

**PRACTICE NURSES EDUCATIONAL NEEDS IN MENTAL HEALTH:
A DESCRIPTIVE EXPLORATORY SURVEY**

By

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Abstract

Background-Large numbers of patients see practice nurses (PNs) daily for their health care. Many of these patients will have a mental illness or a mental health (MH) need. International research suggests that the practice nurses are undertaking mental health assessment and interventions without the requisite skills and knowledge. This thesis reports on a study designed to quantify PNs work in mental health, to determine their education requirements and establish their confidence in the field of mental health.

Methods-A postal survey was used to examine the nature of MH problems encountered by PNs, describe the MH interventions currently being used by them and identify the perceived learning needs of PNs in MH. Practice nurses in Hawkes Bay and Tairāwhiti regions were surveyed. The questionnaire consisted of 33 open, closed and likert questions. Analysis was by descriptive, correlation and inferential statistics plus content analysis for open questions.

Findings-52 respondents completed the questionnaire and the results demonstrate that these PNs are caring for patients with an extensive range of mental health concerns daily. Most common are people with depression and anxiety. The nurses perform a wide range of MH interventions such as counselling and advice on medication and have minimal confidence in their skill level. The nurses expressed learning needs included recognition and management of a wide range of mental health conditions such as suicidal ideation and all types of depression, reflecting the range of conditions met. Other learning requirements included understanding of co-morbidity and how to screen for mental health. The preferred provider of education was community mental health services by means of a short course specifically designed to meet their needs.

Discussion-Practice nurses require education and support specifically designed to meet their identified needs in mental health to help then improve the care to patients. This will require collaboration between secondary mental health services, primary mental health nurses and tertiary institutions. With targeted education these nurses should become more confident and competent in their dealings with people who present to their practice with a mental health concern.

Key words - education, mental health, practice nurse, survey, primary health care

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Chapter 1. Introduction to this project

In recent years there has been a shift in the provision of mental health care from mainly hospital based services to GP and community led services. This has been driven by health policy both here in New Zealand (NZ) and internationally (Mental Health Commission, 1998; Ministry of Health, [MOH] 2002, 2006a; World Health Organisation, 2001). In New Zealand (NZ) this has led to hospital services now being only funded to treat 3% of the population who have a severe and enduring mental illness. Primary Health Organisations (PHOs) are now expected to take on the responsibility of care for patients who experience mild to moderate mental illness. This is termed in the *Blueprint for Mental Health* (Mental Health Commission, 1998) as the 17% of population who at any one time will have a discernable mental illness.

Practice nurses (PNs) are the largest group of primary healthcare nurses who work in PHOs and 31-48% of patients will visit a primary health practice at least twice in any year, with 50% of these patients only seeing the PN for treatment (Ministry of Health [MOH], 2008). It is therefore important that these nurses have the requisite skills and knowledge to care for and improve health for patients. Successful implementation of the *Primary Health Care Strategy* (King, 2001) is reliant on primary health care nurses for their success (MOH 2008). Given that one in four people experience a mental illness at some time in their lives and current health policy recommends that primary care carry the burden of responsibility for caring for patients with a mental health concern it is important that the PNs can address this need. To date very little NZ research has looked at PNs and mental health with the majority being centred on the needs of general practitioners (GP). This thesis reports on a study that investigates the educational needs of PNs to care for people who have a mental illness.

The rationale for the choice of PNs over any other definable community nurses, for example district nurses is that PNs make up the largest group of community nurses, 21% of the total community nurse population. Practice nurses also potentially see 80% of the patients in their practice at least yearly, and some patients may only have consultations with a PN when visiting a practice. Practice nurses are therefore in a prime position to know their patients

and develop a therapeutic relationship with them and so be able to pick up subtle clues about their mental state. They are also in a position to administer screening tools including mental health assessment tools prior to consultation with a GP, thus increasing the possibility of diagnosing a mental illness. Practice nurses can also liaise with the GP about their concerns and advocating for the patient when the patient is unable to do so for themselves.

This research was completed using a descriptive exploratory methodology. The survey was the method and this was chosen as it allows for description of specific details about compounding variables such as knowledge and identifies the frequency with which phenomena occur (Polit & Beck, 2006). A self-administered postal questionnaire was developed for this project (Appendix A) and validated by peer review and pre-test. Data gathered included demographics, nurses' encounters, interventions performed, and perceived learning needs in mental health. This project was designed to provide a snapshot of the present situation for PNs dealing with patients presenting with mental health concerns and a starting point for educators to provide relevant education to this group of nurses.

Researcher's background and interest in this topic

As a mental health nurse who has never worked within primary health, the topic of PN educational needs in mental health came to me in a long convoluted manner. During recent years I have worked in and around mental health and mental health education. I have spent one year as a key worker in a community mental health team and two years as a lecturer teaching undergraduate nurses where part of my role was to help deliver the mental health papers and supervise students on placement. As a mental health educator I work across the whole of mental health and addiction services. This experience has given me a comprehensive knowledge of mental health services across the region.

As a key worker in the community I would have on my caseload patients where some of their physical needs were not being met by their GP or practice nurse. These needs included blood pressure or diabetic monitoring and assessment, which are important for these patients' general health. I also had approximately 10 patients whom I knew with some closer follow-up from a PN would no longer need to be in mental health services. For example, I had

patients who would walk from the other end of town, past their GP surgery, a distance of seven kilometres, to community mental health for their depot injection. These patients' mental illness had been stable for a number of years and required limited input from mental health services. They adhered to their medication regime, were not under the compulsory treatment orders or on psychiatrists' review, and they were "mentally fit" to be discharged back to their GP. Their illness was no longer classed as severe. On occasion when I enquired at their GP surgery if they could have their injection there, I was told that the nurses didn't have the time, skills or knowledge about the drugs to give depot injections.

As a lecturer working in undergraduate education I became concerned about the amount of mental health theory and experience in the programme was not sufficient to prepare nurses for working in mental health settings as a registered nurse. Mental health placements for student nurses were short (two-three week placements), and often not meeting the learning needs. For example a three week placement on a dementia ward with a limited range of psychiatric problems being substituted for the more comprehensive experience gained in an acute psychiatric placement. Whilst working in education, I also frequently networked with all types of community placements and PNs would often inform me that they have concerns about caring for patients with mental illness within the community, particularly about feeling inadequate in their preparation for this role.

As mental health educator for secondary mental health services, part of my role was to help implement primary mental health strategies, looking at the services supplied by our local practices and provide education where needs arose. On talking to PNs about their learning needs I usually got one of two responses. *I need to know everything*, or *it doesn't affect me, I don't deal with mental health patients*. This did not help me quantify their needs sufficiently to enable me to design a programme to help my local community.

As well as working in mental health education I also provided clinical supervision and support to a mental health nurse who developed a local primary mental health initiative. This nurse worked in a GP practice to provide education, liaison and assistance to the nurses and doctors in that area. Her role was also to help PNs work with, assess and refer appropriately

people with mental health problems. This nurse found her role confusing. General practitioners and PNs expected her to assess all patients with mental health problems in the practice and carry a caseload of “difficult patients”, an impossible situation that left her frustrated and worn out. This unfortunately led her to reluctantly resign from this position (Personal communication).

What I concluded from my experiences is that:

- Primary health policy is being implemented and for patients with the mild to moderate mental health concerns, treatment is no longer funded in secondary services.
- Patients are being cared for within mental health services when their condition dictates that they should be cared for by primary health services. Successful transfer of the patients into the primary health system depends on having PNs and GPs with the skills, knowledge and understanding to care for them. Without fully understanding the context, experience and current capabilities of PNs, their mental health educational needs cannot be met.
- Practice nurses were not able to clearly articulate their educational needs in mental health when I have enquired.
- Mental health nurses working alone in primary health care cannot provide all the primary mental health care for patients in the community, PNs being the largest primary nursing workforce may have a role to play.

In summary, this topic arose out of my experience in mental health, my interest primary mental health policy and education, discussions with PNs on this subject and an attempt to introduce education on mental health for practice nurses. Looking at the research I discovered that very little had been done in this area to assist me.

Aims

The aim of this research is to describe the needs of PNs in mental health education and to explore what involvement they have with patients with mental health issue.

Objectives of the study are to:

- ❖ Describe the current characteristics of practice nurses
- ❖ Examine the nature of mental health problems encountered by practice nurses

- ❖ Describe the mental health interventions currently being used by them
- ❖ Identify the perceived learning needs of PNs in mental health.

Key terms

Primary healthcare is community based care which encompasses first contact, continuous, comprehensive and coordinated care. Primary healthcare comprises of a “range of services from health promotion, screening to diagnosis and treatment of medical conditions” (MOH, 2004b, p.53) and is provided by community based health practitioners.

Primary health nurses are “Registered nurses with knowledge and expertise in primary healthcare....Primary healthcare nursing encompasses population health, health promotion, disease prevention, wellness care, first point of contact care and disease management across the lifespan” (MOH, 2003, p.1). These nurses deliver care in various settings in the community. This definition covers not only practice nurses but also district nurses, Plunket nurses, dental nurses, school nurses and so on who all work with patients in community settings (Kent, Horsburgh, Lay-Yee, Davies, & Pearson, 2005). The focus of this research is only practice nurses who are primary healthcare nurses attached to general practice.

Primary mental health is a component of primary healthcare that addresses psychological distress and illness (MOH, 2004b). Essential services include early identification of mental illness, treatment of common disorders and management of stable psychiatric conditions and referral to appropriate agencies when needed (WHO, 2008).

Liaison/link nurses are psychiatric nurses who work alongside primary healthcare professionals. Their role is often varied but the focus tends to be on patients presenting to primary health and not patients with ongoing mental illness (MOH, 2004b). Their role often includes liaison and referral between primary and secondary services to reduce access barriers to secondary and education for primary healthcare teams (hospital) care (Rodenberg, Bos, O'Malley, McGeorge, Love, & Dowell, 2004).

Mental illness and mental disorder are used with this study interchangeably. They are defined as a disorder of the mind that interferes with a person's cognitive, emotional or social abilities (Pederson, 2007). It can be continuous or intermittent in nature and the Mental Health (Compulsory Assessment and Treatment) Act (1992) states that mental disorder is "characterised by delusions or by disorders of mood or perception or volition or cognition" (p.8). Mental illness makes up five of the 10 leading causes of disability. Twenty four percent of patients attending a GP will have a current mental disorder and another 9% will have a mild sub-clinical disorder which does not meet diagnostic criteria (The MaGPIe Research Group, (MaGPIe), 2003).

Justification of this research

In recent years there has been a plethora of research which has looked at the provision of mental health facilities in the community and education of GPs in practice (Corney, 1994; MaGPIe, 2003, 2005; Rodenberg, et al., 2004); yet there has been little recent research that has looked at the skill level of PNs caring for patients with a mental health concern. There has also been debate over what role PNs should take in the implementation of primary mental health care in terms of assessment, gate-keeping, management of care and liaison with GP and community psychiatric teams therefore research in this topic is timely (Millar, Garland, Ross, Kendrick, & Burns, 1999; MOH, 2003).

After examining the literature and in the light of current interest in mental health issues and government policy in primary health, ensuring that PNs have the requisite skills to help patients with mental health issues is paramount. Quantifying the mental health interventions currently undertaken by PNs has not been addressed here in NZ and therefore there is no acknowledgment of this aspect of their work. No research in NZ has examined the skill level of PNs in mental health or quantified their learning requirements in this field. When this is known, it will allow for the development of local policy on education of PNs to ensure that any gaps in mental health education can be addressed. This should enable PNs to better assess, treat and support people with a mental illness.

Thesis overview

Chapter 1 introduced this study and discussed how this topic arose for me as a mental health nurse and lecturer. It described my beliefs that a need for basic mental health education for PNs could potentially provide better outcomes for patients who present in mental distress in primary care. It introduced the methodology, aims and objectives of this study, justified the research and placed it in the realm of primary health using key Ministry of Health documents.

Chapter 2 gives an overview of primary healthcare services. It discusses what types of conditions PNs might meet in their everyday work including age related illness and co-morbidity. The important role of these nurses is explored in relation to what is known about primary mental health services.

Chapter 3 reports the findings of the literature review undertaken related to practice nurses role with patients presenting with mental illness. Demographics and qualifications of PNs and how these qualifications may be of assistance to them in providing of mental health care to patients are examined. It describes the research into mental health interventions PNs perform in their work. Training and development issues are investigated with particular focus on how and by whom. Knowledge gaps in the research are explained in relation to this literature search.

Chapter 4 is the methodology chapter where an explanation and justification is presented. Descriptive exploratory research with survey as method was used as little is known about the topic. The study is predominantly quantitative in nature with a small qualitative aspect to clarify answers. The development and validation of the questionnaire is discussed. Justification is provided for the sample choice and the recruitment process is explained. Analysis tools, ethical and Treaty of Waitangi considerations are discussed.

Chapter 5 presents the findings of this research. The demographics of the sample are explored in relation to known demographics of primary health nurses. Findings related to PNs encounters with patients experiencing a mental illness, intervention performed and

confidence in caring for these patients are explored. Practice nurses perceived learning requirements within this area are identified.

Chapter 6 relates these findings to the known literature and discusses the implications of the results. Several themes emerged from this study. These include collaboration and referral issues with mental health services, the low confidence levels in performing interventions for patients and the vast range of patients that nurses meet every day in the course of their work. Educational themes centred on particular mental health conditions, the provider of this education and who this should be and barriers to the provision of this education.

Chapter 7 is the final chapter and expands on the implications of this research for nursing. It explores the limitations of this research. It lists changes that I would make to the questionnaire if I were to repeat the project and implications for further research are explored.

Chapter 2. Background to primary mental health

General practitioners (GPs) and primary health organisations (PHO) are the first point of contact for the majority of patients experiencing a mental illness and may be the only contact for up to 75% of patients (Bambling et al., 2007). This chapter focuses on the rates and types of mental illness seen within general practice. It explores the concept of co-morbid conditions and examines mental illness concerns across the lifespan. The chapter explores the current practice nurses (PN) role within primary health with particular attention to the PN role screening for mental health concerns. The chapter 3 examines the role of the PN caring for patients expressing a mental health concern in detail. It discusses the educational needs of these nurses in some depth.

Several key MOH strategies have been released to help guide services around which primary health policy should be implemented and defining the role of primary health in providing these services. They do little to say how to perform this role or what education primary health care staff need, in order to carry out this role (King, 2001; MOH, 2004a, 2004b, 2006a). New primary mental health liaison roles and shared care models have been created to help fulfil this policy but these are not standard throughout NZ (Nelson, Fowler, Cumming, Peterson, & Phillips, 2003; Rodenberg et al., 2004). Without knowing the basic mental health knowledge, skill level and educational needs of, the PN; it is difficult to align policy with practice.

Structure and funding of primary health organisations and general practice

Primary health organisations are local bodies responsible for improving the health outcomes, delivering and coordinating primary health care to their enrolled population (MOH, 2004a). They oversee the work of doctors, nurses, midwives and other health professionals who provide care for patients. The first PHOs on New Zealand were set up in 2002 and now number 81 nationally (MOH, 2007). They are mainly funded from government using a capitation formula based on the number and characteristics of the population enrolled. Funding is dependent on age, gender, ethnicity, local deprivation and whether the patient is a

holder of a community services card. High users of health care services, such as patients with chronic conditions, including mental health, can also attract additional funding under The Care Plus programme which targets patients with chronic conditions such as mental health so that the patient receives low cost expanded service to cater for their needs (Finlayson, Sheridan, & Cumming, 2009; MOH, 2002, 2007).

The Primary Health Care Strategy (MOH, 2001) developed a particular funding approach to rural areas with less than 10,000 people. Here, additional funding, which not only takes onto account the scarcity of population but also the difficulties providing a service in isolation, workforce development and staff retention issues. Extra funding can also be made available to support rural initiatives under the Rural Initiatives Fund (MOH, 2002, 2007). Accident Compensation Committee (ACC), a universal social insurance system can make part-payment towards costs for self harming which viewed by ACC as an accident. Patients consulting with a general practitioner or a PN can also pay a part-charge.

Types of mental health disorders seen in primary health

Mental illness is defined as a disorder of the mind that interferes with a person's cognitive, emotional or social abilities. It is associated with significant physical disability and increased mortality (Dean & Thurs, 2009; Goldberg & Gater, 1996). It is recognised that in New Zealand (NZ), 80% of patients will visit their general practice (GP) at least once per year and 35% of the patients will have a mental illness (MaGPIe, 2003). However, in up to 50% of people visiting their GP, the existence of their mental illness goes undiagnosed and treated. International research has reported similar figures (Goldberg & Gater; Happell & Platania-Phung, 2005; Holdaway, 2003; MaGPIe, 2005; MOH, 2002; Reid, 2005; Roy-Byrne et al., 2000; Warner, 1998).

The Ministry of Health (MOH) in *The New Zealand Mental Health Survey* (completed in 2004) surveyed 13,000 people aged 16 and over (MOH, 2006b). The survey reported findings on the prevalence of four major groupings of mental health. These were mood, anxiety, substance abuse and eating disorders. This survey revealed that 40% of New Zealanders will experience a mental illness at one time in their lives. Other research has

found that 25% of the population will have a discernable mental illness at anytime and a further 9% will have a sub-threshold disorder, a serious disorder is rated at 5%, a moderate disorder 9% and a mild disorder 7% (MaGPIe, 2003). The MOH go on to say that 21% of the population will experience a mental disorder within any 12 months. Internationally Ansseau et al. (2004) in a large Dutch study found that 40% of the population will have a mental illness and Ansseau et al. also point out differences in reported rates of mental illness in primary health will vary from country to country. These authors argue the differences are because of methodologies and diagnosing criteria used. This makes identification of the true rates of mental illness difficult.

The most prevalent mental illness reported in communities is depression. Goodyear-Smith et al. (2004) in their NZ study stated that 43% of patients completing a lifestyle questionnaire had an identified risk of depression. The lowest reported figure for depression was approximately 20% in the NZ research conducted by the MaGPIe research group (2003) and the highest rate was 59% in a German study (Mergl et al., 2007). Other studies, (Andrews, Issakidis, & Carter, 2001; Parker, Hetrick, Purcell, & Gillies, 2008; Patel, Flisher, Hetrick, & McGarry, 2007; Rucci et al., 2002) quote figures ranging between these two numbers. Andrews, Sanderson, Corry and Lapsley (2000) state that irrespective of international rates of depression, it will be ranked second in the Global Disease burden by the year 2020.

Anxiety disorders are the second most common mental illness seen in primary health, with rates here ranging from 11% in Mergl et al.'s (2007) international study to 20.7% in NZ MaGPIe (2003). Somatoform disorders (physical symptom where no organic cause can be found) are also reported in high numbers, ranging from 18 -26% by Ansseau et al. (2004) and Mergl et al. respectfully. Other reported disorders are drug and alcohol addictions, obsessive-compulsive disorders, eating disorders and dysthymias (Ansseau, et al.; Rucci, et al., 2002).

Co-morbidity

A further complication to the assessment diagnosis and treatment of patients with a mental illness is that of co-morbidity and mental illness. This has been widely explored

internationally in recent years and can have both a physical and a mental component. That is, mental illness where there is simultaneous mental illness present and/or a coexisting physical illness present (Andrews et al., 2001; Ansseau et al., 2004; Dean & Thuras, 2009; MaGPIe, 2003; Mergl et al., 2007). The mental illness conditions that occur simultaneously are not surprisingly the most common conditions, either mood disorder with somatoform or mood with anxiety. Ansseau et al. while describing these as “hidden” psychiatric conditions states that 8% of presenting patients will have all three disorders together. Andrews et al. state that these conditions are often missed because patients will often only discuss the condition that bothers them the most. GPs identified and treated this main complaint only, even when they recognised the patient had more than one disorder.

Physical illness and severe mental illness are known to go hand in hand with lower life expectancy, increased levels of diabetes, cardiovascular disease, respiratory disease, weight problems and conditions caused by low socio-economic status (Dean & Thuras, 2009; Goldberg & Gater, 1996; Happell & Platania-Phung, 2005; Holdaway, 2003; MaGPIe, 2005; MOH, 2002; Reid, 2005; Roy-Byrne, et al., 2000; Warner, 1998). Goldberg and Gater described the most common physical aspects of a mild to moderate mental illness with the most common being pain, poor sleep and a variety of somatic complaints where no cause can be found. Andrews et al., (2001) report significant levels of disability within this group with differing mental disorders but do not describe what they mean by the term disability. Phelan, Stradins and Morrison (2001) discussed severe mental illness and physical problems. They state there is a strong link between poor physical health and mental illness and that this is often neglected in primary health. They go on to say that the high morbidity (occurrence of disease) and mortality (death) rate among those who are mentally unwell is due to natural causes such as eating poorly, smoking, poor exercise regimes and poor socioeconomic status. They advocate for primary health and mental health services to be “imaginative” in caring for these patients and sharing the care when necessary and look more holistically at caring for these patients.

Iacovides and Siamouli (2008) also examined the issues of mental illness and co-morbid somatic disorders of patients admitted to hospital with a mental illness and stated the

problem is more complex. They report that 50% of patients have a known medical co-morbidity and 35% had an undiagnosed problem. The main cause of death in these patients was obesity, hypertension and chronic and obstructive pulmonary disease problems. Co-morbid problems of mental health patients were also listed as gastrointestinal disease, hypertension, heart disease, asthma, diabetes mellitus and malignant neoplasms.

Iacovides and Siamouli (2008) further describe how a physical illness can be a precursor to a mental illness. Depression and anxiety disorders in particular are associated with chronic conditions such as back, neck, arthritic and migraine conditions. They state that determining etiological relationships between mental and physical conditions is difficult due to the “chicken and egg” syndrome.

Mental illness across the age span

Mental illness and diagnosis vary with age. A recent large multi-national study found the predominant childhood disorders in order of prevalence are anxiety disorders (16%) oppositional/conduct disorder (15%) substance abuse (12%) and depression (10%), (Bittner et al., 2007). These authors describe a definite link with anxiety disorders in children and psychiatric disorders in adolescence particularly depression. An American retrospective study found similar results with anxiety being the most common childhood psychiatric disorder, with a median age of onset at 11 years old, but they also link these disorders with adult anxiety conditions advocating for interventions at a young age to prevent adult problems (Gregory et al. 2007).

At adolescence one of the most significant mental health problems is drug and alcohol abuse. In NZ the rate of cannabis use alone is reported at 31% (O’Grady, Pettit & Ng, 2003). Further, 41% of Australian youth admit to being regular users (Rey, Sawyer, Raphael, Patton, & Lynskey, 2002). Cannabis abuse especially when mixed with alcohol has been shown to have many physical and psychiatric effects. In the United States of America where the use of marijuana is also high, at least 40% of adolescents have used this drug; problems with memory, completing intelligence tests and attention span have been noted, especially when mixed with alcohol. Teenagers may also be more vulnerable to the effects of

marijuana as the brain is still developing through adolescence (Padula, Schweinsburg, & Tapert, 2007).

Psychiatric co-morbid problems and cannabis abuse are well known and researched. As well as depression it is associated with suicidal ideation, schizophrenia and psychosis, and anxiety disorders (Johns, 2001; Rey & Tenant, 2002; Rey et al., 2002). Rey and Tenant in their literature review, describe the evidence for a direct causal relationship between the amount of cannabis consumed and both the onset of psychosis and relapse of schizophrenic conditions with an overall increased risk of schizophrenia of 30%. Griswold, Aronoff, Kernan and Khan (2008) describe a co-morbid mental illness rate of 60-75% in substance abuse disorders of adolescents and advocate for brief screening tools administered by physicians in primary care to help with diagnosis. Younger adults and adolescents may have a higher risk of co-morbidity than the general population, especially alcohol/substance abuse and depression where a significant association was found between these factors (Fleming, Mason, Mazza, Abbott, & Catalano, 2008).

It has been estimated that one fifth of people over 65 years experience a mental illness at any one time with the most common conditions being dementia and depression (Holsinger, Deveau, Boutani, & Williams, 2007; Hsu, Moyle, Creedy, & Venturato, 2005). While many patients suffering with dementia will be managed in elderly care settings and therefore may not be seen within primary health, older age patients with mild depression are evident in primary care. Fujisawa et al., (2005) state that mild sub-threshold depression left untreated increases the risk of suicide and may be the cause of increasing suicide rates in Japan among the elderly population. Their study does have severe contextual limitations which they themselves note. Both Fujisawa et al. and Hsu et al. state that depression in the elderly may be missed due to the focus being on medical complaints in this age group. Both advocate strongly for screening in primary health to prevent missing sub-threshold depression and state this need not be elaborate but take the form of very simple self rating questionnaires. Holsinger et al. in their study which assessed various screening tools for dementia, state that they can be used in primary care but are not reliable for their diagnostic accuracy.

Primary health care nursing

Happell and Platania-Phung (2005) argue that nurses are the most common group of health professionals who come in contact with people experiencing mental illness and so have a potentially important role to play in detection and management of patients with mental health issues. While all primary health nurses care for patients with mental health issues, with the implementation of primary health policies, it is principally PNs as the largest workforce working within PHO or GP practices who will potentially provide much of this care.

Role of the practice nurse

The current work characteristics of PNs are a result of the recent development within primary health arising out of the national primary health care political movement of the 1970s and 1980s. The *National Primary Care Survey of 2001-2002* looked closely at the demographics and role of PNs (MOH, 2005). This report demonstrated that most PNs work within private GP practices. They are further described as “ageing” with many years nursing experience, and the majority of them are female and non-Maori. Few have nursing degrees and their postgraduate education has tended to focus on professional certificates and not postgraduate study. Since the completion of this report in 2002 the PHO systems have been introduced to primary health, only degree nurses have been trained and there is now increased access to postgraduate education. Therefore the demographics of PNs may have changed.

Key activities of the PN within this report include nurse-led clinics for disease state management such as diabetes, health care screening, dressings, antenatal care, contraception and advice on child care and lifestyle (MOH, 2005). Of note 63% of the nurses surveyed responded that they gave counselling but the type of counselling was not qualified. No other potential mental health intervention was mentioned. Eighty eight percent of patients they see will specifically make appointments to see PNs and 52% of PNs make home visits. This makes these nurses in a prime position to know their patients and potentially their family situation.

Finlayson et al. (2009) in their survey of general practice staff looking at the nursing interventions in primary health care broadly concur with earlier MOH findings around the types of work undertaken by practice nurses. Here they interviewed 384 PNs examining issues around primary health care and PHOs. They state that approximately 30% of PNs provide a service for mental health. Unfortunately these results are not discussed in any depth, and the details of the mental health care provided, is not discussed at all and the table which displays this figure is poorly explained. Given the significance of mental health in primary health care, this disappoints.

Screening for mental illness

Another common task for PNs is that of screening patients for particular illness. Screening tools have been available for many years and used successfully by nurses within general practice internationally. These tools can be used to enhance early detection and health promotion of physical and mental health and illness across the lifespan (Goodyear-Smith et al., 2004; McMenamin, 2005; Rodriguez, Bauer, McLoughlin & Grembach, 1999; Watts et al., 2002). The World Health Organisation (1996) has advocated for some time for physical, psychological, social, and environmental health screening in primary health and recommends four domains of assessment when screening. Despite these international recommendations, screening tests for MH are not widely used within NZ irrespective of the fact that they are well received by patients and easy to use by practitioners (Goodyear-Smith et al.). McMenamin further advocates for opportunistic screening for all patients attending their GP completed by PN and states the barriers to their use included lack of available time and training issues for these nurses.

There are many types of screening tools available and different ones for different ages and conditions but it is important that these are easy to administer and not time consuming (Fujisawa, et al., 2005). In late 2008 after the commencement of this study, the ¹New Zealand Guidelines Group (NZGG) published a guideline on identification and management of common primary health mental illness. Here assessment algorithms and screening tools

¹ The NZGG is an independent, not-for-profit organisation set up to promote delivery of health based on evidence. It is concerned with guidelines development and implementation. It is funded from MOH(NZGG, nd)

were published for all age groups and severity of mental illness which are designed for all health practitioners to use in primary health. These are generally simple, easy to follow and require only the minimum of training. This document also sets out the types of tools and assessment by age making it easy to use in the real setting. In children and adolescents the HEEADSSS assessment tool can be used (Acronym for Home, Education, Eating, Activities, Drugs, Sexuality Suicide/depression, and Safety) (NZGG, 2008). This is a comprehensive tool looking at all elements of a child's life and so aids mental illness detection. Other childhood screening tools include HEARTS for psychosocial issues, and CRAFT for substance/alcohol abuse (Bittner et al., 2007; Gregory et al., 2007).

Common adult tools include the Beck Depression Inventory, mini mental state examination (MMSE) and the Edinburgh Post Natal Depression Scale which are designed to be used in any care setting but may be lengthy for primary health (Harvey & Pun, 2007; White, 2008). The Kessler 10 (K10) tool is a very brief simple tool designed specifically for primary health nurses to use (MOH, 2008). Other primary health specific tools include the Generalised Anxiety Disorder Scale (GAD-7), Alcohol Use Disorder Identification Test (AUDIT) and the Case finding and Help Assessment Tool (CHAT). In the elderly most of the assessment scales concentrate on depression and dementia, with the Geriatric Depression Scale (GDS) and the Alzheimer's Disease Screen for Primary Care (ADS-PC) being used respectively (Grober, Hall, Lipton, & Teresi, 2008; Hsu et al., 2005).

McMenamin (2005) in his study into primary health screening in NZ acknowledges that the international evidenced-based guidelines state screening within primary health should also include elements of mental health as well as drug and alcohol addictions. He state the barriers to use of these tools included PNs time and lack of education in the use of the tools. No mention was made within the research regarding the educational requirement of the nurses with using mental health screening tool. Successful uptake of the screening tool used in McMenamin's research depended on the support of the GP, both in the use of the tool and to assist with the allocation of protected time for the nurse. Goodyear-Smith et al. (2004) found no such limitations but also do not state what education was needed or provided to staff during the trial.

What practice nurses can do for patients: The untapped potential

Practice nurses are in a prime position to detect early warning signs of mental illness before it becomes chronic, provide patient support and thus possibly lessen the need for GP and mental health services consultation (Thomas & Corney, 1993). When the need is apparent they can liaise with the GP and mental health services ensuring the patient gets the best care at the best time. This relies on the PN's ability to detect the presence of mental illness. Screening tools are often used to identify the severity of the mental illness ranging from severe to sub-threshold disorders (Andrews et al., 2001; Ansseau et al., 2004; MaGPIe, 2003; Patel et al., 2007; Rucci et al., 2003). The authors argue that a sub-threshold psychiatric disorder is an illness that falls short of a conventional mental health taxonomy system such as the DSM classification for mental illness used for diagnosing mental illness in NZ (American Psychiatric Association, 2000). Often patients with these sub-threshold disorders do not require pharmaceutical interventions, specialist help, or even GP contact but knowledge about how to monitor and help themselves (Katon, Von Korff, Lin, & Simon, 2001; NZGG, 2008). While sub-threshold disorders can be described as a milder form of mental illness, they are nonetheless still associated with significant functional impairment. Rucci et al. argued that these patients are associated with increasing rates of service utilisation, are at an increased risk of developing a co-morbid physical and/or mental condition and are also at increased risk of developing a severe form of mental illness. Therefore it is important that these issues are addressed early.

Early intervention, which often relies on adequate screening, has been shown to improve outcomes for milder, sub-threshold disorders. Here appropriate help may simply be education for the patient, self help strategies and psychosocial support all interventions a nurse can perform (Andrews et al., 2001; Patel et al., 2007; Parker et al., 2008). PNs can thus complement the care provided by GPs monitoring a patient's ongoing illness, enhancing patient's self care at the same time looking for signs of co-morbidity and facilitating referrals to specialist mental health services or further GP contact if needed (Katon et al., 2001).

New Zealand Guidelines Group, (2008) define the GP role as that of diagnosis and treatment while the PN should focus on “preventative activities, health maintenance and management of long term disorders” (p.19). They recommend a more shared care approach between the GP and the PN where tasks in this collaboration would be screening, diagnosis, treatment interventions, patient education, self management support and liaison.

Where PNs have been trained to provide brief interventions for more severe forms of mental illness for example depression improved outcomes have been demonstrated. A study was discussed by Katon et al. (2001) where depressed patients from 46 primary care clinics were randomised into two groups. Here patients were assigned to usual care from their GP or care where nurses were trained to provide assessment, patient education, monitoring, follow-up support and medication management. Patients had improved symptomatic and functional outcomes in the nurse-led clinics compared to the patients assigned to the GP.

Conclusion

Research cannot agree on the exact levels of mental illness within the general population and therefore it is difficult to gauge the level of contacts with patients experiencing a mental health concern. The three main disorders found are depression, anxiety and somatoform and vary across the lifespan. Often a person has more than one mental illness existing at one time or a mental illness can be associated a physical illness. The diagnosis of mental illness is often missed and nurses can be the first point of contact with patients with many PNs doing initial health assessments and triaging patients. With restrictions on the cost and time of GP consultations; PNs potentially have an important role to play in the assessment treatment and diagnosis of mental illness.

The research on the role of the PN within NZ has concentrated on aspects of the work related to physical health. Recent primary mental health guidelines advocate for PNs to be using a shared care approach with a GP and to provide brief interventions for patients where screening tools, a validated measure to aid in all types of health detection, could be used to identify sub-threshold psychiatric illness. There is no NZ based research which looks at the education needs of PNs in the use of these tools, nor is there any NZ research into how

prevalent these tools are among practice nurses. The next chapter looks more closely at the role of the PN with patients experiencing mental health problems and discusses what is known about their educational requirements in mental health. It explores the barriers to receiving education in primary health and restrictions on providing education to these nurses ending with a short discussion on who should provide this education.

Chapter 3. Literature review

This chapter presents the findings from the literature review that explored what is known about practice nurses (PN) role within primary health and their educational needs in working with people with a mental health need. After discussing the search strategy, this chapter presents the basic known demographics and qualifications of practice nurses. It then describes what is known about the role of PNs in relation to their mental health work and then seeks to qualify their learning requirements in this field. This chapter concludes with the literature on who should provide this education.

Search strategy and results

The literature search initially looked for English language research on PNs' experience and education in mental health. Due to the lack of research on this specific group, this was expanded to other groups of community nurses who come under the umbrella of primary health nurse. Initially the focus was on locating research from New Zealand (NZ) and Australia. As there were limited publications available the search was expanded to countries where there is a similarity within the health care structure, for example the United Kingdom (UK). Due to the restriction of library access from a rural area, and inter-library loan costs mounting up, full text journals had to either be available electronically or via the local hospital library.

Bibliographical databases were searched including Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychINFO, Medline, PsyARTICLES and Cochrane Library with dates ranging from 1995-2009. Journals were accessed either directly through these databases or via Victoria University of Wellington journal finder. Ministry of Health (MOH) website was also searched to locate key documents relating to primary and mental health issues.

Key words of practice nurse, primary health, community nurse, mental health, general practitioner (GP), community, and education were used in combinations to locate the

publications. The literature search was updated in February 2009 with a full search of the databases.

While it is acknowledged that this review is not exhaustive, the literature used within this review, for the most part was difficult to locate. The demographic information on NZ practice nurses is particularly outdated with only two national surveys looking at this population. The majority of PN research has concentrated on the physical aspects of their work with very little written about the mental health interventions performed by them. Therefore at times this review refers to the wider group of community nurses or primary nurses were used for comparison. The preponderance of the research has come from the UK and only one NZ literature review has examined mental health educational needs of PNs but this is limited to the field of depression (Renwick, 2007). In recent times much has been written about shared care models in primary health, this too is discussed although not extensively as this is not the main focus of this research.

Qualification and Demographics of nurses working within primary care

In 2001 the Ministry of Health undertook a survey of all primary health care nurses to ascertain any obstacles in implementing primary care policies (MOH, 2003). This report, which highlighted the present qualifications of PNs, found that in New Zealand (NZ), only 21% of nurses practicing within primary health have a comprehensive nursing training and 69% had general hospital nurse education² only. These figures concur with the National Primary Medical Care Survey (Kent, Horsburgh, Lay-Yee, Davies, & Pearson, 2005), who in addition, found that the majority of PNs had been qualified in excess of 15 years (mean 18.4).

Under-graduate training may not provide sufficient skills and knowledge for nursing patients with primary mental health issues. Recently, Henderson, Happell and Martin (2007) reviewed mental health theory taught to students within comprehensive training³ and found

² General hospital trained nurses- where the nurses experience and education were completed through a hospital NZNC (2000)

³ Comprehensive training - where the nurse has undertaken a degree or diploma through a tertiary institution in order to register as a nurse NCNZ (2000)

there is still a wide held belief that training hours are inadequate for practice. This view is upheld by Kerrison and Chapman (2007) in their study looking at the educational needs of emergency nurses where nurses can be exposed to a wide variety and severity of mental health issues. Here it was found that these nurses perceived that undergraduate education gave them little confidence or ability to apply this knowledge in practice. Secker, Pidd and Parham (1999) found that training of PNs had been of little or no help with mental health issues and Holdaway (2003) found only two of eight nurses had any direct experience in mental health. Although Holdaway's statement is not clarified further, from my conversations with PNs, these statistics are the norm with nurses expressing they received minimal if any mental health education, comprehensive training did not adequately prepare them for mental health work. According to Redfern, Norman, Calman, Watson and Murrells (2002) to be considered competent a nurse needs a combination of the right knowledge, skills and attitude. In summary, current research and PNs themselves state many of them do not consider they have sufficient knowledge, experience or education to be competent in caring for patients with mental illness.

Gray et al.'s (1999) findings are the exception to this. They found that while all PNs held a general registration, 18.3% had an additional mental nurse registration which exceeds the comprehensive nurse training on mental health. While this was a large study (640 respondents) of PNs it was a British survey where the primary health care system and undergraduate nurse education, while still degree based, has longer practice requirements, generalising the results to NZ context is not possible.

A study by Finlayson et al. released in February 2009 examined nursing developments in primary health care in NZ since the introduction of the *Primary Health Care Strategy* (King, 2001). Here the authors state that PHOs provide PNs an increased opportunity for involvement with mentally ill patients. They describe how comprehensive training since the 1980s has included mental health and imply, although do not state, that this is sufficient.

Mental health interventions performed by practice nurses

The types of mental health care provided within practice settings are hard to quantify from research yet it is important to ascertain learning requirements. While it is known that 35% of patients seeking help from their GP have a discernable mental illness, it is not known what proportion of these patients are seen by a nurse or what interventions are performed by a nurse (MOH, 2002).

Both Lee and Knight (2006) and Secker et al. (1999) found that district nurses encountered and intervened on a wide range of mental health problems. Most common were depression, anxiety, dementia and addiction/alcohol problems. The most common interventions were bereavement counselling, anxiety management and problem solving. The district nurses work mainly with elderly patients in their own home and only for a short period of time to care for a particular patient problem and do not continue to care for their patients once a problem has been effectively treated. PNs on the other hand can see their patients over a number of years and for many different issues therefore these research findings may not be applicable to the practice nursing.

Secker et al. (1999) undertook a study in Britain looking at mental health training needs of four groups of primary health care nurses. Here they used focus groups to examine the mental health issues and training needs of health visitors, school nurses, and practice nurses. Thirty nurses from two districts within one health authority of London participated. One district however, had fewer participants due to staffing difficulties and only two PNs participated. District nurses encountered dementias, depression and bereavement issues. Health visitors could list a wide variety of mental health issues from the patients they cared for, with the most prevalent being postnatal depression. School nurses became involved with a student at a teacher's request when behaviour became a problem. The illnesses they encountered were depression, anxiety, drug and alcohol issues, eating disorders and self harm. It should be noted that the school nurses came from one geographical region only. Not surprisingly the mental health issues confronted by health visitors and school nurses centred on family and childhood issues and while they could list the types of mental illness encountered within their practice, they do not state what interventions they themselves

perform. Only two PNs participated in this study. The specific conditions they encountered were not noted specifically except to say that they encountered a “range of problems” arising from general nursing services. The most common intervention performed was that of counselling on an informal basis. They rarely ran depot medication clinics or supervised medication of the people with mental illness, but with a sample size of two PNs, generalizations cannot be made.

In direct contrast, Gray et al.'s. (1999) national survey of 1500 PNs in the UK with a response rate of 54% resulting in 640 participants, found that 61% of PNs administered depot medication at least once a month and medication management was the most common intervention performed. Gray et al. also reported approximately 50% of nurses directly gave advice to patients on depression and its treatments. They do not say if the nurses themselves gave any form of counselling.

In summary, only two studies Gray et al. (1999) and Secker et al. (1999) looked directly at interventions performed by practice nurses. Given their conflicting results and their limited applicability and generalisability to the New Zealand, no clear conclusions can be drawn on interventions performed by practice nurses. It is clear that community nurses are working with patients with psychiatric problems across the lifespan, but with no consensus in the types of interventions used, or the types of mental illness encountered it is difficult to quantify the issues.

Mental health educational needs of practice nurses

Research on educational needs of PNs is scant. Gray et al. (1999) and Russell and Porter (2002) each found a recurrent theme of educational deficits was the diagnosing and recognition of depression, while Lee and Knight (2006) found that treatment options for depression was a learning need. Lee and Knight also found 96% of respondents perceived their main training need was one of recognition of mental disorders in general. Depression was not highlighted specifically and dementia was not mentioned at all as a learning need despite this being classed as the patient group with the highest number of mental health contacts. Gray et al. also stated that signs and symptoms of mental illness were the most

important intervention requiring training but they did not give percentages of respondents, making interpretation of this finding difficult. Secker et al. (1999) do not quantify responses but states that mental health awareness (term not defined) was an identified training need of all groups surveyed. The PNs here specifically wanted basic training in recognising mental health problems, treatment options and services available.

Renwick (2007) reviewed the literature concerning primary mental health care in New Zealand with a particular view to improving outcomes for patients experiencing depression. He also highlighted a role for PNs around screening for depression and stated that educational alone is “ineffective” at improving outcomes but nurses want real skills that they know will help patients. He advocates for PNs to be skilled in performing a number of interventions including counselling, telephone support, and be able to provide patient education around mental health and medication management. He calls for education and training to be given to PNs to improve recognition and management of depression. He also advocates for PNs to attain postgraduate (PG) qualifications in primary and mental health.

Russell and Potter (2002) noted that a sound knowledge base was needed for effective assessment of mental health issues but also noted a perceived variation in knowledge levels. In addition, they noted that education on specific mental health disorders was warranted. These included eating disorders, anxiety management, schizophrenia, psychosis and substance abuse.

Training and development issues in practice nursing

Farnham Wood (2005) and Baird (2003a) discussed PN training and development issues finding that the majority of PNs were part-time nurses whose employing practice often gave little or no support for professional development. Many PNs have to undertake study in their own time despite having a training allowance in their contract. Baird goes on to say that while the nurses were able to take time off in lieu for attending education sessions, their employing GPs would not allow the nurses the time off. They also point out that there are no training courses in secondary care aimed at PNs thus limiting their educational opportunities. These articles discuss PNs in the United Kingdom (UK) and so there may be

contextual differences in the barriers to education. With Baird's research the methodology was poorly explained, limiting the validity and generalisability of the results.

In part four of Baird's (2003b) series of papers on the study of PNs' educational needs, she concentrates on the clinical skills and the educational barriers to gaining these skills. Of the 40 nurses interviewed only three had completed counselling courses and no other mention is made of MH related study. Barriers to education for PN included lack of locum cover, inaccessibility of courses, cost and lack of relevant courses. Again here the methodology was lacking within the report which reflects on the validity of the findings.

The NZ MOH workforce survey (MOH, 2003) broadly concurs with Baird's (2003b) findings and highlighted finance as the greatest barrier to education followed closely by time and staffing problems. Employer resistance was only reported by 4.7% of nurses as a barrier and lack of available courses was reported by 6.1% of practice nurses. This research while being completed in NZ was also the only study found to rate barriers in percentages. The greatest barriers to education were financial 22% and time with 20% of respondents.

Clearly there are barriers to providing education to PNs in NZ and these may be contextual to the particular place of work. To understand fully the constraints on delivering MH education more NZ based research needs to be done. This research should ask the PNs about the barriers and what influences their ability to attend education.

Provision of mental health education to primary health nurses

In the delivery of mental health education, joint training with community psychiatric nurses has been seen as beneficial. These nurses perform similar roles to case managers or key workers from Community Mental Health (CMH) in NZ. Badger and Nolan (1999) who looked at GP perceptions of nurses in primary care found GPs viewed the inclusion of community psychiatric nurses within the practice would enhance mental health awareness and the acquisition of skills. However, present NZ national policy states the case manager from CMH should be concerned with severe, not mild to moderate mental illness which is the concern of the Primary Health Organisations (PHOs) (Mental Health Commission,

1998). This different focus could cause role confusion within the practice if these nurses were assigned to help within practices. This role confusion and delineation was highlighted as an area of debate by Lee and Knight (2006) and Secker et al. (1999). Both these pairs of authors advocate for greater availability of case managers to help with capacity building and advice and support, which could potentially be part of their role. Secker et al. argue without this input community teams are unlikely to cope with the growing burden of mental health issues. They do not clarify for this statement.

Corney (1994), Goldberg and Gater (1996), MaGPIe (2005), and Russell and Potter (2002) all address issues of primary mental health but only discuss the issue of providing education and collaboration for GPs. These studies fail to recognise the needs of practice nurses. Craven and Bland (2006) in their best practices in collaborative mental health care found that collaboration between GP and mental health service providers alone has not been shown to produce skill transfer or enduring changes in knowledge or behaviours in the treatment of depression. Improvements in patient outcomes were not due solely to physician education but also required restructuring of services.

Badger and Nolan (1999), Lee and Knight (2006), Secker et al. (1999) and Warner (1998) all advocate for education to be provided by community psychiatric nurses (CPNs) from secondary services to PNs and the whole of the practice in general. Ford (1998) and Holdaway (2003) discussed care collaboration between services to improve outcomes for consumers, with collaborative learning being vital in reducing barriers and providing closer links between services. Lee and Knight also recommend mental health workers to be part of the community team, either in the form of a consultation liaison scheme, link-nurse or CPN. This they say will improve access to secondary services by creating an internal referral process either for patients or team consultations. This would create a multi-disciplinary (MDT)⁴ approach to care within the team and so potentially improve patient outcomes. They do not state how having this nurse will affect education levels of district nurses.

⁴ MDT- where all staff concerned with a patients care meet discuss and collaborate in that care

Shared care models between mental health services and primary health providers around NZ have been examined and evaluated closely by the Ministry of Health (Nelson et al., 2003). Here a recommendation was made that a nursing focus on shared care be explored especially where GP access is limited, with a corresponding examination of the required educational and training needs in mental health for the primary health nurses. There was no consensus within the research on what role the PN should play and this varied greatly across the country. However in one area, Newtown, the PN managed outreach clinics, saw patients for consultations and visited patients in hospital.

The MDT approach to mental health within practices has also been trialled in NZ (Rodenberg et al., 2004). The Wellington Mental Health Liaison Service used a collaborative model which created a new nursing role – the primary care liaison nurse – based within the community mental health service. The function of this nurse was to primarily aid the transition of the consumer from secondary services to primary services and to provide a consultancy service for the general practitioner. An education programme for all staff including GPs, PNs and receptionists was introduced as part of the programme. The overall result of this project was providing safe patient care, evidenced by the lack of deterioration in their clinical condition during the project for a group of patients with high needs at a lower service provision cost. They do not, measure education levels of practice staff in relation to this project.

In 1998 the Health Services Research Centre evaluated the Hawkes Bay shared care pilot project involving 12 GPs working collaboratively with the community mental health services from Napier and Wairoa, written for the Health Funding Authority (Health Service Research Centre, 1998). Here patients with a diagnosable mental illness were managed jointly by the GP and CMH team. Among the pilot achievements with this collaborative health care approach was a better understanding of the patients' history both physical and mental and a general plan of the patients' early warning signs of deterioration in mental state. There was no sustainable improvement in health status despite an increased usage of GP services. Although this project involving patients with severe and enduring mental illness, the patients reported an improved service and it does demonstrate a workable model

for shared care that is valuable for the patients with a severe mental illness. Little mention was made within this research on the role of the PN in this collaboration as these nurses had a limited role and the report was concentrating on the role of the GP and patients.

The NZ community nurses survey (MOH, 2003), stated that 68% of nurses were able to work collaboratively with community health professionals outside their agency and 85% were able to collaborate care within their organisation so perhaps the issue is not purely one of collaboration alone. Holdaway (2003) also discuss this liaison position and stated that further research and clarification on this role needs to be gathered to aid understanding. Happell and Platania-Phung (2005) in their discussion on nursing implications of the prevalence of mental health issues, conclude that consultation liaison psychiatry nursing alone was not sufficient to reduce mental health co-morbidity and suggest an increase in mental health education on a more formal basis with frequent updates for staff.

In a South African study by Sokhela (1999) which looked at integrating mental health care into primary healthcare in six clinics, nurses were given on the job experiential practical education on diagnosing and management of common psychiatric conditions. Sokhela found that on reviewing the patient records by psychiatrists, the nurses were able to take psychiatric histories in 89% of patients, provide correct diagnosis on 63% of cases and prescribe correct STAT medication⁵ in 92% of cases. While this South African setting bears no resemblance to the NZ context, primary health policy may be vastly different and the author urges discretion in generalising the findings outside rural South Africa. It does demonstrate substantial knowledge gains with integration, collaboration and targeted experiential training.

Conclusion

The MOH (2003) provides information about the present qualifications of primary health nurses in relation to mental health. This document does not reveal whether the nurses experience or education on mental health has been adequate to prepare them for implementing primary mental health policy. Nonetheless there appears to be a need for basic

⁵ STAT mediation- medication that is given once and immediately

mental health education for PNs but the research here is limited and no research has been completed in NZ to quantify this need. It is also unclear from the research whether these patients are being seen by a PN and if seen are they able to recognise mental health issues. Examination of PN role in primary health has concentrated on the performance of physical tasks and no NZ research has directly examined their role with patients who have a mental health issue. It is also unclear from the research what mental health interventions are being performed by PNs in particular and community nurses in general within their roles.

Close collaboration between mental health services and PHOs has been shown to improve patient outcomes but the form of this collaboration needs to be examined more closely. A CPN based within the GP practice may provide education and advice to nurses, however workload, and prioritising care for acutely mentally ill may impact on the ability of the CPN to provide this. The most common mental health conditions seen in primary care are mild depression and anxiety may not need specialist help at all only guidance, support and education.

A principle deficit in the research is the lack of NZ based research into PNs' involvement, training and education needs within mental health. There is an apparent need for further descriptive research, based within NZ, looking at mental health interventions performed by PNs and quantifying the gaps in their mental health education and experience. There is also a need for research on the type of education needed and who should provide this education for practice nurses. As this is more contextual it could take the form of descriptive-exploratory research.

Practice nurses have a responsibility to deliver care to patients with a mild to moderate mental illness. The research suggests that the majority of nurses in NZ do not have the requisite skills, knowledge or experience to manage this. There is a clear need for basic mental health training with reference to specific conditions and their management but there is conflict within the research on how the education should be delivered and what needs to be taught. To date no NZ research has looked at this topic.

In order to prepare community services to care effectively for patients with mental health issues in primary health, the research calls for closer collaboration not only from CPN but between specialist mental health services and community teams. CPNs' concern is for patients with severe and enduring mental illness, their availability for such training would be limited. Nevertheless a CPN based within the practice may provide the support, advice and training to the whole team. More research on the NZ context would need to take place before definitive conclusions could be drawn.

The next chapter discusses the methodology used in this project. After stating the aims and objectives the chosen methodology is justified and the development of the tool is described. The Treaty of Waitangi considerations are explored and the analysis plan is then described. The statistical tools to be used will be explained and the sample is clearly defined. Finally ethics and rigor of the study are explained.

Chapter 4. Methodology

This chapter describes the descriptive exploratory methodology and the survey method used to complete the study. Decisions related to designing the questionnaire are outlined. This chapter begins with aims of the research followed by a brief explanation of the underpinning theoretical perspective taken for the approach used. The sample is described and justified with recruitment methods explained. A full description of the actual process used with an explanation of the statistical tests employed within the research then follows. Justification for the design is evident throughout the chapter with the steps taken to ensure rigour explained in detail.

Aims of this project

The research was designed to describe the needs of practice nurses (PNs) in mental health education and to explore what involvement they have with patients with a mental health issue. Design details took cognisance of the four objectives of the research. These were to:

- ❖ Describe the current characteristics of PNs
- ❖ Examine the nature of mental health problems encountered by PNs
- ❖ Describe the mental health interventions currently being used by them
- ❖ Identify the perceived learning needs of PNs in mental health.

An important reason for my choice of survey methodology was that this research is being submitted as a thesis done in part fulfilment a Master of Arts (Applied) degree and therefore had to be completed within a tight timeframe. The project was also largely self funded and so costs had to be kept to a minimum. A self administered postal questionnaire is relatively inexpensive and can be completed in a short time frame, be of manageable size while still allowing me to reach a large number of participants and therefore gain a widespread perspective. An alternative methodology which could have answered this question is focus group but this would not allow for generalisations nationally as a sample from Tairāwhiti region of 6-10 nurses would not be representative of the PNs in New Zealand (NZ). Interviewing PNs would also have given me this information. Practice nurses may have felt intimidated by talking to a mental health nurse and so may not have been honest with their

answers. Also the geographical distances that would have needed to be covered to gain a representative sample which would have made this research difficult to complete.

Surveys allow for larger samples which will increase the generalisability of the research and can extend the geographic area of the research (Cormack, 1996). As very little had been written on this topic and I wanted to get a picture of the present situation then a descriptive exploratory survey was chosen as the methodology. The PNs practising in Tairāwhiti and Hawkes Bay were chosen because they are the areas that are accessible to me and would allow personal visits to practices if necessary. This descriptive exploratory methodology was also used successfully by Lee and Knight (2006) in the United Kingdom to examine the involvement of district nurses in providing mental health interventions. Lee and Knight questionnaire could not be replicated for two reasons. The aims of their research were broader capturing more contextual needs of all types of community nurses and Lee and Knight research was completed in the United Kingdom where the context of practice may differ.

Theoretical perspective

The nature of inquiry determines the methodology used. While it is not always necessary to define a theoretical perspective for descriptive research, this research is predominantly quantitative in nature; the scientific theoretical underpinnings should come from this positivist paradigm. This paradigm sets out to prove hypothesis in a scientific, rigorous way from facts, observation and experiment (Poole & Jones, 1998). This current research project does not have a hypothesis and is not testing a theory in the true sense therefore qualitative paradigm only partly fits. The objectives of the research are to quantify and describe the nature of mental health problems encountered by PNs and identify learning needs, explaining and attributing some interpretation to the observations gained. It involves generalising the results to a wider population but this is contextual to the PNs and where and how they are practicing. Forbes et al. (1999) state this type of research is underpinned by postpositivism.

Postpositivism is typified by developing an understanding of the dimensions of the phenomena and factors that influence and impact on its occurrence (Forbes et al., 1999). As such it seeks to make generalisations, uses a fixed design which focuses on quantifiable objectives that can be analysed statistically and where the researcher is external and impartial to the research (Polit & Beck, 2006). An important point about the postpositivist paradigm is that there is a truth to be discovered which is objective and can be measured, and where underlying causes can be identified. This may be hard to prove as postpositivism seeks “probabilistic” evidence, namely ascertaining the most likely cause (Polit & Beck). Reality can never be completely understood and attempting to measure reality accurately is limited by human understanding (Weaver & Olson, 2006). The researcher’s voice in postpositivism is that of the disinterested researcher who is looking to be a change agent or informer on policy (Lincoln & Guba as cited in Denzin & Lincoln, 2000). Finally, rigour within this paradigm is governed by the conventions of internal and external validity with emphasis on reliability of results (Denzin & Lincoln, 2000).

The postpositivist paradigm fits well with the aims of this research. The research sought to find the mental health conditions encountered, mental health interventions performed and confidence and competence of performing these skills. It was also intended to see whether there were any relationship between the variables such as nurse demographic and professional education with patient encounters, perceived education needs and skill level. These results can then be used by educators and mental health policy makers to help provide necessary education for practice nurses.

Weaver and Olson (2006) state that one of the limitations of postpositivist research includes not making the wishes of the participants explicit within the research as control over the data is held with the researcher where the researcher controls the questions asked and analysis of results. They also argue that by only examining a portion of the whole person through the questions asked, a researcher neglects the completeness of the participant. The parts of the person studied are then displayed as percentages gained from analysis. The researcher chooses what parts are relevant from the information obtained to display. This means that complete understanding of the phenomenon is not gained. As the aim of this descriptive

research was to provide a snapshot of time which other researchers can develop further, this limitation does not impact on the value of this research. A recognised method of inquiry for postpositivism is survey methodology using a questionnaire with analysis completed statistically (Crotty, 1998; Denzin & Lincoln, 2000).

Survey methodology

Survey is a systematic way of gathering information or data to provide detailed description and analysis of a topic. It involves a systematic collection of data from respondents to a fixed set of questions (Kent, 2001). The aim of descriptive research is to provide a snapshot in time of the characteristics such as demographics, experience and attitudes of a sample, deduce the needs of the population and so describe or paint a picture of who the sample is and what their experiences and attitudes are. Descriptive research allows for description of the phenomena and examination of the variables including behaviours, knowledge and experiences and frequency with which phenomena occur (Cormack, 1996; Kelley, Clarke, Brown, & Sitzia, 2003; Polit & Beck, 2006). According to Polit and Beck it is concerned with exploring the dimensions of the phenomenon and can help to define hypotheses about the relationships between the variables. The objectives of this study fit well with descriptive exploratory research. They include describing the current characteristics of PNs, exploring the MH interventions that are used by them, describing their educational level in relation to mental health, and exploring their perceived educational needs within this field.

This research used a postal survey to gather the required data. Surveys permit the researcher to select a sample from a population and on the basis of the results the whole population can be described. They allow the participant to answer questions at their leisure and are therefore are less intrusive than interviews, an important consideration for busy practice nurses. Surveys allow for diverse populations over a wide geographical area to be studied and can also reduce researcher bias by having pre-set questions (Kelley et al., 2003; Polit & Beck, 2006). This means that the findings could be more generalisable to the population, one of the personal aims of the researcher. Surveys are easy and relatively cheap to administer and can gather results within a fixed time frame. This method therefore fits in well with the fiscal and time constraints.

Questionnaire design and development

The tool for this research was a self-administered postal questionnaire. Questionnaires allow for the collecting data, with the minimum of distortion and should not lead the respondent. The respondent also has to understand the questions and need appropriate structures for a response (Cormack, 1996; Davidson & Tolich, 2003). As the PNs to be surveyed were practicing in NZ it was assumed in designing the survey that they would have a good understanding of the English language which predominates in NZ. Questions should still be clear and specific to avoid ambiguity within the answers, and be designed to collect the data required (Beanland, Schneider, LoBiondo-Wood, & Haber, 1999). Questionnaires can take time to develop and one that has good face, content and construct validity is not only more efficient by minimising missing, invalid data but should also allow for greater generalisability of the results (Peat, Mellis, Williams, & Xuan, 2001).

Four types of questions – closed, open, rating scales and Likert scales – were used for this piece of research (see Appendix A). Closed questions allow collection of specific quantifiable data, for example age, gender, and contact with patients. Closed questions can be asked in the form of yes and no answers and tick boxes allowing for ease of data analysis. They allow the participant to complete the questionnaire quickly and as answers are fixed, minimise researcher bias in the analysis process. These types of questions make up the majority of questions within this research. A disadvantage of these types of questions is that they may attract random answers for example ticking the middle column or ticking yes because it seems the right response at the time and the provided answers may not be accurate to a person (Peat et al., 2001; Peat & Barton, 2005).

Open questions allow participants to respond in their own words. In this way the phenomenon can be explored in more depth allowing for answers and unprompted ideas from the practice nurses. The open questions in this research were included to highlight the individual needs and skills of PNs, enabling deductions to be made about their educational needs and liaison role with mental health. Given that little is known about this aspect of PNs work in NZ these questions were important to ensure all ideas and information was gathered.

Many respondents are unlikely to answer too many open ended questions as this can take time to answer, therefore these are kept to a minimum (Davidson & Tolich, 2003). Open ended questions can be time-consuming to analyse as they cannot be analysed in a quantitative manner. In this research they have been restricted to areas where a closed question could not be used, or where little was known to define the fields for closed questions such as listing the mental health services that nurses liaise with. They were also used within this research where greater depth was required. For example where the nurses were asked to name the screening tools they use.

Rating scales and Likert-type questions have also been used as these allow respondents (the PNs) to rate themselves. The PNs were asked to rate themselves on their needs, confidence about specific mental health interventions and dealing with patients with a mental illness. This makes finer discriminations possible among different viewpoints (Cormack, 1996; Polit & Beck, 2006). An important advantage of rating scales is they allow data to be analysed statistically and can provide greater statistical power than short yes or no answer questions. However they often require large sample sizes and have a potential of skewed results towards one end of the scale (Peat et al., 2001).

How many questions to include in a survey also needs to be considered; too many and people will be reluctant to answer, too few and insufficient data will be collected (Beanland et al., 1999). For this reason, the length of the questionnaire used was relatively short at 33 questions and therefore not cumbersome to complete. Having timed the completion of the questionnaire during the pre-test, the researcher was aware that it should take no longer than 20 minutes to complete. Attention was given to ensuring was clear language used, that questions were unambiguous and instructions were clear. There was plenty of open space for the respondent to add comments and self coding boxes are clear, practical and easy to use and understand. This reduces the potential for data recording and entry errors (Peat et al., 2001).

The content of the questions, for example types of mental illness, therapies, where and whom should provide education, were generated in three ways. Either these issues were

raised within the literature review, were taken from my conversations with PNs, or were added during peer review of the tool (Appendix B). In this way it was hoped that the questionnaire would be as comprehensive as possible and be relevant to the PNS situation in primary health.

Validating the tool

Validating, reviewing and formatting a questionnaire is a required methodological process. As part of this process a draft questionnaire was reviewed by peers during two presentations. The first presentation was to nurses at community mental health in Gisborne in February 2008 where a large group of community nurses critiqued the research and the tool. The second presentation was to a group of community nurses and community managers at Hastings Hospital in Hawkes Bay, April 2008 where the questionnaire was discussed in depth. In all instances the research was well received by those present and suggestions were made to aid clarity of the questions. Copies of the draft tool were also sent to local community and PN educators who also made suggestions as to the types of illness seen by PNs in the community and the format of the questions.

Prior to finalising any questionnaire it is important that it is checked for flaws and that the content measures what is intended to be measured. It checks that the right questions are being asked in a logical manner and that all important and relevant areas are properly worded (Khin & Arroll, 2003). In April 2008, when the questionnaire was in its final stages of review, a pre-test was undertaken. The draft tool was presented to a practice in Waipukurau, Hawkes Bay. This practice of four nurses was chosen as it was outside the sample area but inside one of the District Health Boards (DHBs) of the study and so had relevance to the sample. The practice was also in an area that I could visit personally to allow me to explain the aims of the research and gain cooperation of the nurses involved. A personal visit also permitted a discussion on the format of the tool, types of questions used and to check for any areas that the PNs felt that had been missed in the tool.

Due to one nurse being absent on this day and work commitments of the practice only two nurses were able to attend. An explanation was given on the tool and what I hoped to gain

from them completing the questionnaire. A pre-test not only checks for flaws in the instrument such as ambiguous or difficult questions, assisting with internal validity, but assesses time requirement to complete the questionnaire (Davison & Tolich, 2003; Peat et al., 2001; Polit & Beck, 2006). Three out of the four nurses completed the survey with the fourth nurse choosing not to complete. All questions were answered and overall comments were good. The nurses reported few difficulties in answering the questions and from the follow up phone call it was determined that the survey took 15-20 minutes to complete.

Several changes were made to the questionnaire as the result of this process of validation. Rating questions around competence and confidence were altered slightly and the scales standardised to make them easier to understand and simpler to fill out. The wording in several questions was changed to aid clarity. Clearer instructions were added to some questions. Demographic data were moved from the first section to the final section allowing the more difficult questions to be sandwiched between the easier sections. A 10 point rating scale was used for questions 13 and 20 (Appendix A), but during the pre-test and review of the tool, these questions were considered difficult to understand during peer review and pilot, these were changed to a five point scale.

The final tool

The final questionnaire was in three sections. Section one had 11 questions and asked the PN about their basic level of education, how education should be delivered to them and what issues they have with receiving or accessing education. The PNs were specifically asked to list mental health issues that they would like/wanted education on. Section two had 14 questions and asked the PN to rate themselves on their confidence and competence in caring for people with particular mental health disorders. It was intended that the results of these questions would be correlated with the results of the questions on nurses' educational level, experience confidence and competence. This section also had two questions where the PN could rate themselves on the use of screening tools and two about the referral process to mental health services. The final section consisted of seven questions designed to examine the population being studied and ensure generalisability of the findings with the general population of practice nurses.

In summary there were 33 questions, 11 open questions, added mainly as qualification to a closed when further information is needed. There were 23 closed questions, mostly with yes or no answers. There were five rating scale questions which primarily look at incidence, confidence and competence issues in mental health. A breakdown of why each question was included is in Appendix B.

Sample

There are no strict rules about sample size in survey research and a large survey size does not guarantee the accuracy of the findings (Cormack, 1996; Kelley et al., 2003). Most surveys are conducted with the aim of generalising the results to a larger group. Therefore sample selection needs to represent as closely as possible the whole group (Davidson & Tolich, 2003). As mailing the questionnaire to all PNs within NZ would be difficult and was not affordable. The sample chosen was Tairāwhiti and Hawke's Bay with the boundaries being from Te Araroa to Taradale. An attempt was made to saturate the population of PN in this area. This would allow for a sample of urban and rural districts while still being of manageable size. Limiting the study to this region potentially limits generalisability of the results to the wider population of PNs as Tairāwhiti with its high population of Maori and relative isolation is not representative of NZ as a whole.

There is no NZ master register of GP practices, and although the Nursing Council of New Zealand (NCNZ) has a register of nurses and could locate PNs within their register this is costly to obtain. To locate the sample I used publicly available names and addresses of general practices in the telephone book and on line from the NZ business directory. These were very useful for gauging the size of the practices and so the potential population. To locate some of the smaller Maori and Pacific unlisted services, I used my networks within mental health service. The listings on these sites are not always accurate as Table A shows and some incorrect phone numbers were listed, hospitals and surgical clinics being listed as GP practices, and some practices had their phone number listed more than once but under different names.

Table A. Reasons why practices were withdrawn from sample

Reasons	No.
Initial number of practice listed online phone and business directory	63
Not GP practice e.g. rural nurses or surgical centre	5
Duplicate phone listing under different name	9
No nurses working at practice	5
Refusing to participate	3
Unable to be contacted	5
Total number of participating practices	36

The sample surveyed had a mixture of larger and smaller practices all with one or more GPs and all employing between one and 18 nurses. There is also a combination of DHB run services, private GP services, Maori provider, and community trust services. In total, 63 practices were initially located. After eliminating practices with no nurse, practices that had been listed more than once in the phone book under different names, and practices which could not be contacted by phone, the final number of 36 practices was attained. Using the information gained by phoning the practices this gave a potential sample size of 143 nurses, almost 10% of the PN population (MOH, 2003). While this form of purposeful sampling does pose a risk of sample bias, it was hoped that ensuring a variation in practice settings should limit this. It is acknowledged that the population does not contain any major cities and so may limit the generalisability of the study.

Recruitment

The initial plan was to phone each practice and ask to speak to the senior nurse or a named contact nurse within the practice. This method was chosen to help increase the response rates and get buy-in from the PN (Barclay, Todd, Finlay, Grande & Wyatt, 2002). Questionnaires were to be sent to the named nurse in each practice participating in the study

with a letter explaining the purpose of the research. Each senior/named nurse was asked to distribute the survey packs to nurses at their practice. Having a named nurse to whom the survey packs is addressed makes this nurse responsible for the distribution of the questionnaire, and it is hoped that this will have a positive effect and increase the response rate. Numbers of survey packs to be sent to each practice were determined by the initial phone call when sample size could be accurately gauged.

Phone calls to individual nurses proved very difficult as PNs were often busy and unavailable by phone despite several attempts. Many messages were left at practices to contact the researcher but the PNs were repeatedly too busy to reply. This was very time consuming for myself and with restrictions due to shift work on my available time during ordinary working hours, this recruitment approach had to be abandoned. Nonetheless the address needed to be verified with the practice and the number of nurses working at that practice need to be checked prior to posting. A compromise was made whereby a phone call was made to the receptionist enquiring who the senior nurse was at the practice, verifying the postal address and the number of nurses working at this practice. The initial letter to the senior nurse was then altered to reflect this (Appendix C).

The packs distributed to the nurse included a letter explaining the purpose of the research and the role of this nurse (Appendix C) and survey packs for each nurse working in that practice. Each pack contained a participant letter explaining the research (Appendix D), the questionnaire (Appendix A), a participant sheet (Appendix E) for the prize draw (coloured pink for ease of identification by the research assistant) and prepaid return envelopes, one for each questionnaire. Each nurse could then make a private choice as to whether to participate. The initial mail out of the questionnaire took place late July 2008. Five practices listed in the white pages of the phone book which were still unable to be contacted despite calling several times and at different times of the day. A decision was made to attempt to contact these practices during the second mail out.

Each participating practice was allocated an identification number and this number was written on the top right hand of the survey packs. This allowed the researcher to identify

which practices had responded and gauge the response rate. A prize draw was used to encourage responses. Every nurse who returned a completed questionnaire was eligible to enter into a draw to win a \$100 voucher to a restaurant of their choice. The last page of the questionnaire asked the nurse to identify herself, her practice and the restaurant she would like to attend if winning the draw. This sheet was the last sheet in the pack and was coloured pink for ease of identification. This was removed by a research assistant to ensure anonymity of the respondents prior to passing on the completed questionnaire to the researcher. The research assistant signed a confidentiality agreement (Appendix F). The prize draw sheets were stored in a secure locked cupboard until the draw took place at the end of September 2008.

A response rate of less than 50% for any practice would generate a follow up phone call three weeks after the first mail out, completed mid August 2008. During this reminder process, five practices withdrew from the study stating they were too busy to participate. An attempt was also made to contact the five practices unobtainable earlier in the study. Again this proved fruitless. These practices were then removed from the sample reducing the size to 36 practices and a potential sample of 143 nurses. This does not affect the number of nurses sampled as nurses from these practices were excluded in the original sample size. A breakdown of why practices were removed from the study is shown in Table A.

Three weeks after the reminder phone call early September 2008, a second mail out occurred. Here only one survey pack and a flyer (Appendix G) were sent out to all those practices with a response rate of less than 50%. The instructions on the flier were to photocopy the survey. This pack was not addressed to the named nurse but to the PNs generally. This was in case the named nurse had not passed out the surveys as instructed and therefore eliminating this as a potential reason for the poor return rate.

The prize draw was supervised by me and the group manager of mental health services. The nurse was informed by telephone and in writing. A letter informing all participating practices that the draw had taken place and thanking them for participating in the study was sent out in October 2008 (Appendix I). Prize draw entries were then destroyed.

Data analysis

Data analysis is the systematic organisation and synthesis of the data allowing the researcher to make sense of the material generated from the study and to answer the research question (Kelley et al., 2003; Polit & Beck, 2006). This study generated numerical data and prose which each needed to be analysed separately.

Numerical data from closed questions, rating scales, and Likert type questions were entered into the Statistical Package for Social Sciences Research (SPSS), Version 16. Using computer programmes to analyse the data can aid in the reliability of quantitative data. Reliability can be assured providing data is cleaned adequately and accuracy is maintained in data entry. Computer assisted analysis packages assist with this process and provide coder reliability (Priest, Roberts, & Woods, 2002). Reliability on computer entry still needs to be maintained and therefore all data entries were checked for accuracy.

Cleaning the data involved checking for errors and is done when the data is entered onto the SPSS system by checking for values that are outside the possible range of values, finding and correcting any errors. After entering each questionnaire the database was checked against the answers to ensure only correct answers were inputted. In addition to this the variables were also checked for errors by doing frequencies. Minimum and maximum values were checked making sure not only that they made sense but that they were within the expected range (Pallant, 2007; Peat & Barton, 2005). The database was also examined for the number of valid and missing cases. The checking process found no entry errors.

Statistical measures give meaning and organisation to data. Descriptive statistics were used in the main to analyse this research. Here data is reduced to meaningful portions where various characteristics are described in a systematic arrangement of numerical values, for example percentages of respondents (Polit & Beck, 2006).

Three types of statistical data – nominal, ordinal, interval – were utilised. Nominal measurement is where the data is broken down into the lowest form of measurement, for

example, males and females (Polit & Beck, 2006). It can be used to show proportions. Ordinal data is a measurement where a phenomenon is ordered but the ranking is not of a continuous nature, for example, the frequency of mental health work performed daily, weekly, monthly. Interval data, for example, how many years were worked as a practice nurse, has numbers on a continuous scale. The confidence in providing mental health interventions from the Likert scales was also treated as continuous data (Roberson, Shema, Mundfrom & Holmes, 1995). Continuous data can be regrouped as ordinal or nominal data. Appendix I contains a breakdown of variable used to input data into SPSS.

The answers to some questions (Questions 17 and 18, Appendix A) were re-coded to ease analysis. For example, psychotic episode, psychosis and schizophrenia were grouped as one, suicidal ideation was re-coded as suicide and cannabis abuse as addictions. Some regrouping was also necessary to determine if basic primary qualification influenced confidence of caring for patients with mental health issues in general. Enrolled nurses were removed as their numbers were very small and they only work under the direction of a registered nurse (RN). Registered nurse, other and comprehensive /diploma hospital trained nurses were combined and nurse practitioners were removed as no respondents identified themselves with this qualification. This left two groups, registered nurse and hospital trained degree trained nurse where potentially more education and emphasis was placed on mental health. Other variables were added together, for example, total confidence scores as appropriate for the calculations performed.

Examples of the types of descriptive statistics generated from the demographic data are measures of central tendency (mean, median, mode), measures of dispersion (standard deviation, range), and frequencies to establish the typical responses from the practice nurses. Correlation statistics were also used to show relationships between different variables of the population studied. Content analysis was used for analysing the open-ended questions. This reduced the data into themes allowing for ease of interpretation of the results. These analysis methods concur with the exploratory surveys (Beanland et al., 1999; Brockopp & Hastings-Tolsma, 1995; Cormack, 1996; Polit & Beck, 2006).

Measures of central tendency are used to describe the whole distribution of data. The mean or average is the sum of all the values and then divided by the number of participants. It provides the most typical response in the data. The median is where the figure that is precisely in the middle if all the data values are put in rank order. It divides score exactly in half. It is insensitive to extremes values and so is the preferred measure of central tendency to describe skewed distribution. The mode is the number that most frequently occurs, the most popular response. For interval or continuous statistics the mean is usually reported as this value is the most stable and would fluctuate less than the median and mode when the study is repeated unless the distribution is highly skewed where the median is a more accurate representation (Polit & Beck, 2006).

Relationships between variables were examined using correlation and inferential statistics. A planned approach is used for undertaking such statistical analyses tests. In this research for example it was considered that experience working within mental health may impact on the types of mental health interventions employed by practice nurses; that there may be differences in confidence of doing mental health interventions and the registration the nurse holds; and there may be differences in mental health work in rural and urban practices.

Correlation tests assess whether as one variable changes it will give a predictable change in another variable. A correlation can only be utilised with continuous and ordinal variables. A positive correlation is when one variable increases so does the other, and a negative correlation is where as one variable decreases the other increases (Cluett & Bluff, 2004). In this way they are said to show a linear relationship. Pearson's coefficient is a correlation test frequently used when variables are numerical and is denoted by the letter- r . It can be used in descriptive research to demonstrate the relationship between variables and in experimental research to test the null hypothesis. The calculation gives a numerical value of r between -1 to +1 (Cluett & Bluff, 2004). In descriptive statistics this number indicates the correlation/relationship between the two variables. A correlation of 0 would indicate no association. A positive number would be a strong association with +1, the variables are in agreement. A negative correlation (-1) indicates that an increase in one variable will lead to a decrease in another. The assumption here is that correlations are linear and when the

variables change the degree of change will be proportional (Johnstone, Freeman, & Zealley, 1998). Spearman's coefficient is used when examining ordinal data. Data is ranked in pairs and a value from -1 to +1 is obtained.

Tests with continuous data depend on whether statistically is normally or not normally distributed. Given that some variables were not normally distributed, the Mann-Whitney *U*-test (non-parametric test used to test the difference between two independent groups using ranked scores) and Kruskal-Wallis test (non-parametric test between two or more independent groups based on ranked scores) were used to compare differences in, for example, confidence levels of hospital trained nurses and degree nurses performing mental health interventions (Polit & Beck, 2006). The result of an inferential test is determined by the 'p' value, that is, the probability that the results are due to chance alone. The lower the p value the lower the probability that the results were caused by chance. It is usually expressed as a decimal number between 0 and 1. A value of $p = 0.0$ indicates an absolute improbability while a $p = 1.0$ represents absolute certainty (Cluett, & Bluff, 2004). Statistically significant findings in this study are $p \leq 0.05$.

Content analysis was used for open-ended questions. Groupings were formed from the questions and coded to establish categories to support the generation of ideas. A process of data reduction followed, allowing interpretation of the data and development of constructs, or themes, enabling the researcher to interpret the data, taking into account the context of the study (Priest et al., 2002; Rourke, Anderson, Garrison, & Archer, 2000). Numbers were attached to each of the ideas within the text and these were analysed statistically. Content analysis of the open questions is a reliable means of analysing the qualitative data as the coding decisions can be confirmed by revisiting them later (Kelley et al., 2003; Rourke et al.).

A final analysis completed was to ascertain the representativeness of the sample. To check whether the sample was representative of PNs, results were compared with those of the *Primary Health Care and Community Nursing Workforce Survey - 2001* (MOH, 2003) and *The National Primary Health Care Study, 2001/2002* (MOH, 2005). The MOH (2003)

survey was completed by 3562 community nurses including PNs, and reported on baseline socio-demographic and work experience and their educational needs. Unfortunately PNs are not singled out in the demographics making direct comparisons between this current research and this MOH study difficult. The MOH (2005) study which includes the demographics and working practices of 167 PNs obtained from a stratified probability sample of general practices was also used. The closest possible match of variable type from either of these reports was used.

Treaty of Waitangi considerations

Although this research is not specifically targeted at Maori, Treaty of Waitangi obligations regarding partnership, protection and participation should be abided by in any research that impacts on the Maori people (Health Research Council, 2008). To ensure tino rangatiratanga (Maori control over its resources and people), Maori should be consulted early within the research, throughout the project, and results should be disseminated to iwi. Both Gisborne and Hawke's Bay have a higher percentage of Maori than New Zealand national average (14%) with the Maori population being 44% and 22% respectfully (Statistics New Zealand, n.d.). Seven percent of community nurses nationally identify themselves as Maori, and details of percentages for Tairāwhiti and Hawkes Bay are not known. However this figure is likely to be higher than the national average based on general trends. The study was therefore developed with the view that Maori nurses were likely to be sent surveys. Health inequalities affecting Maori have long been recognised with poorer health experienced by Maori compared to non-Maori (MOH, 2001). Maori also have a different mental illness profile with higher addictions problem, problem gambling issues, depression, violence issues, and, are more likely to use mental health services. Maori with a mental health problem are also more likely to be seriously ill at the time of presentation (Goodyear-Smith, Arroll, Coupe, & Buetow 2005). Delayed access to treatment is a risk factor in poor outcomes for these patients (Holdaway, 2003). There is a definite benefit for these patients if mental illness can be diagnosed quickly. This research therefore does have the potential to impact on Maori.

As the researcher is not a New Zealander, to ensure Treaty obligations were met, local Maori were consulted, and a cultural supervisor was engaged and involved with this research from its inception. He is a Kaumatua, a trained and experienced clinical supervisor, the Kai Arahī (team leader) of the cultural assessment team, a hapu and iwi elder whose tribal affiliations extend throughout the East Coast region and into Hawkes Bay. This is to provide advice and support, ensuring the safety of the researcher and the participants.

The consultation process agreed as appropriate for this research was to present the proposal to Te Waka Hauora which is the Tairāwhiti District Health (TDH) Maori Mental Health Advisory Group. On this group sit representations from all local iwi with tribal boundaries stretching from Wairoa to Tiki Tiki. This group also agreed to act as an advisory group to help with further consultation process outside Tairāwhiti. The research proposal, along with implications for Maori were presented on February 2008. All local iwi were represented and the advice gained was twofold. Firstly, it was decided there was a need to present to the equivalent Maori advisory group in Hawkes Bay District Health Board (DHB) and, secondly, to inform the Maori Advisory Group of TDH. The proposal was generally well received and no other consultation with local Maori was considered necessary.

The Maori Advisory Group meeting from TDH took place in March 2008. This is a local Maori governance group whose membership includes the local MH consumer associations, Maori providers of Tairāwhiti and the NGO sector. Again the proposal was well received and a commitment was made to keep this group informed of the results of the survey.

The meeting with the Hawkes Bay DHB Maori group was subsequently arranged by my cultural advisor and a team consisting of my advisor, a Kaumatua, a kaikaranga (female caller to lead us onto the marae) and I attended a meeting in April 2008. All local Iwi were invited to participate along with representatives from the Hawkes Bay senior nursing and community services with the meeting being very well attended by both groups. This meeting served two purposes, to help fulfil Treaty obligations and to assist with validating the draft tool. The research was well received by Maori present and generated much discussion around implications for Maori. The nurses present commented on the worthiness of the

project. The research was seen as long overdue, the process was easily understood by those present and the instrument was well received by the nurses. Some suggestions were made around specific illness within the questionnaire and some questions needed to be clarified for this group. These issues were all addressed during the formation of the final tool. A request was made by this group to come and present the results in person at the end of the project and a commitment was made by me and my cultural advisors at the end of the project.

Ethical implications

Several principles of ethics were followed during this research. These included protection from harm, exploitation, privacy, fair treatment, self determination and full disclosure (Polit & Beck, 2006). There were no participants subjected to any harm or exploitation, and no patients are participating therefore ethical approval was obtained from Victoria University of Wellington Human Ethics Committee only. This was granted in June 2008 (Appendix G).

With a postal survey anonymity of the participants can be guaranteed and confidentiality of information maintained, protecting the privacy of the respondents. Privacy was also maintained by storing returns in a secure filing cabinet within the researcher's office and these will be destroyed on completion of the project. The data entered onto computer was password protected. No consent from individual nurses was sought prior to sending out questionnaires. Practices that declined to participate during phone calls, either because they did not meet the inclusion criteria of employing practices nurses or because they were too busy were removed from the survey. Therefore all practices were treated fairly. Any practices that could not be contacted were also removed (see Table A). The date of contacting the practice was recorded in the research notes. The name of the nurse from each practice was advised by the letter contained within the survey to distribute the questionnaire only and was not involved in returning the questionnaires ensuring self determination. Anonymity was maintained by the use of a research assistant to open all questionnaires and remove the identifying features prior to forwarding them to the researcher. The only identifying feature present on the questionnaires was a number which identified the

participating practices. This was to allow for gauging response rates to target follow up phone calls and second mail outs. Consent from each nurse was assumed with the return of the questionnaire as those that do not consent simply do not return the questionnaire. In this way self determination is possible.

Letters accompanied questionnaires informed participants in full of the purpose of the research and contact details of the researcher and the supervisor for this project. No participants contacted the researcher or her supervisor during the study ensuring full disclosure to the participants. No pressure was exerted on practices locally but reminders were given by phone and letter to return questionnaires.

Rigour

One of the potential limitations and threats to external validity of this study is a sample that has different characteristics from what is known publicly about practice nurses. This can potentially make generalisations and comparisons with the wider population of PNs difficult. Ensuring that various sizes and types of practice are included making this sample represent closely the total population of PNs with the MOH surveys (MOH, 2003, 2005) should increase the generalisability of the study. The degree of non-response bias depends on the percentage of respondents to the survey and to the degree with which they vary from the population studied. For example, if all the respondents come from one area only, the sample would not be a representative of the whole population. This non-response bias is likely to persist in survey research even with direct incentives to participate in the research (Barclay et al., 2002). While it is not possible to compare the data collected from the non-responders, it is possible to compare the data from the responding PNs with the publicly available data on PNs contained within the MOH surveys. It would then be known how representative the sample is to the whole population and, therefore if the validity and generalisability of the study is threatened by this bias. To increase the response rate, the survey was mailed out a second time, in this instance five weeks after first mail out, to practices where the response rate was lower than 50%. This method has been shown to increase the response rate (Barclay et al.; Sierles, 2003).

A journal of the research journey was used to aid rigour in this type of research by providing an accurate record of how the data was handled during the process. Thus providing a clear trail of changes within the process and addressing missing data. In this way internal validity was monitored (Beanland et al., 1999). This journal was commenced in February 2008 and was on-going throughout the process. It tracked changes to method and regrouping and recoding of variables and themes for content analysis.

One significant aspect with self reports affecting the rigour of the study is that of social desirability. That is, the respondent answers in a way that she/he thinks the researcher wish them to respond to make a favourable impression (Beanland et al., 1999; Morgan & Harmon, 2001). As this study is both anonymous and confidential, with this being emphasised in the accompanying letter, this will be kept to a minimum.

Other systems used to ensure a rigorous process within this research was through validation and testing of the tool. Validation refers to whether a tool collects the information it is designed to collect and should be validated for content and the construct of the questions (Le Bono-Wood & Haber, 1994). The initial content of the questionnaire was developed using the author's knowledge of the topic and themes which emerged from extensive reading of research around the subject. Both reliable methods to develop content (Polit & Beck, 2006). The content was verified two ways, by pre-test and peer review. The pre-test completed in April, was done in a practice outside the sample area, but within one of the DHBs being sampled. Therefore there is little sample variation between the pre-test sample and the actual sample for the study. This pre-test examined how easy the questionnaire was to complete, how long it took to complete and looked for problems with particular questions. It also examined the content, that is, the right conditions listed within the questions were conditions that the PNs would meet in primary health. Lastly, a check was made to see if the tool gathered the required information. As a result of this test two questions in particular were changed to ease understanding. The nurses responded that they found the questions easy to understand and the information gathered matched what the researcher was attempting to collect, therefore elements of face validity of construct and content were present at this stage (Polit & Beck, 2006).

The tool was also peer reviewed several times at different stages of development for content and construct. The tool was reviewed in two large forums at Tairāwhiti and Hawkes Bay DHBs. Present at these meetings were community mental health nurses, mental health management teams, community and mental health nurse educators, PNs and public health nurses. The tool was also sent for review to two PN educators within Tairāwhiti. All were nurses who have an extensive knowledge of the subject and in a prime position to review the questionnaire. Suggestions made during this review process included the types of illnesses to be included and the types of interventions normally undertaken by practice nurses. Clarification was needed on some of the instructions and changes were made to some rating scales to ease completion of the tool.

Reliability refers to the accuracy of the data and can be verified statistically. The data was cleaned by manually checking all entries onto the data base for errors. The frequency data generated was cleaned by checking each variable score was within the expected range and any errors sought were found and corrected.

Conclusion

This chapter has outlined the methods used to execute this study. After revisiting the aims and objectives, an explanation and justification of the tool was given. The Treaty of Waitangi process was followed with support from TDH cultural team. The statistical tools used were explained and justified in this chapter. This part was completed by an account of the actual process followed. Chapter 5 will present the results gained from this process. The demographics will be investigated and compared to ensure generalisability of results. This chapter explores how often the respondents deal with patients suffering a mental illness and what actual interventions the PNs perform including how confident they rate themselves in performing these interventions. It discusses their perceived education needs rating these to permit educators to design a programme for these nurses.

Chapter 5. Findings

This chapter reports the results of the survey completed by practice nurses (PNs) on their educational needs in primary mental health. Results are displayed in four sections. Section one covers the demographic and mental health experience of the sample (from here on in referred to as the respondents), and compares this to known PN characteristics from Ministry of Health (MOH) data. Section two describes the patients with a mental health concern that the PN respondents come into contact with in their daily work, what interventions they undertake, how often they deal with these patients and what conditions they meet. Section three covers the educational needs of the respondents including what conditions they felt confident and not confident in their knowledge about, which conditions they identified they need more education on, and their preferences for whom should provide this education. Section four presents the respondents' understandings of co-morbid disease and mental health. This final section also reports the findings related to the respondents' ability to recognise mental health problems in patients and knowledge of the processes the nurses follow when they suspect a patient has a mental health concern.

In presenting the findings tables and descriptive commentary are used. Where extracts from open-ended questions are included these are in italics. Symbols and abbreviations used in presenting findings are: n = number; Mn for mean; \pm **always refers to** standard deviation; % as a measure of frequency; and p as the significance result.

Return rate

Of the 143 nurses surveyed, 52 nurses took part, a return rate of 36%. The initial mail out produced a return of 32 (22%) questionnaires. Reminders at the end of August were given by phone to the 20 practices with a return rate of less than 50% which increased the return to 42 completed questionnaires. A further postal reminder was sent to those practices in September 2008, to the practices who maintained a return rate of less than 50% in the form of a flyer (Appendix G) with a blank questionnaire for those practices where the original had been misplaced. The closing off date for the incentive of a restaurant voucher was also set

and the practices were reminded of this on the flyer. This resulted in a further 10 completed returned surveys.

Forty one nurses choose to take part in the prize draw incentive. This was drawn early October 2008. The winner was informed by phone on that day and all participating practices were informed by letter that a winner had been drawn and the general location of the winner. A further reminder was included in this letter reminding nurses that there was still time to return completed questionnaires (Appendix I).

Although all 52 returns were utilised in the analysis, not all respondents completed all questions. Therefore at times through the reporting of the findings information is reported about missing data, and what the denominator is in particular results.

The sample

In Table 1 the gender, age bands and ethnicity of the 52 respondents are presented.

Table 1. Demographics of respondents compared to Ministry of Health (2003, 2005)* respondents

Nurse demographics		Current survey (n = 52) %	*MOH 2003 (n=3562) MOH 2005 (n=160)	
Gender	Female	100	(MOH 2005)100	
Age	20-29	(4) 8	MOH 2003 4%	
	30-39	(7) 13	19%	
	40-49	(21) 41	39%	
	50-59	(12) 24	28%	
	60+	(7) 13	10%	
	Missing	(1) 2	Not reported	
Ethnicity	NZ European Maori PI Asian Other	(45) 87 (7) 13 0 0 0	MOH 2005 Rural (n=34)	MOH 2005 Urban(n=126)
			94%	85%
			0%	5%
			0%	1%
			0%	4%
			6%	5%

*Ministry of Health. (2003). *Primary Health Care and Community Nursing Workforce Survey – 2001*, Wellington, Author. Ministry of Health. (2005). *The National Primary Health Care Study, 2001/2002*, Wellington, Author.

From this table it is apparent that the proportions of gender are identical, and of age are very similar to the MOH (2005) figures, but there is a difference on ethnicity findings. This survey and the two MOH reports have similar ethnicity figures for Europeans (between 84-94%), but the proportion of Maori, Pacific Island (PI) and Asian nurses are different. This current research reports Maori being at 13% and no PI or Asian respondents.

Table 2 provides a comparison of the sample's nursing qualifications with those of the MOH (2003) survey. As the two MOH surveys (MOH 2003, 2005) used different categories to report primary qualifications of nurses, the MOH (2003) survey was used for comparison here as the categories used were most similar to this study.

Table 2. Practice nurses qualifications in comparison to Ministry of Health (2003)

This current study (n=52)		MOH 2003 (n=3562)	
Qualification	(n) %	Qualification	%
Enrolled Nurse	(2) 3.8	Enrolled Nurse	4.0
Registered Nurse (RN) – hospital	(18) 34.6	RN – hospital - all types	69.0
RN-comprehensive	(18) 34.6	RN-comprehensive	21.6
RN Diploma	(10) 19.2	Degree comprehensive	4.5
RN Other	(4) 7.7		
Missing	nil	Not reported	0.4

This current study reports that 61.5% of respondents have a hospital based nursing qualification. This figure was obtained by adding RN hospital, comprehensive nurse, RN diploma and RN other together. The MOH (2003) reports 69% of nurses held this qualification. Both this study and the MOH study report the same figure for Enrolled nurses of 4%, but there are differences in the number of respondents with a degree. Thirty five percent of respondents had a degree as opposed to the MOH study where only 4.5% had a degree.

All nurses reported receiving undergraduate mental health training. Forty six percent (n=29) had a postgraduate (PG) qualification and 54% (n=23) did not. Twenty-seven percent (n=14)

were currently enrolled in formal nursing or health study, compared with the MOH (2003) community nurse survey where only 19.5% were. The samples were therefore different in relation to be involved in ongoing education. Of those with a completed qualification nine had a PG certificate or diploma, including a PG diploma in primary health, PG diploma in occupational health, hospital-based midwifery qualification and a PG certificate in advanced mental health. Six respondents also listed an undergraduate qualification, 13 listed a work-based certificate courses such as “*family planning*”, “*sexual health*” as a PG qualification. Of the 27% (n=14) currently enrolled in formal nursing study, the courses being studied included PG courses such as PG diplomas; undergraduate courses such as bachelor of nursing; and work-based certificates such as smoking cessation courses. Nine respondents were enrolled in PG with two nurses enrolled in a Master’s degree. Where the qualification listed was clearly not at PG level such as bachelor of nursing papers, these were not included in the analysis. Where it was unclear and the respondent had stated their qualification was postgraduate, was included in analysis.

Several respondents commented that although in their undergraduate education they had some education on mental health nursing. This, as one respondent expressed (earlier education), did not help her in her current practice and stated,

I have had education on mental health 15 years ago. Most of this theory. Can remember some. But how to manage and work with people with mental health I never learned (the practical aspect). It has always made me nervous and something I know I need to understand and learn more about if I want to confidently help my patients (No. 39).

For another respondent, the type of experience was problematic. They wrote they “*Did not have positive mental health experience as an adult student [and, as a consequence they] Have found this area difficult to relate to*” (No. 17).

Neither the MOH (2003) nor the MOH (2005) provides data on the types of practices that the nurses work in therefore there is no comparison data in Table 3. In this current study, three quarters of the respondents worked in private GP practices, and one in 10 worked in other practices which were described as small community health centres, where

combinations of health services were provided. No respondents stated they worked in Pacific Island practices.

Table 3. Types of GP practice, setting and hours worked as a practice nurse

Practice	Values	Current study n=52(%)	MOH 2003 n=3562(%)
Type of practice	GP private Maori GP Pacific provider Community practice Other	39 (76) 5 (10) 0 (0) 2 (4) 5 (10)	Not reported
Practice setting	Urban Mixed Rural Missing/not reported	30 (59) 16 (30) 5 (10) 1 (2)	1882 (54) 1124 (32) 494 (14) 20 (1)
Hours worked as PN per week	1-9 10-19 20-29 30-39 40 + Missing/not reported	1 (2) 8 (16) 18 (35) 14 (27) 10 (20) 1(2)	115 (3) 373 (10) 824 (23) 837 (23) 1413 (34) 224(1)

Table 3 demonstrates that this study sample compares well to the practice settings surveyed in the MOH (2003) study. The largest portion of the sample (58%) worked in urban settings and only 10% worked in rural settings. The mean number of years worked as a nurse do not compare well with what is already known about practice nursing. The mean years worked as a nurse for this current study is 9 ± 7.2 with a range of 0.7-30, in comparison in the MOH (2005) the mean years worked by urban nurses was 19 years and by rural was 18 years, no range was quoted.

This mean hours worked (27.3 ± 9.1 , range 1-40) by the sample are within the same range to those reported in the MOH (2003) sample. In the MOH the majority (53%) of nurses worked fewer than 30 hours a week, with two nurses doing fewer than nine hours. Eighty percent worked part time as a PN and only 20% of nurses worked 40 hours or more per week.

Almost 70% of the nurses surveyed had no prior experience working in mental health settings and 27% (n=14) of nurses had this experience. Of those who had experience, seven

respondents had fewer than 2 years experience, one respondent had 2-5 years experience and five had five or more year's experience.

Practice nurses encounters with patients with mental health concerns

The frequency of the mental health conditions people presented to general practice that were encountered by PNs is shown in Table 4. This question was generally answered well by respondents with only one respondent not answering the question at all and no respondents giving prominence to one response. It should be noted here that schizophrenia was not included in the list of conditions. This was inadvertently left off during the development stage of the questionnaire.

Table 4. Frequency of practice nurses encounters with people with mental health conditions

Condition	Mode	Daily n (%)	Weekly n (%)	Monthly n (%)	Annually n (%)	Never n (%)	Missing n (%)
Alcohol/addictions	Monthly	4 (8)	14 (27)	19 (37)	10 (20)	0 (0)	4 (8)
Anger issues	Monthly	4 (8)	11 (22)	22 (43)	9 (18)	3 (6)	2 (4)
Anxiety	Weekly	8 (15)	27 (51)	12 (23)	1 (2)	2 (4)	1 (2)
Bipolar disorder	Monthly	1 (2)	11 (22)	22 (43)	9 (18)	2 (4)	6 (12)
Dementia	Monthly	3 (6)	10 (20)	19 (37)	11 (22)	5 (10)	3 (6)
Depression	Weekly	14 (27)	21 (40)	10 (20)	3 (6)	1 (2)	2 (4)
Eating disorders	Monthly	1 (2)	8 (16)	17 (33)	16 (31)	4 (8)	5 (10)
Grief	Monthly	1 (2)	15 (29)	23 (44)	6 (12)	1 (2)	5 (10)
Panic disorders	Monthly	1 (2)	11 (22)	22 (43)	13 (25)	1 (2)	3 (6)
Personality disorders	Monthly	2 (4)	9 (18)	19 (37)	11 (22)	4 (8)	6 (12)
Suicidal ideation	Annually	0 (0)	0 (0)	18 (35)	17 (33)	7 (13)	10 (20)

It is clear from Table 4 that anxiety and depression are the most common illnesses seen. People with anxiety were encountered at least weekly by 66% (n=35) of the respondents, and depression was seen by 67% (n=35). Of this latter group 14 (27%) acknowledged that they care for depressed patients daily. People grieving were also commonly seen with 75% (n=39) of the nurses witnessing grief at least monthly. People with panic disorders and anger issues were also regularly managed by respondents with 67% of respondents seeing people with these conditions at least monthly and 22% weekly.

Suicidal ideation was the least frequently encountered condition only being seen by 35% of respondents monthly. One respondent also mentioned that they worked with people who had issues with cannabis and another wrote of seeing patients with postnatal depression. It is very clear from this table that PNs are nursing people with a wide range of mental health issues frequently.

Table 5 shows that the respondents reported the people with mental illness and mental health needs they worked with ranged from children through to elderly.

Table 5. Frequency of practice nurses encounters of patients by age

Age Groups	Daily n (%)	Weekly n (%)	Monthly n (%)	Annually n (%)	Never n (%)	Missing n (%)
Child <15 years	3 (6)	4 (8)	7 (14)	16 (31)	12 (23)	9 (18)
Young adult 15-20 years	4 (8)	8 (16)	19 (37)	19 (20)	4 (8)	6 (12)
Adult- 20-64 years	5 (16)	16 (31)	20 (39)	5 (10)	1 (2)	1 (2)
Older adult 65+years	5 (10)	16 (31)	12 (23)	8 (16)	5 (10)	5 (10)

Not surprisingly the most frequent daily contact was with adult patients with 47% of respondents seeing adult patients with a mental illness at least weekly and 84% at least monthly. The lowest number of contacts was for children with 54% of respondents seeing these patients annually or never.

Confidence in providing mental health care

The respondents confidence in caring generally for patients with a mental health issue was low, with 23 (44%) of PNs reporting they had little confidence and 21% (n=11) having no confidence. Of the remaining 18 nurses, 10 (19%) were confident and five were reasonably confident. No respondents indicated they were totally confident and three respondents (6%) left this question unanswered. The mean confidence in caring for people with a mental health concern in general was 2.8 ± 0.90 , range 1-4.

The Mann Whitney *U* test revealed no significant difference ($z=-0.532$, $p=0.59$) in general confidence levels between the 14 nurses enrolled in formal education ($Mn=23$) and the 35 nurses not enrolled in formal education ($Mn=26$). There was also no significant difference ($z=-0.291$, $p=0.77$) in the scores of the 21 nurses with postgraduate qualifications ($Mn=26$) and those of the 28 nurses who do not have postgraduate qualifications ($Mn=25$). Re-grouped primary nursing qualification leaving two levels of nurse – degree nurses and hospital trained was used which allowed for analysis using a Mann Whitney *U* test. This showed no significance ($z=-0.19$, $p=0.88$) in the 34 nurses who had a degree ($Mn=25$) and the 15 nurses who did not have a degree ($Mn=24$) in confidence levels of caring for patients with a mental health problem in general.

Table 6. Practice nurses knowledge of mental health conditions

Condition	Most knowledgeable 1 n (%)	Most knowledgeable 2 n (%)	Most knowledgeable 3 n (%)	Most knowledgeable Total n (%)
None	7 (13)	N/A	N/A	7(13)
Depression	20 (39)	12 (23)	2 (4)	34 (65)
Postnatal depression	7 (13)	7 (13)	4 (8)	18 (35)
Anxiety	4 (8)	5 (10)	3 (6)	15 (24)
Bipolar disorder	4 (8)	4 (8)	4 (8)	12 (23)
Dementia	3 (6)	2 (4)	1 (2)	6 (11)
Grief	3 (6)	1 (2)	2 (4)	6 (11)
Schizophrenia	1 (2)	2 (4)	3 (6)	6 (11)
Eating disorders	1 (2)	1 (2)	1 (2)	3 (6)
Suicide/Suicidal ideation	0	1 (2)	0	1 (2)
Anger	0	0	1 (2)	1 (2)
Anorexia	1 (2)	1 (2)	1 (2)	3 (6)
Panic	0	1 (2)	0	1 (2)
A&D	0	0	1 (2)	1 (2)
Missing	2 (4)	10 (19)	23 (44)	N/A

The findings from the top three conditions that the nurses rated they were most knowledgeable about are presented in Table 6. Two respondents did not provide a list, 14 gave one answer, 13 gave two responses and 23 gave three responses. Of the 50 who responded, two thirds (65%) reported they were most knowledgeable about depression. This

result was obtained by adding the percentage of depression for answers one, two and three. In second place at 35% came postnatal depression. Sixty nine percent of respondents also named a second condition they knew most about. The greatest response here was also depression, followed by 13% postnatal depression and 10% anxiety as a mental health condition they knew a lot about. The third column of most knowledgeable conditions produced a lot of missing data with 56% respondents not giving an answer. Respondents who stated “none” accounted for 13% presumably had no knowledge about any conditions. The remainder of the results were spread equally among a wide variety of conditions. The greatest responses here were depression and postnatal depression with 9% each.

The findings from the ranking exercise concerning which three mental health conditions the nurses felt least knowledgeable about are displayed in Table 7.

Table 7. Mental health conditions practice nurses were least knowledgeable about

Condition	Least knowledgeable 1 N (%)	Least knowledgeable 2 N (%)	Least knowledgeable 3 N (%)	Least knowledgeable total N (%)
All	8 (16)	N/A	N/A	8 (16)
Schizophrenia	11 (21)	5 (10)	1 (2)	17 (33)
Suicide/suicidal ideation	7 (14)	3 (6)	4 (8)	14 (28)
Bipolar disorder	6 (11)	4 (8)	2 (4)	12 (23)
Personality disorders	6 (11)	3 (6)	0	9 (17)
Eating disorders	0	3 (6)	1 (2)	4 (8)
Anger/panic	1 (2)	1 (2)	2 (4)	4 (8)
Depression	1 (2)	1 (2)	0	2 (4)
Dementia	0	2 (4)	0	2 (4)
A&D	1 (2)	1 (2)	0	2 (4)
Childhood	1 (2)	0	0	1 (2)
Grief	1 (2)	0	0	1 (2)
Phobia	1 (2)	0	0	1 (2)
Others	0	3 (6)	5 (10)	5 (16)
Missing	6 (11)	23 (44)	37 (71)	-

Schizophrenia with 21% was the number one condition most PNs felt they had the least knowledge about with a total 33% of respondents indicating they were in this area. Bipolar

disorder and personality disorder with 23% and 17% were also positive responses. For the purposes of coding, suicidal ideation and suicide were both categorised as suicide and gave a response rate of 23% requiring education here. This was followed by all conditions at 16%. There were a large number of conditions listed, resulting in a wide spread of results and the nurses who had expressed “all conditions” as the number one least knowledgeable did not add further to their list. This caused a larger number of missing data. For the third least knowledgeable condition, missing data accounted for 71% of replies. Only 15 nurses answered this with the greatest responses being suicide and schizophrenia with 8%.

Interventions used by practice nurses

The frequency of the use of screening tools was answered by all nurses. Thirty seven percent (n=19) of respondents answered that they had used tools, with six of these nurses stating that they used more than one tool. Only 13 of the 19 respondents named the tools used. The most common tools used were the Kessler 10 and the mini mental state examination both used by four nurses. The COOP tool and the EDGE were the next most common tools with two nurses mentioning these. Single responses were also gained for the Hamilton Depression scale, the Beck Depression Inventory, the Sanderson Youth Scale, and the Edinburgh Postnatal Depression Scale. Two respondents did not name the tools but stated they were for alcohol and depression with one nurse stating “*a good prompt aid*”. Confidence in the use of these tools was answered by 38% (n=20). Four nurses stated they had no confidence, seven a little, eight were confident and only one respondent ticked totally confident in using these tools. Some nurses highlighted assessment skills and communication as needed with one nurses commenting “*how to best approach communicate with persons with MH problems. Signs behaviour person with mental health problems*”

Respondents were asked to indicate how many interventions they performed for patients with a mental health concern. The results are displayed in Table 8. One respondent did not do any mental health interventions stating they “*treat physical illness*” and “*refer*” patients with a “*mental illness*”. Eight respondents ticked one response. Thirty respondents indicated they undertook between two and four interventions. Two respondents indicated they undertook eight interventions, the maximum number of responses.

Table 8. Number of interventions undertaken by practice nurses

No. of interventions	No of responses (n=52)
Nil	1
One	8
Two	10
Three	10
Four	10
Five	5
Six	3
Seven	3
Eight	2

The types of mental health interventions undertaken by PNs are shown in Table 9. The most common intervention reported was the administration of depot injections with 67% (n=35) of respondents. This was followed closely by counselling with 60% (n=31). As evident in the table only one respondent described an “other” intervention which was “noticing changes”.

Table 9 Mental Health interventions currently undertaken by practice nurses

Intervention	N=52 (%)
Depot injections	35 (67)
Counselling	31 (60)
Medication advice	28 (54)
Problem solving	25 (48)
Anxiety management	23 (44)
Grief management	17 (33)
Education	11 (21)
Treatment advice	6 (11)
Others	1 (2)

How confident the respondents were at providing the mental health interventions is shown in Table 10. This table indicates that the respondents had limited confidence in providing specific interventions. Although not presented the most common median was in the little confidence column.

Table 10. Confidence in interventions performed by practice nurses

Intervention	No confidence n (%)	Little confidence n (%)	Confident n (%)	Reasonably confident n (%)	Totally confident n (%)	Not known n (%)	Mean \pmSD
Counselling	12 (23)	27 (52)	8 (15)	4 (8)	0 (0)	1 (2)	2.04 (0.81)
Depot injections	3 (6)	1 (2)	12 (23)	11 (21)	20 (39)	5 (10)	3.94 (1.17)
Medication advice	1 (17)	14 (27)	15 (29)	11 (21)	0 (0)	3 (6)	2.54 (1.04)
Treatment advice	16 (31)	22 (42)	5 (10)	2 (4)	0 (0)	7 (13)	1.84 (0.80)
Problem solving	11 (21)	20 (39)	12 (23)	5 (10)	0 (0)	4 (8)	2.19 (0.90)
Anxiety management	11 (21)	22 (42)	11 (21)	4 (7)	1 (2)	3 (6)	2.19 (0.94)
Grief management	9 (17)	19 (37)	14 (27)	5 (10)	0 (0)	4 (8)	2.34 (0.96)
Education	18 (35)	21 (40)	4 (8)	1 (2)	0 (0)	8 (15)	1.73 (0.73)

The highest level of confidence was with depot injections with a mean of 3.94 ± 1.16 range 1-5 and a mode response of reasonably confident. The respondents indicated that giving treatment advice had the lowest confidence level with a median response of little confidence in their skill level (1.84 ± 0.79 , range 1-4). All other interventions had mean scores between these two figures (Table 10). When tallying the confidence scores of the eight possible interventions together the total level of confidence ranged from 8 to 13 out of a possible score of 40.

A Kruskal-Wallis test revealed no statistical significance difference in confidence in performing interventions by work settings (urban, rural and mixed practice). Primary qualifications and actual interventions performed by nurses were compared using regrouped qualifications, that is, only nurses with a degree and hospital trained nurses. As can be seen in Table 11, the comparisons between activities undertaken by PNs compared to primary qualification were not significant with one exception. There was a statistically significant difference in respondents giving treatment advice to patients ($p=0.05$); those with degrees were more likely to give treatment advice than non-degree respondents.

Table 11. Comparison between practice nurses with degree and those with hospital based training and mental health activity undertaken by nurses

Activity	Hospital trained	Mann -Whitney u	Degree
	Mean, (n)	Z, (p)	Mean, (n)
Counselling	24, (32)	-0.858, (0.85)	27, (17)
Depot injections	25, (32)	-0.132, (0.89)	25, (17)
Medication advice	26, (32)	-0.583, (0.56)	24, (17)
Treatment advice	23, (32)	-1.886, (0.05)	28, (17)
Problem solving	25, (32)	-0.378, (0.70)	26, (17)
Anxiety management	23, (32)	-1.372, (0.17)	28, (17)
Grief management	23, (32)	-1.421, (0.15)	28, (17)
Education	26, (32)	-0.673, (0.50)	24, (17)

There were no significant results when comparing confidence in performing mental health activity and primary qualifications (Table 12). Confidence in caring for patients with a mental illness in general was also compared to primary qualification with hospital trained nurses, although not significant ($Z=1.70$, $p=0.08$) the results indicates that those with degrees generally scored higher.

Table 12. Comparison between practice nurses with degree and those with hospital based training in confidence at performing interventions

Activity	Hospital trained	Mann Whitney U	Degree
	Mean, (n)	Z, (p)	Mean, (n)
Counselling	25, (31)	-0.294, (0.76)	24, (17)
Depot injections	23, (30)	-0.232, (0.81)	24, (16)
Medication advice	26, (30)	-1.536, (0.12)	20, (17)
Treatment advice	23, (27)	-0.535, (0.53)	21, (16)
Problem solving	23, (29)	-0.326, (0.74)	24, (16)
Anxiety management	25, (30)	-1.102, (0.27)	21, (16)
Grief management	24, (29)	-0.948, (0.34)	21, (16)
Education	22, (27)	-0.581, (0.95)	21, (15)

Practice nurses recognition of co-morbid disease

Eighty three percent (n=43) of respondents recognised that more than one mental health condition may be present at one time. Seven respondents ticked “No” indicating that they did not encounter co-morbid illness and two respondents did not answer. Respondents were also asked to name which conditions they see occurring together. This was generally poorly answered. Many respondents seemingly got confused with the question and highlighting physical conditions with mental illness where the question asked only for co-existing mental health problems. In total 42 (81%) respondents gave written answers. However, 44% (n=23) of responses mentioned co-existing physical diseases with mental illness where a co-existing mental health issues were asked for.

The results indicate mixed understanding about co-morbidity. The example given for co-morbid mental health in the questionnaire was depression and anxiety and 16 nurses (31%) responded with this answer. Three nurses also mentioned depression and sleep issues. Four nurses cited alcohol and drug issues with a co-morbid mental health condition. Although no consensus was reached as to which conditions occur together eating disorders was recognised by five PNs as a problem that is often associated with mental illness with one nurse did stating that it was “*caused by the medications they take*”. Other conditions mentioned singularly were bipolar disorder, schizophrenia and self harming.

The number of respondents who recognised that physical conditions also occur with mental illness is also high at 67% (n=35). Thirteen respondents (25%) ticked “No” and four did not answer this question. Of the physical conditions mentioned, seven mention chronic illness and depression, three stated diabetes and depression and three respondents’ noted anxiety with a physical complaint. Five respondents mention co-existing physical conditions with no mention of a mental health component. Sixty one percent (n=32) of respondents chose to comment on co-existing physical disease and mental illness (Q15) and five nurses stated co-morbid mental illness which would have been more appropriate to Question 14. Twenty seven percent (n=14) of respondents stated diabetes with a range of mental health issues, the most common being depression with 11 positive responses. The next most common issue was schizophrenia with nine nurses recognising that this has a co-morbid element, the most

common mentioned being depression. While mental health and weight issues were pointed out by six respondents, five recognised that chronic medical conditions such as high blood pressure and heart disease can also affect a patient's mental health. Three respondents mention purely physical conditions with no mental health component.

Referrals and liaison with mental health services

Question 24 asked respondents if they had a standard process to follow when they suspect a patient has a mental illness. Only 24% stated they had a referral process to follow, 46% ticked "No" and 30% were unsure. Twenty one percent of respondents made comments around this. Eighty two percent of those responding to the question stated they would inform the GP and 36% stated they would refer to mental health services if they felt it was appropriate. One respondent stated *"I had to direct patients to the care of their GP or other appropriate person/team if possible"*. Another nurse commented they may be the first point of call stating *"I think people know me well and come in to discuss with me what they can't discuss with family and friends and sometimes initially with the GP"*. Two respondents stated they would refer to a counsellor and one wrote she would access a GP with specific authority to access PHO and District Health Board DHB funding to help their patient.

The majority of respondents knew how to access specialist services with 78% having ticked "Yes" to this question. Two respondents did not answer this question. The particular mental health services which the 44 respondents who answered this question liaised with regarding mental health problems varied. The services included crisis, inpatient unit, community mental health services (including key worker and duly authorised officer⁶), child and adolescent services, psychiatrists, counsellors, Maori services, and lastly, an "other" category. The results are shown in Table 13.

⁶ Duly authorised officer is a person who is appointed under the Mental Health (Compulsory Assessment and Treatment) Act (1992) to make arrangements to have a person assessed under this act.

Table 13. Liaison between practice nurses and mental health services

Team referred to	No.
Crisis	38
CMH	20
Child and adolescent services	10
Inpatient/hospital services	6
Counsellor/psychologist	4
Psychiatrist	3
Maori mental health service	3
Link nurse/mental health liaison service	2
Other service	9
Nil/no service	2

As many respondents listed more than one service, the table reports the actual number of responses. By far the greatest response was for crisis with 38 respondents. One respondent commented on referring to crisis stating: *“urgent acute care- this is not always helpful however as not always able to be seen and often say they don’t meet their criteria”* (No. 50). One respondent described her personal triage process which involved listening to the patient assessing their needs, and then discussing these needs before referring to the appropriate service. The “other” responses included two nurses who liaise with social services regarding children issues, one nurse who referred to elderly mental health services and one nurse who referred to an addictions service. Two nurses stated they do not liaise with any service and one nurse requested a list of whom to refer to (Table 13).

Education

The results concerning who should provide education and where this education should be provided were inconclusive. Respondents were able to give more than one answer and choices were short lectures delivered at your practice, short lectures delivered elsewhere, a course for PNs and lastly practical onsite help. Fifty six percent (n=29) had only one preference of the form of education, 32 % (n=17) had two preferences, 13% (n=7) three preferences and 2% (n=1) four preferences. In total 40% (n=21) of respondents answering this question indicated either short lectures delivered at their practice or 40% (n=21) delivered elsewhere. Fifty eight percent of respondents would like a course for PNs on mental health and 21% (n=11) ticked that they wanted practical onsite help.

Respondents indicated an overall preference of education provider as community psychiatric team, from the pre-identified groups in the questionnaire. Other groups listed psychiatric nurse working at your practice, PN at your practice, GP at your practice, educational provider and an “other” category. Of those that answered this question 54% (n=28) had only one preference of provider, 33% (n=17) two preferences and the remainder shared between no preference and three providers. The preferred provider (n=37, 71%) was the community psychiatric team. Twenty respondents (39%) indicated an educational provider would be the preferred option. Only 10% (n=5) of respondents indicated that a psychiatric nurse working at their practice should provide this education, 4% (n=2) indicated a PN, and 6% (n=3) a general practitioner. One nurse commented here “*preferably someone whose specialty was mental health and is a great presenter*”. This nurse is seeming expressing a need for the presenter to be credible and have experience. Two nurses also commented on counsellors with experience or named particular people whom had delivered previous education in this area. Another nurse also commented on the need for presentation to be dynamic stating “*someone who will keep me awake*”.

Practice nurses were also asked about their access to mental health education and to describe any difficulties they had with receiving education (Q11). Fifty five percent had never accessed any type of formal education, 39% have access yearly, and only 6% (n=3) have regular (monthly) access to education in their workplace. One third (32%) of respondents had no difficulty receiving education and two thirds (68%) raised issues. The responses from the 44 respondents who wrote of difficulties clustered around five themes. The themes were time constraint, urban versus rural nursing, being part of a Primary Health Organisation (PHO), staffing issues, and lastly, no issues receiving education.

Of the respondents who had difficulty accessing education, 36% (n=16) mentioned an element of time management as an issue. This was either organisational for example “*time-not a priority in case load*” or personal time constraints for example “*Work 40 hours per week most education takes place after work*”. Four respondents mentioned working full time as a constraint on accessing education. Only one respondent mentioned finance as a barrier

stating *“Who pays for it”* and this respondent also describes difficulties in access to information on relevant courses where she was *“outside the loop”*.

Staffing difficulties were raised as restricting access to education and mentioned by seven (16%) respondents. Comments included *“having sufficient staff to cover”* and one respondent expanded on this further by saying *“no replacement. Manager expects staff to find own replacement. Difficult to find a locum to replace”*.

Working as part of a Primary Health Organisation (PHO) that directs the training the nurses have to attend was mentioned by four respondents as an issue. While being part of a PHO helped one respondent who stated *“PHO organise education. Employers very keen to for us to attend”*, others considered that working for a PHO was a hindrance to receiving mental health education as it did not fit in with the needs of the PHO, which *“already [had] a lot of training”* and it was *“not considered a high priority [as] other topics get funded and scheduled first.”* Distance learning or travelling time for rural nurses was an issue for three PNs with one nurse stating *“rural-difficulty in getting to education settings in cities.”*

Nine respondents (17%) reported none or very little difficulty in attending education sessions. Comments ranged from a simple *“None”* to *“Very little difficulty to access ongoing education. I work in a very supportive team and any educational courses I have wished to go on have usually been allowed.”*

Education priorities

Table 14 lists the specific mental health topics requiring education which were identified by 48 respondents (92%). Here nurses were asked to prioritise these issues from one being the highest priority to six being the lowest. The mode number of areas respondents requested issues listed was three. The most common issue with the highest priority was suicidal issues with 28 (54%) of respondents listing this and 14 (50%) of these respondents listed this as the highest priority. Cognitive behavioural therapy was also listed frequently by 15 (29%) respondents and eight respondents giving this the highest priority. Postnatal depression was a common response received from 15 (29%) respondents but only given priority by four of

these respondents. Family issues were also listed often, with 13 (25%) responses, but only directly given priority by one nurse however, therapies and family dynamics was also included to ease coding. Suicide, postnatal depression and cognitive behaviour therapy were the examples given on the questionnaire. All types of depression were the next issue which stood out with 16 (31%) respondents highlighting this but this was only given the highest priority by three respondents. Depression of the elderly was specifically mentioned by three respondents. Other types mentioned were depression and chronic illness, general depression and management of patients.

Table 14. Specific mental health topics where practice nurses would like education

Condition	No
Suicide	28
Postnatal depression	18
Depression	17
Cognitive behavioural therapy	15
Bipolar disorder	15
Family issues/therapy	13
General mental health conditions	13
Adolescent/ child issues	7
Addiction	5
Anxiety	4
Eating disorders	4
Assessment issues	4
Schizophrenia	4
Mendication issues	3
Counselling	2
Others	2

Conclusion

This chapter has explored and described the results obtained from the questionnaire distributed to PNs in the Tairāwhiti and Hawkes Bay regions. In total 52 completed questionnaires were returned. The demographics of the respondents were shown to be broadly similar to earlier studies on practice nurses. The PNs were found to have considerable contact with people with a mental illness or mental health need across the life-span. The most frequently encountered conditions were depression, anxiety and grief. There was confusion around the results for co-morbid disease recognition. The most commonly performed mental health intervention for these patients is administering depot medication

which the PNs are confident to administer. Confidence in performing interventions generally scored low with the mean being little confidence shown. The majority of respondents knew how to access help from mental health services but had no standardised process to follow. The respondents felt least knowledgeable about schizophrenia and most knowledgeable about depression. Access to education was discussed with 55% of respondents having no access to any education. In the next chapter (Chapter 6) these findings are discussed in relation to the known literature. In this way educational themes emerge from the data which will be of assistance to educators helping PNs in their education. The implications of this research to nursing in general and areas for future study will be discussed separately in Chapter 7.

Chapter 6. Discussion

The findings presented in the previous chapter are explicit in that they highlight many areas where there is a need for practice nurses (PNs) to know more about mental health and mental illness. Within this chapter I explore these findings and relate this to what is known about the subject and present day implication of the findings. This study aimed to describe the needs of PNs in relation to mental health. The objectives were to describe the current characteristics of PNs, examine the nature of mental health problems encountered by these nurses, describe the mental health interventions used by them in their everyday work and identify their perceived learning needs. This chapter sets out to discuss these aims in light of the findings of this study.

Description of practice nurse sample

Fifty two PNs chose to participate, a return rate of 36%. The sample represents a diverse group of female PNs; from newly qualified to very experienced, young to more mature nurses and from various settings. The responses did not originate from any particular area or practice but were generated from across the population, Tiki Tiki to Hastings, which gave a diverse sample of nurses.

The comparison of the sample demographics and nursing descriptors with those of the two national New Zealand (NZ) surveys (MOH 2003, 2005) indicates the sample in this current study were similar on age of the participants, urban/rural mix of practice situations as well as the type of practice and the mean hours worked per week. The main differences between this study and those of the MOH (2003) were the number of degree nurses, the ethnic mix of the participants and the mean years worked as a practice nurse. With similar respondent numbers for enrolled nurses, hospital qualified nurses but different degree trained nurses with 4.5% for MOH (2003) while this current study reports 35% (Table 2). The difference in the number of degrees reflects the changing qualification to become a registered nurse. The MOH study published in 2003 was undertaken in 2001 which may account for some of the disparity as only all newly registered nurses were degree qualified since 2001.

The differences between the mean hours worked in this current study with those of the MOH (2005) (Table 3) occurs primarily around the 40 hours section. In this current research report the hour brackets used was from 40- 49 hours, which makes interpretation difficult as it combines full time with those nurses who work overtime. The MOH study also looked at all types of community nurses therefore there may not be true comparability with this current research. The average hours worked in both rural and non-rural compare favourably with this study implying some representativeness of the sample chosen.

An important difference between this study and the MOH (2005) study is that of ethnicity. This current research has a higher number of respondents who are Maori than the MOH (2005) and subsequently a lower number of participants who are European with no Asian, Pacific Island (PI) or other ethnicities reported. The likely reason for this is Tairāwhiti and Hawkes Bay both report a greater than average number of Maori in the population 47% and 23% respectively (Statistics New Zealand, nd.) and this higher number is also likely to be reflected in the nursing population. Both Hawkes Bay and Tairāwhiti have fewer Asian and PI peoples than the national average. Larger cities have higher than average Asian and PI populations and the absence of these ethnicities within this current study's respondents may be a reflection of this. Given the small size of the study and low numbers of responses received then the true rate representativeness of ethnicity cannot be made.

Within this study the extent of engagement in postgraduate (PG) education was difficult to calculate as the level of qualification was not standardised within the responses. Some respondents reported work-based courses such as "*Family planning and sexual health*" which are not likely to be PG qualification. Such work-based certificates are important, and may be a possible vehicle for which to promote primary mental health nursing education. Future surveys should re-phrase the PG education to capture information on undergraduate study, work-based certificates and PG with relevant examples given.

The higher figures quoted in this current study for involvement in further study may be representative of the availability of courses and Clinical Training Agency (CTA) funding

which in recent times has been targeted at primary health. This funding arose out of the Health Workforce Advisory Committee (HWAC), (2003) who examined the foreseeable workforce needs including education in implementing primary health strategies. Part of the recommendations of the HWAC was that CTA funding was reviewed and money placed within the District Health Boards (DHBs) and directed to tertiary education institutions to meet perceived needs. This funding is designed to assist registered nurses in their PG study and includes cost of papers, travel and release time from work. As a consequence of this policy and CTA funds being directed to primary and rural health, new PG primary health courses provided by colleges such as the PG courses in both primary and rural healthcare now available. See the University of Auckland website available from <http://www.fmhs.auckland.ac.nz>.

Finlayson et al. (2009) in their recent survey of PNs found that 39% of PNs did not have PG courses available to them locally and a further 9% were unsure. These percentages of nurses were also not encouraged to attend and 22% were not given paid leave to attend and a further 22% were unsure if paid leave would be granted. Clearly there are still problems of access to CTA funded PG courses for practice nurses.

Representativeness and generalisability

An important factor when discussing the results of a survey is to report on the representativeness of the sample and generalisability of the findings. In this research this involves establishing how well the sample mirrors the whole population of practice nurses. If the sample does not match the population, then the results can only be applied to the sample in the study and not to the whole population (Arslianian, 2000). This sample has similarities with both MOH surveys. The MOH (2003) survey describes the primary health nurses as over 35 years of age, non-Maori, female, working part time and who had been working in their area for more than six years. Approximately 25% of these nurses had professional certificates but with few at PG level. This current study reports a predominantly non-Maori and female nurses with similar age spread and working part time. Therefore overall aspects of this study are representative as a whole but caution is needed with representativeness in respect to primary qualifications, PG qualification and aspects of

ethnicity. In the just released report, PNs were described as between 41 and 60 years of age and predominantly female (Finlayson et al., 2009). Years and hours worked as a PN within this current study and Finlayson et al. study are very similar with over 50% having been a PN for less than 10 years and over 75% of nurses working in excess of 30 hours per week. The ethnicity in this sample does vary with both this current research and the MOH 2003 and 2005 documents. The Finlayson et al. report also had differences in ethnicity with the MOH studies. Here 60% European, 5% Maori, 1.6% Asian, 15 Pacific Islander and 32% other were reported. This may reflect the sample area chosen for this report as this was not specified or it may be reflective of the questioning used. Given this latest report, overall the sample in this current study is generally similar to previous studies involving PNs but given that there is no national profile of PNs it is difficult to say it is representative.

Generalisability is the extent to which the results can be applied to other PNs who are outside the study sample. If the generalisability is low, then the results may have limited applicability to the larger population of practice nurses, then the usefulness of the data can therefore be limited (Arslianian, 2000). The sample area chosen was limited by the nature and time frame of the research and the area which could be reached by the researcher. From the returns, no one geographical area was over-represented, with a combination of larger and smaller, urban and rural practices and generally a representative sample was obtained. Nevertheless, no large metropolitan areas were sampled and this has possibly affected the ethnicity of the sample compared with nationally known populations of PNs and so limits the generalisability of the study.

A low return rate is also a threat to the generalisability and validity of any survey. This study generated a return rate of 36%. The latest PN survey by Finlayson et al. (2009) had a response rate of 38% for PNs and 27% for the practice as a whole. The MOH (2003) response rate was higher at 46% and the MOH (2005) study does not report the response rates specifically for PNs making interpretation difficult. Response rates for postal questionnaires are generally low. A meta-analysis reported by Badger and Werrett (2005) described a response rate of 20-40% as common for self-completed postal questionnaires and that a higher response rate does not necessarily reflect the representativeness of the

sample. This study's response rate is therefore fairly typical for this type of research and this group of nurses and so, the threat of low response rate to generalisability of the study is not great. How the non-responding PNs would have answered the survey is not known, their lack of response may indicate they had different views from the respondents on this topic. Nonetheless given the overall general representativeness of the respondents and that limitations to the generalisability of the study can be justified then the findings in this report still have value to PNs and educators in mental health.

Despite these limitations it is important to highlight that within the literature review there was no consensus reached internationally on the types of interventions used, or the types of mental illness encountered specifically by practice nurses. Therefore this study is the first study to highlight this. In addition, no research has looked into the confidence of PNs when performing these interventions.

The nature of mental health problems encountered by practice nurses

It is clear from the results of this study that PNs are encountering patients with a mental illness almost every day. Adults were the most common group seen, closely followed by older adults then young adults and lastly, children have the lowest frequency of contacts (Table 5). These results do not reflect the prevalence of mental illness but the PNs perceived interactions with these patients taken from a list of options given in the questionnaire. The most common conditions seen by the nurses were depression, anxiety and grief. Panic disorder and anger issues were also frequently reported. These findings contrast slightly with known research where depression, anxiety, dementia and addiction/alcohol problems were the most common (Lee & Knight, 2006; Secker et al., 1999) conditions seen by nurses.

It is apparent from Table 4 that depression was the most common illness seen with two-thirds of nurses seeing this condition at least weekly. Although a similar proportion of PNs also ranked this the condition as one they knew most about, there is a significant sized group of nurses in this study who report that they do not have a good level of knowledge about depression. Given the importance and prevalence of depression in the community and recognition of depression has been reported as a learning need within the literature it should

not be ignored (Andrews et al., 2000; Goodyear-Smith et al., 2004; Renwick, 2007; Russell & Porter, 2002). Practice nurses often see patients on their own, and it is therefore important that all PNs are confident in recognising this condition and that all nurses are regularly updated on changes in management of depression. Such education should commence as part of in-service or workplace orientation when a nurse commences practice nursing and it should involve education on how to use the management of depression guidelines published last year (New Zealand Guidelines Group (NZGG), 2008). These guidelines provide flow charts for adult and young, adult mild to moderate depression to assist both GP and nurses in the care and making of treatment plans for these patients. A particular subset of nurses should also be targeted for education on depression is the nurse who provides Care Plus⁷, as depression is often a co-morbid illness in people with other long term conditions.

Suicidal ideation was the least frequently encountered condition and with the highest level of missing data (Table 4). Depending on interpretation of the results, suicidal ideation is perhaps seen as often as monthly by on third of respondents. It is not clear whether the missing data equates to “never” as no visible pattern could be seen from the responses. If the 10 missing respondents are removed from this analysis, then 43% of PNs are dealing with patients experiencing suicidal ideation at least monthly. Conversely, when missing and never are combined for suicidal ideation, then 37% of nurses are not seeing this condition. Nonetheless many PNs are encountering patients with suicidal ideation with varying degrees of frequency. These nurses may be an important link in the chain and so this type of research may ultimately influence outcomes. One in four patients who commit suicide are seen by their GP and are not referred to mental health services, the reasons for this as yet are not known (Didham, Dovey & Reith, 2006). From this current research it is now known that PNs are seeing these patients and so perhaps there is a role for them to play in suicidal assessment and referral. Assessment frameworks for suicidal ideation are easy to use and are included within the NZGG (2008) guidelines and therefore readily available and should be part of PN’s orientation.

⁷ Care plus Care Plus is a primary health care initiative targeting people with high health need due to chronic conditions, acute medical or mental health needs, or terminal illness.

Other commonly seen mental health conditions (Table 4) include alcohol and addictions, dementia, anger issues and panic disorders are seen by at least 50% of the respondents monthly and all conditions are often associated with primary health. Bipolar disorder, eating disorders and personality disorders are also seen by over 50% of PNs at least monthly. These conditions are normally associated with severe and enduring mental illness. They are seen often also in secondary services and are conditions where collaboration with secondary services is an important part of the patient's management. Practice nurses are therefore caring for a wide range and severity of mental health conditions frequently, making the correct education in these conditions urgent. Any education also has to span issues related to both mild to moderate illness and more severe and enduring illness.

Given that the PNs reported seeing patients with varying mental health conditions frequently and that it is known that one in four patients will have a mental illness and at least half of these patients will have their illness undiagnosed and treated (MaGPIe, 2003), it is important that PNs have education in how to screen and assess for a range of mental health conditions. Ansseau et al. (2004) discuss the reasons for the low rate of diagnosing of mental illness which can be related to either the patient or the assessment. Assessment issues include limited time available, inadequate knowledge, somatisation of symptoms and underlying co-morbidity masking the mental illness.

Co-morbidity and mental health

In that the work of the PN covers people with a range of health conditions it is important that PNs have a good understanding of co-morbidity both within mental health and between mental health and physical health. The commonly occurring co-morbid conditions were described in Chapter 2. In this study the majority of PNs acknowledged working with patients with co-morbid mental illness. Still, written examples given by the respondents were confusing. Almost half of respondents mentioned a physical illness when a mental illness was asked for. The example given in the questionnaire was depression and anxiety which was the most common response. The mental illness conditions that occur simultaneously are not surprisingly the most common conditions, either mood disorder with somatoform complaint or mood with anxiety. Ansseau et al. (2004) while describing these as

“hidden” psychiatric conditions states that 8% of presenting patients will have all three disorders simultaneously (Andrews et al., 2001).

Phelan et al., (2001) discussed severe mental illness and physical problems. They state there is a strong link between poor physical health which lowers life expectancy and gives rise to a wide range of physical complaints (Goldberg & Gater, 1996; Happell & Platania-Phung, 2005; Holdaway, 2003; MaGPIe, 2005; MOH, 2002; Reid, 2005; Roy-Byrne et al., 2000; Warner, 1998). This knowledge is therefore important for all primary health nurses to know so that they can effectively care for their patients in the community. Within this study 67% of respondents stated they see patients in the course of their work with a co-morbid physical complaint. Yet irrespective of any qualifications their knowledge of common simultaneously occurring conditions seemed limited. Mixed responses were obtained when respondents were asked to name a physical disease that co-existed with a mental illness. Again the example given was the most common answer. Knowledge about co-morbidity in primary health is important as 50% of patients with a mental illness will have some co-morbidity, but in 35% of these patients their coexisting disease is undiagnosed (Andrews et al., 2001) The consequence for the patient when co-morbid disease is not recognised and managed can lead to death – hypertension and lung disease are the main cause of death for long term mentally ill patients (Iacovides & Saimouli, 2008). It is apparent that education into co-morbid disease and mental health is needed.

Mental health interventions performed by practice nurses

The vast majority of PNs performed more than one intervention (Table 8) with some nurses indicating they complete many types of interventions for patients with a mental illness. Practice nurses perform at least depot administration, counselling and medication mental health interventions regularly. These interventions range from screening and assessment to management to referral.

Screening and assessment

Given that early intervention for patients with a sub-acute mental illness greatly improves outcomes for patients and often relies on adequate screening and assessment (McMenamin,

2005) it is important that PNs can recognise and respond to the presence of such illness at an early stage of illness. Appropriate help at this sub-threshold level may simply be the education for the patient, self help strategies and psychosocial support (Andrews et al., 2001; Parker et al., 2008; Patel et al., 2007). All interventions a nurse could perform. This current study did not specifically explore the confidence of nurses' assessment and diagnostic skills, it did however find out how familiar nurses were with mental health screening. The results indicated there was a low use (only 37% of nurses) of tools such as the mini mental state or COOP tool. Given that the confidence in the use of these tools was also low and this question was also answered by fewer than 40% of respondents, the remainder presumably do not use tools, have no access to the tools, or have no confidence in the use of these tools, education related to screening for mental illness is important.

The use of screening tools is also an important means of communicating the care of patients to doctors, including assessment and treatment evaluations. Their use is reliant on access to the relevant tools and competence and confidence in their use (Hsu et al., 2005). The World Health Organisation (1996) stated that screening for mental health should be part of a nurse's role and MOH (2005) state that health care screening is a common task for practice nurses. Recently a new approach to assessment and patient self-management – the Flinders Model – used to assist the nurse in formation of goal centred care plans for patients is being incorporated into PG papers in primary care. This model provides an assessment framework for primary health nurses and while not specifically designed for mental health it does use a holistic approach to care (Harris, Williams, Dennis, Zwar, & Davies, 2008). Within this study, respondents were not asked if they believed it was their role to perform screening and care planning for mental illness.

Decisions are therefore urgently needed on which of these tools nurses should be competent in using and a plan to provide this put in place as one of the first activities undertaken. Guidelines released late last year after commencement of this research, by the MOH contain many assessment frameworks which are easy to use for the identification of common mental disorders and which are designed for use by primary health nurses (NZGG, 2008). The tools include assessment frameworks from young to old and cover primary and secondary mental

health issues including suicidal intent with guidelines on how to use these tools. This document needs to be made available to practice nurses

The most common disorders in children and youth are anxiety and depression and cannabis addiction, therefore education should focus on tools to screen and assess for these conditions (Bittner et al., 2007; Gregory et al., 2007; Rey et al., 2002). One fifth of older people have a mental illness and 54% of nurses surveyed encountered elderly patients with a mental illness weekly or monthly. Given the increasing elderly population this figure is likely to rise. The two major disorders affecting older people are depression and Alzheimer's disease. The tools for these conditions are relatively easy to administer such as the Geriatric Depression Scale (GDS) and the Alzheimer's disease Screen for Primary Care (Grober et al., 2008; Hsu et al., 2005). No respondents stated they used these tools. While how to use these tools is often self explanatory, choice of an appropriate tool is not, and will require educational and multi-disciplinary team input.

Screening for depression is also a topic that requires education. Mann et al., (1998) in their British pilot study patients diagnosed with depression were either assigned to GP follow up or PN follow up. The nurses were trained in the assessment of depression using the Beck Depression Inventory and its management. All of the 600 patients recruited showed improved outcomes in their mean depression scores and PNs were at least as successful at treating these patients. Therefore PNs can make a difference given training in this area. Gray et al. (1999) also reported approximately 50% of nurses directly give advice to patients on depression and its treatments. This knowledge may need to be explored with PNs to encourage them to make a difference within their work with patients experiencing depression.

Management of mental health issues

Here the most common intervention performed with the highest confidence level was the administering of depot injections. This concurs well with Gray et al. (1999) British study where 61% of PNs administered long term antipsychotic medication in the form of depot. Burns, et al., (1998) also reported on the use of depot medication by PNs and found that

while 68% of nurses gave this medication most lacked the confidence and training to do so. Although the nurses in this current study reported being confident in giving the depot injection, given the lack of mention of the mini-mental state exam or AIMS test it is possible that their confidence is in the injection technique as opposed to the mental health assessment that should also accompany this every time an injection is given. Burns et al., found that one third of patients receiving depot medication have no contact with secondary mental health service, PNs therefore have a significant “responsibility of care” for these patients. Therefore an assessment of the patients’ mental state should be completed when administering a depot medication (Burns et al.). Within this report few PNs used this tool, thus, when to perform an assessment may be an issue requiring education. Nelson et al., (2003) in their evaluation of primary care shared services briefly discussed education requirements for general practice staff and mention the need to train staff in the use of an AIMS tool for detection of side effects from long term use of antipsychotics. What is clear is that education on the patient assessment and responsibilities of administering depot medication is needed to ensure that it is administered safely for patients.

Other common interventions performed by the nurses in this study were counselling, medication advice, problem-solving and anxiety management, with medication management other than depot being rarely performed. These findings are generally similar to what is known in the literature where these are the most common interventions (Lee & Knight, 2006; Secker et al., 1999). However, they differ from those of Gray et al., (1999) who found that in the United Kingdom medication management was the most common intervention performed by practice nurses.

The list of possible interventions used by the PNs in this current research was short, yet as demonstrated in international research, PNs can be influential in improving care for patients with a mental health issue when taught interventions (Katon et al., 2001; Sokhela, 1999). The interventions within the international research have included assessment, general mental health education and giving treatment advice and medication adherence. These are similar interventions some nurses in this current research used and so patient outcomes could be improved directly through providing this education in these interventions.

The areas where confidence at performing interventions was lowest (Table 10) would perhaps suggest where extra educational input is required. These are important areas as these interventions are commonly performed. For example, anxiety is the second most common condition met by nurses in this study and three quarters of nurses had little or confidence in their performance in anxiety management, yet almost half the nurses performed this intervention (Table 9). Half the nurses who responded stated they had little or no confidence in their skill at giving medication advice yet this was a common intervention performed. Giving correct medication advice to patients is highly important as the wrong advice could have an adverse affect on patients; nurses therefore need urgent education on medication used within mental health to increase their confidence. Getting education to PNs on these interventions and management of conditions is important so that they can deliver the correct care with confidence to their patients needs should be expedited.

Confidence in caring for patients or performing mental health in general scored low, mean confidence in performing specific interventions for patients with a mental illness also scored low and this was not influenced by PG education (Table 10). Confidence was influenced by primary qualifications and experience working with patients with mental health concern. Nurses who held degrees in nursing also showed increasing confidence in caring for these patients in general. Although not statistically significant it does show a trend which is positive given nurses in NZ now all qualify with a degree. Confidence in performing specific interventions also scored low with the exception of giving treatment advice to patients and holding the primary qualification of a comprehensive degree showed statistically significant increasing confidence compared to nurses without a degree.

With the exceptions noted above these results generally agree with Secker et al. (1999) who found that primary qualifications of PNs had been of little or no help with mental health issues. The results also agree with Henderson et al. (2007) and Kerrison and Chapman (2007), who reviewed mental health theory taught to students within comprehensive training and found while there is limited research into this area; there is still a wide held belief that training hours are inadequate for practice. Finlayson et al. (2009) also commented on the

inappropriate and poor quality of placements for both undergraduate students and for new graduate nurses as being workforce development issues.

To be considered competent there needs to be a combination of the right knowledge (education), skills and attitude (Redfern et al., 2002). All of the nurses taking part in this report could recall mental health education in their training but it was of little help in gaining confidence in mental health skills. A higher proportion of nurses than previously examined in research held comprehensive degrees which also had only limited influence on interventions performed or confidence in performing interventions for patients.

Clearly there is the need for appropriateness of clinical placements in mental health to be called into question. What is needed are mental health placements where clinical skills are taught and a supportive learning environment is maintained for the student to gain skills and help with knowledge acquisition that can be brought forward into a career in primary health.

Where training additional to primary qualifications has been given to PNs it has improved outcomes. Katon et al. (2001) trained PNs in brief interventions including clinical assessment, education, monitoring adherence to treatments and follow-on referrals for patients suffering from depression and found no difference in outcomes for patients allocated to nurse intervention or GP intervention groups. Therefore with the right education and skills PNs can become proficient at helping these patients. Specific PG education in mental health interventions is needed to increase the skills and consequently improve confidence and competence for these nurses. This education needs to have a practical focus with onsite education based around real patients. Here primary health educators, mental health liaison nurses or mental health nurse educators may have a role to play in this type of delivery, perhaps in the form of a mentoring role for either new PNs or new graduate nurses.

Collaboration and referrals

The majority of PNs in this current study liaise with a wide range of mental health services and therefore this research agrees with previous research completed by the MOH (2003). Crisis services gave the greatest response. Their role was described by the Mental Health

Commission (2001) as addressing the needs of patients who have not been in mental health services and those with a recurring mental illness, and provide a mobile call out and triaging service. Therefore this is an appropriate team to liaise with when nurses are concerned for any patients. Although as one nurse stated they (crisis) “*are not always helpful*” and patients “*don’t meet the criteria*”. It could perhaps be the case that this nurse was referring patients who would be more appropriately cared for within primary health. A referrals process would therefore help this nurse with whom to refer patients to.

Many nurses also gave more than one answer for question 26 indicating a knowledge of mental health services, ability to access mental health care and collaboration in that care. Finlayson et al. (2009) states, that the PHO system has generally increased PNs participation in delivering a collaborative service to patients. Although few nurses within this current study identified themselves as belonging to a PHO, these numbers are likely to increase with time, then collaboration in care of patients with mental health issues may also increase. This may already be the case given the diverse list of services and the high response rates for this question (85%) with the majority of nurses giving several responses to this question (Table 13). Four nurses liaised with counsellors and psychologists and three nurses indicated they liaise directly with the psychiatrist, indicating a high level of collaboration and participation in mental health care for their patients.

Only one nurse indicated they contacted services for elderly mentally ill despite this being the second highest contacts with patients and over 50% of PNs caring for elderly patients with a mental health concern monthly. Also only one nurse mentioned referring patients to addictions service despite 70% of nurses stating they care for patients with addictions issues and one nurse highlighting this as an educational need. Therefore there are still issues around liaison and referral which require education to ensure patients get referred to an appropriate service.

Primary mental health liaison or link nurses working within the practices and community teams have been shown to improve outcomes and increase mental health awareness (Lee & Knight, 2006; Nelson et al., 2003; Rodenberg et al, 2004). These nurses facilitate a multi-

disciplinary approach to care and help with liaison between services. Only two nurses surveyed indicated they worked with a liaison/link community mental health nurse. A possible explanation for this is that these nurses have developed in an ad-hoc manner, there is no standardisation in their titles or the PNs are not aware of these nurses (Nelson et al.).

While the nurses in this survey knew who to refer patients to, most nurses had no referral process to follow. Many nurses made comments about the process and there appears to be no standardisation of this process. Written responses here centred on what the nurse felt was the right thing to do *“sometimes our work is intuitive –gut feeling tells you something is not right”* (No. 39). And another nurse stated *“if I feel it’s serious I will discuss with the patients that I may need to speak with their GP”* (No. 38). Nonetheless, most nurses responding to question 24 stated they would inform the GP. Some nurses stated they would triage patients with one nurses expressing this thus *“refer on if risk evidenced. Triage/ assess/ analyze-refer to appropriate services”* (No. 40). While another nurse stated she would leave *“a note for the GP”*. Another nurse stated she would listen to patient and described collaborating with their doctor before making an appointment *“acknowledgement to the patient that this issue is important to me. Then through discussion with their GP we would either make an appointment for the patient to visit GP or referral to counsellor depending on issue”* (No. 24). Other nurses stated they would encourage the patient to see the GP. One nurse commented on the inadequate process for referrals stating lack of *“interdisciplinary services communication can let people with mental health issues down”* (No.32). The World Health Organisation (WHO) and World Organisation of Family Doctors (WONCA), (2008) global report into primary mental health stipulates a more organised approach to referrals and sets out guidelines indicating when to refer and which service patients should be referred to. WHO and WONCA state this is dependant not only on adequate processes but also on the skills and experience of the primary health worker. One nurse appears to identify with this and stated *“it would be beneficial to patients and nurses in primary health to have an index of services.”*(No.32). This nurse wants some type of structure to the process at a very basic level to help refer to the right person.

It is clear from this current research that the development of local guidelines which leads into a standard referrals process would assist PNs in triaging patients with mental health conditions. One experienced respondent articulated their skill in the triage process well but it is evident from her response that guidelines would help her decision making process.

“Ask if they would like some help.-who is support person. Listen -personal safety. Is help needed today/tomorrow- Dr/ duly authorised officer on duty or midwife if postnatal depression. Depending on problem ask for advice and share the joy. Any self harm-get help sooner. Have to balance confidentiality with safety” (No. 38).

This area is perhaps where mental health nurse educators, psychiatric liaison nurses and community mental health staff should get involved setting out clear local referrals processes and guidelines for PNs to help with their decision making. As consequence of this research I am at now part of a project looking at early intervention procedure protocols and referrals for patients with a mental health concern. Access to services at the right time and better linkages with community is one of the aims of this group.

Preference for mental health education and perceived learning needs

The nurses themselves indicated their interest and willingness to engage in such education. One nurse stated that the completing the questionnaire *“made me realize that there are some gaps in my knowledge. I am very interested in future education”* (No. 27). The finding that few nurses considered they had a firm grounding in mental health as an undergraduate was not unexpected. Henderson et al., (2007) have previously reported this in the Australasian context. Given this finding it will be important that any education developed be positioned to both educate the registered nurse with limited mental health knowledge and experience, and to extending the nurse who has considerable knowledge and experience. The needs of the more experienced group may best be met in PG education, while those of the former group are engaged in work-based or short courses. Those who are involved specifically with patients with a mental health problem or have it as a focus of their practice would need more advanced education.

The majority of research into the provision of mental health education in primary health has concentrated on skill acquisition and outcomes for GPs, and studies have failed to recognise the needs of PNs in this area (Corney, 1994; Goldberg & Gater 1996; MaGPIe, 2005; Russell & Potter, 2002). This current research reports on the PNs preferred provider, duration, and location of primary mental health education. The results were split between short lectures delivered at their place of work and outside their place of work. It is clear from the research that nurses would prefer a course specifically designed for PNs in mental health which should be delivered by community mental health (CMH) team. This places the burden on the overstretched CMH staff which as Secker et al., (1999) state they would be unable to cope with.

Few nurses in this study either referred to or listed the psychiatric nurses at their practice or psychiatric liaison nurses as preferred educators. Yet previous research has highlighted the educational role of these nurses to enhance mental health awareness in a collaborative learning environment (Badger & Nolan, 1999; Lee & Knight, 2006; Rodenberg et al., 2004; Secker et al., 1999). As few nurses in this survey had experience with liaison nurses then the effect their presence makes on either collaborative care or collaborative learning is still unquantified in NZ. Given the few link/liaison nurses and the focus of their work being severe mental illness, it is perhaps appropriate that CMH and psychiatric liaison nurses should jointly present education for practice nurses. This would reduce the burden of providing education for both parties.

Table 12 specifies the nurses' identified learning requirements. Suicide was listed highest by the nurses yet this has the fewest contacts (Table 4), this may perhaps relates to life and death consequences arising from this concern. The nurses in this current survey cared for patients with a wide range of issues and commonly administered a wide range of interventions. Yet the examples in the questionnaire were the most common responses. The nurses' confidence in performing these interventions was low suggesting an educational need yet the nurses did not highlight interventions as a need. The nurses responding to this question may not know which conditions, therapies or treatments available in mental health to help them answer this question. In prioritising educational requirements from the

responses gained while depression and postnatal depression are conditions that the respondents knew most about, they still identified these disorders as requiring education. Perhaps this is due to depression being the most frequently encountered condition. Postnatal depression was not a condition listed in the questionnaire where respondents could record the frequency of encounters therefore the rates seen within this group of respondents is not recorded specifically. The incidence of postnatal depression is placed between 13% and 35% (Harvey & Pun, 2007; White, 2008) and responses within this current research also suggest it is common.

The specific mental health issues PNs felt they require additional education on are wide and varied. Given the lack of experience in mental health other than on the job training this education has to start with very basic concepts from assessment through to management and be built upon. Prioritising these needs should be a combination of the patients most often seen, the PNs perceived learning needs and areas where confidence in performing interventions was low. Conditions such as anxiety, grief, alcohol and drug issues which nurse see often (Table 4), and schizophrenia, bipolar disorders, suicide which nurses highlighted (Table 14). As confidence is low at performing interventions, undergraduate training experience limited and PG primary mental health for PNs not yet available, then this training should start at the basics of mental health and be built on to cover the types and conditions the nurses care for. Education should start with the most commonly met conditions, for example, depression and anxiety, and initially concentrate on adult issues. Then education should progress to less commonly met conditions and older adult conditions such as dementia and their management. Themes that are encountered by nurses less frequently such as children's mental health issues and suicidal ideation are still important as education around recognising these conditions may be of concern and so should still be prioritised. In this way a comprehensive education plan will be developed concentrating on greatest need.

One way of doing this would be to initially cover undergraduate content and relate this to mental health problems encountered by nurses in primary care, in this way using their current knowledge and experience. This form of experiential learning permits internalisation

of previously held knowledge building on this to develop new meaning and understanding (Jarvis, Holford, & Griffin 2004). Experiential learning can start with very basic concepts and progress to more complicated principles quickly and therefore also assist more experienced nurses. This was demonstrated by Sokhela (1999) where this type of on the job practical learning was used to improve primary health nurses understanding and skills in mental health.

The education should include general recognition of a wide range of mental health conditions and tools that can be used to assess severity of the illness. It should also be considered that patients present early and in a less acute stage of their illness to primary care and so assessment and early recognition of problems is important (Parker et al., 2008). Patient self help strategies should be taught to nurses and other more general interventions that a nurse can use in sub-threshold illness (Andrews et al., 2001; Katon et al., 2001; Patel et al., 2007). Lastly, where to get effective help for patients when needed, using a structured referral process (WHO, 2008). With the PNs in this current research stating they would like a designated course for PNs perhaps the link-nurses where part of their role is to train and educate staff could take up the challenge and design a short course for PNs to be delivered locally .

Educational Barriers

Both the Ministry of Health Workforce Survey (MOH, 2003) and Baird (2003b) highlighted finance as the greatest barrier to PNs' education, followed closely by time and staffing problems. These studies also report employer resistance and lack of available courses. This present study reports issues with time and staffing. Finance directly was only mentioned by one nurse who stated "*who pays for it. Have attended outside of work hours. Outside the DHB you are outside the loop of continuing education information*" (No. 33). This comment appears to concur with Baird's (2003a) report where nurses attended study in their own time.

This study while small also looked at the difficulties endured by rural nurses. Only five rural nurses took part in this survey, and three described difficulties accessing education. One nurse summed up the responses by saying "*rural- difficulty getting to educational sessions*

in cities- time constraints, no locum nurses to cover” (No.17). This was highlighted as a barrier by the MOH (2003) in a ministerial report and partly as a result of this report PNs can now access CTA funding directly through the universities or via the DHB. The goals of CTA funding include paying for staff replacement, travel as well as the cost of the papers. This does not appear to have unblocked the barriers to education for the nurses in this study.

The emergence of PHOs was an issue not raised in any previous research as affecting education for practice nurses. Within this study the results were mixed on how these affect access to education for practice nurses. While this was raised by only four nurses, it is worth noting that the PHOs tends to direct education for these nurses and if mental health education is not seen as a priority for the PHO then it will not happen. The profile of mental health education for primary nurses would need to be raised for priority to be given to this topic. How feasible this is with restraints on education funds of the PHO, allocated educational time and PNs time is unknown. The Primary Health Care Nurse Innovation Evaluation Team, (2007) also recognised an issue for rural nurses and PHO providing education but their focus was on prioritising funding. Also this was in respect to the Health Practitioners Competence Assurance Act (2003) and they do not specify any education on mental health. They do stress the importance of clinical education and state this is dependent on location and time.

Finlayson et al. (2009) briefly discusses the role of PHOs in education in relation to implementation of *The Primary Health Care Strategy* (King, 2001). They mention nurses having to negotiate release time and funding for education. They state that primary health care courses, professional development sessions and mentorship may be strategies to help support practice nurses. The mental health component of these courses may not be adequate. For example, according to the University of Auckland website-Primary Health Care Nursing course in 2009 does not recommend any mental health papers for a PG certificate or diploma in primary health (<http://www.fmhs.auckland.ac.nz>). There appears to be no structured mental health component to any of the papers on this course. Therefore these papers may address other concerns in primary health, and they do not, at present address mental health problems in primary health. CTA funding should therefore be extended to cover the mental

health educational requirements of practice nurses. This may require an extension of primary health CTA funded papers or an additional paper be made available.

Where to from here?

In a report to the MOH, The Health Workforce Advisory Committee (2008) set out goals in delivering primary health education to nurses whereby it is accessible, affordable and appropriate. That New Zealand Nursing Council, nurse educators, PHOs, CTA and DHBs coordinate a national framework for delivering education on primary health which takes into account undergraduate preparation and PG needs. Within this report there is no specific mention of mental health education. *The Blueprint for Mental Health* (Mental Health Commission, 1998) states that the primary health sector should bear the burden of responsibly in caring for the 17% of patients who at any one time will have a mental illness. At present the government is implementing *Te Kōkiri, The Mental Health and Addiction Plan 2006-2015* (MOH, 2006a), an action plan to equip the primary health sector for delivering primary health policy. Primary health care organisations are expected to lead the challenge in building capacity for primary healthcare workers including nurses, to assess and meet the needs of patients with a mental health concern, be involved in early intervention, improve patient outcomes and promote recovery.

In prioritising educational requirements from this current research it can be deduced that PNs need urgent education about general mental health conditions, including all types of depression and suicidal ideation. To this end this study concurs with Renwick's (2007) report where there is a need for training in mental health interventions including depression screening, which will improve competence in skills. Practice nurses need greater understanding of co-morbidity which may directly improve patient outcomes. Responsibilities surrounding administration of depot medication also need education where PNs have the burden of care. Education is needed on which assessment tool should be used and when, and lastly, a standardised referral process.

This research was conducted with a view of helping me provide mental health education to local PNs and thereby improving outcomes for the patients I meet in my every day work. It

also has implications wider than my local community. How and by whom should education be delivered to PNs? In some instances it may be appropriate for local educators to run short up-dates for PNs, discussing management and recognition of particular conditions. Orientation programmes for PNs could involve spending time with community mental health services learning about liaison with the service and how to use the screening tools. How feasible this is would be dependent on nurses being released from their duties. This topic is much wider than can be taught in an afternoon therefore a more formal approach may be needed by tertiary providers.

Conclusion

This study was designed to describe the perceived learning needs of PNs in mental health and explore their involvement with these patients. The aims were to gather demographic data, examine the nature of problems encountered by nurses, describe the interventions currently used by these nurses and identify perceived learning needs. To this end the research has been successful. While demographic data did not show true generalisability, the respondents were broadly similar to previously known populations. This is the first NZ research to capture the work of PNs with patients with a mental health concern and the results demonstrate that PNs are involved daily with patients' with wide ranging mental health concerns, the most frequent conditions met being anxiety and depression. They provide a wide range of mental health interventions with administration of depot medications and counselling being the most prevalent. Confidence in these tasks was limited and not influenced by basic education. The respondents were able to liaise with a wide range of services but no standardised referrals process is in place and nurses have to use professional judgement when referring patients. The nurses listed their perceived learning needs which centred on general mental health conditions and other learning needs arose out of this research which includes education on co-morbid disease and mental health and screening. The aims of this study have therefore been met.

Chapter 7. Conclusion and implications

This study reported on the educational needs in primary mental health of a sample of 52 practice nurses (PN) in New Zealand (NZ). The findings are important given the move within health services for increasing the capacity of the primary health care sector to extend and expand its contribution to improve mental health outcomes. This final chapter will discuss the limitations of this research and the implications for nursing practice, education and research.

Limitations of the study

These findings may have some limited degree of generalisability to other practice nurses PNs within NZ therefore results may not be applicable to every area. There were no large metropolitan areas sampled and so results may not be fully representative to these regions. Another limitation of the study is that it only provides a snapshot of the current work undertaken by PNs in the field of primary mental health and their current perceived learning needs in this area. Both of which will change over time and given the release late last year of the new guidelines in primary mental health (NZGG, 2008) change may have already occurred. It is therefore important that a further study is done in two to three years to see whether knowledge and confidence has improved.

A further limitation of this research is the low return rate. Of the potential 143 nurses sampled in the area only 52 nurses chose to respond generating a response rate of 36%, a not uncommon response rate for postal surveys and a typical response rate for other surveys of practice nurses. The low return rate means that some caution is required in making decisions for all PNs based on these findings, non-respondents may hold alternative views on this topic. There was no consensus of roles, knowledge and confidence, and the respondents listed different needs which means that not only those with an interest or skill in providing primary mental health services responded. The findings therefore are important but any development of local education based on them is best carried out in negotiation with the nurses specifically targeted for the education.

From a methodological perspective the low return rate occurred despite the use of many strategies to increase the number of returns. When surveys are used the only solution to increase the actual number of returns, as opposed to the actual return rate, would be to send more out. This would be time consuming given the lack of an accessible data base on general practices throughout NZ. Perhaps a register of general practitioner (GP) practices and/or PNs could be developed to allow easy identification of the population, thereby reduce the time taken to locate the sample. While this may not increase return rates it may allow a greater sample area and so a larger sample.

Rigour in this study was maintained throughout. Justifications were made in the text for the methodological process followed. One of the main threats to the rigour of this report is the questionnaire which was developed specifically for this research. This was validated by a peer review and a pre-test, with changes made tracked and questions refined for ease of understanding. In general the questionnaire served its purpose well. Other researchers undertaking a similar study should consider making some changes. These include clearer definitions of formal education, postgraduate (PG) study, and better definitions of primary qualifications. In future studies which include comparisons of primary qualifications the standardising of nursing qualifications will eventually become easier as fewer hospital trained nurses and diploma nurses will be replaced by comprehensive degree nurses. The present confusing state of primary qualifications is likely to continue for some time. Two questions on co-morbidity which gave ambiguous and confusing answers should be altered with better examples and clearer definitions. Postnatal depression and schizophrenia would need to be included as conditions to gauge contact with patients with these conditions. Additional questions may be needed around barriers to and funding for education to help tease out more information. The final phase of this research is to share the findings locally, and nationally to both mental health nurses and PNs so that other regions can also benefit from this research.

Summary of implications for nursing

Primary health policy states that the majority of patients with a mental health concern should be cared for within primary health system. Practice nurses are the largest group in the primary health workforce have a major role to play in implementing this policy. While the scale of this research is small, it provides a good first picture of PN involvement with patients who have a mental health issue. It captures this aspect of the work which up to now has not been examined in New Zealand. This work has previously gone unrecognised. It is now known that PNs work daily with patients of all ages with an extensive scope of mental health concerns and that they provide a wide range of interventions for these patients frequently. The most common conditions seen are the depression and anxiety disorders and the most frequent interventions performed are counselling and administration of depot medications.

Practice nurses themselves have now articulated some of their learning requirements in mental health which centred on particular conditions such as suicidal ideation, depression, and postnatal depression. Particular treatment options for patients were also raised for example, behavioural therapy. This research has begun to open the debate in New Zealand around the issue of mental health screening in primary health. With few nurses screening for mental health concerns and even fewer feeling confident in this and with restrictions on PNs time, this area needs to be explored more thoroughly. Confidence is linked to competence and skill level (Redfern et al., 2002) and given the nurses confidence in interventions was low, it is likely that their skill level was also diminished. This places the patient and nurses at some potential risk when nurses are providing care they are not competent to provide. Therefore training in the provision of interventions is needed urgently to reduce the risks to patients and the nurses.

This research also allowed the respondents to select the best means of delivery of education and their perceived educational restraints. Fifty eight percent of respondents wanted a short course designed for PNs around mental health provided either by community psychiatric services or an educational provider. This could perhaps be run as an orientation programme for new PNs or with an increasing uptake of PG courses by PNs as part of these primary

health educational initiatives run by tertiary providers. This study agrees with previous research on the barriers to providing education which in the main were concerned with staffing, finances and time. A completely new finding is the influence of the Primary Health Organisation (PHO) whereby if the education is not organised through these organisations it may not happen. Mental health education will need to be seen as a priority for PHOs to release practice nurses.

It is clear from this research that a coordinated approach to educating PNs is called for. This will demand liaison, coordination and collaboration between primary health educators, tertiary education providers, community mental health services and primary liaison nurses (Ford, 1998). Primary health education providers who currently provide education for PHOs need to take account of the PNs educational needs in mental health. Community mental health and secondary services could open up their in-service training around primary health to PNs and PHOs staff. At present in Tairāwhiti, relevant training is often open to mental health providers and liaison nurses. This should be extended to include PNs and content centred on primary health needs issues including a more structured referral process so that knowledge of this process can be more widespread. Liaison nurses should get involved in training PNs and the setting up of a referrals process. In this way PNs will become aware of the role these new nurses perform in the care of mentally ill patients in primary health and will become part of the PNs referral pathway.

With Clinical Training Agency (CTA) funding being available to PNs and primary health PG papers coming to fruition, the postgraduate training opportunities for PNs should increase. Priority needs to be given to primary mental health in these courses by tertiary providers for PNs to be in a position to implement primary mental health policy. Tertiary education providers also need to review undergraduate education in mental health and supply more appropriate clinical placements in mental health to undergraduate nurses. These placements should take into account the actual work done in primary health by nurses so that the content of the courses can be changed to match their needs.

It is now known that PNs liaise with an extensive list of mental health services, with the most common team to refer to is crisis mental health services, few appeared to liaise with primary mental health liaison nurses. Practice nurses are in a position to pick up subtle clues about a patients mental health state while symptoms are sub-threshold, and are in a position to initiate nurse driven interventions proven to improve outcomes.

The extent of this liaison with services may need further investigation to understand how PNs collaborate in care. From this research there are few practices with a standardised referral process when nurses are concerned about patients' mental health and so perhaps debate is needed as to when do patients need to be referred outside primary health and to whom.

With many educational implications not fully understood as yet and a multidimensional course needed the setting up of an educational programme is still too difficult to be accomplished by an individual. Locally this may be a working party perhaps consisting of a mental health educator, community mental health nurses, a group of PNs, primary health educators and liaison nurses collaborating together on the first stages of a programme. As a series of sessions is needed, collaboration such as this will develop the multifaceted aspects of a course. In this way it may start to meet the mental health needs of practice nurses.

Implications for further research

Descriptive research is designed to provide an overview of a situation, describe phenomena and variables that impact on that phenomena (Kelley, Clark, Brown, & Sitzia, (2003). It is not designed to give in-depth analysis of specific aspects nor explore any lived experiences. In this way it is designed as a starting point for further research when little is known about a topic. This study has therefore raised some important findings which need further investigation. The background to this study clearly identifies how little is known about the PNs' role with patients who have a mental health concern and the findings indicate several areas for further research. These include the need for a more in-depth look at the number of contacts made by PNs in the course of their work with people with a mental illness, particularly around suicidal ideation, depression and postnatal depression. Are the nurses

reporting the number of known cases or are they making an assessment and reporting the number of suspected undiagnosed cases? How PNs assess the mental health of patients and which tools they should use also requires research. More importantly, what do they do with the information when the assessment has been made? This study also mixed sub-threshold, mild moderate and severe mental illness therefore true involvement with sub-threshold mental illness, patients where perhaps only nurse intervention is needed, was not reported. This requires further investigation. More in-depth research into the confidence levels of nurses performing interventions and the effect increasing education has on their confidence level is needed.

Additional research is also needed to discern if the PNs are reporting the known cases of mental illness, that is, where a patient has previously been formally diagnosed or if they are reporting the suspected cases prior to a diagnosis? It may also not be the place for PNs to diagnose patients but only report suspected cases to a GP for assessment. This may be the case as the majority of PNs stated they would inform the GP if a suspected mental health issue arose.

While this study reported the mental health interventions PNs perform, little is known about the quantity or quality of the interventions performed by these nurses and this remains a topic for more in-depth study. For example, how often, how long and what training they require to perform this intervention? This research would need a small group of nurses and some type of qualitative approach to complete.

The effect PHOs have on education provision needs further investigation. With few PHO respondents within this study, then true conclusions could not be drawn. These agencies direct the education for PNs within their employ and the potential to restrict education is great. More research into rural nurses access to education is needed where access is further restricted. Again a larger sample would be needed to examine the impact these new agencies have.

It is very clear that all nurses in this study were encountering people with a wide range and severity of mental illness frequently but what age group the patients belong to and whether this is a previously diagnosed illness or an illness that the PN suspects, is not known. Future research relating to the age and conditions seen by PNs would be required to give a complete picture including comparisons made with what is known about the patients seen. This current research was also not designed to collect data on how PNs respond to particular mental health conditions encountered within their work but with this high rate among this small sample it may also be worthy of interest at a later date. The attitudes of PNs towards patients with a mental illness are also worth examining as other studies have shown that health professionals discriminate towards patients with a mental illness (Jorm, Korten, Christensen & Henderson, 2002).

More research is also needed on to the use of assessment tools by practice nurses. For example this current study did not examine whether any assessment such as a mini mental state examination was made during depot administration or if nurses understand their responsibilities when administering depot medication and need further research to comprehend this. What tools are available to PNs within their workplace if the latest guidelines by NZGG (2008) are available would need to be researched before it is known whether the low rates of use is an inability to use the tools, lack of access or lack of education and competence in their use. Research perhaps should also occur into who decides which assessment tool should be used. Is this an issue for public health, the GP, the PNs, the practice manager or mental health services? Debate also should develop around whose role it is to administer the tools, the nurse or the GP, and what do with the assessment information once gathered.

It is not known from this research in what circumstances the nurses liaise with mental health services. How the role of primary mental health nurses/liaison services link into that of PNs also warrants further investigation. It is timely to investigate the location, the numbers and the roles performed by these link/liaison nurses for this to be clarified. How to access this service needs investigation, as few nurses in this current research referred to these nurses.

What role should these nurses perform in educating practice staff also warrants investigation.

Closing statement

Practice nurses clearly have an important role in providing primary mental health services. Thanks to the 52 nurses who responded to this survey there is now a better understanding of this work and the educational needs of these nurses. As a nurse working in mental health I look forward to using these results to help PNs in my region be better equipped so that the people of Tairāwhiti and Hawkes Bay can have improved mental health outcomes. By publishing the results of this survey nationally it can help other mental health departments and educators such as me to provide educational programmes for the PNs in their area.

Appendices

Appendix A: Questionnaire

Practice nurses educational needs in mental health

This questionnaire is divided into three sections. Section 1 asks you for some personal details to describe the sample, Section 2 covers your practice nurse experience with people with mental illness, and Section 3 asks you about your education needs. The answers provided will remain confidential. No identifiable information about you will be revealed in written or verbal reports, results will be aggregated. Quotations may be used to highlight some points.

Section one – Education

1. What best describes your nursing qualification? (*Tick one only*)

- ☐ Enrolled, community nurse or nurse assistant
- ☐ Registered nurse with hospital based training
- ☐ Diploma in nursing general obstetric nursing
- ☐ Diploma in comprehensive nursing
- ☐ Registered nurse other e.g. psychopaedic
- ☐ Degree in nursing comprehensive
- ☐ Nurse practitioner
- ☐ Other please specify _____

2. What year did you first register? _____

3. Do you have any post graduate qualifications in nursing, for example a post graduate certificate?

- ☐ Yes ☐ No

If yes please list _____

4. Are you currently enrolled in any formal nursing or health study?

☐ Yes ☐ No

If yes, please name the course(s) _____

5. Do you recall having any mental health education in your undergraduate training/education?

☐ Yes ☐ No

6. How regularly do you have access to formal mental health education at or through your place of work?

Monthly

Annually

Never

7. If some additional mental health education were to be arranged for practice nurses what forms should it take? *(Please tick as many boxes as you wish)*

☐ Short Lectures delivered at your practice

☐ Short Lectures delivered elsewhere e.g. at local hospital

☐ A course for practice nurses on community mental health issues

☐ Practical onsite help related to specific people e.g. case conference

☐ Other –please state_____

8. Who would you prefer to provide this education?

☐ Community psychiatric team

☐ Psychiatric nurse at your practice

☐ Practice nurse working at your practice

☐ GP working at your practice

☐ Educational provider

☐ Other _____

9. Please identify any specific mental health issues (e.g. suicide risk), therapies (e.g. cognitive behaviour therapy), approaches (e.g. family therapy) or conditions (e.g. postnatal depression) you would like education on?

(Please list in order of priority to you, with one having the highest priority)

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____

10. Have you any direct experience as a registered nurse working with patients with mental illness- for example working in a mental health inpatient unit?

☐ Yes ☐ No

If Yes how long did you work there?

☐ ≤ 2 years ☐ 2-5 yrs ☐ 5 years+

11. Please describe the types of difficulties you personally have with receiving education in your current work situation?

Section two- Encounters with Mental Health Clients.

Mental illness can be defined as a clinically diagnosable disorder that significantly interferes with an individual's cognitive, emotional or social abilities.

12. How often as a practice nurse do you work with patients in the following age groups with mental health and mental illness needs?

Age	Daily	Weekly	Monthly	Annually	Never
Child – up to 15years:					
Young adult – 15-20years					
Adult – 20-64years					
Older adult – 65+years					

13. How frequently as a PN do you work with patients with the following conditions?

Condition	Daily	Weekly	Monthly	Annually	Never
Depression					
Suicidal ideation					
Anxiety					
Bipolar disorder					
Eating disorders					
Personality disorders					
Grief/bereavement issues					
Alcohol/addiction problems					
Dementia					
Panic attacks					
Anger issues					
Others –(please describe)					

14. Do you ever see patients who have co-existing mental and physical illnesses present at the same time such as depression and anxiety?

Yes [] No []

If yes which conditions do you see occurring together most often?

15. Do you ever see a patient with a mental illness that has a co-existing physical illness?
For example schizophrenia and diabetes.

Yes [] No []

If yes which conditions do you see occurring together most often?

16. How confident are you in caring for patients with a mental illness in general?*(Please circle most appropriate response)*

Not confident A little confident Confident Reasonably confident Very confident

17. Please list the mental health conditions you are the **most** knowledgeable about?

1_____

2_____

3_____

18. Please list the conditions you feel the **least** knowledgeable about?

1_____

2_____

3_____

19. Providing primary health care requires nurses to undertake a range of nursing activities. Which activities listed below do you normally provide for patients who have a mental health issue? *(Please tick as many boxes as you wish)*

- [] Counselling (any type)
- [] Depot injections
- [] Medication advice

- ☐ Treatment advice on mental health issues
 - ☐ Problem solving
 - ☐ Anxiety management
 - ☐ Grief management
 - ☐ Education on mental health issues
 - ☐ Others (please describe below)
-

20. How confident are you in your ability to provide these services?

Condition	No confidence	A little confident	Confident	Reasonably confident	Totally confident
Counselling (any type)					
Depot injections					
Medication advice					
Treatment advice on mental health					
Problem solving					
Anxiety management					
Grief management					
Education on mental health issues					
Others (please describe)					

21. Have you ever used any screening tools which ask questions about mental health issues e.g. depression alcohol and drug intake?

- ☐ Yes ☐ No

If yes, which tools and how useful did you find them?

22. If you have used screening tools, how confident did you feel in using them? *(Please circle most appropriate response)*

Not confident A little confident Confident Reasonably confident Very confident

23. In the course of a consultation with a patient, you become aware of a mental health issue that previously has not been raised by the patient, what is your usual course of action?

24. Do you have a standard process to follow in your workplace when you suspect a patient has a mental illness that has not been formally diagnosed or documented?

Yes [] No [] Not sure []

If yes, please describe this process

25. Do you know where to go for specialist mental health services if you feel they are needed for a patient?

Yes [] No []

26. Please list the types of mental health services which you liaise with regarding mental health matters.

Section Three- Personal details

27. Are you: ☐ Male ☐ Female

28. Please indicate which ethnic group(s) you identify with most out of the following. (*Tick as many as are applicable*)

☐ NZ European

☐ Maori

☐ Pacific Island

☐ Asian

☐ Other (please describe) _____

29. Which age group do you belong to?

☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ 60+

30. Which of the following best describes the geographical location of your place of work?

☐ Rural ☐ Urban ☐ Mixed rural /urban

31. How many hours per week do you work as a practice nurse_____

31. How many years have you worked in practice nursing? _____

32. Which category best describes your practice setting belong

☐ General practitioner services (private)

☐ Maori provider including Iwi provider

☐ Pacific provider

☐ Community practice

☐ Other (please state) _____

33. Please add any additional comments you would like to make

Thank you for participating in this survey

Please return in the prepaid envelope enclosed to

Anne Prince,

Mental health Department,

Tairāwhiti District Health,

Gisborne, PO Box 7001.

I can also be contacted by email at annepr@tdh.org.nz

Appendix B Rationale for inclusion of questions

Section one-Educational needs in mental health, examines the present educational level of PNs and their need for MH education.

- ❖ Questions 1 and 2 determine the base level of education and post graduate level of education.
- ❖ Question 3 and four ask about post graduate study. This will allow for comparison with the NZ primary health survey and also permit for comparisons with level of education and confidence competence in mental health.
- ❖ Question 5 asks if mental health education delivered during training is beneficial. This is to determine if, as research suggests, little benefit is received from comprehensive education in relation to mental health. Again correlations can be made with level of education and confidence in MH interventions and conditions.
- ❖ Questions 6-8 examine MH educational issues asking who should provide education, what format and what form the education should take, as research in this area is inconclusive.
- ❖ Question 9 asks the PN to state which therapies/approaches they would like education about.
- ❖ Question 9 asks PNs to rate educational needs according to priority. While this question does list some therapies and approaches the intention is not to lead the respondent. This question allows for comparisons with conditions encountered and educational needs.
- ❖ Question 10 asks about difficulties in receiving education. This question is an open question as the difficulties will be contextual to their practice.
- ❖ The final question in this section asks for any difficulties around receiving education that may help describe the situation for them.

Section two- encounters with patients with a mental health issue. Looks at the interactions and interventions PNs have with MH patients.

- ❖ Questions 12 and 13 ask for previous experience and encounters with mental illness. As research states that PNs are dealing with MH issues across the lifespan Research suggests that PNs are nursing patients with mental illness across the lifespan but this has yet to be quantified in NZ. PNs are asked to rank how often they encounter types of mental health issues with patients. The examples chosen are taken from research. While addiction, grief

personality disorders are not strictly definable as a mental illness they are often interpreted as such. This survey is about finding out what interventions are encountered within primary health and so are likely to be in the mild to moderate range of mental illness. However it is acknowledged that patients with severe mental illness will also visit their GP and so a range of illness is provided with opportunity to add others.

- ❖ Question 14 and Question 15 centres on co-morbidity and mental health. Research has clearly shown that even mild mental illness is associated with both co-morbid mental and physical illness. It is important in primary health that this issue is recognized. Education may be needed to highlight common conditions that often occur simultaneously.

- ❖ Question 16 asking about confidence with mental health issues. Correlations can be made between practice setting, experience, confidence and educational level.

- ❖ Question 17 is Question 18 asks PNs to rate the conditions they have most and least knowledge about. In this way teaching can be prioritized to best meet the needs of the nurses themselves.

- ❖ Questions 19 is concerned with quantifying and naming mental health interventions actually performed by PNs as international research does not agree on what interventions are actually being performed. Again these are taken from research examined with the literature review there is opportunity to add any that are not present.

- ❖ Question 20 is a Likert question asking the nurse to rate themselves on how confident they are in performing certain interventions.

- ❖ Questions 21 and 22 asks about the use of screening tools. International research suggests that primary health should be employing screening tools for mental health yet their use in NZ has not yet been quantified.

- ❖ Questions 24-25 asks the PNs where they go for help. This question is included to see if they have access to further help when need as research suggests they feel isolated when dealing with mental health clients.

- ❖ The final question, 26, in this section is a liaison question as research suggests this may be an issue

Section three- Personal details

This section collects demographic data allowing the researcher to test the tool for generalisability and to make comparisons and correlations within the sample.

- ❖ Question 28 looks at ethnicity and in order to simplify the many nationalities present within NZ this has been simplified to meet with NZ census information.
- ❖ Question 30 asks the PNs to describe their setting –urban rural or mixed. While this may subjective for the nurse it does follow the questionnaire design of the MOH, (2003) design. It also allows checking for standardization within the sample.
- ❖ Question 34 asks the PN to describe their practice setting again allowing for generalisability of the sample with the known population of practice nurses.

Appendix C Practice nurses letter

TO:

Address

Date:

Name of study: **Practice nurses educational needs in mental health.**

Dear

I am a nurse working in mental health at Gisborne hospital and am currently a research student at Victoria University looking into the mental health educational needs of practice nurses.

You receptionist informed me that you would be the best person to address this to and I would be grateful if you could distribute this questionnaire to the nurses in your practice. I appreciate that you and your colleagues are very busy people so please advise your colleagues to complete this questionnaire at a time of their convenience over the next couple of weeks. The questionnaire will take no longer than 15-20 minutes to complete. It is important to complete the questionnaire within this timeframe as the questionnaire may be mailed out a second time if insufficient returns are received from each practice.

This study is important because it will give practice nurses their say in their mental health educational requirements, work that has not been completed in New Zealand yet. More information about the study is included in the letter accompanying the questionnaire. However, if you or your colleagues wish to discuss this study with myself or my supervisor, we shall be happy to do so. Please contact me , Anne Prince at the address below, or my supervisor Dr Kathy Nelson at the Graduate School of Nursing, Midwifery and Health,

Victoria University of Wellington, PO Box 600 Wellington. Kathy.nelson@vuw.ac.nz, Ph 04 463 6138.

I look forward to receiving the returns from your practice,

Yours faithfully,

Anne Prince
Mental Health Nurse
Tairāwhiti District Health
Gisborne
Ph (06) 8690512
Email: annepr@tdh.org.nz

Appendix D

Participant Information Sheet

Name of study: **Practice nurses educational needs in mental health**

Investigator: Anne Prince
Mental Health Nurse
Tairāwhiti District Health
Gisborne
Ph (06) 8690512
Email: annepr@tdh.org.nz

I am a Masters student in nursing at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. The project I am undertaking is to examine the nature of mental health problems encountered by practice nurses, describe the mental health interventions currently being used by them and to identify the perceived learning needs of practice nurses in mental health. This study has been approved by the Victoria University of Wellington Human Ethics Committee.

This study is important because PNs role and education in mental health has not been addressed in New Zealand and therefore, at present there is no acknowledgment of this aspect of their work. Also no research in New Zealand has examined the skill level of practice nurses in mental health or quantified their learning requirements in this field. When this is known, it will allow for the development of specific education for practice nurses in mental health, and so giving practice nurses the opportunity to contribute to their educational programmes.

As a practice nurse you are invited to participate in this survey. The survey should take no longer than 20 minutes to complete. Participation is completely **voluntary** so please take time to think about it and decide whether you wish to take part. Return of the questionnaire will be taken as an indication of your consent to participate in the study. Please complete the questionnaire at a time convenient for you and place the completed survey in the prepaid envelope and post.

About the study

- The aim of the study is to establish the work of the practice nurses with people who have mental health and mental illness problems and identify the perceived learning needs of PNs in mental health.
- The project involves surveying all practice nurses from Te Araroa to Hastings and includes Taradale. The survey will run from July to August 2008.
- A nurse at your practice was written to and the purpose of the survey was explained to them. This nurse has distributed this pack to you.
- The packs include this Information Sheet, a Questionnaire, a Prize Draw Sheet, and a prepaid envelope.
- The survey is designed to be anonymous and no identifiable personal information is required.
- All questionnaires will be stored in a locked filing cabinet until the completion of the project, when they will be destroyed.
- The thesis will be submitted to the Graduate School of Nursing, Midwifery and Health for marking and once examined will be deposited in the University library. It is intended that an article will be submitted for publication in a scholarly journal. All practices will receive a summary of the results which will be available in February 2009.

Benefits of participating in the study:

The benefits that may come from the study include a better understanding of the contribution that practice nurses make to mental health care. Given that primary health services are expected to contribute more in mental health needs of patients, it is important to know what the skills, knowledge and education requirements of practice nurses are in this field.

Prize draw

Nurses who participate in the survey are invited to take part in a draw for one \$100 voucher to a restaurant of your choice.

- Taking part in the prize draw is voluntary. You can still take part in the survey if you do not wish to take part in the draw, but you CANNOT take part in the draw without completing the survey.
- To ensure anonymity the researcher will NOT see the draw information sheets. The prize draw information sheet will be separated by a research assistant BEFORE the researcher sees the completed questionnaire. Only the assistant will see this information.
- The research assistant will supervise the draw which will take place in September 2008. The draw will happen independently from the researcher and the study, and contact details of those in the draw will be destroyed at this time.
- The nurse who wins the draw will be notified in writing in September 2008.
- A letter will be sent in September 2008 to each participating practice informing the practice that the draw has been won and which area the nurse lived in who won the draw.

Further information

If you would like further information about this study please contact Anne Prince at the address above, or her supervisor Dr Kathy Nelson at the Graduate School of Nursing, Midwifery and Health, Victoria University of Wellington, PO Box 600 Wellington. Kathy.nelson@vuw.ac.nz, Ph 04 463 6138

Appendix E Participation sheet for prize draw

Please fill this sheet out if you wish to participate in the prize draw for a \$100 voucher for a restaurant of your choice. Participation is voluntary and you can still complete the questionnaire if you do not wish to take part in the draw.

NB The information contained in this sheet will only be viewed by an assistant and will not be viewed by the researcher. Only the name of the winner of the draw will be seen by the researcher who will be notified late September 2008.

Name _____

Practice _____

Address where you wish voucher to be sent is :

Phone no. _____

Name of nominated restaurant is: _____

Address of restaurant _____

Thank you for participating in this research, and the best of luck in the draw.

Appendix F Research assistant confidentiality agreement

Name of researcher-**Anne Prince**

Title of research- **Practice nurses educational needs in mental health**

Supervisor **Dr K Nelson Victoria University of Wellington**

I Stephan Bushell have been given an explanation of the research and had any questions answered to my satisfaction.

I agree to keep all information provided to me within the realms of this research project confidential. I will not disclose the information to the researcher or any other third party.

I shall keep any confidential information in a secure locked cupboard.

I agree to pass on the completed questionnaires to the researcher without inquiring into the content in any way.

I shall destroy all prize draw participation sheets upon the researcher informing the winner of the draw.

Signed

dated

Research assistant

Signed

dated

Research

Appendix G Flier

Practice nurse educational needs in mental health *SURVEY* Send your survey back now!

Dear PNs,

A Big Thank You to everyone who has returned the questionnaire so far, your effort is very much appreciated. For those who have lost/ misplaced the survey, please photocopy the questionnaire attached and return in the envelopes provided.

Remember!

Prize draw for **\$100** restaurant voucher will be drawn on 30th September- please send back questionnaires before this!

Frustrated nurse trying to write thesis, waiting for questionnaires



Want to know more:
Email Anne Prince
annepr@tdh.org.nz OR
Her supervisor at Victoria
University of Wellington
kathy.nelson@vuw.ac.nz

Appendix H Letter to practices informing them that the incentive had been won

Date: 7/10/08

Name of study: **Practice nurses educational needs in mental health**

Dear *practice nurses*

This letter is to inform you that the prize draw for the above study of a restaurant voucher has been won by a practice nurses in the Havelock North area

Thank you to all the nurses who recently took part in this research, your information is already producing some very interesting and important results. In all I have received 52 completed returned questionnaires but would still like more. If any nurses still want to participate, there is still time to do so. Please email me at annepr@tdh.org.nz and I shall be very pleased to send you a copy.

If you wish to discuss this study with myself or my supervisor, we shall be happy to do so. Please contact me , Anne Prince at the address below, or my supervisor Dr Kathy Nelson at the Graduate School of Nursing, Midwifery and Health, Victoria University of Wellington, PO Box 600 Wellington. Kathy.nelson@vuw.ac.nz, Ph 04 463 6138.

Yours faithfully,

Anne Prince
Mental Health Nurse
Tairāwhiti District Health
Gisborne
Ph (06) 8690512
Email: annepr@tdh.org.nz

Appendix I Variables used to input into SPSS

Q. NO	Variable/ description	Variable value	Variable type
1	Nurse qual	1. EN 2. RN hosp 3. DIP GEN 4. RN other 5. DEG 6. NP 7. Other	Nominal
2	Yr reg	As per description	Nominal
3	Post grad	1. Y 2. N	Nominal
4	Enrolled in formal ed	1. Y 2. N	Nominal
5	Mental health ed	1. Y 2. N	Nominal
6	Access to MH ED	1. monthly 2. annually 3. never	Nominal
7a	Mh ed lectures @ practice	1. y 2. n	Nominal
7b	lectures @ other	1. y 2. n	Nominal
7c	Course	1. y 2. n	Nominal
7d	practical	1. y 2. n	Nominal
7e	other	As per description	String
8a	Provider of ed CMH	1. y 2. n	Nominal
8B	psych nurse @	1. y 2. n	Nominal
8C	pract	1. y 2. n	Nominal
8D	PN	1. y 2. n	Nominal
8E	GP	1. y 2. n	Nominal
8F	ed provider	1. y 2. n	Nominal

8G	other	As per description	String
9	MH issues type up as word document	As per description	String
10a	Experience in MH	1. Y 2. N	Nominal
10b	How long	3. <2 yrs 4. 2-5 yrs 5. 5yrs+	Nominal
11	described difficulties word document	As per description	String
12a	Encounters VS age child	1. child daily 2. child weekly 3. child monthly 4. child annually 5. child never	Ordinal
12b	Encounters VS age young adult	1. young adult daily 2. young adult weekly 3. young adult monthly 4. young adult annually 5. young adult never	Ordinal
12c	Encounters VS age adult	1. adult daily 2. adult weekly 3. adult monthly 4. adult annually 5. adult never	Ordinal
12d	Encounters VS age older adult	1. older adult daily 2. older adult weekly 3. older adult monthly 4. older adult annually 5. older adult never	Ordinal
13a	Frequency depression conditions	1. dep Daily 2. dep Weekly 3. dep Monthly 4. dep Annually 5. dep Never	Ordinal
13b	Suicide	1. Suicide Daily 2. Suicide Weekly 3. Suicide Monthly 4. Suicide Annually 5. Suicide Never	Ordinal

13c	Anxiety	<ol style="list-style-type: none"> 1. Anxiety Daily 2. Anxiety Weekly 3. Anxiety Monthly 4. Anxiety Annually 5. Anxiety Never 	Ordinal
13d	Borderline personality disorder	<ol style="list-style-type: none"> 1. BPD Daily 2. BPD Weekly 3. BDP Monthly 4. BPD Annually 5. BDP Never 	Ordinal
13e	Eating disorder	<ol style="list-style-type: none"> 1. Eat dis Daily 2. Eat dis Weekly 3. Eat dis Monthly 4. Eat dis Annually 5. Eat dis Never 	Ordinal
13f	Personality disorder	<ol style="list-style-type: none"> 1. PD Daily 2. PD Weekly 3. PD Monthly 4. PD Annually 5. PD Never 	Ordinal
13g	Grief	<ol style="list-style-type: none"> 1. Greif Daily 2. Greif Weekly 3. Greif Monthly 4. Greif Annually 5. Greif Never 	Ordinal
13h	Alcohol & drugs	<ol style="list-style-type: none"> 1. a/d Daily 2. a/d Weekly 3. a/d Monthly 4. a/d Annually 5. a/d Never 	Ordinal
13i	Dementia	<ol style="list-style-type: none"> 1. dementia Daily 2. dementia Weekly 3. dementia Monthly 4. dementia Annually 5. dementia 	Ordinal
13j	Panic attacks	<ol style="list-style-type: none"> 1. Never 2. PA Daily 3. PA Weekly 4. PA Monthly 5. PA Annually 6. PA Never 	Ordinal

13k	Anger	1. Anger Daily 2. Anger Weekly 3. Anger Monthly 4. Anger Annually 5. Anger Never	Ordinal
13l	Others	As per description	String
14a	More than 1 MH condition	1. y 2. n	Nominal
14b	Which conditions	As per description word doc	String
15a	MH & Physical	1. y 2. n	Nominal
15b	Which conditions	As per description	String
16	Confidence & MH	1. not 2. a little 3. confident 4. reasonably 5. very	Interval
17a	1 st Most knowledgeable	1 As per description	String
17b	2 nd most knowledgeable	2	String
17c	3 rd most knowledgeable	3	String
18a	1 st Least knowledgeable	1 As per description	String
18b	2 nd Least knowledgeable	2	String
18c	3 rd Least knowledgeable	3	String
19a	MH Activities counselling	1. y 2. n	Nominal
19b	Depot	1. y 2. n	Nominal
19c	Med advice	1. y 2. n	Nominal
19d	treatment options	1. y 2. n	Nominal
19e	prob solving	1. y 2. n	Nominal
19f	anxiety mngt	1. y 2. n	Nominal
19g	grief mngt	1. y 2. n	Nominal

19h	ed on MH	1. y 2. n	Nominal
19i	other	As per description	String
20a	Confidence in MH activities Counselling	1. counselling none 2. counselling little 3. counselling confident 4. couns reasonably 5. couns totally	Interval
20b	Depot	1. depot none 2. depot little 3. depot confident 4. depot reasonably 5. depot totally	Interval
20c	Meds	1. meds none 2. meds little 3. meds confident 4. meds reasonably 5. meds totally	Interval
20d	Treatment advice	1. Rx advice none 2. Rx little 3. Rx confident 4. Rx reasonably 5. Rx totally	Interval
20e	Problem solving	1. prob solv none 2. prob solv little 3. prob solv confident 4. prob solve reasonably 5. prob solve totally	Interval
20f	Anxiety	1. anxiety none 2. anxiety little 3. anxiety confident 4. anxiety reasonably 5. anxiety totally	Interval
20g	Education on MH	1. ED MH none 2. ED MH little 3. ED MH confident 4. ED MH reasonably 5. ED MH totally	Interval
20h	Other	As per description	String
21a	Screening tools	1. y 2. n	Nominal
21b	Which ones	As per description	String
22	Confidence in tools	1. not	Interval

		2. little 3. confident 4. reasonably 5. very	
23	What do you do for pt	As per description	String
24a	Process for referrals	1. y 2. n 3. unsure	Nominal
24b	Describe process	As per description	String
25	Specialist services	1. y 2. n	Nominal
26	Liaison	As per description	String
27	Sex	1. m 2. f	Nominal
28	Ethnicity	1. NZ euro 2. Maori 3. PI 4. Asian 5. other	Nominal
29	Age	1. 20-29 2. 30-39 3. 40-49 4. 50-59 5. 60+	Ordinal
30	Place of work	1. rural 2. urban 3. mixed	Nominal
31	Hrs of work	As per description	Interval
32	Yrs of practice	As per description	Interval
33	Practice setting	1. private GP 2. Maori 3. Pacific I 4. community 5. other	Nominal
34	Comments	As per description	String

Appendix J- Ethics approval



MEMORANDUM

Phone 0-4-463 5676
Fax 0-4-463 5209
Email Allison.kirkman@vuw.ac.nz

TO	Anne Prince
COPY TO	Dr Kathy Nelson
FROM	Dr Allison Kirkman, Convener, Human Ethics Committee
DATE	June 26, 2008
PAGES	1
SUBJECT	Ethics Approval: No 15732, PN Education Needs in Mental Health.

Thank you for your application for ethical approval, which has now been considered by the Standing Committee of the Human Ethics Committee.

Your application has been approved from the above date and this approval continues until 30 March 2009. If your data collection is not completed by this date you should apply to the Human Ethics Committee for an extension to this approval.

Best wishes with the research.

Allison Kirkman
Convener

References

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