs is the Consumer Medicine Information (CMI) leaflet. Pharmaceutical companies produce CMI leaflets in accordance with government guidelines to inform consumers about prescription and pharmacist-only medicines. Information provided in a CMI leaflet includes the ingredients of the medicine, possible side effects, and advice on taking the medicine. Consumer Medicine Information leaflets encourages information exchange between prescriber and patient, where the prescriber can provide information and inform a patient about a medicine, and the patient can discuss his or her medication beliefs and preferences in relation to the recommended regime (Department of Health and Ageing 2000).

The aim of this descriptive study was to report the perceptions of Australian NPs and NP candidates (student NP and NPs in transitional roles but not yet authorised) in regard to their confidence and practice in providing medicine information to patients/ clients.

METHOD

Study design

In 2007, a total of almost 100 NPs, NP candidates, educators in NP courses and managers of NP services participated in four focus groups designed to discern the shape of NP prescribing behaviours, enablers and inhibitors. Thematic analysis of the focus group data, plus a comprehensive review of published and unpublished literature, was used to inform the content of a national on-line survey.

The electronic survey was available for a two-week period via the National Prescribing Service and Australian Nurse Practitioner Association (ANPA) websites. Invitations to complete the survey were sent to all Australian NP course coordinators to distribute to their students, all ANPA members and all participants in the original focus groups. In addition the survey was advertised in specialty newsletters and at relevant professional conferences.

Study participants

A total of 68 NPs and 64 NP candidates participated in the survey. At the time of data collection there were 250 authorised or endorsed NPs in Australia. This gives a response rate of 27% of NPs.

Data analysis

Participant characteristics and outcome data are reported as raw data. Differences between groups were analysed using chi-square test (X^2) for categorical data. Data were analysed using the program SPSS version 14.0 for Windows.

ETHICAL CONSIDERATIONS

Ethical approval was received from appropriate Human Research Ethics Committees.

RESULTS

The majority of NPs (70%) had practiced in their specialty for more than 21 years. Ninety-two percent of participants were practicing in the public sector with over two-thirds (70%) practicing in metro areas. Although there was participant representation from every state and territory, the majority of NPs were located in New South Wales (56%). Respondents identified over 30 specialty areas of practice with the largest group being emergency (23%). Sample characteristics are shown in table 1.

Table 1: Characteristics of study participants by group

Characteristic	NP N=68	Student/transition NP N=64
Female gender	53	53
Age (mean years)	47.1	43.4
Years practicing as an RN		
<5 years	0	1
>25 years	34	21
11 - 15 years	7	10
16 - 20 years	10	9
21 - 25 years	14	13
5 - 10 years	3	10
Practicing in metro or rural area		
Metro	52	40
Rural	12	20
Remote	4	4
Public sector	64	57
Private sector	4	7
Jurisdiction of NP authorisation		
New South Wales	36	
Australian Capital Territory	6	
Northern Territory	1	
Queensland	7	
South Australia	5	
Victoria	8	
Western Australia	5	

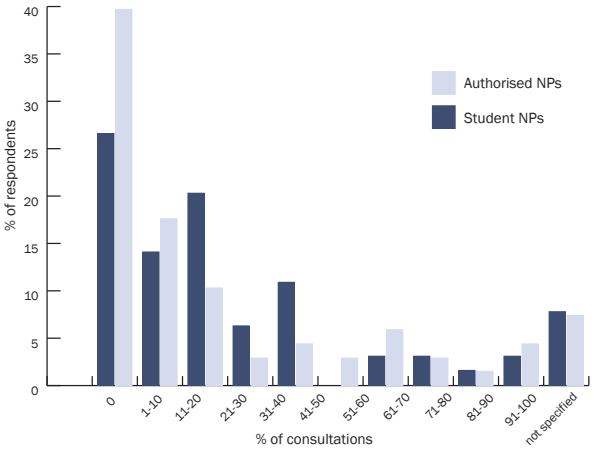
Table 2: Comparison of confidence in prescribing practices between NPs and NP candidates

Question	Response	NPs %	NP candidates %	p
Confidence meeting legal requirements	Very confident	60	25	<0.001
	A little/ moderately confident	37	70	
	Not at all confident/ unsure	3	5	
Confidence adding new medication	Very confident	30	9	0.007
	A Little/ moderately confident	57	82	
	Not at all confident / unsure	13	9	
Confidence providing client education on medications	Very confident	67	54	0.09
	A Little/ moderately confident	33	66	
	Not at all confident/ unsure	0	0	
Confidence providing education to health care professional on medications	Very confident	50	36	0.17
	A Little/ moderately confident	45	62	
	Not at all confident/ unsure	5	2	

High levels of confidence were reported in providing client education regarding medications with 67% of NPs and 54% of NP candidates reporting being very confident and the remainder reporting being either moderate or a little confident in this practice. Slightly lower levels of confidence were reported by both NPs and NP candidates in providing education to other health care professionals with 50% of NPs

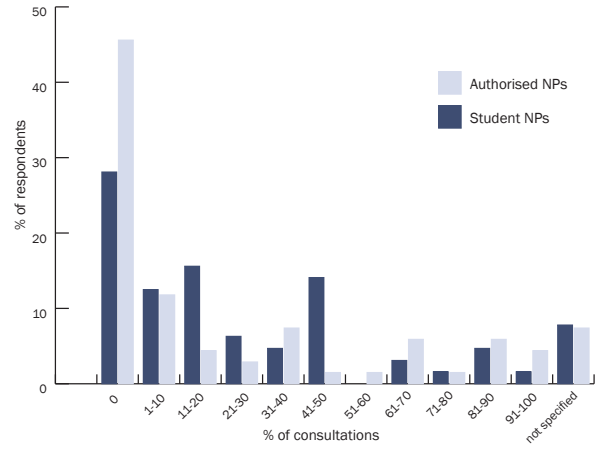
and 36% of NP candidates reporting being very confident in this practice. This difference in self reported confidence was not statistically significant, as opposed to confidence in the area of meeting legal requirements of prescribing and adding new medications in which NPs reported being more confident than NP candidates (table 2).

Figure 1: NP consultations discussing CMI



Over two thirds of NPs and NP candidates (78% and 77% respectively) reported they generally highlight the active ingredient in a medicine to their clients. The majority of participants (92% of NPs and 93% NP candidates) identified they were aware of CMI leaflets. However, despite this awareness, 46% of NPs and 28% of NP candidates reported they did not discuss CMI leaflets during consultations (figure 1), and 40% of NPs and 27% NP candidates reported they did not recommend CMI leaflets during consultations (figure 2).

Figure2: NP consultations providing or recommending CMI



DISCUSSION

To the best of our knowledge, this is the first Australian research to report on the prescribing practices of NPs in relation to providing medicine information to clients. Respondents were questioned on how confident they felt in relation to the various aspects of the prescriber's role including provision of medicine information to their clients.

High levels of confidence were reported in providing client education regarding medications. No respondents reported feeling 'not at all confident'. No comparable NP studies were found, however in a study conducted by Hegney, Plank, Watson, Raith and McKeon (2005) of Australian Registered Nurses (RN) with an endorsed expanded medication practice role, it was identified that 86% of respondents felt confident in providing medication knowledge to clients. This suggests that providing medication information is inherent in nurses without necessarily having advanced practice recognition. This is supported by the findings from this study where no significant difference in reported confidence in providing client education between NPs and NP candidates was found. As could be expected however, there was a significant difference in other areas of confidence such as meeting the legal requirements of prescribing and adding a new medication to a patient's treatment regime.

Nurse practitioners who do not perceive they have a high degree of confidence in providing client medicine education may be unable to provide their clients with sufficient or appropriate information on medicines, therefore failing to meet prescriber responsibilities for quality use of medicines. Prescriber responsibilities for quality use of medicines, as outlined in the National Strategy for Quality Use of Medicines (Commonwealth of Australia 2002), include providing information, education and discussion, and assisting people in making informed decisions. Lower confidence levels in areas of prescribing practices, such as providing medicine information to clients, may potentially result in NPs who have the authority to prescribe choosing not to do so as reported in a number of studies linking self reported

low prescriber confidence levels with decreased prescribing practices (Hall et al 2006; Latter et al 2007b). Given the identified advantages of nurse prescribing, the decision not to prescribe could be limiting both client and health system benefits.

The majority of respondents identified they would generally highlight the active ingredient of a medicine to their client. However, 22% of NP respondents indicated they did not or were unsure if they did. This suggests that some NP prescribers are not providing complete information about medicines to their clients and there may be a difference between espoused confidence and belief and practice, as has been identified by Latter et al (2007a).

Consumer Medicine Information leaflets are an important tool for nurse prescribers in promoting a partnership with their client and enabling the client to make an informed decision about their medicines. The use of and discussing CMI in consultations could potentially aid medicine information giving through prompting and guiding conversation. Consequently NP confidence in their ability to provide medication information may increase. Ninety-two percent of NPs and NP candidates combined were aware of CMI. However, 40% of NP respondents indicated they never provide CMI to their clients. Just 4% percent of NPs indicated they always provide and discuss CMI with their clients. It is possible the identified low number of NPs providing CMI is related to a low number of NP consultations that involve prescribing. These results contrast with those of Hegney et al (2005), who identified that 22% of Australian Registered Nurses with an endorsed expanded medication practice role always provided CMI to their clients, and 14% stated they never provided CMI.

CMI related information has been identified by members of the public as information they would most like to receive from a prescriber. A study conducted by Berry et al (2006) aimed to assess the views of a convenience sample of 74 members of the public on nurse prescribing in the UK. Ninety-five percent of participants selected the two highest ratings when asked to what extent they want the nurse prescriber to provide information on a prescribed medication. CMI related information, such as the possible side effects of a drug (rated 5.76 on a scale of 6) and how a drug works (5.73 out of 6) were identified as the most important to the participants.

LIMITATIONS

The results of the survey presented in this paper must be interpreted in light of a few limitations. Firstly, due to a response rate of 27% of NPs practising in Australia at the time of the survey the sample may not be representative of all NPs and therefore generalisation of the findings may be limited. The inability to determine numbers of student/NP candidates across Australia and estimate the response rate of NP candidates must also be factored into interpretation. The study findings are further limited by the self-selection and self-reporting aspects of the survey.

CONCLUSION

Nurse Practitioners in Australia have the authority to prescribe medicines to their clients. In order to maintain practice that reflects the objectives set out by the National Medicines Policy in Australia it is essential that NPs have the ability and confidence to provide medicine information to their clients. Providing appropriate and easily understood medicine information will contribute to the promotion of optimal health outcomes and increase consumer satisfaction with NP services.

The findings reported in this paper, the first Australian study in this area, indicate respondents reported high levels of confidence in the area of provision of education to patients related to medicines. This level of confidence, however, may be incongruent with actual prescribing behaviour as not all respondents reported providing their clients with comprehensive medicine information or using CMI leaflets in their prescribing consultations. As a critical and often contentious component of NP practice, client education in relation to medicines therefore must be a focus of NP's critical reflection on their prescribing practice.

RECOMMENDATIONS

Nurse Practitioner prescribers and their clients may benefit from use of a tool such as CMI leaflets to ensure consumers receive and understand medicine information and prompt thorough discussion of medications prescribed. In Australia, written medicine information is not automatically provided as a package insert with medicines. Prescribers therefore need to be proactive in providing consumers with this information or suggesting they obtain one from the pharmacy. Further research into Australian NP prescribing practices, and NP services as a whole is imperative to the future development of the NP role and NP services in Australia.

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