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Emergency management of patients with Supratherapeutic INRs on Warfarin: a multidisciplinary education study

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KEYWORDS

warfarin, vitamin k, anticoagulant, reversal, guidelines, emergency management, supratherapeutic, INR

ABSTRACT

Objective

Supratherapeutic INRs exceeding 4.5 are associated with increased risk of haemorrhage. The aim of this study was to evaluate the efficacy of an educational program focused at improving emergency clinician compliance with the Thrombosis and Haemostasis Society of Australia and New Zealand (THANZ) guidelines.

Design

A pre and post-intervention study was undertaken. Retrospective data from 1 July 2014 to 30 June 2015 and prospective data 1 January 2016 to 31 December 2016 were collected.

Setting

This study was conducted in a large tertiary care hospital in Melbourne, Victoria, Australia.

Subjects

Included were all consecutive patients in the study periods that presented to the emergency department with an initial INR result of >4.5 on warfarin only.

Interventions

Development and delivery of an educational program in accordance with the current THANZ guidelines was implemented.

Main outcome measures

To improve education regarding the correct management of emergency patients on warfarin with a supratherapeutic INR.

Results

Data on 158 patients with an INR >4.5 were collected. Data on 46 patients were excluded. Management in 31 patients did not follow recommended guidelines. There was no difference detected between groups with 17 compliant with guidelines pre-intervention and 14 post intervention; $p=0.87$.

Conclusion

Emergency department management of patients on warfarin with supratherapeutic INR's requires continual quality improvement. Frequency of emergency clinician compliance with the current evidence-based guidelines was moderate and did not improve significantly with targeted education. This highlights the complexities of warfarin management and the need for multi-disciplinary engagement of patients presenting with supratherapeutic INRs.

INTRODUCTION

Warfarin, a vitamin K antagonist, is the most commonly prescribed anticoagulant for the prevention of thromboembolic disorders, despite many challenges related with its use in clinical practice. Common indications for warfarin use include atrial fibrillation, prosthetic heart valves and treatment of venous thromboembolisms (Tran et al 2013). Bleeding is the most common adverse effect. Many patient factors increase the risk of bleeding, such as age, prior bleeding history, specific comorbidities, excessive alcohol consumption and reduced renal function (Tran et al 2013).

In clinical practice, warfarin is a challenging medication to manage due to its narrow therapeutic index and potential for many significant medication and nutrient interactions. Decisions regarding warfarin dosing are guided by the International Normalised Ratio (INR) results. Strict surveillance of the INR is essential during warfarin treatment with blood testing undertaken at least every six weeks in patients with controlled therapeutic levels, and tests undertaken several times a week during initial commencement of warfarin therapy or in patients with difficulty maintaining therapeutic levels. These factors often contribute to a high incidence of over and under anticoagulation. Patients on long-term warfarin therapy incur a risk of haemorrhage of 1% to 3% per year, leading to hospitalisation or death (Tran et al 2013).

Numerous international healthcare systems have developed guidelines to improve the safe use of warfarin. Furthermore, other studies have implemented an education program targeting warfarin management in hospitalised patients with a reduction in supratherapeutic INR levels and bleeding events post education (Dharmarajan et al 2011). However, despite this, adverse events to warfarin are common.

Supratherapeutic INRs, especially those exceeding 4.5, are associated with increased risk of haemorrhage. Consensus Guidelines of the Thrombosis and Haemostasis Society of Australia and New Zealand (THANZ) offer advice on strategies to prevent over-anticoagulation, principles for warfarin reversal and provide evidence-based management guidelines (Tran et al 2013). The aim of this study was to evaluate the efficacy of an educational program focused at improving emergency clinician compliance with the THANZ evidence-based guidelines for management of patients that presented to the Emergency Department (ED) with supratherapeutic INR levels.

METHOD

A pre and post-intervention cohort study was conducted. Retrospective data from 1 July 2014 to 30 June 2015 and prospective data from 1 Jan 2016 to 31 Dec 2016 were collected on ED patients currently anticoagulated with warfarin. Data collection included baseline demographics, medical history, INR results, bleeding risk assessment, the presence of active bleeding and administration of fresh frozen plasma, Prothrombinex and vitamin K was also collected. The ED used paper-based patient medication and blood product administration charts. Emergency clinicians used both paper-based and electronic documentation detailing the emergency management care of patients.

SETTING

The study was conducted in a large tertiary care hospital in metropolitan Melbourne, Victoria, Australia with 45 emergency beds, approximately 200 emergency nursing staff, three emergency pharmacists, 31 emergency physicians and over 60,000 adult patient presentations annually.

SUBJECTS

Subjects included all consecutive patients in the study periods that presented to the ED and had an initial INR result of >4.5 .

ETHICS

Ethics approval to conduct the study was granted by The Alfred Hospital Research and Ethics Committee (Project no. 513/15).

FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

STUDY DESIGN

In the pre-intervention phase, compliance of emergency clinicians with current THANZ guidelines when treating warfarinised patients who presented to the ED with a supratherapeutic INR was assessed by two independent reviewers via retrospective review of medical records. A third reviewer adjudicated disagreements in results obtained.

The intervention implemented for this study was the development and delivery of an educational program in accordance with current THANZ guidelines. Education focused on the management of patients on warfarin therapy presenting to the ED with a supratherapeutic INR with or without bleeding, stipulating the treatment required in accordance with the specific INR result. Educational programs were presented face-to-face to emergency medical and nursing staff through formal and informal sessions from 31 June 2015 to 31 December 2015. THANZ guidelines were emailed to participants and printed on lanyard cards to further consolidate this educational intervention.

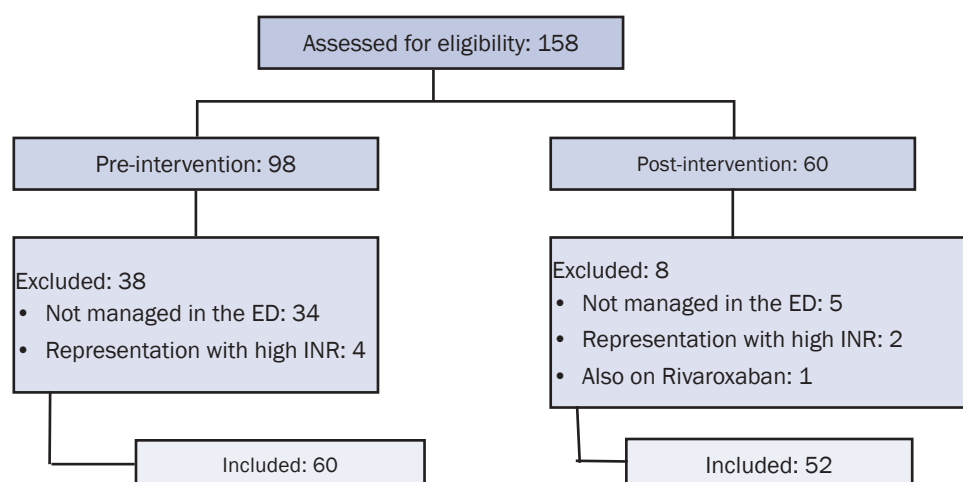
In the post-intervention phase, compliance of emergency clinicians with current THANZ guidelines when treating warfarinised patients who presented to the ED with a supratherapeutic INR was assessed by two independent reviewers via retrospective review of medical records, with a final decision by a third reviewer if needed.

DATA ANALYSIS

We estimated the proportion of patients non-compliant with THANZ guidelines to be 35%. To detect a minimum clinically significant change in the proportion of patients non-compliant with guidelines to 10% with 80% power and 5% level of significance the estimated sample size for the study was 86 with 43 patients in each phase. Continuous data were reported using mean (standard deviation) with statistical significance of differences assessed using Student's t-test. Count data were presented using proportions and statistical significance of differences assessed using the chi-squared test or if number in a cell was <5 , Fisher's exact test was used. A p-value of <0.05 was defined to be statistically significant. All analyses were conducted using Stata v 13.0, Statacorp, College Station, Texas.

RESULTS

Data on 158 patients presenting with high INR (>4.5) were collected. Of these, data on 46 patients were excluded. Exclusion criteria and included patients are listed in figure 1.

Figure 1: Inclusion and exclusion criteria

Patient demographics, bleeding status on presentation and bleeding risk are listed in table 1. Patients were older with an average age of 73.2 (15.4) years with no difference between the subgroups. There were more female patients in the post-intervention period ($p=0.03$). There were no significant differences between the two groups with regards to indication for anticoagulation, degree of bleeding on presentation, and bleeding risk.

Table 1: Patient demographics and clinical features

Demographics and clinical features	Pre-intervention (n=60)	Post-intervention (n=52)	p-value
Age (years)	72.5 (15.0)	74.1 (16.0)	0.58
Male sex	40 (66.7%)	24 (46.1%)	0.03
INR result	6.3 (1.7)	7.1 (3.9)	0.13
Anticoagulation indication:			0.32
- Atrial Fibrillation	34	32	
- Prosthetic Valve	10	10	
- Pulmonary Embolism	5	2	
- Deep Vein Thrombosis	2	1	
- Factor V Leiden deficiency	2	2	
- Unknown	7	5	
Bleeding Category:			0.22
Nil	45	46	
Minor	6	1	
Clinically significant	8	4	
Life threatening	1	1	
Bleeding Risk	13 (21.7%)	10 (19.2%)	0.75

Warfarin was withheld in 108 (96.4%) patients. Vitamin K was given in 42 (37.5%) patients; with a mean dose of 3.8(2.9) mg. Prothombinex was administered to 10 (8.9%) patients and FFP to 4 (3.6%) patients. There were 17 (28.3%) patients non-compliant with guidelines pre-intervention compared to 14 (26.9%) post intervention; $p=0.87$. Variables for non-compliance are listed in table 2.

Table 2: Nature of non-compliance with guideline

Reason	Pre-intervention (n=17)	Post- intervention (n=14)
Vitamin K given when not indicated	9	8
Vitamin K not given when indicated	1	3
Vitamin K under-dosed	1	0
Vitamin K given in excessive dose	4	1
Fresh Frozen Plasma given when not indicated	0	2
Prothrombinex under dosed	1	0
No reversal of INR with clinically significant bleeding	1	0

DISCUSSION

An educational intervention to emergency medical and nursing staff did not improve adherence to current THANZ guidelines for the management of patients on warfarin with a supratherapeutic INR presenting to the ED. Despite extensive clinician experience with warfarin, management of high INR remains challenging. Reversal guidelines are regularly revised as new research and products become available making it difficult to efficiently remain current. Indeed, previous literature has highlighted the highly variable nature of clinician management (Wilson et al 2001) and poor adherence with guidelines in this area of practice (Atreja et al 2005).

Other results by Roberts and Adams (2006) demonstrated significant improvements in clinician adherence to warfarin reversal guidelines (from 48% to 75%) with the implementation of an 'academic detailing guideline'. However, in comparison to previous reports, this study has demonstrated a relatively high rate of overall compliance with reversal guidelines (approximately 72%). This may be related to a number of factors including the availability of local electronic guidelines on the management of supratherapeutic INRs for clinicians and the presence of clinical pharmacists in the emergency department (Cohen et al 2009).

The most common reason for non-adherence identified in this study was clinician use of vitamin K when it was not indicated in patients with no or a low bleeding risk. The administration of vitamin K when not indicated was perceived as 'benign' practice by clinicians. This study demonstrated great clinician compliance with the management of patients who had sustained significant traumatic injury causing excessive bleeding. However this study also revealed the lack of knowledge around the potential harmful consequences of inappropriate reversal.

Management of anticoagulation in the ED also includes the care of patients using direct oral anticoagulants (DOACs) in preference to warfarin which can be challenging in the event of a traumatic bleed. However, DOACs are used in preference to warfarin due to their favourable harm profile and, significantly lower all-cause mortality. In addition, the risk of stroke and systemic embolic disease, especially haemorrhagic stroke is significantly reduced (Hanley and Kowey 2015). DOACs also have greater compliance rates when compared to warfarin (Keshishian et al 2016) particularly agents that have daily-dosing regimes, such as Rivaroxaban (Laliberte et al 2013).

Despite this, warfarin continues to be a medication seen in ED populations such as the elderly and those with renal impairment who may have contraindications to DOACs and are underrepresented in many DOAC studies (Hanley and Kowey 2015). Continued use of warfarin may also be fuelled by limited data for reversal of DOACs in the setting of life threatening bleeding and an inability to quantify anticoagulant effect, this is life threatening in the trauma patient (Cuker and Siegal 2015). Another limitation to DOAC use may be financial, however, DOACs have been shown to be cost-neutral or even cost-beneficial compared with warfarin in specific patients (Janzic and Kos 2014; Coyle et al 2011).

A reduction in ED presentations with high INRs may become increasingly uncommon with the aid of recent advances in INR monitoring including the development of home-based and outpatient monitoring strategies utilising smartphone applications. Previous literature has established that home monitoring of anticoagulation therapy is feasible, accurate and associated with greater time in therapeutic range. However only patients who are able to successfully undertake the education required and have been deemed competent by their practitioner will be able to use home monitoring devices (Hambleton 2003). With this new technology ED management of patients who manage their INR with this technology may demonstrate a reduced incidence of inappropriate reversal, as patients will be well educated on the warfarin dosing requirements for their INR (Hambleton 2003).

Minimal Australian literature is available regarding the role of nurses in the management of anticoagulated patients. Internationally, nurses have been involved in nurse-led anticoagulation monitoring systems, hospital-based nurse practitioner-led anticoagulation services and nurse-led patient testing in general practice surgeries. Nurses often recognise medication related problems and their involvement in the management of warfarin therapy should be broadened (Bajorek et al 2006). Various healthcare systems have also developed nurse and pharmacist led anticoagulation clinics as a strategy for warfarin management. In a study undertaken by Rose et al (2017) the warfarin management of 2,000 patients via anticoagulation clinics over 39 sites was implemented. A standardised approach was used for the training and education of primary healthcare physicians, nurses and pharmacists working in these clinics. The results demonstrated a reduction in patients with critically supratherapeutic INRs and therapeutic INRs improved from 65% to 75%.

Within an emergency-nursing context anticoagulation education should focus on appropriate assessment of anticoagulated patients using scoring systems such as the HAS-BLED and awareness of potentially serious drug interactions with warfarin (Pisters et al 2010) which may lead to early escalation of patients at high risk of bleeding. However nurses need to also advocate for the patient who do not require reversal with vitamin K, as inappropriate reversal can be harmful to these patients. Increasing the involvement of emergency nurses in the assessment, management and care of warfarin patients may improve compliance with the correct emergency management of patients presenting with supratherapeutic INRs.

The growing role of clinical pharmacists within the ED has been associated with improved patient outcomes and decreased medication errors (Tong et al 2016; Patanwala et al 2012). Consequently, the ED pharmacist may also help support clinicians in the management of supratherapeutic INRs. Pharmacist-led warfarin dosing for ambulatory patients in one Australian hospital reduced the mean number of days required to reach therapeutic INR compared to standard care (Dooley et al 2011). Another Australian study demonstrated positive outcomes with 62 pharmacists successfully completing an anticoagulation education program. Future legislation is proposing that Australian pharmacists will play a larger role in the management of patients on warfarin as part of a collaborative model post discharge from hospital (Stafford et al 2010). This expansion of their scope of practice could see a future reduction of ED presentations for supratherapeutic INRs and safer ED management of these patients.

The future of anticoagulation management requires a collaborative approach. Positive clinical outcomes demonstrated in previous studies utilised a collaborative model of care involving physicians, pharmacists and nurses. Further research in this area will involve the increasing use of home testing devices and DOAC's. Pharmacists and nurses will play an integral role with physicians in coordinating the care and education of these anticoagulation strategies. This has the potential to improve the safe ED management of these patients and, reduce the number of emergency presentations involving supratherapeutic INRs. The results of this study confirm the importance of an interdisciplinary approach to the care of patients presenting to the ED

with supratherapeutic INRs. Further studies are required to explore the collaborative model of care and the complications that may arise from incorrect emergency management of supratherapeutic INRs, especially in patients at high risk of deep vein thrombosis (DVT) and stroke.

LIMITATIONS OF STUDY

As a single-centre study, these results are potentially limited in their application to other departments. As a retrospective study with convenience sampling, there is always the potential for selection bias and data extraction errors. The study was conducted in a busy, major metropolitan tertiary hospital. Junior medical staff routinely rotate every three months. It is possible that some of the clinicians in this study were not exposed to all of the intervention strategies. The study may have been more successful if the education session was relaunched in successive quarters. In addition, the development of supportive summary documents such as the indications for warfarin reversal from the THANZ guidelines along with promotional posters may have assisted with improving clinician compliance. Encouraging nursing staff to flag confirmed or potential supratherapeutic INRs to medical staff and engaging pharmacists in the management of these patients would have assisted with the implementation of the correct intervention and may have also improved medical clinician compliance. Education regarding the difficulty with titrating warfarin dosing to achieve safe INR and the adverse outcomes that can occur from over or under anticoagulation, rather than purely focusing on the THANZ guidelines may have also improved compliance in this study. Finally, a prospective study looking at complications and patient outcomes and the incidence of DVT and stroke in patients who were inappropriately reversed would further help illustrate the importance of correct reversal.

CONCLUSION

Emergency Department management of patients on warfarin presenting with a supratherapeutic INR requires continual quality improvement. Frequency of emergency clinician compliance with the current evidence-based guidelines was moderate and did not improve significantly with targeted education. This study also demonstrated great clinician compliance with the management of patients who had sustained significant traumatic injury causing excessive bleeding. However this study also revealed the lack of knowledge around the potential harmful consequences of inappropriate reversal. This highlights the complexities of warfarin management and the need for multidisciplinary engagement of patients presenting with supratherapeutic INRs

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Perceived barriers and enablers to conducting nursing assessments in residential aged care facilities in Victoria, Australia

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KEYWORDS

Assessment, nurses, nursing home, older people

ABSTRACT

Objective

Nurses working in aged care facilities need to be adequately prepared to manage the increasingly complex care needs of older people. This paper reports on the views of nurses on the barriers and enablers to conducting nursing assessments with older people in residential aged care, six weeks after attending a four day education and training workshop on this topic.

Design

Descriptive evaluation.

Setting

Data were collected in a range of venues in which the education was delivered.

Subjects

Registered (RNs) and enrolled (ENs) nurses (n= 345) working in residential aged care facilities in Victoria, Australia.

Findings

Fourteen barriers and eight enablers, which affect the capacity of nurses to conduct assessments with older people, were identified. The most common cited barriers included lack of time (78%), residents' poor state of health (41%) and the absence of equipment (33%). Common enablers were organisational support (38%); staff education and training (29%); having the appropriate equipment (22%); positive staff attitudes (17%) and the resident's condition and cooperation (16%).

Conclusion

Nursing assessments are vital to the delivery of quality and evidence based aged care. The issues identified provide aged care services and managers with a basis for ensuring that nurses have the necessary preparation, training and ongoing support to perform the appropriate and required assessments to provide the best possible care.

INTRODUCTION

Assessment is the foundation of nurses' clinical practice in that it: identifies patient needs; informs care planning, decision making and choice of interventions; and allows the recognition and monitoring of risk (clinical and other) and deterioration of health status. A nursing assessment takes into account the physical, functional, psycho-social and environmental domains of care (Jarvis et al 2016) and can be undertaken on admission, at a time of deterioration or when there is a health issue or, as part of a daily focused assessment.

It is well recognised that older people are often frail (Clegg et al 2013), have health problems affecting multiple body systems and are at risk of increased morbidity and mortality (Stuck and Iliffe 2011), particularly if they have dementia (Draper et al 2011). This increased medical acuity and complexity of care needs is very evident in the residential aged care sector where common conditions such as dementia (48%), depression (22.5%), arthritis (14.2%), cerebrovascular disease (22.5%), diabetes (6.9%) and pain, falls and urinary incontinence (17%) have a significant impact on care needs (Hillen et al 2017).

For nurses working in aged care settings this presents many challenges, not least of which is their ability to assess, identify and meet the unique needs of the older person. Both registered nurses (RNs) and enrolled nurses (ENs) have a vital and central role to play in data gathering and the assessment of residents (Nursing and Midwifery Board of Australia 2016a, 2016b). Although some 120 assessment skills are known to be taught to students in nursing curricula (Giddens and Eddy 2009), the literature reports that nurses in Australia (Birks et al 2013) and the United States of America (Giddens 2007; Secrest et al 2005) may not use up to a third of the assessment skills taught. Many nurses also remain unclear about the boundaries of their professional responsibility with respect to the use of assessment skills (Birks et al 2014). It is not known, (at least from our review of the literature), whether any of the skills taught in nursing curricula are specific to the assessment of older people, such that nurses learn to differentiate between normal aged related changes and abnormal changes or pathology.

It is clear however that when nurses do not use their skill set to conduct health assessments to the full scope of their practice, this becomes a significant issue. Underutilised skills can not only compromise the identification and management of healthcare needs and the safety of care recipients (Munroe et al 2013), but also result in the erosion of skills (Birks et al 2013; Phillips et al 2006). A meta-analysis of the literature on the factors influencing the decisions of residential aged care nurses to transfer residents to hospital (Laging et al 2015), found that they often do not have the necessary clinical assessment skills, or the confidence to be able to identify early signs of deterioration in residents living in aged care facilities. This impacted on the ability of nurses to care for these residents.

Winbolt (2008) and Lesa and Dixon (2007) noted that large numbers of nurses employed in Australia and New Zealand were trained prior to the introduction of university programs where physical assessment skills, (Birks et al 2013) as a component of health assessment, have been formally taught. The median age of registered nurses and enrolled nurses working in aged care in Australia in 2016 was 47 and 50 years respectively (Mavromaras et al 2017). As a result, a significant number of aged care nurses may not have the assessment skills (Laging et al 2015) or confidence with the use of the medical terminology required to describe assessment process and findings (Phillips et al 2006), or, even recognise their role in the assessment process (Birks et al 2013).

Educating and training aged care nurses can increase their proficiency in undertaking nursing assessments so they can better identify changes in residents' health status and care needs. However, unless nurses are able to implement what they have learnt in their workplace, the benefits of any pedagogical initiatives will be limited.

The necessity for, or perceived value of, nurses' skills is not necessarily related to the incidence or frequency of their use in the clinical arena (Birks et al 2013). Several factors are known to influence whether nurses use their assessment skills and the extent to which they use them. These factors include apparent time constraints and lack of: confidence; role models and; nurses' understanding of the impact of assessments on care delivery (Douglas et al. 2014; Birks et al 2013). We currently know very little about the perceived barriers and enablers to using assessment skills in the Australian residential aged care environment. Our project sought to deliver an education and training program on the health assessment of the older person to enhance the knowledge and skills of nurses working in residential aged care facilities. As part of this educational initiative, we wanted to understand the perceived barriers and enablers to the use of these health assessment skills post-education in the aged care facilities in which the nurses were employed. This paper reports on the perceived barriers and enablers to conducting health assessment as recounted by workshop participants six weeks after they completed the education and training program. The evaluation had ethics committee approval (University FHEC 11/29).

METHOD

The educational program entailed the delivery of 20 workshops to nurses across the state of Victoria, Australia. Each workshop comprised four consecutive days of education and training. A fifth day, six weeks after the completion of each of the workshops, provided an opportunity to collect feedback on nurses' implementation of the assessment skills learned in their workplace. The education and training workshops were advertised to nurses working in residential aged care facilities through local health service networks and offered at no cost to participants. Nurses either self-selected, or were delegated by their managers to attend the education. Workshops took place in a range of health care and non-health care venues and were delivered by an experienced nurse educator.

Weber and Kelley (2007) describe the following four types of assessment: initial comprehensive assessment; ongoing or partial assessment; focused or problem-oriented assessment; and emergency assessment. The workshops taught participants how to conduct assessments with older people so they had at their disposal a full 'tool box' of skills for each of the above contexts as the situation required. The workshop program included the following components:

- Communication and assessment within a person centred and interdisciplinary care framework.
- Clinical reasoning and data collection techniques, organisation of data and the role of assessment in planning care.
- Ethical, legal and professional considerations such as documentation, informed consent and confidentiality.
- Psychosocial assessment including sleep and sexuality.
- Assessment of the integument (skin, hair, nails), abdomen, oral cavity and assessment for dehydration, constipation, malnutrition, urinary tract infection and changes in blood glucose.
- Cardiovascular and respiratory assessment.
- Musculoskeletal assessment and assessment of cognition including mental status, sensation, coordination, reflexes, pain and the senses.

The education and training focused on clinical practice and where relevant, an overview of anatomy and physiology was provided. Normal age related changes were highlighted throughout and examples of how

to document assessment findings were provided. The content was delivered using a variety of paired and group based activities in addition to didactic delivery. Simulation mannequins and other health assessment equipment were provided and participants were given a detailed education resource folder containing the content covered.

Six weeks after the workshops, participants reconvened to provide feedback on any issues related to the implementation and sustainability of assessment practices taught in the workshop in their work place. Participants were asked by one of the researchers to identify and record on 'butchers paper' the factors which they believed impeded (barriers) and aided (enablers) their ability and capacity to conduct health assessments with older people in their aged care facility during the preceding six week period. To encourage participants to honestly share their work place experiences, data pertaining to their role, or employer was not collected. This was completed as an individual activity and each group of participants was then asked to verbally share their responses with the rest of the group for discussion. At the end of each workshop, the researchers collected participants' written responses. These were subsequently collated and subject to content analysis with a low level of abstraction to identify barriers, enablers, and frequency of occurrence across all groups. The research team met to discuss and confirm the identified issues.

FINDINGS

A total of 345 participants attended the four day health assessment workshop program and 315 of these attended the post workshop implementation feedback session on Day 5. The median age of all participants was 50 years, which is close to the average age of nurses working in the residential aged care sector (Mavromaras et al 2017), and 92% of participants were female. Sixty seven percent of participants were RNs and 31% were ENs. Six of the participants (2%) identified as allied health professionals. The majority of workshop participants (61%) had previously not had any formal training in the range of health assessment skills covered in the workshop. More RNs (42%) reported having been taught health assessment prior to the workshop than ENs (31%). The data analysed was grouped into 'barriers' and 'enablers' as follows.

Perceived barriers to conducting health assessments

Ninety two percent of participants listed at least one barrier to conducting health assessments in their workplace (n= 290/315). A total of fourteen barriers were cited (table 1). The most frequently cited barriers were: time (78%); the resident's condition that is, their ill-health, frailty, cognitive impairment and lack of cooperation (41%); and the lack of appropriate equipment (33%). Other reported obstacles were: the negative attitudes of the staff (16%); a shortage of staff trained and educated in health assessment (15%); staffing issues, including staffing levels and skills mix (13%); a lack of support for doing a health assessment from more senior staff and management (9%) and 'heavy' staff workloads (9%). Verbal comments by participants indicated that they were generally more aware of barriers to conducting assessments since completing the workshop and incorporating what they had learned into their clinical roles.

Table 1: Perceived barriers to implementing health assessment

Barrier	% of participants identifying as a barrier	n (multiple responses)
Time	78	225
The resident's condition	41	119
Lack of appropriate equipment	33	96
Negative attitudes of staff	16	46
Staff untrained and uneducated in health assessment	15	44
Staffing levels and skills mix	13	39
Existing workload	9	26
Lack of support from senior staff/management	9	25
Lack of experience and confidence	7	20
A lack of assessment tools and documentation systems	5	15
Lack of opportunity	4	13
Lack of funding	3	8
General Medical Practitioner	2	6
Resident's family	1	3

Perceived enablers to conducting health assessments

Only 30% of participants identified enablers to conducting health assessments (n= 93/315). Eight enablers to conducting health assessment were identified (table 2). The most frequently cited enablers to the implementation of health assessment were: managerial support (38%); having a knowledgeable, educated and skilled workforce (29%); having the right equipment (22%); positive attitudes of the staff (17%) and the resident's condition and degree of co-operation (16%).

Table 2: Perceived enablers to the implementation of comprehensive health assessment

Enablers	% of participants identifying as an enabler	n (multiple responses)
Support from management	38	35
Staff educated, skilled, knowledgeable in health assessment	29	27
Equipment	22	20
Positive staff attitudes	17	16
Resident's cooperation and condition	16	15
Confidence	13	12
Resourcing	10	9
Time	6	6

DISCUSSION

Aged care nurses need to be adequately prepared to meet the complex care needs of older people, many of whom are increasingly frail and at risk of adverse outcomes including, delirium, falls and disability (Clegg et al 2013). The health assessment of the older person workshops provided the knowledge and set of skills for aged care nurses to apply in their workplaces to meet the care needs of older people. While all participants

saw assessment as a core component of their role and as essential in gathering data to inform care planning and referral to other disciplines, they highlighted far more barriers than enablers to implementation in practice. This suggests that there is considerable scope for increasing the opportunity and actual practice of nursing assessment in residential aged care. Although support and commitment to the use of assessment skills was widely expressed, there are a number of challenges which need to be addressed in order for assessments to become more embedded in the everyday practice of nurses working in aged care.

The biggest obstacle to conducting health assessments as perceived by aged care nurses is the lack of time within the current work practices of residential aged care services. Lack of time for the delivery of optimal care is a frequently reported nursing issue which has been noted to be a major constraint to the conduct of health assessments by nurses for well over a decade (Douglas et al 2014; Giddens 2007). Because workloads, staffing levels and skills mix patterns were not explored in our study, it is unclear how, or whether, these might be implicated in time being reported as a barrier. Further work around restructuring and modifying some of these factors and how these could better facilitate the incorporation of more comprehensive assessments into the clinical role may be warranted.

Many participants perceived an older person's physical and mental condition as a barrier to performing an assessment even though frailty, ill-health and dementia are the primary reasons for admission into residential aged care (Australian Institute of Health and Welfare (AIHW) 2014) and a further deterioration in health over time (potentiating the need for further assessments) is likely. The identification of time and a resident's health status as factors which determine whether an assessment is carried out, does suggest that conflicting activities may be challenging nurses to adequately meet the care needs of residents who have a cognitive impairment, communication problems and/or a limited ability to participate (or cooperate) with care. The literature does indicate that aged care nursing and caring for people with dementia places high demands on nurses' emotional well-being and professional role (Chenoweth et al 2010), which may go some way to explain the time pressures which nurses have noted. This further underscores the importance of both organisational and managerial support for nurses.

It also highlights the importance of experience and confidence in conducting health assessments as raised by a number of workshop participants and reinforces the view of Carusone et al (2006) and Laging et al (2015), that nurses often do not have sufficient confidence in their own clinical skills and judgement. Laging et al have noted that although nurses may have a high level of clinical competence, their lack of confidence in their own clinical decisions impairs the quality and detail of information that is conveyed to medical practitioners. Developing sound assessment skills is critical for nurses so they are able to recognise and report the early deterioration of residents, particularly those who have more 'complex' needs.

The attitudes of facility staff towards carrying out assessments, adequate education and training in assessment techniques, the availability of appropriate equipment and the support of supervisors and the organisation, were all identified as both barriers and enablers to performing assessments in residential aged care. Peer and organisational support have long been noted to be crucial elements of nurses' job satisfaction (Lua et al 2012). Interestingly, the lack of support from colleagues, senior staff and employer was identified as a barrier to the use of assessment skills by 18% of Australian nurses in a survey of health/care services over 25 years ago (Reaby 1990). More recent literature still points to an absence of visible role models for the conduct of health assessment in most areas of nursing (Zambas 2010).

Assessments cannot be comprehensive or thorough without the availability of appropriate equipment, such as quality stethoscopes, otoscopes and pulse oximeters. Workshop discussions indicated that not all residential aged care facilities had the appropriate equipment, or facilities had the equipment, but staff were unable

to easily access it. These items while essential are however also relatively inexpensive and an investment in the provision of quality care.

Given the median age of workshop participants was fifty years, it is not unexpected that the majority of participants had not received any previous formal training in the full range of assessment skills in their nursing education. In particular examination techniques such as auscultation, palpation and percussion and the use of equipment such as stethoscopes and otoscopes had not been taught. This gap in education and training highlights the need to cultivate a milieu in aged care which promotes and reinforces the widespread use of assessment skills and the importance of enabling nurses to confidently initiate and perform assessments on residents. This is even more imperative in view of the fact that nurses have been reported to use only a subset of their skills in clinical practice (Birks et al 2013); a conclusion which is supported by the findings of this project.

Taking into consideration a person's bio-psycho-social and spiritual needs is the hallmark of holistic care. When assessments are not comprehensive care delivery can become fragmented and suboptimal (West 2006). As Lesa and Dixon (2007) have also noted, when nurses lack the capacity to conduct assessments there is more likely to be a reliance on medical practitioners. In the context of residential aged care facilities this can be problematic as most aged care facilities are reliant on general practitioners (GPs) who are usually working in private practice and therefore are not always immediately available on-site to assess residents (Shanley et al 2011). Timely assessment is important as early detection of condition changes is important to prevent deterioration (Ellis 2011) and potentially allay admission to hospital. It is increasingly important therefore, that nurses working in this setting are confident and competent to carry out timely assessments on residents who are suspected of being unwell.

Laging et al (2015) found that the ability of staff to appropriately assess residents was reduced by onerous workloads and a limited skill base. Delays in assessment were linked to a delayed recognition of deterioration and an increased likelihood of subsequent transfer to hospital. Greater use of assessment skills, documenting findings and developing care plans based on this information, could further develop nurses' confidence performing an assessment with residents.

All Australian residential aged care facilities are co-funded by the Australian Government and resident contributions. The amount of Government funding each resident attracts is based on a care needs assessment conducted on admission and thereafter annually, or if there is a substantial change in the level of care required. This care needs assessment is guided by the Aged Care Funding Instrument (ACFI) which involves assessment of functional domains such as nutrition, mobility, continence, vision and hearing as well as psychosocial and emotional needs. The instrument also includes reporting of specialist nursing needs such as complex wound care and palliative care. The ACFI is designed to identify functional deficits and care needs and as such does not always prompt a corresponding physical assessment. For example a hearing deficit may be identified, but there is no ACFI prompt to conduct a physical examination of the ears. There is therefore a risk that the requirement to complete ACFI assessments may drive the level of assessment, rather than a comprehensive health assessment being conducted which will in turn inform the ACFI.

Although the ACFI was not cited by participants as a barrier to health assessment, it was raised by workshop participants in general discussion as they were concerned that conducting assessments would duplicate work undertaken order to complete the ACFI. Interestingly some participants were under the impression that completion of the ACFI constituted a comprehensive health assessment. Discussion regarding the definition of a comprehensive health assessment and the knowledge gained through the workshop demonstrated to participants that a comprehensive assessment provides more in-depth information and that the information

required by ACFI can easily be extracted from the findings of a comprehensive health assessment. We would suggest that residential aged care services review their current work practices to explore whether, or how any existing assessments could replace or complement other existing assessments rather than add to them, especially with respect to the completion of the ACFI.

CONCLUSION

This paper reports on the factors which nurses perceive to enable and/or impede the conduct of assessments in residential aged care facilities. Multiple issues which impact on the full use of the assessment skills of nurses from aged care facilities were identified and these raise a number of issues about the preparedness and capacity of nurses to provide appropriate care to older people. Nurses in aged care are increasingly required to care for older people with complex health and care needs. The increased responsibility which this increasing acuity demands, has made the use of assessment skills by nurses even more vital. Nurses need to have adequate assessment skills and be able to implement these skills to recognise residents' health problems sooner and possibly avoid admission to hospital. Comprehensive assessments also improve the quality and meaningfulness of information being communicated to medical practitioners and other health professionals (Baid et al 2009; Odell et al 2009). The most important enabler to leverage and drive such practice change is organisational and managerial support. The issues raised by this project are arguably relevant to all residential aged care service providers and where on-site medical care is more reliant on visiting medical practitioners.

STRENGTHS AND LIMITATIONS

The views reported on in this paper are unique to the 315 registered and enrolled nurses who had completed the nursing assessment of the older person education/training program. As such it cannot be said that their views represent those of other nurses who carry out health assessments in residential aged care facilities. We believe the reporting to have been honest and the consistency of views shared by participants give the reported findings credibility. We are also aware that while many of the barriers and enablers may seem obvious to anyone; we have been able to provide evidence by asking a sizeable sample of nurses for their perceptions.

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Exploring the experiences of internationally and locally qualified nurses working in a culturally diverse environment

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KEY WORDS

Internationally qualified nurses, diversity management, workforce

ABSTRACT

Objective

This article explores the support needs, attitudes and experiences of both internationally and locally qualified nurses working within a culturally diverse environment.

Design

Open and closed survey questions.

Setting

Hospital in Sydney, Australia.

Subjects

108 nurses were surveyed, representing 14% of the nursing staff at the hospital.

Main outcome measure(s)

The research project measured the experiences encountered by internationally qualified nurses (IQNs) in relation to language use, discrimination, culture and differing health systems. It provided a forum to discuss how their cultural background, professional background and linguistic skills affect interactions with patients and other staff. It also explored suggestions for improvement in cross-cultural relations between staff, and support for IQNs and their peers in a diverse staff environment.

Results

Although IQNs feel they are adjusting well to their role, locally qualified nurses largely disagree. Staff were aware of discrimination from patients towards staff, and from other staff towards staff. The research revealed that IQNs are unsure when to use their language skills, have different approaches to nursing and expectations of the staff-patient/family relationship.

Conclusion

Adjustment to the Australian healthcare system for IQNs is challenging. There are a number of strategies that can support both IQNs in their integration, as well as all nurses to work more effectively together in a cross-cultural work environment.

INTRODUCTION

Hospitals are culturally diverse environments due to the cultural diversity of the Australian population and the recruitment of internationally qualified health professionals. The proportion of the population born overseas has increased from 2011 to 2016 in Australia from 25% to 26% (ABS 2016a), and in New South Wales (NSW) from 26% to 28% (ABS 2016b). Internationally Qualified Nurses (IQNs) are routinely recruited from overseas to assist with shortages in Australian hospitals (Health Workforce Australia 2012). As a result, the percentage of overseas born nurses has increased in Australia from 25% in 2001 to 33% in 2011 (ABS 2013). In 2016, the percentage rose to 38% (Australian Government 2016). 'Overseas born' is defined as those who have gained qualifications overseas and then migrated as well as those who have migrated then gained qualifications in Australia. The countries of origin of the nurses have also changed, with an increase in those from non-English speaking countries (NESC) (ibid; Ohr et al 2010).

Australian and NSW multicultural policies acknowledge the importance of language and intercultural skills of culturally diverse staff in working with clients from culturally and linguistically diverse (CALD) backgrounds (NSW Health 2017; Multicultural NSW 2016; NHMRC 2005). Nursing literature also highlights the importance of these skills (Jeon and Chenoweth 2007; Gerrish and Griffith 2004; Omeri and Atkins 2002; Dreachslin et al 2000). Studies demonstrate that expanding the cultural diversity of health professionals increases effective communication, satisfaction and access to culturally competent health care for patients from CALD backgrounds (Institute of Medicine 2004; Stevens et al 2003; Hawthorne et al 2000; Snowden et al 1995).

While IQNs bring valuable skills to their role, they also face challenges due to language issues, differing approaches towards patient care, unfamiliarity with the health system and culture shock (Ohr et al 2017; Brunero 2009; NSW Government 2008; Konno 2006; Smith et al 2006; Eisenbruch 2001; Wallace et al 1996). Research has also highlighted areas of perceived discrimination for IQNs and nurses from CALD backgrounds (Trenerry et al 2010; Omeri 2006; Blackford and Street 2002). In response to this, resources and programs have been developed to assist overseas trained staff in their transition (NSW Department of Health 2010; Brunero 2009; NSW Government 2008) and some have been evaluated (Chun Tie et al 2018; Ohr et al 2017).

Diversity management involves instilling an organisational culture where diversity is positively acknowledged and valued (Prasad and Mills 1997). In order to instil this culture, structural support is needed beyond just fulfilling Equal Employment Opportunity principles (Chun Tie et al 2018; Hudelson 2004; Bloor 1999). Managing diversity is defined as "planning and implementing organisational systems and practices to manage people so that the potential advantages of diversity are maximised while its potential disadvantages are minimised" (Cox 1993, p11). This literature discusses the organisational benefits when staff have the skills to work with staff and clients from CALD backgrounds (Weech-Maldonado et al 2002). Despite the benefits, there has been limited research and program development on diversity management in the United States of America (USA) and Australia (Klinken Whelan et al 2008; Dreachslin et al 2004; Weech-Maldonado et al 2002).

At a hospital in Sydney, the Diversity Health Coordinator (DHC) received feedback from the nursing department and culturally diverse staff that there was a need to assess whether internationally qualified and CALD nurses felt sufficiently supported. The DHC then conducted key informant discussions with nursing managers and IQNs to assess the situation. This raised a number of support issues for internationally qualified and locally qualified nurses, as well as for the organisation. Nursing managers were often unprepared upon IQN arrival, and IQNs themselves lacked information about their placement. While other hospitals in the area had been employing IQNs for some time including those from NESCs, at this hospital more IQNs were coming from NESCs than previously and it was not fully prepared for their needs.

Nursing managers were also concerned about the quality of the bridging courses for IQNs. There were also reports of different caring practices such as some nurses expecting to provide more clinical rather than personal care, as this was usually managed by family in their home country. Anecdotal reports were also provided about some nurses expressing different cultural views about death and dying such as letting elderly patients die with dignity rather than prolonging their lives artificially. There were also instances where the hierarchical social class structure in the home country, such as the caste system between nurses originally from India, was impacting on the allocation of nursing tasks. There were also concerns about the exclusion of other staff members when bilingual staff used their home language with peers during communal breaks.

These concerns highlighted the need to initiate a research project to explore the experiences of all nurses working within an increasingly diverse environment. While previous international research has examined the experiences of IQNs (Omeri 2006; Blackford and Street 2002), this research examined the views of *both* internationally qualified and locally qualified nurses as these often conflicting workplace practices appeared to be impacting on both groups. It was anticipated that gaining a full understanding of each perspective would inform recommendations that would benefit all nurses. In particular, it aimed to: explore IQNs experiences in terms of language use, culture and differing health system experiences; explore how all staff experience the diverse staff environment; provide a forum for staff to provide feedback on IQN orientation; explore suggestions for improvement in cross-cultural relations; and recommend support for IQNs and their peers.

METHODS

In 2012, a steering committee was established to guide the objectives of the project. The committee consisted of representatives from Diversity Health, Education & Training, Human Resources, Employee Assistance Program, Nursing and Multicultural Health Service. After attempts to conduct focus groups with nurses were unsuccessful, an anonymous semi-structured survey entitled “Working in a Culturally Diverse Staff Environment” was developed based on the aims of the project and distributed to all nursing staff in March 2014. Ethics approval was also gained from the local health service ethics committee. With the support of the nurse unit managers, 602 survey packages were delivered to various hospital wards.

FINDINGS

Of the 602 surveys distributed, 108 surveys were returned indicating a response rate of 18% (14% of the nursing pool of 786). The surveys were then analysed to reveal trends. Although the survey consisted of quantitative and qualitative items, the information was mainly analysed in a qualitative way according to patterns in the research (Liamputtong Rice and Ezzy 1999) due to small numbers in some respondent groups.

Clear trends emerged in the data that allowed for division of the respondents into two distinct groups: English speaking background (ESB) respondents and non-English speaking background (NESB) respondents. The ESB group consisted of i) Australian born nurses and ii) nurses born overseas in English speaking countries (ESC) who were qualified in Australia or in other ESCs. The NESB group consisted of nurses who were i) born in a NESC and Australian qualified, ii) born and qualified in a NESC and iii) an unidentified group that did not indicate where they were born or qualified. The unidentified group showed the same trends as the NESB groups therefore it was integrated into this group. Thus, the ESB group consisted of 79 respondents (73%) and the NESB group of 29 respondents (27%) (see figure 1).

The survey responses were analysed and grouped into categories according to patterns in the research. Themes included acceptance, level of discrimination, use of second language, approaches to caring and social adjustment.

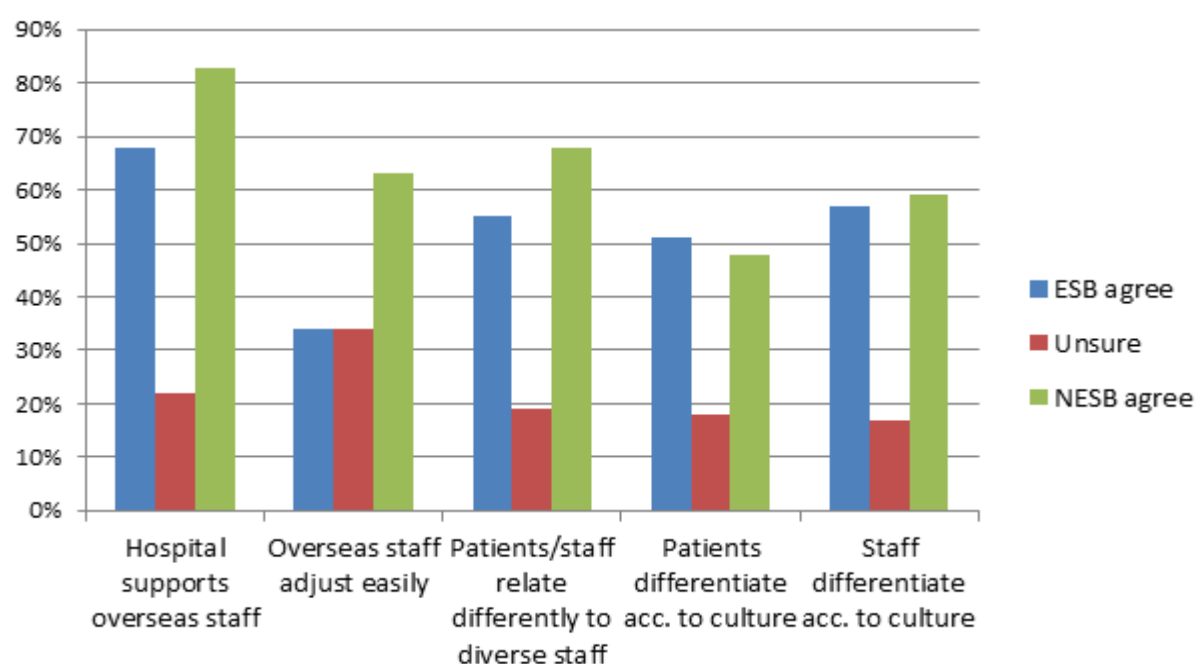
Figure 1: Groups and subgroups of respondents

Groups	Subgroups	Respondents
ESB respondents (73%)	Australian born nurses	63%
	Nurses born overseas in an ESC and qualified in Australia or overseas in ESC	10%
NESB respondents (27%)	Nurses born in NESB and Australian qualified	13%
	Nurses born and qualified in NESB	11%
	Unidentified nurses	3%

Acceptance of culturally diverse staff

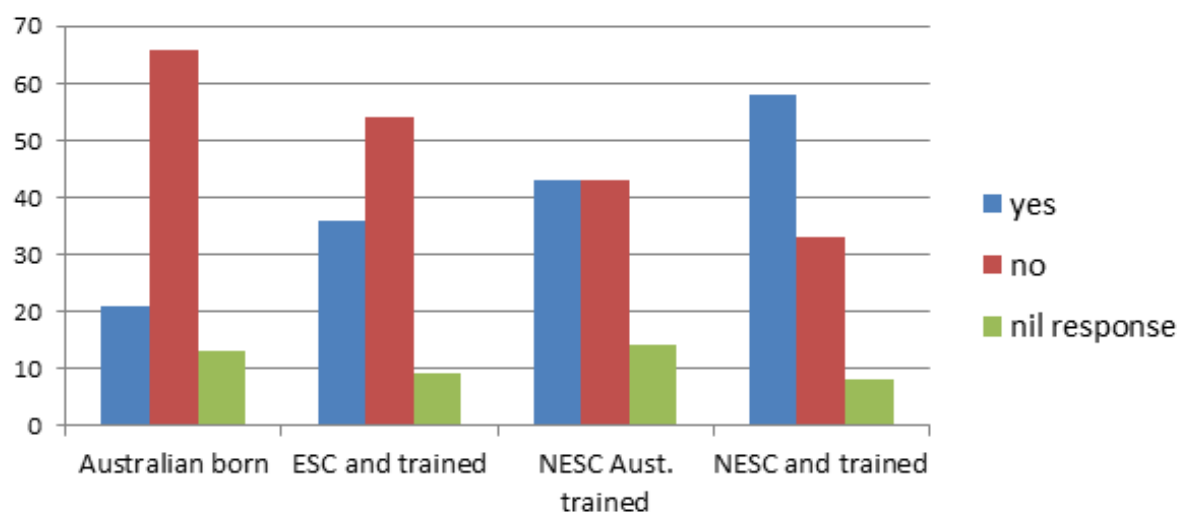
Most staff reported the workplace was supportive of IQNs. Of all the staff, it was the NESB staff that felt the hospital was the most supportive. NESB staff also felt they adjusted more easily to the workplace than their ESB colleagues felt they did.

Staff were also asked whether staff and patients relate differently to culturally diverse staff. The majority of respondents agreed that staff and patients do relate differently, with NESB nurses more likely to report this than ESB staff. Slightly more ESB staff reported *patients* related differently to the cultural background of staff, and more NESB reported *staff* related differently to the cultural background of staff. The trend of relating differently was observed more for staff than patients. Figure 2 outlines this data.

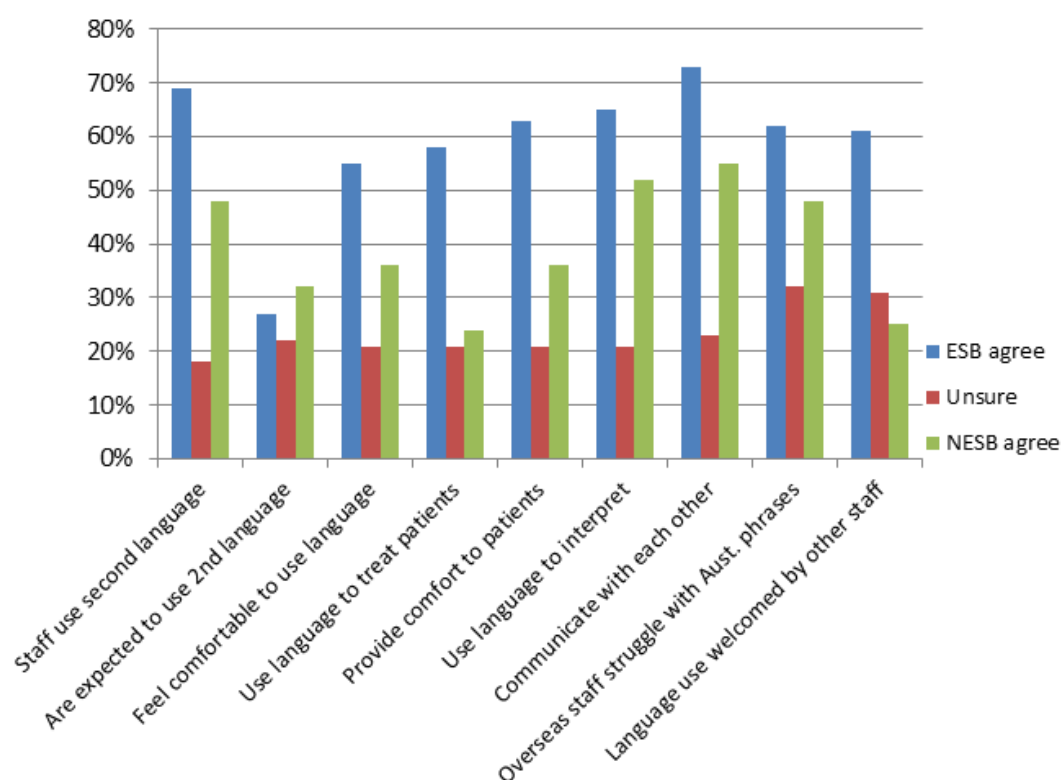
Figure 2: Agreement with statements regarding acceptance of culturally diverse staff**Level of discrimination**

Overall, 30% of all respondents felt there was discrimination in relation to the cultural background of staff. Perceptions of discrimination differed with only 23% of ESB staff agreeing there was discrimination compared to 50% of NESB staff. Figure 3 outlines subgroup perceptions about discrimination.

Responses were similar across both NESB and ESB groups with regard to the most common areas of discrimination, which included 'being left out of discussions' followed by 'workload allocation', 'being given responsibility' and 'opportunities for career development'.

Figure 3: Agreement discrimination exists according to staff cultural background**Use of second language in the workplace**

Perceptions of how language is used in the workplace, and when it is appropriate to use it, varied across groups. A number of questions in the survey were used to better understand the use of a second language both amongst staff and with patients. Figure 4 sets out the different perceptions of how languages were used.

Figure 4: Agreement with statements regarding use of second language in workplace

NESB staff were half as likely as ESB staff to report that a second language was welcomed by patients. In fact, a number of NESB born and qualified staff strongly disagreed that patients and families welcomed a second language. NESB staff reported that they struggled much less with Australian phrases and sayings than ESB staff believed they did.

The majority of NESB and ESB groups agreed that bilingual staff were not expected to use their language. ESB staff believed bilingual staff used, and were comfortable to use, their second language at work more than NESB staff. In fact, many NESB staff reported feeling uncomfortable using their second language.

There were also differences in the perceptions of when bilingual staff used their second language. While ESB staff mostly reported it occurred to treat and provide comfort to patients, most NESB staff disagreed. ESB staff mostly agreed that bilingual staff use their language to communicate with each other, while NESB staff were divided. Both ESB and NESB groups mostly agreed that bilingual staff use their second language to interpret for other staff, despite less than 20% of all staff agreeing that this was appropriate.

Comments provided about when staff thought it was appropriate to use another language indicated a degree of confusion. There were also differing opinions about the desirability of using a second language in the workplace. ESB staff felt that the most appropriate use of a second language was in patient focused situations, while NESB staff felt it was on break time and to communicate with other staff. Interestingly ESB staff felt this was the most inappropriate use of a second language. The most common inappropriate use of language reported by NESB staff was in the workplace, including the ward and nurses' station. Both groups recognised that it was inappropriate to use a second language in front of non-bilingual staff.

Approaches to caring

ESB staff were evenly divided in their opinion of whether or not nursing practices differ between Australian and IQNs. NESB staff however, were less likely to identify differences. Australian born staff and those who were ESC born and trained identified a number of areas in which those differences occurred. The areas of most difference identified by Australian born staff were 'personal care of patients', 'relationships between staff and their patients/families', and 'expectations of how patients/families should behave'. NESB born and trained staff identified fewer areas of care where there were differences. In contrast to ESB staff, no NESB born and qualified staff identified differences in personal care and relationships between staff and their patients/families. This indicates a significant disparity between the observations of the two groups. The area identified most by NESB staff was 'expectations of how patients/families and their visitors should behave'. No NESB staff identified that there were differences in approaches to care in the areas of mental health, end of life or medication and pain management. Interestingly NESB Australian trained staff had similar perceptions as Australian born staff in all areas except with regard to end of life care, where they were more likely to identify different approaches to care.

Social adjustment and support

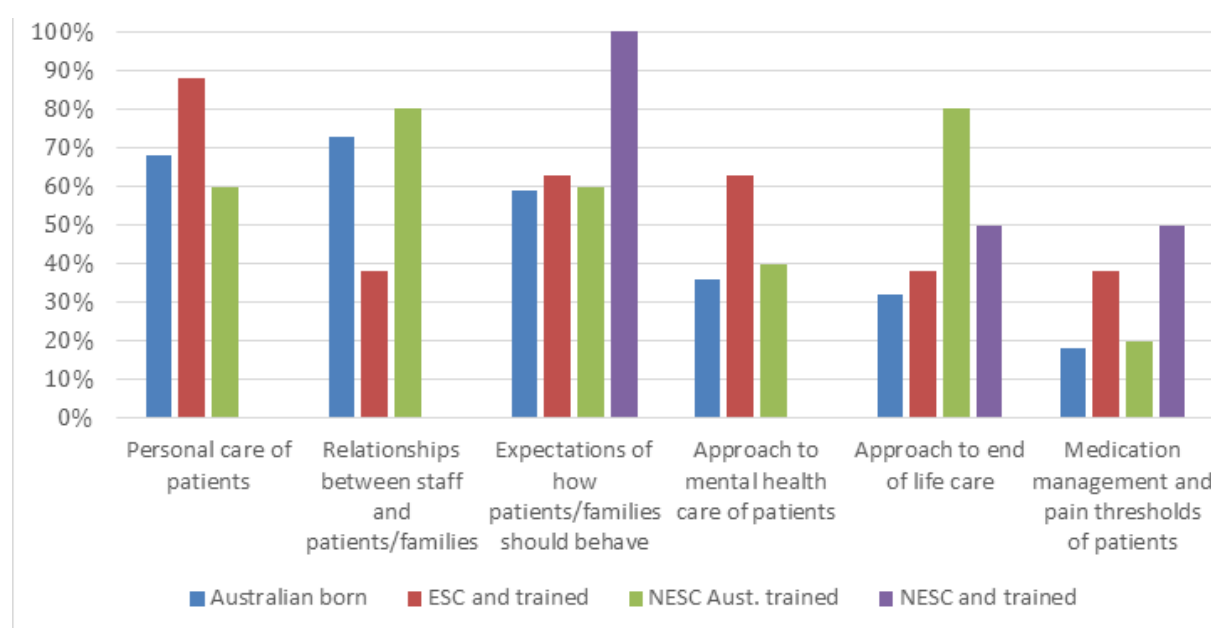
Respondents were asked to comment on the adjustment of IQNs to working in the Australian health care system and what support could be provided. The issues identified by ESB staff included adjustment to nursing roles in Australia, their expectations and understanding of practices, acknowledgement of difficulty, social hierarchy back home impacting on work behaviour and the need for support and supervision. Assistance identified by NESB staff included support from management and nurse educators, more orientation to the Australian nursing system, guidance on acceptable behaviour, and allowing time to adjust.

There were similar suggestions from all respondents to support newly arrived IQNs including how to understand Australian cultural norms, colloquialisms and the healthcare system. ESB staff were more likely to identify

'understanding Australian medical terminology and jargon' as an issue than NESB staff. This may indicate that NESB staff are not aware of the gaps that exist in this area.

The most common recommendations across both groups to what would assist *all* staff working in a culturally diverse environment were 'mentoring/buddy system', 'team building activities', and 'workshops for all staff on working cross-culturally in the workplace'.

Figure 5: Areas in which different approaches to care were identified



DISCUSSION

The findings raised issues in relation to cross-cultural staff relations, communication skills, use of a second language, different ways of caring and social adjustment and induction.

Cross-cultural staff relations

Overall staff were supportive of IQNs, with more NESB than ESB staff feeling the hospital was supportive and that IQNs adjusted easily. The results indicated that the cultural background of staff does impact on staff relations and those with patients. Differences mainly felt by NESB staff indicated that they are quite aware that some staff are treated more positively than others.

Discrimination was perceived by all groups and more so for NESB. Overall, 30% of all respondents felt there was discrimination in relation to the cultural background of staff from both staff and patients. This rate was higher than the NSW Health 2015 survey which indicated 15% of staff have experienced discrimination by a patient, colleague or manager (NSW Government 2015).

Research has also highlighted areas of perceived discrimination for nurses from CALD backgrounds (Trenerry et al 2010; Blackford and Street 2002). Studies in Australia (Omeri 2006; Hawthorne 2001), the United Kingdom (Smith et al 2006; Gerrish and Griffith 2004; Allen and Larsen 2003; Ward 1993), Canada (Turritin et al 2002) and the USA (Dreaschlin 2000) indicate that IQNs have perceived discrimination from other staff as well as patients. This may be under reported as staff may be reluctant to discuss this with their superiors as they are afraid of negative repercussions to their employment (Jenkins and Huntington 2015) and may not fully understand their rights.

The areas of perceived discrimination mainly concerned opportunities for promotion, responsibility and work load. This is consistent with other research conducted with IQNs (Jenkins and Huntington 2015; Tregunno et al 2009; Kingma 2008; Larsen 2007; Alexis et al 2006; Culley and Mayor 2001). Deegan and Simkin (2010) discuss IQNs feeling they lack autonomy and support by other nurses on the basis of their ethnicity or background. However, senior staff were reluctant to advance IQNs due to a lack of familiarity, awareness of certain clinical tasks and concerns about safety. Other research indicates that management may be hesitant to promote IQNs as they are not permanent staff (Gerrish and Griffith 2004). This highlights the need for proper training, support and supervision in clinical nursing areas in which they are unfamiliar.

The psychological impact of discrimination on IQNs as effecting the quality of patient care has also been discussed in the literature (Deegan and Simkin 2010; Kingma 2008; Xu and Kim 2008; Omeri 2006;). This highlights the need for NESB staff and local staff to debrief, receive support and for cross-cultural relations to be enhanced (Deegan and Simkin 2010). All categories of staff in this research indicated that cross-cultural workshops and team building activities would be helpful. This approach has also been supported in the diversity management literature (Alexis et al 2007; Whelan et al 2005; Weech-Maldonado et al 2002; Dreachlin 1999) and nursing research (Chun Tie et al 2018; Ohr et al 2017; Brunero 2009). Other noted activities include conducting staff surveys to measure discrimination (NSW Health 2009; NSW Government 2008; Dreachlin 1999) and compare this by cultural background (Weech-Maldonado et al 2002). Staff should also be informed about anti-bullying policies and procedures (Nursing and Midwifery Board 2015), and those in leadership roles trained in how to identify and manage discrimination appropriately.

Use of second language

Perceptions varied across groups of when and how to use a language other than English (LOTE), reflecting a lack of clarity in the NSW Health policy (NSW Health 2017). Policies indicate staff can use a LOTE in direct patient care but they do not specify what level of proficiency is needed or in what situations.

Our research indicated that NESB staff did not feel comfortable using their first language in the workplace. They reported they used it much less frequently than ESB staff thought they did. NESB staff were also half as likely as ESB staff to report that their native language was welcomed by patients. The fact that few bilingual respondents spoke a LOTE that is commonly present in the patient population may have been a factor in these responses.

ESB staff felt it was inappropriate for NESB staff to communicate in their shared language with other NESB staff. NESB staff however thought this was appropriate, indicating a need to explore and clarify this issue further with staff. Policy for IQNs states "If you speak a language other than English you may find you can use this skill in the course of your work" but does not clarify in which contexts (NSW Health 2010, p19). Approaches to this issue have generally included the need to respect the Code of Conduct and respect fellow workers (Nursing and Midwifery Board of Australia 2018).

The findings also indicate NESB staff often interpreted for other staff, despite this being contrary to policy (NSW Health 2017). This demonstrates the need for more clarity and discussion of bilingual staff use of a LOTE in the workplace, and when a professional interpreter should be used.

Communication Skills

NESB staff were less likely to report difficulty with Australian phrases and sayings than ESB staff. Most NESB born and trained staff who disagreed that they struggle with English language have lived in Australia for less than 10 years which may contribute to their inability to recognise difficulties. Likewise, NESB staff were less likely to identify 'understanding Australian medical terminology and jargon' as areas of support. These findings indicate that language support, particularly during the early period of settlement and adjustment, is

crucial. Various research and reports have highlighted the need to assist IQNs with communication skills in the area of colloquialisms, abbreviations, terminology and idiom to improve patient safety (Chun Tie et al 2018; O'Callaghan 2015; Deegan and Simkin 2010; NSW Department of Health 2010; Takeno 2010; Brunero et al 2008; Francis et al 2008; Jeon and Chenoweth 2007; Konno 2006; Weech-Maldonado et al 2002). "Nursing English" classes have also been recommended for IQNs across NSW which focus on pronunciation, intonation and functional language as well as face-to-face workshops to discuss cultural and language differences (Brunero 2009). While IQNs must pass strict English language requirements (Nursing and Midwifery Board of Australia 2015; Hawthorne 2012), they may still need assistance practicing these language skills in the fast-paced hospital environment.

Different approaches to caring

ESB staff reported differences in approaches to caring more than NESB staff, including 'personal care of patients' and 'relationships between staff and their patients/families'. In contrast no NESB born and trained staff identified differences in either of these two areas. This demonstrates that IQNs lack information about the different ways that nursing is provided in Australia and are not aware of the differences.

Other research has discussed different approaches to care for IQNs. For instance, Gerrish and Griffith (2004) discusses the difficulty that IQNs face due to different practices, and the time it takes to ensure practices are safe. In some countries nurses have more responsibility in giving injections and may not provide personal care (Francis et al 2008; Konno 2006).

The need for better orientation and induction into different care arrangements has been noted in research and reports (Chun Tie et al 2018; O'Callaghan 2015; Brunero 2009) and is an area that needs to be addressed nationally and institutionally (Brunero 2009; Eisenbruch 2001). Better understandings of care arrangements and standards would promote patient safety and may address areas of discrimination.

Social adjustment and induction

The findings indicated ESB staff perceive there are more difficulties and need of support for IQNs than NESB staff. Issues related to the impact of social standing overseas have been discussed in research conducted in rural Australia (Francis et al 2008) and were reported in our study. Staff coming from more hierarchical structures overseas may also be more fearful of authority in Australia (Chun Tie et al 2018; Gerrish and Griffith 2004). This highlights the need to explain more collaborative forms of communication in Australian health care systems between managers, staff and patients (Chun Tie et al 2018; O'Callaghan 2015).

While some literature has recommended a mentoring system to assist IQNs (Weech-Maldonado et al 2002), research has demonstrated that social support needs to occur in a sensitive way so that mentors are appropriately trained to support specific needs (Allan 2010; Brunero 2009; Konno 2006). The mentor would assist the IQNs to adjust as well as to assist other locally qualified staff understand their needs (Western Australia Government 2006; NSW Nurses and Midwives Association 2012).

The managing diversity nursing literature promotes an organisational culture where staff see diversity as a positive (Dreachslin et al 2004; Cope and Kalantzis 1997), and systems and services are in place to enable better induction for IQNs (Chun Tie et al 2018; Brunero 2008). Our research revealed NESB staff could be better supported and welcomed by staff. Other research has discussed how staff from diverse backgrounds bring a range of different experiences and skills, however locally trained staff did not find this knowledge useful (O'Callaghan 2015; Blackford and Street 2002). Resolving this situation would involve promoting diversity in the organisation (Weech-Maldonado et al 2002), ensuring adjustment and induction procedures for IQNs are in place and thereby create a supportive environment for all staff.

LIMITATIONS

Findings and recommendations presented here are based on survey results of voluntary participants from one hospital. This study used a relatively small sample size from the overall number of nursing staff. For these reasons, it is difficult to generalise findings as applicable to all nursing staff in hospitals. The survey design also meant that views could not be checked or explored in more detail. The original intention was to conduct focus groups with nurses so as to holistically understand the experience and the range of factors affecting their experience. While there was initial interest from IQNs to participate, this was not the case later on so an anonymous survey was designed. Recommendations may assist other health settings as well as further research on successful models of induction.

RECOMMENDATIONS

Based on the findings, the following recommendations are presented:

- Develop a webpage for IQNs to access prior to arrival which provides information about the hospitals, their location and Australian approaches to nursing care.
- Strengthen the peer mentor program to provide extra support to IQNs.
- Extend the orientation phase over a three-month period for IQNs.
- Implement an acculturation course for IQNs within three months of their commencement that explains Australian norms, nursing in Australia and communication issues.
- Deliver seminars for all nurses to promote awareness of differing models of nursing overseas.
- All staff to undertake cross cultural training and include guidelines on bilingual staff use of their LOTE.
- Promote awareness of anti-discrimination policies, programs and support.

CONCLUSION

The research revealed that NESB and ESB staff have different opinions of the experiences and support of IQNs. IQNs do not feel comfortable, are unsure when to use their language skills, have different approaches to nursing care and expectations of the staff-patient/family relationship. Although IQNs feel they are adjusting well into their role, ESB nurses largely disagree which likely indicates that IQNs cannot assess that with which they are not familiar. They are too new to have been exposed sufficiently to the Australian English language and the nuances of their role. There were some similarities in that most staff across all groups are aware of a level of discrimination from patients to staff, and staff to staff. Overall, a number of strategies can support IQNs in adjusting to nursing in Australia and all staff working together. Nursing leadership can also assist in developing an open non-discriminatory environment that supports rapid integration of IQNs. These recommendations support the need for policy and guideline development in managing diversity at organisational and national levels.

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Analysis of interviews to uncover the effects of nurse prescribing on the doctor-nurse relationship

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ABSTRACT

Objective

The introduction of nurse prescribing has had a profound effect on how patients obtain a prescription. Yet very little has been researched about the effects of nurse prescribing on the professional relationship between nurses and doctors since its introduction. It was this lack of enquiry that led to this research study to see if this relationship has changed since the introduction of the nurse prescriber.

Design methods

A purposeful sample approach was chosen, interviews were undertaken using a semi-structured method and interpretative phenomenological analysis was used to analyse the data.

Setting

A large teaching hospital in the north west of England.

Subjects

Four nurse prescribers and four doctors working in orthopaedics, breast surgery or urology looking after adult elective surgery patients.

Main outcomes

What emerged from this study is a complex pattern of readjustment within this relationship. The power once enjoyed by the medical profession is now challenged by the introduction of the nurse prescriber. A number of themes emerged around the topics of prescribing, relationship, educational and communication. Each help to focus how this change manifests itself in the relationship and how it needs to evolve if the maximum benefit from nurse prescribing is to be achieved.

Conclusions

What has emerged from this research is how complex the relationship between the nurse prescriber and doctor really is. The power to prescribe medication that was once the sole preserve of the medical profession is now shared with the nurse prescriber. But this shared authority remains unequal; the medical profession remains at least unwilling to give up its position of control just yet, but the dialogue has begun.

INTRODUCTION

A review of the literature on nurse prescribing would reveal a dichotomy of views, from support of nurse prescribing as a way to improve patients care to doctors viewing such a proposal as a step too far. Yet despite the medical professions opposition the UK government pushed forward with the proposals (DOH 2003; 2002; 2001; 2000; 1999a, 1999b). Having lost the initial argument the medical professions shifted its objections to questioning nurse prescribing in terms of its safety, its comparability and even if it was really necessary (Funnell et al 2014; Carey et al 2009, Watterson et al 2009; Bradley and Nolan 2007; Ladd 2005; Fisher and Vaughan-Cole 2003; Rodden 2001; Luker et al 1998). What has not been debated or discussed in any great depth is how the introduction of the nurse prescriber may affect the relationship between the nurse and the doctor.

METHODOLOGY

According to Dzurec and Abraham (1993) all forms of research develop from the human desire to understand and make sense of the world. In seeking the views of two professional groups (doctors and nurses) regarding the introduction of the nurse prescriber to elucidate this first-person experience, a phenomenological approach was chosen. Phenomenology is not only a philosophy, but also an approach and method for human science research (Heinonen 2015). Descriptive phenomenology by Husserl (1913/1983) emphasised the careful description of ordinary everyday life. While interpretive phenomenology by Heidegger (1927/1962) is about interpreting and understanding and not just describing the human experiences. Both approaches are concerned with the lived experience and the meaning of an experience through the identification of essential themes (Polit and Beck 2006).

The interpretative phenomenological analysis (IPA) approach by Smith et al (2009) was chosen. As Smith (2004) suggested the assumption of IPA is to learn something about the respondents' psychological world, such as the beliefs and constructs that have been manifested or suggested by what the respondents have said. IPA achieves this through purposive sampling, by finding a closely defined group for whom the posed research question will be significant. In this case the specificity of the sample group is doctors and nurses and the question is how the introduction of nurse prescribing has affected the relationship. According to Finlay and Ballinger (2006) IPA is a useful method when there is a need to obtain an in-depth appreciation of an issue, event or phenomenon of interest, in its natural real-life context. The level of detail undertaken by an IPA approach means very small numbers of cases can be used so the breadth of the study is sacrificed for a more in-depth one with the aim of revealing something of the experience of each of those individuals (Smith et al 2009).

A total of 10 participants (five nurses and five doctors) were identified and all worked within a hospital in the north west of England. All worked in surgery but within different speciality's and did not work directly with each other. According to Smith (2009) for an IPA study the maximum number of participants is 10, while the minimal number would be two participants. Due to clinical issues the number of participants eventually interviewed was eight – four nurses and four doctors. Analysis of the interviews revealed a number of themes such as, Prescribing, Relationship, Education and Communication.

FINDINGS

Prescribing

The nurse prescribers' role has evolved in response to the reduction in the number of junior doctors and an ever increasing demand from patients for treatment on the National Health Service (NHS). This shift in emphases is illustrated by these quotes:

"I feel that you are offering a more complete service as an advanced nurse practitioner (ANP) and the patients are getting their drugs in a more timely manner...especially as doctors are limited." Nurse B.

"because of the way staffing levels..in..medical specialities is now..... if you got somebody on the ward all the time like you guys (ANP`s).....that can prescribe it is far better thing." Doctor 2.

"I see them working alongside the team... because nurse prescribers are more regularly working with the team it's a very positive role.... and a more safer way in terms of patient care." Doctor 3.

These quotes reveal the benefits of nurse prescribing in terms of flexibility and continuity of care. Yet despite what appears to be a harmonious relationship there remains areas of conflict. These points of conflict appear to revolve around prescribing issues, and involve more than just doctors as illustrated in the following quotes:

"There were certain ones that they (management) wanted us to have, but we...basically rebuked them and said no thank-you." Nurse A.

"We were.... pushed you might say to try and prescribe more than we wanted too... but.. we won." Nurse B.

These two quotes display a certain level of pressure felt by these nurses to prescribe more medication. Nurse prescribers are governed by a myriad of competing and sometimes opposing forces. Nationally there is the Nursing and Midwifery Council (NMC) which regulates all registered nurses, it outlines very clearly what the nurse prescribers' responsibilities are, in relation to prescribing. However as a nurse prescriber you are also bound by the overarching legal legislation that governs all practitioners detailing what drugs a practitioner can legally prescribe. In either case a nurse breaching these rules faces a number of sanctions. For breaches of NMC rules a nurse could face suspension or being struck off the NMC register, while a breach of drug legislation may warrant imprisonment. This is not unique to nurse prescribers. A similar arrangement also covers doctors with their governing body the General Medical Council (GMC). However nurse prescribers also have two further layers to navigate, within the hospital environment. The first is the individual directorates who each interpret nurse prescribing differently. While overseeing the nurse prescribers is the hospital's non-medical prescribers committee (made up of consultants and senior pharmacist) that has both an oversight role as well as an administrative role for granting or amending drugs the nurse prescriber has access too. While it is important to have a certain level of oversight, the level and complexity of this oversight has led to a wide variation in interpretation, even within this single hospital. as demonstrated by the following two quotes:

"I developed the formulary...its really to do with urology and all around our role as urology nurses." Nurse C.

"They have given me a surgical formulary which is even more limited than the generic formulary." Nurse D.

While Nurse C's indicates that her formulary was a joint venture with her manager and so was considered fit for her role Nurse D's formulary was imposed by management which did not take into account her clinical role and so in her opinion left her with an inferior formulary. This was not the only issue identified, Nurse C's role incorporated both hospital and community settings. As a result Nurse C had numerous contact with doctors within the hospital as well as numerous general practitioners (GP). While Nurse C's working relationship in the hospital was deemed good, her relationship with the GPs was more difficult as seen in the following quote:

"one of our Consultants... as part of his practice includes prescribing initially Tadalafil 10mg twice weekly yet some GP`s have actually come back to us and complained that this is not recommended dose it should be PRN. However BAUS (British Association of Urological Surgeons) have recommended this treatment option as part of their post-operative recovery... but only for this procedure." Nurse C.

This raises an interesting point, as legally there is no difference between a nurse's or doctor's prescription. So why does the GP reject the nurses prescription? Could it be an assumption from the GP that the nurse

prescriber has made an error in prescribing this drug, hence why the GP has queried the prescription? This would explain the initial enquires from the GP's requesting clarification. However on further questioning Nurse C indicated that this happens a lot, which is both frustrating and annoying despite information being provided to the GPs in the discharge letter regarding the prescribing of this medication. It was also noted by Nurse C that when the prescription is re-presented with the consultants' signature the prescription is accepted by the GPs. Why this occurs is unclear, but it raises the possibility that it's the signature on the prescription that determines whether the GP queries the prescription. This idea of a difference between a nurse's and a doctor's prescription was explored within the research study. While the nurses interviewed made no mention of any differences, the doctors in the study did express their views:

"I think there are certain groups of prescriptions which should be limited... certain cancer medication... should not automatically be given to all nurse prescribers unless they are working in such roles as oncology and have been specifically trained then that's ok, but I think to give everyone all this training for all these specific needs may not be appropriate.. for the NHS." Doctor 1.

"I have not had any problems with nurses prescribing drugs as long as they are within their limits and capabilities....I am sure that the drugs that are allowed for nurses to prescribe should not include the whole formulary... but a restricted one." Doctor 3.

The above quotes demonstrates quite clearly the doctors dilemma of both acknowledging nurse prescribing merits, while still trying to control the nurse prescriber as articulated in these two quotes:

"supervised or at least been looked at by a senior medical person." Doctor 3.

"As long as it's suitably monitored." Doctor 4.

The implication here is that nurse prescribing needs to be monitored (presumably for patient safety). While the point has some merit could not the same argument be made for all prescribers? Medical staff do have an important role to play with regard to reviewing medication, however the primary reviewer of all medication within the hospital setting is the ward pharmacist. They function as a resource for all prescribers, supporting and monitoring all prescriptions regardless of who the prescriber is. Interestingly while some of the doctors interviewed suggested medical staff could act as monitors of nurse prescribers, only Doctor 2 mentioned pharmacy's role in this interesting quote:

"because everything is so heavily overseen by pharmacists its actual very rare that prescribers make.... that many mistakes." Doctor 2.

While this quote does not mention doctors for supervision, the implication is that pharmacists review all prescriptions. There is one further point to make about this quote by inference, Doctor 2 makes no distinction between the prescriptions of doctors and nurses. This led to the following quote from another doctor which also touched on parity between the two prescribers:

"We (doctors) prescribe an alpha blocker....if a nurse can prescribe an alpha blocker....then in the end who prescribes it...to me does not make a big deal of difference...as long as the protocols are followed." Doctor 4.

This quote offers a further dimension to the doctors views on nurse prescribers. In this doctors view who prescribes the medication is not important, it is how this decision is reached that is the important factor. While it is unclear if the protocol is to be used by either professionals or just the nurse prescriber, the prescribing decision is the primary concern. This concern regarding the correct decision was also mentioned by Doctor 2 in this quote:

“some..... junior doctors... tend to over prescribe antibiotics ... I think nurse prescribers are more willing to check about prescribing than the junior doctor and that makes it a safer practice.” Doctor 2.

This quote reveals two important points; the first is an acknowledgement that junior doctors tend to over prescribe antibiotics and secondly nurse prescribers do not over prescribe antibiotics. Doctor 2 offers a rather simplistic explanation for this discrepancy that a nurse prescriber is more willing to contact a senior doctor before prescribing an antibiotic than a junior doctor. What is not made clear by Doctor 2 is the reason why junior doctors are reluctant to seek senior advice before prescribing an antibiotic. One possible explanation is the dynamics of the junior-senior doctor relationship, they may not wish to appear unable to make a clinical decision in front of a senior doctor they may require a reference from at some point.

Relationship

What emerged from the interviews was a strong theme around the doctor-nurse prescriber relationship. A further theme revolved around the nurse prescriber and the ward nurses. What was also revealed from the analysis of the interviews and supported within the literature was how little mention was made of the patients' relationship with either prescriber except for passing references to improving patient flow or obtaining a prescription on time.

Doctor-nurse prescriber relationship

When discussing relationships the idea of an equitable division of labour was raised by Nurse A when she attempted to explain how this worked with the medical staff:

“I think they saw us taking the easy jobs leaving them more difficult prescribing issues.” Nurse A.

Nurse A's quote offers us the major objection from the medical profession that nurse prescribers take as quoted “the easy jobs” which by extension implies the doctors are left with the more complicated prescribing issues. This can be viewed negatively by the medical profession if it was wholly true. The reality however is much more complex and was highlighted by the following quote from nurse B as to a possible reason why the doctors get frustrated with nurse prescribers:

“I think the doctors are quite confused as to what we can and can't prescribe... because lots of ANP's ... have different formulary.” Nurse B.

While doctors maybe unfamiliar with the formularies a nurse prescriber may work from, this was not the only confusion to emerge from the transcripts as seen in this quote:

“their role is to principally ease the burden of the junior staff.” Doctor 4.

Doctor 4's quote shows that at least some doctors view the nurse prescribers' role in terms of easing the burden of the junior staff and not improving patient care. This idea of reducing the burden was also identified by some nurse prescribers:

“they're quite happy (the doctors) for me to prescribe as long as it's in the p-formulary.” Nurse C.*

(*p-formulary is a list of drug, either by name or classification including routes, that a nurse prescriber has access to for any patient within an agreed speciality.)

“the workload has been reduced as ANP's take on more roles...so by taking on this role we allow the junior staff more time to go to theatre to gain experience.” Nurse D.

These statements clearly indicated that nurse prescribers do not pick the easy jobs but in fact work to their formulary. The desire of nurse prescribers to take on more prescribing (so reducing the doctors workload), is balanced against the need of the doctors to maintain control.

Nurse prescriber and ward relationship

The relationship between the nurse prescribers and the ward nurses was (like the doctors) a rather mixed picture of both positive and negative elements. The biggest negative issue was the perception of the ward staff regarding the nurse prescribers' refusal to prescribe certain drugs, as seen in these quotes:

"They still seem to ask for drugs that we are not able to prescribe." Nurse B.

"They (the ward staff) can't keep a track on what drugs I can and can't prescribe....they just ask me to prescribe a patients TTH's." Nurse D.*

(*TTH- To Take Home medication on discharge).

The frequency with which this occurs suggest it cannot be down to just confusion alone, but a reflection of the wide variety of formularies this hospital has developed. But while this potentially could be a serious issue, the nurse prescribers also indicated the positive aspects of this relationship with the ward nurses, as seen in this quote:

"Nurse on the ward see us as a great help...someone who is there....to ask for...help." Nurse D.

Educational

Educational issues highlighted the mismatch between nurses and doctors when it comes to training. Nationally junior doctors have guaranteed time tabled educational sessions, and the nurse prescribers (who are undertaking a similar role) have not been offered similar opportunities as seen in this quote:

"Medical staff also have protected teaching time (when ward staff cannot bleep them)...we as nurse prescribers are not offered any such facilities yet we are carrying out tasks that were routinely the junior doctors jobs... without the necessary educational support. Even if we were offered say once a monththe opportunity to have some up-date on prescribing or pharmacology issues would be a good thing." Nurse D.

This clearly demonstrates that nurse education is neither guaranteed nor protected. This is despite the fact nurse prescribers have a national qualification and have the same responsibilities as their medical counterparts yet they are treated differently.

"We seem to have to jump through more hoops than medics do to prescribe certain drugs and whilst with some drugs I may understand that need. nurses have always been quite careful in how they prescribed maybe more so than medics." Nurse B.

Nurse B reveals an interesting point, that while she acknowledges a nurse prescriber may need further training to prescribe some medication, she wonders why this is not extended to the doctors as well. This idea of extra training was taken up by Doctor 2 in relation to previous comments regarding the prescribing antibiotics made this comment:

"Absolutely....I also think that some of the junior doctors...er, tend to over prescribe antibiotics." Doctor 2.

This idea of extra training for junior doctors was only supported by one of the doctors interviewed, but it did highlight again the gulf between the two professions. While the hospital made the nurse prescriber undergo compulsory training if they wanted to prescribe antibiotics, no such requirement was made of the junior doctors. Therefore it again reinforces the idea that the two professions prescribing are somehow different.

Communication issues

The analysis of the transcripts revealed a number of communication issues. Nurse A gives a great overview of the communication issue with this quote:

"There are a lot of variables, it depends on the person the lazy ones are quite happy for you to prescribe everything and then question why can't you prescribe more for them?... while the more efficient ones might like to prescribe their own medication so ask us not to prescribe anything for them." Nurse A.

Nurse A views on communication is very emotive, and somewhat simplistic but very revealing. Poor communication to her is a doctor who is not interested in what she can prescribe. As a result not only does she have to constantly justify her role she is also repeating what she can and cannot prescribe. Interestingly Nurse A also offers a view on what good communication looks like; it is a doctor that tells her directly that he will prescribe the medication. It is not clear if the medication prescribed by the doctor is medication Nurse A can or cannot prescribe but Nurse A certainly appreciates the doctor talking to her over prescribing matters. Interestingly Nurse B also had similar experience as seen in this quote:

"I think once you explain it to them some accept... what you are telling them. However....others are a bit... (sigh)...as if they don't really want to understand you." Nurse B.

Nurse B has made a similar distinction as Nurse A (without using lazy or efficient) regarding medical staff willingness to understand the nurse prescribers' role. How this affects the professional role between the two is only partially indicated by a further quote from Nurse B:

"I would not say have an unpleasant attitude towards you....there are limitations to our prescribing role." Nurse B.

It is unclear in these answers whether this reflects a true level of communication breakdown or personality clashes. What is clear however is the potential for a serious breakdown in team cohesion could impact patient care? Despite these negative comments, however Nurse D offers a good example of how this relationship should work as seen in this quote:

"During these ward rounds we would be discussing (within the team) patient's management." Nurse D.

Within this quote Nurse D outlines what she sees as good communication between herself and the doctors. They work as a team dividing up the jobs that the ward round produced which included prescribing issues. This inevitability then led onto communication issue with ward nurses.

"I get asked fairly regularly for different things that are not on our formulary.....had to tell them that no you can't prescribe." Nurse B.

The implication here is that some nurses on the wards (like some doctors) are also not aware of the limitations on a nurse prescriber. Whether this can lead to a poorer working relationship with the ward staff is not clear from Nurse B's response but it's a possibility. This was not the only example of poor communication as indicated in the following quote:

"they (the ward staff) will just bleep a doctor (not telling him everything) just that this patient needs their TTH's.. the doctor might complete the TTH'S not realising that he has double up on the patients TTH orders making more work that could be avoided so it can be very time consuming." Nurse D.

Two issues emerge from this quote; the first one (the obvious one) is a simple communication failure between the ward staff and the doctor. This failure to communicate however also raises a more serious problem for the nurse prescriber and the doctor. While it is not articulated in the answer, who contacts the doctor over this error in the TTH's? Is it the ward staff or is it left to the nurse prescriber to contact the doctor, and what effect does this have on the relationship between the two?

Interestingly the analysis of the transcripts from the medical participants was very revealing. They viewed communication in very specific terms as illustrated in the following quotes:

“As a nurse prescriber you are far more likely to check with me first (as opposed to a junior doctor).” Doctor 2.

“As long as they (nurse prescriber) takes advice of the Consultant or from a senior junior doctor it should not be a problem.” Doctor 3.

These two quotes offer a view of how the doctors view this communication, firstly that communication between the two is viewed at least by the doctors positively. However a more in depth exploration of these statements reveals the medical profession view this communication not so much as an equal two way process but as a way to control what the nurse can prescribe.

DISCUSSION

What this research has revealed is that despite a wealth of information around nurse prescribing, the medical profession remain unsure of the purpose of nurse prescribing. In part this confusion is due to a number of factors not least of which are the myriad of personal formularies within this single hospital trust. As a result two nurse prescribers working in the same surgical division can have very different prescribing formularies. Such anomalies only help foster within the medical profession a belief that medical prescribing is different (some doctors might call superior) to nurse prescribing. This belief is further enhanced if we look at antibiotic prescribing. Nurse prescribers wanting to prescribe antibiotics have to undergo a separate educational course run by the hospital (despite nurse prescribers having a national qualification). Junior medical staff do not require this course before they can prescribe antibiotics. Again this gives the impression that nurse prescribing is somehow different to medical prescribing.

CONCLUSION

What has emerged is despite both groups agreeing that nurse prescribing has improved patients access to medication and generally improved the patients' journey within the hospital environment, there remain some issues. The continuing confusion of the medical profession over what a nurse prescriber can and cannot prescribe needs to be addressed. While nurse prescribers have no objection to undertaking further training to prescribe antibiotics (despite having a national prescribing qualification), should junior doctors (as part of their foundation year program) also undergo this training? The advantage of such a proposal would be an improved working relationship between the two and it would help dispel the notion that medical prescribing is different to nurse prescribing. Finally as nurse prescribers become more common and more doctors become exposed to the nurse prescriber the working relationship can only improve and with it a new working relationship can develop.

RECOMMENDATIONS

- The myriad of personal formularies needs addressing, a generic formulary would eliminate discrepancies that have been highlighted in this study.
- Giving nurse prescribers the opportunity to attend educational sessions with junior doctors would help dispel the myth nurse prescribers are not the same as medical prescribers.
- As part of the hospital staffs mandatory training, all health professions should have a session on the role of the nurse prescriber, not only would this help foster a better understanding of the role but it would improve the communication failings highlighted in this study.

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