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**Generalist registered nurses caring for mental health clients in  
remote areas of Australia: An interpretive case study**

Thesis submitted by

Scott Trueman

March 2016

For the degree of Doctor of Philosophy

in the College of Health Sciences

James Cook University

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## **Statement of the Contribution of Others**

This thesis has been made possible through the support of the following people.

Principal Supervisor:

**Professor Jane Mills**

College of Healthcare Sciences

James Cook University

Co-Supervisors:

**Dr. Tanya Park**

Faculty of Nursing

University of Alberta, Canada

**Dr. Allison Stewart**

Saïd Business School

Oxford University, UK

**Dr. Karen Yates**

College of Healthcare Sciences

James Cook University

## **Declaration on Ethics**

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the National Statement on Ethics Conduct in Research Involving Humans (1999), the Australian Code for the Responsible Conduct of Research (2007), the James Cook University Statement and Guidelines on Research Practice (2001). The proposed research methodology received approval from the James Cook Human Research Ethics Committee (HREC) on 10 July 2014 (Application ID H5723).



## Acknowledgements

‘The most fulfilling human projects appear ... inseparable from a degree of torment, the sources of our greatest joys lying awkwardly close to those of our greatest pains’, as Nietzsche stated in *The Will to Power*, or, as F. Scott Fitzgerald stated in his atrociously, delightfully ungrammatical proclamation, ‘Nothing any good isn’t hard’. Welcome to ‘PhD land’.

Commencing this study, the researcher read many other PhD theses, including multiple ‘Acknowledgments’ sections. Upon reading, he was struck by the uniformity (perceived at that time) of fawning, sycophancy and a substantial degree of lickspittle. Writing this section of the thesis last, the researcher is reminded of Bob Dylan’s 1964 song title, ‘The Times, They Are A-Changin’’. From this vantage point, the researcher can now contextualise the importance of acknowledging those who have supported, nurtured and assisted in the project.

The researcher’s principal supervisor, Professor Jane Mills, ensured his completion. The researcher’s progress, derived from Professor Mills’ indefectible approach to ensuring completion of the study. Throughout, Professor Mills’ support and guidance was consistent, resolute and constructive. As an academic colleague, the researcher was aware that Professor Mills has had many competing demands on her limited time. Despite this, Professor Mills made time regularly to provide supervision and encouragement. Her resoluteness to ‘touch base’ and provide guidance and feedback has meant that Professor Mills has ensured timeliness of completion.

As T. S. Eliot stated in 'The Hollow Men':

Between the idea

And the reality

Between the motion

And the act

Falls the Shadow

Between the conception

And the creation

Between the emotion

And the response

Falls the Shadow

The greatest attribute of Professor Mills' contribution to the study is encapsulated in the phrase 'never a shadow'. Irrespective of the researcher's misguided ideas, at times unreality, slowness of motion, failure to act, length in research conception, delayed thesis creation, burdensome emotions and at times muted response—not a vestige of a shadow.

Professor Mills' drive, energy and support was critical, and yet unflinching. Professor Mills' investment in the researcher was essential, substantial and determined. The researcher takes from Professor Mills a lesson in mentoring and guidance, to replicate in supervising any future PhD candidate. If the researcher is ever privileged to supervise a PhD candidate, he has no better role model. The researcher has the highest of templates to work from.

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The researcher is left in relation to Dr. Yates to quote:

Oh, the comfort, the inexpressible comfort of feeling  
safe with a person; having neither to weigh thoughts nor  
measure words, but to pour them all out, chaff and grain  
together; knowing that a faithful hand will take and sift  
them, keep what is worth keeping, and then with the breath  
of kindness, blow the rest away. (George Eliot; although some say attributable to  
Dinah Maria [Mulock] Craik, 1826–1887)

To all three supervisors, as a collective, the researcher concludes:

I can no other answer make but thanks, and thanks, and ever oft good turns are  
shuffled off with such uncurrent pay. (William Shakespeare, *Twelfth Night*)

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## **Abstract**

### **Aim:**

The aim of this study was to examine the social world of generalist nurses delivering mental healthcare in remote Australia.

### **Background:**

Of Australia's population of approximately 25 million, one in five will experience a mental illness during their lifetime. People who live in remote Australia are significantly more likely than those in urban areas to experience a mental illness or substance use disorder, or to commit suicide. Commentators have suggested that the higher prevalence of mental health problems in remote communities is a reflection of socioeconomic disadvantage, a harsher natural and social environment, loneliness and isolation. The more remote from metropolitan centres, the less specialised mental health services, investment, funding and infrastructure are available to care for the mentally ill. Correspondingly, the specialised mental health workforce, across all disciplines and professions, rapidly declines with remoteness. This workforce maldistribution results in a situation where the largest permanent health workforce in remote Australia are generalist nurses. Remote nurses work in isolated communities and are regularly exposed to stressful and dangerous conditions. They are oldest cohort of Australian nurses and work the longest hours per week. Research has reported that remote nurses have low self-perceived levels of competency, confidence and skills when caring for mental health patients, particularly when confronted by violent and aggressive mental health presentations.

**Method:**

A single, explanatory, revelatory case study design, utilising a holistic approach, was employed in this study. Qualitative data were collected in semi-structured interviews conducted face-to-face or via telephone ( $n = 30$ ). The data were subjected to interpretive thematic analysis. Findings from the thematic analysis were combined with secondary data sources relevant to the case and subjected to situational analysis (Clarke, 2005) using messy, ordered and relational maps to construct a social world/arena map of the remote nurses' social world in delivering mental healthcare. Actor-network theory was employed to analyse the relationships between actors (human and non-human), which consisted of both individuals and groups within the remote nurses' social world.

**Findings:**

Three major findings arose from the study. First, under the actor-network analysis, when delivering mental healthcare, remote nurses assume the role of the obligatory passage point; second, remote nurses have low self-perceived levels of mental healthcare skills, abilities and confidence; and remote nurses possess unique characteristics that enable them to stay and function in the case environment.

**Conclusion:**

There exists substantial demand for mental health services in remote Australia. The delivery of such services must overcome many barriers. Central to the success of mental healthcare delivery are remote generalist nurses. This study revealed new insights into the complex and fluid social worlds of remote generalist nurses delivering mental healthcare. The study also found that remote nurses have unique characteristics, both individually and as a group, that enable them to remain in their social world and deliver front-line services.

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## **Definitions and Abbreviations**

AARN	Association for Australian Rural Nurses
Aboriginal Community Controlled Health Services (ACCHS)	a primary healthcare service initiated and operated by the local Aboriginal community to deliver holistic, comprehensive, and culturally appropriate healthcare to the community which controls it (through a locally elected Board of Management)
Aboriginal Medical Services (AMS)	health service funded principally to provide services to Aboriginal and Torres Strait Islander individuals (patients)
ABS	Australian Bureau of Statistics
ACN	Australia College of Nurses
AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
AIN	Assistants in nursing
ANMF	Australian Nursing and Midwifery Federation
ARIA(+)	Accessibility/Remoteness Index of Australia
ARPR	Australian Professional Regulatory Authority
ATM	Automatic Teller Machine
ATSIHW	Aboriginal and Torres Strait Islander Health Worker
CASP	Critical Appraisal Skills Program
CoNNO	Coalition of National Nursing Organisations
CRANA	Council of Remote Area Nurses of Australia

DON	Director of Nursing
DSH	Deliberate self-harm
EEO	Emergency examination orders
FIFO	Fly in, Fly out
FTE	Full-time equivalent, as relevant to the employment of staff
General/generalist nurse	<p>a nurse registered with the Australian Regulatory Health Authority as a nurse and does not hold, or has no post qualification (or equivalent experience) in mental health nursing (as a specialist of general nursing)</p>
GP	General (medical) practitioner
HREC	Human Research Ethics Committee
ICMJE	International Committee of Medical Journal Editors
Illicit drug use	<p>the use of drugs that are illegal to possess or use, and any legal drug used in an illegal manner (e.g., volatile substances such as petrol and paint and pharmaceuticals being used for non-medical purposes).</p> <p>This is the definition used in the National Drug Strategy Household Survey.</p>
MANOVA	Multivariate analysis of variance
MBS	Medicare Benefits Scheme
MDMA	3,4-methylenedioxy-methamphetamine (ecstasy)
MHN	Mental health nurse

MHNIP	Mental Health Nurse Incentive Programme
MOU	Memo of understanding
NATSIHWA	National Aboriginal and Torres Strait Islander Health Worker Association
NDSHS	National Drug Strategy Household Survey
NFP	Not for profit
NHMRC	National Health and Medical Research Council
NMHC	National Mental Health Commission
NP	Nurse practitioners
NPT	National professional team
NSMHWB	National Survey of Mental Health and Wellbeing (Australia)
NSWCN	New South Wales Country Nurses
PBS	Pharmaceutical Benefits Scheme
PHC	Primary healthcare centre
Patient	generically refers to as a mental health patient or consumer (lived experience or not) of mental health treatment, consultation or diagnosis within the last 12 months
PIN	Personal Identification Number
PRISMA	Preferred Reporting Items of Systematic Reviews and Meta-Analyses
RCNA	Royal College of Nursing Australia

xxx

Remote nurse

a generalist nurse working either remotely or very remotely,  
(according to the ARIA+ classificatory system) (unless otherwise  
classified between the two) without a post graduate qualification (or  
equivalent experience) in mental health nursing

RFDS

Royal Flying Doctor Service

UK

United Kingdom

## **Chapter 1: Introduction**

### **1.1 Introduction**

The impetus for this study arose from the researcher's work as a health service manager and educator for both providers and recipients of mental healthcare services in remote Australia. The researcher spent approximately nine years working in remote Australia, and had the benefit of observing and speaking with an enormous variety of individuals and groups, including nurses, general practitioners, psychiatrists, police, paramedics, administrators, managers and Indigenous health workers, during this time. This experience allowed the researcher to begin questioning and reflecting on the difficulties, complexities and sacrifices of remote general nurses. This diaphanous beginning culminated in the writing of this thesis.

### **1.2 Personal Experience that Informs the Study**

The researcher's interest was galvanized by his most recent employment before commencing in academia. The role was that of a mental health nurse educator, flying by aircraft every second week into the remote community townships of Cape York and the Torres Strait Islands, a health district of approximately 195,000 square kilometres in Far North Queensland, Australia. An essential element of the mental health nurse educator role was travelling to locations as quickly as possible after a 'major' incident or sentinel event concerning remote general nurses caring for mental health patients. While this element of the role included a degree of investigation, its substantive purpose was to provide support to the remote general nurses, as opposed to being part of any disciplinary process. After ascertaining what had occurred by reading the nursing notes, incident reports and speaking



to the nurses and/or witnesses, the mental health nurse educator would provide individualised and group support, counselling and de-briefing, as required.

The researcher remembers one incident in which a nurse was working in a single-station primary healthcare centre on a remote island. There were no resident police, and nurses stationed on nearby islands, still some distance away, did not travel at night-time due to safety concerns. On a Saturday at around 6 pm, there was a frantic knock on the front door of the nurse's accommodation. Upon opening the door, the nurse was confronted by a highly distressed, yelling and sobbing female covered in blood, who had sustained a number of serious injuries and wounds. The nurse immediately stopped her dinner preparations and assisted the female patient next door to the primary healthcare centre, which consisted of two treatment rooms. The nurse commenced attending to the patient's serious head, limb and torso wounds, which required a variety of interventions.

Approximately 90 minutes later, there was a loud banging on the locked front door of the primary healthcare centre, accompanied by a tirade of verbal abuse and shouting: it was the patient's male partner. The male was a 'known' mental health patient and under the influence of alcohol and cannabis. The nurse observed through the 'spy hole' in the front door that he was carrying a machete knife. The patient became increasingly frightened.

Despite extensive discussions and negotiations between the nurse and the partner through the locked door, he would not desist from his angry, threatening and violent ranting, which was directed at the patient. The remote general nurse then spent the night locked in with the patient. She was awake all night, caring for the fearful patient, who could not return home, despite it being evident in the early hours of the morning that the partner had succumbed to the effects of intoxication and wandered off. At daybreak, the remote general

nurse escorted the patient back to her home, only to discover that her partner had committed suicide by hanging himself on the side porch of their house. Two days later, on debriefing with the nurse, she stated, ‘If only I had the [mental health] skills or training to deal with the f\*\*\*ing situation’. This short sentence deeply resonated with the mental health nurse educator/researcher as being representative of many similar self-deprecating statements made by remote general nurses in similar situations.

In addition to the researcher’s first-hand experience, a review of literature made plain the need to examine the disproportionate burden on remote general nurses in clinical practice. The sentiment of being inadequately prepared is not confined to nurses’ own negative beliefs, but also results from the environments in which remote general nurses work, which may be isolated and harsh. The situation is further aggravated by the unpredictability of mental health presentations, limited resources (both generally and mental-health-specific), understaffing, stress and lack of training. The researcher has experience of all these issues and their continued negative impact on remote general nurses. Failing to address these issues means that the remote general nurse workforce will continue to struggle with disproportionate levels of stress, self-sacrifice and burnout. Reduced efficacy of remote nursing work due to these issues makes a serious contribution to the disproportionately poor mental health of remote Australians, which continues to deteriorate.

### **1.3 Aim of the Study**

The aim of this study was to examine the social world of generalist nurses delivering mental healthcare in remote Australia.

## **1.4 Purpose of the Study**

The purpose of this study was to understand and describe the social world of Australian remote nurses delivering mental healthcare. The study explored how the various actors in the social world interact with remote generalist nurses to deliver mental healthcare. Through this exploration, the study offers insight into the existing deficiencies, difficulties, means and issues in delivering such care. Finally, the study examined the current inefficient, uncoordinated and reactionary model of service delivery, which relies on tertiary-level care rather than taking a whole-of-person approach to mental healthcare facilitated through primary healthcare. In addition, it is hoped that the study's findings will persuade government and policymakers to invest and provide resources 'up-stream' towards the social determinants of health, prevention and improved clinical care to meet remote community needs, which necessarily includes remote mental healthcare (Reeve et al., 2015).

## **1.5 Research Questions**

The following research questions guided the study:

1. What characterises the delivery of mental healthcare in remote Australia?
2. What processes are used to deliver mental healthcare in remote Australia?
3. Who are the actors in remote Australia delivering mental healthcare?

## **1.6 The Field of Study**

### **1.6.1 What is 'remote'?**

Is there a definitional difference between rural and remote nursing? A number of writings have produced commentary on this question (Australian Government Department of Health and Ageing, 2005; Mills, Francis & Bonner, 2007; National Rural Health

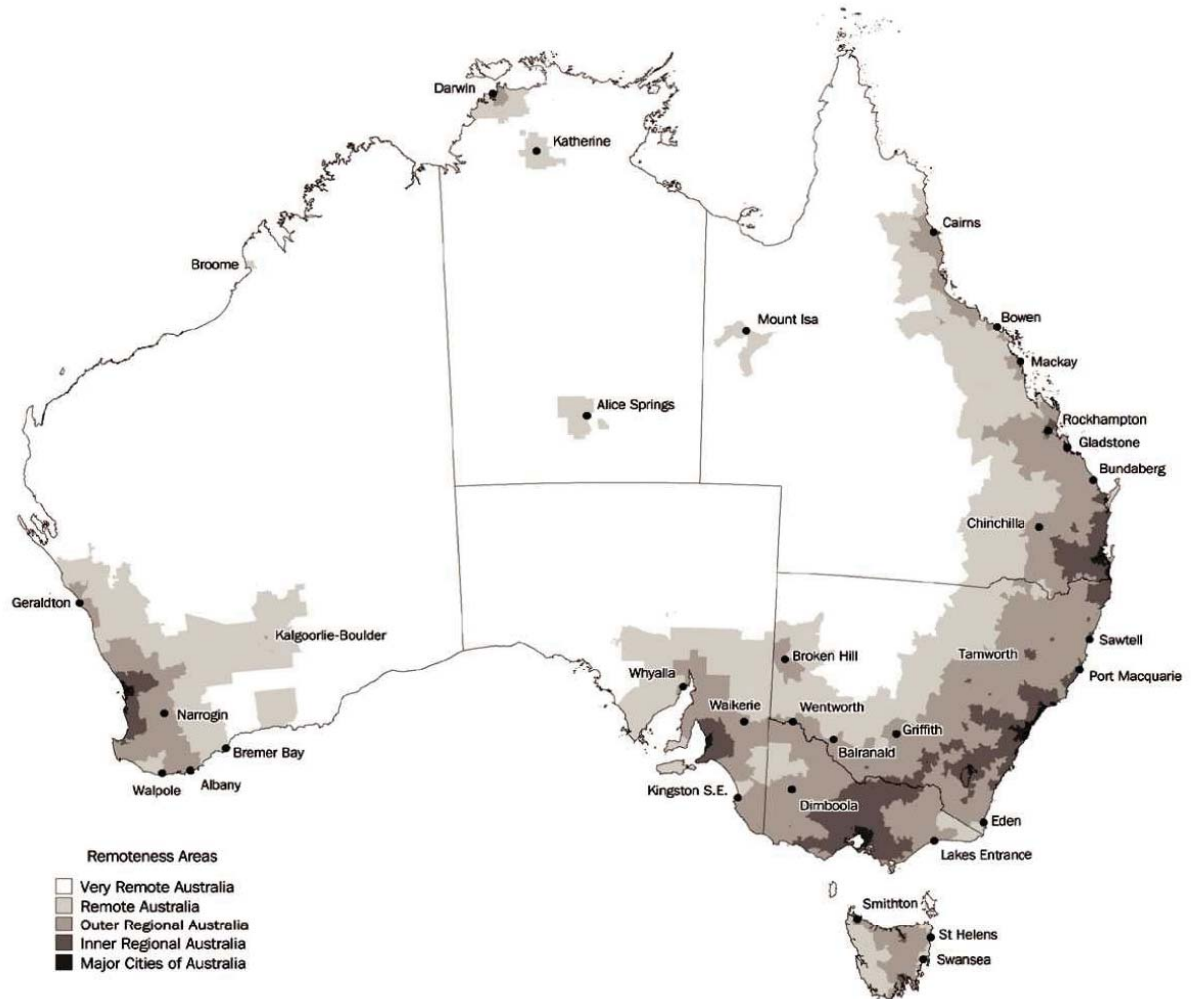
Alliance, 2005). It is clear that the notion of remoteness has shifted from one based solely on geographical location to one that includes considerations of social, economic and demographic factors. Early nursing scholars and conference proceedings did not differentiate between the issues and concerns of 'rural' and 'remote' nursing; both were simply referred to as 'rural', irrespective of geographical location (Courtney, 1992; Hegney, Pearson & McCarthy, 1997; 'remote nurses' *qua* Remote Area Nurses National Conference, 1983). This study differentiates between 'rural' and 'remote' as distinct types of area with their own workforce issues and concerns, unless otherwise stipulated. However, the study does use the terms 'remote' and 'very remote' interchangeably.

The Accessibility/Remoteness Index of Australia (ARIA+) is a means of measuring the accessibility of service centres from a given place, or conversely of remoteness of a place (Australian Bureau of Statistics [ABS], 2014). Geographical areas are given a score (continuous 0–15) based on the road distance to service towns of different sizes. Scores for regions are derived by averaging scores within squares of a 1 km<sup>2</sup> grid (Australian Bureau of Statistics, 2015). The index scores can be classified into various categories. These remoteness categories and their ARIA+ scores are detailed below:

1. Major Cities (ARIA+ score  $> 0$  to  $\leq 0.20$ ): relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.
2. Inner Regional (ARIA+ score  $> 0.20$  to  $\leq 2.40$ ): some restrictions to accessibility to some goods, services and opportunities for social interaction.

3. Outer Regional (ARIA+ score  $> 2.40$  to  $\leq 5.92$ ): significantly restricted accessibility to goods, services and opportunities for social interaction.
4. Remote (ARIA+ score  $> 0.92$  to  $\leq 10.53$ ): very restricted accessibility to goods, services and opportunities for social interaction.
5. Very Remote (ARIA+ score  $> 10.53$  to  $\leq 15$ ): very little accessibility to goods, services and opportunities for social interaction.

The field of inquiry in this study involves remote and very remote areas according to the above categories. Figure 1.1 shows the five levels of remoteness classifications against Australia's landmass.



*Figure 1.1. Map of Australia displaying ARIA+ Remoteness Classification Index. Source: ABS, 2014.*

With reference to Figure 1.1, of Australia's total landmass of 7.6 million km<sup>2</sup>, 'very remote' areas comprise 5.5 million km<sup>2</sup> (72.5%) and 'remote' areas comprise 1.02 million km<sup>2</sup> (13.2%). Hence, the field investigated in this study constitutes 85.7% of Australia's landmass, or approximately 6 million km<sup>2</sup>.

### 1.6.2 Profile of Australia's remote population

According to the Australian Institute of Health and Welfare (AIHW, 2013), the estimated population of Australia in 2012 was 22,710,352. The pie graph in Figure 1.2 illustrates the population distribution by remoteness using the ARIA+ classifications.

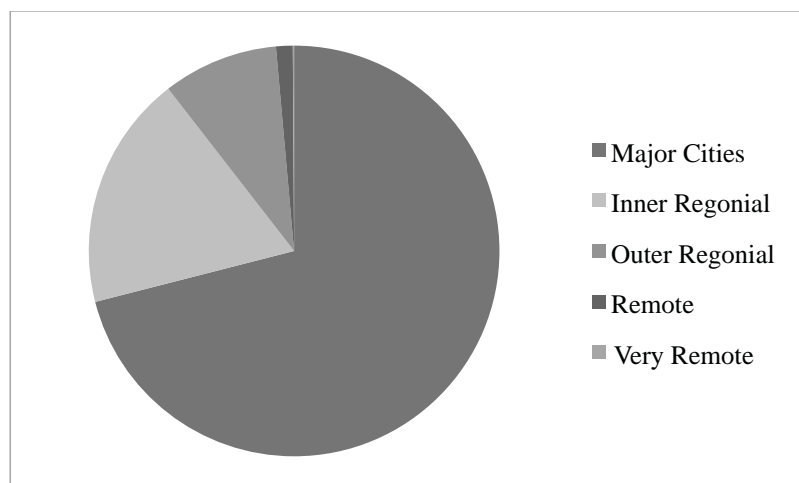


Figure 1.2. Pie graph of Australia's population by remoteness classification, 2012. Source: AIHW, 2013.

Table 1.1

*Australia's Population Distribution According to Remoteness Classification Index, 2012*

(Source: AIHW, 2013)

	Population (number)	Population (% of total)
Major cities	15,976,750	70.3%
Inner regional	4,161,150	18.3%
Outer regional	2,047,432	9.0%
Remote	318,969	1.3%
Very remote	206,051	0.1%

With reference to Table 1.1, as a percentage of Australia's total population, only 1.4% reside either remotely or very remotely ( $n = 525,020$ ). This number is spread across 85.7% of Australia's landmass, or approximately 6.0 million km<sup>2</sup>. In terms of spatial density, these figures equate to an average of one person for each 11.5 km<sup>2</sup>. Compounding this sparseness is the fact that the remote population tends to cluster into relatively small populations, through historical influences such as old mission stations or mining and farming communities and townships.

This wide dispersal of such a small population is fundamental to the challenges concerned with economies of scale and mental healthcare delivery. It is also the key to why the most prolific and permanent sector of the health workforce, remote generalist nurses, are central to the continued sustainability of delivering remote mental healthcare. The dispersed nature of the remote population in Australia drives its remote health workforce. Models of delivery of remote primary healthcare (including mental health services) address diseconomies of scale by aggregating a critical population mass: evidence indicates that a minimum population of approximately 2000 to 3000 people is required for remote communities to support a range of primary healthcare service activities (Wakerman et al., 2006). Many remote and particularly very remote communities have nowhere near this number of community residents; for example, Oodnadatta had a population of 166 in 2011 (National Census, ABS, 2011b). In the provision of minimal healthcare services in remote areas of Australia, individual remote nurses are used to partially fill the void of otherwise nonexistent healthcare caused by unsustainable population numbers.



### **1.6.3 Aboriginal and Torres Strait Islander populations living in remote and very remote Australia**

A very important contributing feature to statistics and discussions about the health and wellbeing of Australia's remote population is its major constituency of Aboriginal and Torres Strait Islander peoples. The reason for this importance is that these groups are proportionally overrepresented in the remote population compared to the national average. Aboriginal and Torres Strait Islander peoples also have higher prevalence rates of disease, including chronic conditions and mental health disorders. In 2011, only one third of all Aboriginal and Torres Strait Islander people lived in major cities of Australia (233,100 people). Remote Australia is home to 51,300 Aboriginal and Torres Strait Islander people, while 91,600 Aboriginal and Torres Strait Islander people live in very remote Australia. In 2011 (AIHW, 2014a), Aboriginal and Torres Strait Islander peoples were approximately 12 times more likely to live in remote or very remote areas than non-Indigenous people (22.1% compared with 1.8%), while seven out of ten non-Indigenous people (71.9%) lived in major cities. Figure 1.3 and Table 1.2 clearly show the relationship between remoteness and higher proportions of Aboriginal and Torres Strait Islander residents compared to non-Aboriginal and Torres Strait Islander residents (AIHW, 2014a).

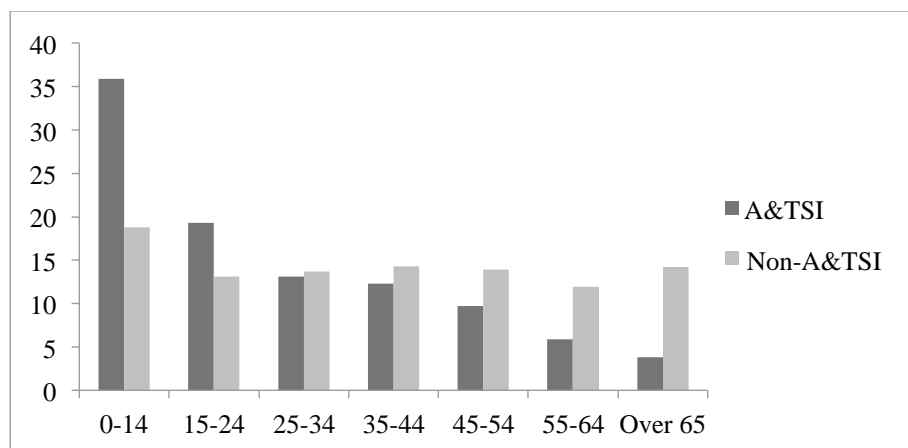
Table 1.2

*Percentage of Australia's Aboriginal and Torres Strait Islander and Non-Indigenous Populations Living in Major Cities, Remote and Very Remote Areas (Source: AIHW, 2014a)*

	Major Cities	Remote	Very Remote
Aboriginal and Torres Strait Islander	34.8	7.7	13.7
Non-Indigenous	71.3	1.2	0.5
Total Australian population	70.2	1.4	0.9

With reference to Table 1.2, non-Indigenous peoples are overrepresented (as a percentage) in major cities, but decline exponentially with increasing remoteness. Conversely, Aboriginal and Torres Strait Islander populations increase, as a percentage of total population in each classification, with remoteness. This trend is important when comparing statistics between major city, remote and very remote populations concerning Aboriginal and Torres Strait Islander peoples' burden of disease and cultural socio-economic disadvantage.

Another important comparative demographic is age distribution across Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander populations. The Indigenous and non-Indigenous populations are quite different in their age profiles. Most notably, Aboriginal and Torres Strait Islander peoples have a younger age profile than the non-Indigenous population (see Figure 1.3).



*Figure 1.3. Population age profile by Aboriginal and Torres Strait Islander status as percentage of total population. Source: AIHW, 2014a.*

A&TSI: Aboriginal and Torres Strait Islander.

Table 1.3

*Population Age Profile by Aboriginal and Torres Strait Islander Status as Percentages of Total Population (Source: AIHW, 2014a)*

Age range	0–14	15–24	25–34	35–44	45–54	55–64	Over 65
Non-Indigenous	18.8	13.1	13.7	14.3	13.9	11.9	14.2
Indigenous	35.9	19.3	13.1	12.3	9.7	5.9	3.8

The age profile of Indigenous and non-Indigenous populations in remote Australia is a major contributor to the increased incidents and higher *per capita* levels of serious mental illness and suicide in remote Australia (ABS, 2011a; Holland, Dudgeon & Milroy, 2012). In remote and very remote communities, there is a higher incidence of serious mental illness in early teenage years and early twenties, including psychotic disorders, major depression and substance use disorders (Kelly, Dudgeon, Gee & Glaskin, 2009;

Shepherd, Li, Mitrou & Zubrick, 2012; Shepherd, Li & Zubrick, 2012; Zubrick et al., 2005).

Having considered the demographics of the remote population the next step was to examine the contextual factors of living remotely and how these factors impact and contribute to the general health disadvantage and status of remote communities (Smith, Humphreys & Wilson, 2008; Dixon & Welsch, 2000). This examination utilised social determinants of health which are a combination of material, environmental, social and psychosocial factors and conditions of life (Marmot & Wilkinson, 2006). These factors extend to income, employment, occupation, poverty, housing, education, access to community resources, and demographic factors such as gender, age and ethnicity (Commonwealth Department of Health and Aged Care, 2000). Importantly, most determinants do not occur in isolation, and many have cumulative effects over the lifespan (Zubrick, Holland, Kelly, Calma & Walker, 2014). There are strong correlations between serious mental illness and high unemployment, poor nutrition, over-crowded housing, economic disadvantage, low social capital, racism, chaos, stress (particularly early in life), marginalisation and low rates of education in communities; notably, these features often characterise Aboriginal and Torres Strait Islander remote communities (Carson, Dunbar, Chenhall & Bailie, 2007; Marmot, 2011; Marmot & Wilkinson, 2006; Susser, 2006). Throughout the research process, the researcher maintained awareness and cultural sensitivity to these issues, particularly when making health comparisons between communities with different remoteness classifications, developing the major findings (Chapter 9) and formulating the recommendations (Chapter 10).

#### **1.6.4 What is meant by remote health?**

Throughout the broader health literature, the concepts of ‘rural’ and ‘remote’ are subsumed within the descriptor of ‘rural health’, without any clear delineation reflecting the differences. Wakerman (2004) suggested that such delineation between rural and remote health is important for three reasons: definitions of the two terms ‘have important implications for appropriate policy development, planning and resource allocation’ (p. 210), are methodologically of importance to researchers and demographers and ‘with established and increasing use of the term [remote] by professional groups, such as the Council of Remote Area Nurses of Australia and the Australian College of Rural and Remote Medicine, as well as academic agencies such as the Centre for Remote Health, it is timely to work towards a common understanding’ (p. 210).

Having reviewed the literature, Wakerman (2004) posited the following definition of remote health:

Remote health is an emerging discipline with distinct sociological, historical and practice characteristics. Its practice in Australia is characterised by geographical, professional and, often, social isolation of practitioners; a strong multidisciplinary approach; overlapping and changing roles of team members; a relatively high degree of GP substitution; and practitioners requiring public health, emergency and extended clinical skills. These skills and remote health systems need to be suited to working in a cross-cultural context; serving small, dispersed and often highly mobile populations; serving populations with relatively high health needs; a physical environment of climatic extremes; and a communications environment of rapid technological change. (p. 213).

This study adopted this expansive definition as a basis of its concept of remote health. Notably, mental illness and mental health are not mentioned in this definition.

### **1.6.5 What is mental health and illness?**

‘Mental illness’ is a term that describes a diverse range of behavioural and psychological conditions. These conditions can affect an individual’s mental health, functioning and quality of life, or ‘the capacity of individuals and groups to interact with one another and the environment, in ways that promote subjective wellbeing, optimal development and the use of cognitive, affective and relational abilities’ (Commonwealth Department of Health and Aged Care & AIHW, 1998, p. 5). The World Health Organization (WHO, 2014) described mental health as a state of wellbeing in which people can realise their full potential, cope with everyday stressors, work productively and make a positive contribution to society.

### **1.6.6 Current profile of the remote nursing workforce**

The Council of Remote Area Nurses of Australia (CRANA Plus) (2003), the professional body for remote and isolated health practitioners, has described the role of remote nurses as follows:

Remote area nurses in Australia provide and coordinate a diverse range of healthcare services for remote, disadvantaged or isolated populations. Their practice is guided by primary healthcare principles and includes emergency services, clinical care, health promotion and public health services. Remote generalist nurses work in a variety of settings including outback and isolated towns, islands, tourism settings, railway, mining, pastoral and Indigenous communities.

(p. 107)

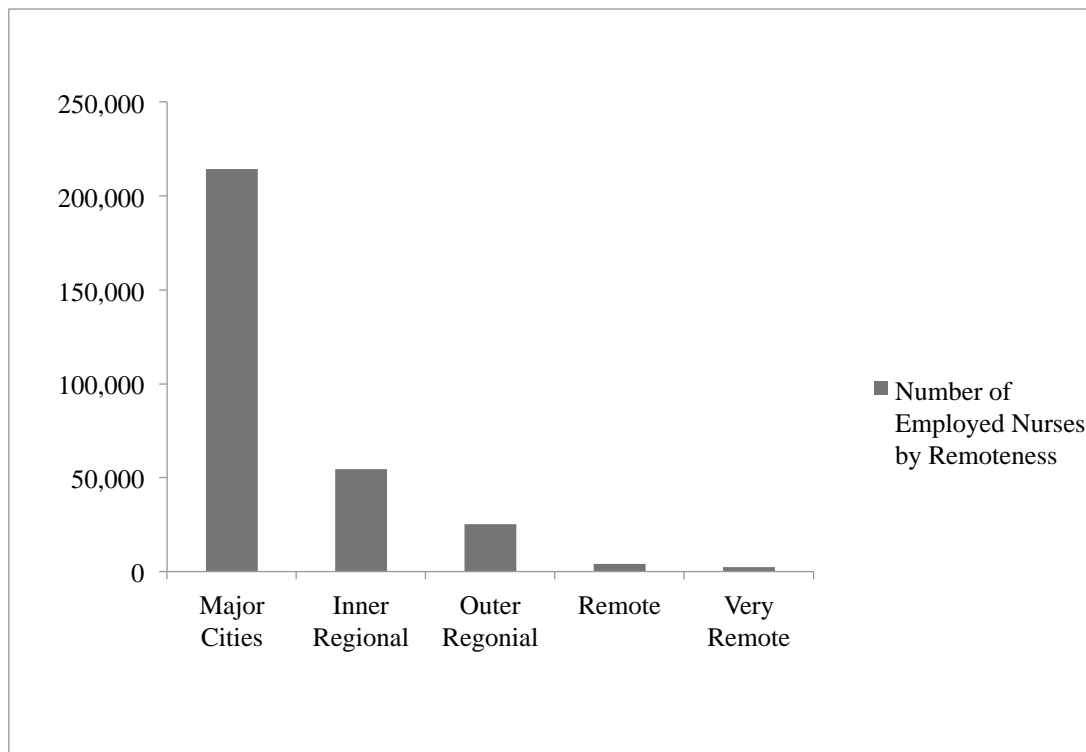
Remote nurses practice in a variety of locations (Cramer, 2005); they are not limited to primary healthcare centres, but regularly work across vast geographical areas of wilderness and in isolated communities. This type of healthcare delivery is referred to as an 'outreach' model, where the nurse is principally based in a primary healthcare centre or community setting and provides outreach services to the community. Remote nurses deliver services in a variety of locations, such as private homes, public areas, schools or community buildings, when attending emergencies or situations where the patient cannot physically access the primary healthcare centre. Remote nurses deliver healthcare in multiple facets, ranging from patient transport via ambulance, attending to patients in police custody and patients presenting without notice at the remote nurse's private residence, particularly when employer-provided accommodation is closely situated to the primary healthcare centre (Cramer, 2005; Currie, 2007).

The AIHW (2014) reported that in 2014, 349,634 nurses (registered and enrolled, excluding midwives) were registered in Australia. Of this number, 4,122 worked in remote and 2,426 worked in very remote locations, totalling 6,584, or 1.88% of the total nursing workforce (see Table 1.4).

Table 1.4

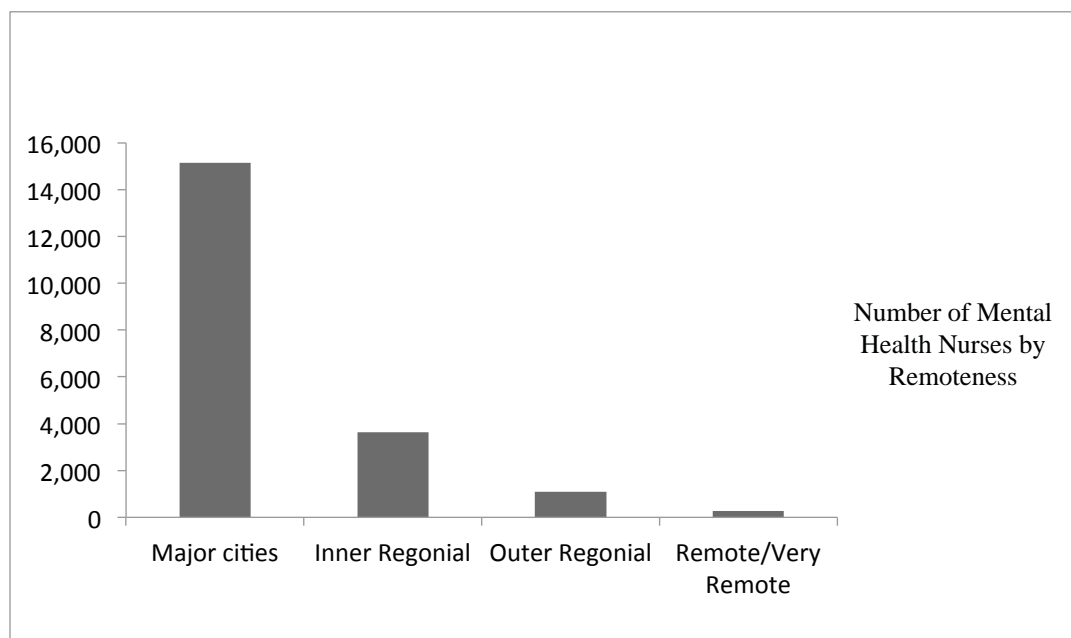
*Employed Nurses Population Numbers and Demographic Characteristics by Remoteness**Classification (Source: AIHW, 2014)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Number	214,361	54,509	25,121	4,122	2,426
Aged 50 and over (%)	36.7	46.5	44.5	45.7	47.1
Men (%)	10.9	9.8	8.8	10.7	15.9
Registered nurses (%)	84.5	76.8	74.8	79.2	84.5
Average weekly hours worked	33.7	32.6	33.9	37.0	40.3

*Figure 1.4. Number of registered nurses by remoteness. Source: AIHW, 2012a.*



Of the total nurses referred to in Figure 1.4, classified by remoteness, Figure 1.5. displays the subset of mental health nurses within this population. Only 271 mental health nurses work remotely or very remotely.



*Figure 1.5.* Number of registered nurses working in mental healthcare by remoteness.

Source: AIHW, 2012a.

With reference to Table 1.4, there are certain factors that differentiate remote nurses from their counterparts working in regional areas and major cities. There is a significantly higher proportion of males (as a percentage of the total workforce) in very remote locations (15.9%) compared to major cities (10.9%). The researcher was not able to identify any published explanation or commentary on this trend; it is possible that the statistics may be distorted due to the small sample size of very remote nurses (1.88%).

What is evident is:

- Very remote nurses are the oldest age cohort, with 47.1% aged older than 50 years.
- Very remote and remote nurses work the longest hours per week among all cohorts.

- Very remote nurses work 6.6 hours per week more than major city nurses; for each very remote nurse working 46 weeks per year, this equates to a total of 303.6 more hours per year—for those working on a 38-hour per week basis, the equivalent of an additional 7.9 weeks per year.

Despite the challenges presented for nurses working remotely, there are also attractions. Previous exposure to a remote lifestyle (particularly if the nurse grew up in the country area) or previous remote work experience were the most compelling reasons for nurses to choose remote area employment in Hegney, McCarthy, Rogers-Clark and Gorman's study (2002). Remote lifestyles with strong social networks and close proximity to family and friends are major attractions (Hegney et al., 1997; Hegney et al., 2002). Professional issues such as employment opportunities, career advancement and extended practice are also strong positive influences (Hegney, 1997; Hegney et al., 2002).

Other pragmatic commentators have stated that “Fly In Fly Out” (FIFO) health services should be seen not as replacements for local healthcare, but as part of the necessary compromise between the tyranny of distance and equity of access to health services’ (Hanley, 2012, p. 48). The researcher's opinion is that while a FIFO workforce is not ideal, it provides access to mental healthcare services that the remote population would not otherwise receive given current circumstances. One challenge to this view mounted by Wakerman, Curry and McEldowney (2012) is that, on a comparative cost basis, three to four nurse practitioners can competently undertake 90% of the tasks undertaken by GPs (Hooker, 2006) with equivalent patient outcomes (Laurant et al., 2005; Martínez-González, Tandjung, Djalali & Rosemann, 2015; Martínez-González et al., 2014; Munding et al., 2000). While none of the studies mentioned directly relate to remote Australia or remote

mental healthcare delivery, there appears to be no fatal or discernible difference preventing extrapolation of these findings.

### 1.6.7 Generalist remote nurses caring for mental health clients

Most remote nurses deliver general nursing duties, and do not work in a specialist area or program. They primarily deliver care from a primary healthcare centre or, for a lesser number, from hospitals as required to meet the demands of the community, region or district.

Table 1.5

*Number of Employed, Registered, Enrolled Nurses and Midwives in Work Setting by*

*Remoteness Classification (Source: AIHW, 2012c)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Aboriginal Health service	260	164	233	250	369
Community mental health service	3,132	1,035	443	91	52
Hospital	121,177	26,869	12,960	2,307	1,076
Residential mental healthcare service	1,594	528	86	8	5
Drug and alcohol service	884	282	99	13	15

With reference to Table 1.5, the comparatively large numbers of nurses working in Aboriginal health services in remote and very remote areas is consistent with the large proportion of communities in these areas populated by Aboriginal and Torres Strait Islanders (see Chapter 1) and the establishment of the Aboriginal Community Controlled Health Services (ACCHS) and Aboriginal Medical Services (AMS). Of all the identified

nurses (see Table 1.5) working in ACCHS and AMS, 48.6% work in remote and very remote locations. This is a modest proportion, particularly when considering the vastness of the landmass that is classified as remote Australia (see Chapter 1).

With increasing remoteness, the number of nurses working in community mental health services dramatically decreases. This is consistent with the challenges experienced in providing permanent specialist mental health teams in remote and very remote locations; there are insufficient numbers of mental health nurses to populate such a vast landmass. The mental health nurses identified as working in community-based mental health teams make up just 3% of those working in remote and very remote locations. There is a similar trend of reduced numbers linked to remoteness for nurses working in hospitals (2.0%), residential mental healthcare services (0.5%) and drug and alcohol services (2.2%). This is consistent with the lack of mental health infrastructure and resources available in remote and very remote Australia (see Chapter 2).

#### **1.6.8 Current profile of remote mental health nursing workforce**

The National Health Workforce Data Set (AIHW, 2012) showed that of all employed nurses (both RN and EN), 6.6% indicated they were working principally in mental healthcare, with approximately three-quarters (74.4%) employed in major cities. The lowest numbers of workers were in the remote and very remote categories, representing 1.3% of the mental health nursing workforce. If the workers' loads are combined and calculated as Full Time Equivalent (FTE) workers per 1,000 population, this still results in major cities being the highest, at 86.6/1,000, and remote and very remote the lowest at 51.4/1,000 (see Table 1.6.).

Table 1.6

*Mental Health Nurses by Remoteness Area, 2012 (Source: National Health Workforce Data Set, Nurses and Midwives, AIHW, 2012a)*

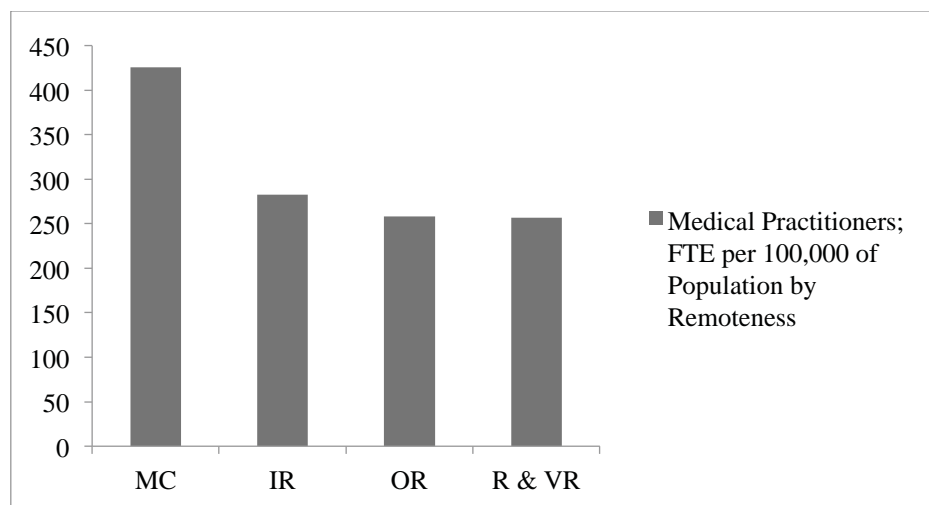
Location	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number	14,587	3,637	1,107	259
FTE per 100,000 population	86.1	83.4	53.1	51.4

### **1.6.9 Current profile of remote mental health non-nursing workforce**

#### ***1.6.9.1 General practitioners (GPs)***

There is an inequitable distribution of GPs in Australia, with remote Australians being the most disadvantaged (Schofield, Shrestha & Callander, 2012). The AIHW (2014) reported that, in 2012, there were 79,653 employed medical practitioners in Australia, of which 1,166 worked remotely and very remotely, representing 1.46% of the GP workforce. Of this number, 307 worked in private practice (out of a total Australia-wide working in private practice of 35,351); 185 worked in Aboriginal health services (out of a total Australia-wide working in Aboriginal health services of 546); 51 worked in community health services (out of a total Australia-wide working in community health services of 1,983) and 505 worked in a hospital (out of a total Australia-wide working in a hospital of 33,994).

In 2013, the medical practitioner workforce proportionally (comparative to population whole numbers) decreased with remoteness (AIHW, 2014). This trend is shown in Figure 1.5.



*Figure 1.5. Medical practitioners, FTE per 100,000 population by remoteness, 2013.*

Source: AIHW, 2014.

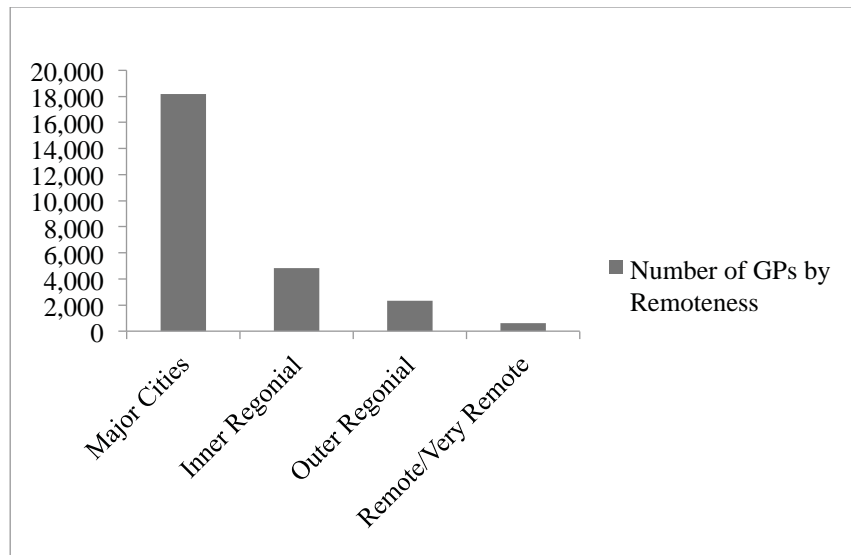
MC: Major cities; IR: Inner regional; OR: Outer regional; R & VR: Remote and very remote.

Figure 1.5, comparing major cities with remote and very remote areas, illustrates that there was a FTE workforce with 168.9 less personnel per 100,000 (425.6/256.7) in remote and very remote areas. An important section of this workforce is the number of GPs, which also reduces with remoteness (AIHW, 2012), as shown in Table 1.7 and Figure 1.6 below.

Table. 1.7

*Number of General Practitioners by Remoteness Classification, 2012 (Source: AIHW, 2012)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number of GPs	18,170	4,826	2,331	622



*Figure 1.6.* Number of general practitioners by remoteness classification, 2012. Source: AIHW, 2012.

With reference to Table 1.7, in 2012, 2.3% of GPs in Australia worked in remote and very remote Australia, compared to 71.2% working in major cities. Despite their relative and actual low numbers in remote and very remote areas, GPs have a pivotal role in the detection and treatment of mental health problems in remote communities. However, some national studies including data on remote GPs have revealed low detection rates of mental illness in these areas (Aoun, Underwood & Rouse, 1997; Brody, Khaliq & Thompson, 1997; Henderson, Andrews & Hall, 2000; Hickie, Davenport, Naismith & Scott, 2001). A number of factors have been suggested as contributors to this, including reluctance among remote patients to report their mental health problems due to stigma and lack of anonymity in small communities (Wrigley, Jackson, Judd & Komiti, 2004), the stoic nature of remote populations (Judd et al., 2006), time pressures on GP appointments, and lack of mental health training and appropriate diagnostic tools suited to GP practice (Handley et al., 2014; Hickie et al., 2001; Findlay & Sheehan, 2004).

Studies have shown that remote residents, per capita, visited GPs the least of any population of the remoteness classification index (see Chapter 1) and at a rate of about half that of major city populations (Caldwell et al., 2004). In 2012–2013, those living in inner regional areas had the highest rate of mental health-related GP encounters (686.6 per 1,000) and remote and very remote the lowest (295.7 per 1,000) (Britt et al., 2013).

Caldwell et al. (2004) found that of the mental health services delivered by GPs in remote Australia, the highest incidence was for treating depression (Britt et al., 2013; Davenport, Hickie, Naismith, Hadzi-Pavlovic & Scott, 2001) and the lowest incidence was for anxiety disorders. Finally, Caldwell et al. (2004) found that remote residents were prescribed mental health medications half as often as capital city residents, which is consistent with previous studies (Britt, Miller & Valenti, 2001).

#### ***1.6.9.2 Psychiatrists***

Psychiatrists are medical practitioners with a recognised specialist qualification in psychiatry. Generally, patient access in Australia to psychiatrists is very limited, because few psychiatrists bulk-bill (i.e. bill directly to Australia's universal Medicare insurance), most are located in metropolitan areas and too few psychiatrists are employed in the public sector (Senate Select Committee on Mental Health, 2006). According to the Australian Bureau of Statistics (ABS, 2007):

There is a severe shortage of consultant psychiatrists in [remote] Australia ... due to most [psychiatrists] exercising a strong preference to live and work in major cities. Trainee psychiatrists also report a clear inclination to practice in capital cities or urban centres.



In 2013, there were 2,977 registered psychiatrists in Australia (Health Workforce Australia, 2013). Clearly, with increasing remoteness there is reduced supply of and access to psychiatrists; this trend is illustrated in Table 1.8.

Table 1.8

*Number of Psychiatrists by Remoteness Classification and FTE per 100,000 population, 2012 (Source: Health Workforce Australia, 2013)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number of Psychiatrists	2,620	257	80	14
FTE per 100,000 population	16.3	5.9	4.2	3.0

With reference to Table 1.8, in 2013, there were 16.3 FTE psychiatrists per 100,000 of the population for major cities, the highest of any remoteness classification; meanwhile, the lowest numbers were for remote and very remote areas, at 3.0 FTE (AIHW, Medical Labour Force Survey of 2013). This disparity is also reflected in the fact that 88% of the total psychiatric workforce work in major cities and only 0.47% work in remote and very remote areas. Mirroring the remote nursing workforce (see Chapter 1), remote psychiatrists work the longest hours of any remoteness classification area cohort.

### ***1.6.9.3 Psychologists***

The AIHW (2013) reported that in 2012, 22,404 psychologists were employed in Australia. The supply of psychologists was highest in major cities, both in whole numbers and in FTE (per 100,000 population), and correspondingly lowest in remote or very remote areas (see Table 1.9). Table 1.9 shows that 82% of psychologists work in major cities

compared to just 0.88% in remote and very remote areas; of this proportion, less than 1% work in private practice. Most remote psychologists work in schools or for not-for-profit (NFP) organisations (Australian Psychological Society, 2011). Even if all remote psychologists worked in private practice (which they do not), based on 2012 population figures (525,020 living in remote or very remote areas), this equates to an average of 1 psychologist per 2,652 people.

Table 1.9

*Number of Psychologists by Remoteness Classification and FTE per 100,000 population in 2012 (Source: Health Workforce Australia, Allied Health Practitioners, AIHW, 2013)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number	18,385	2,766	1,022	198
FTE per 100,000 population	98.6	57.4	44.6	34.0

#### ***1.6.9.4 Occupational therapists***

Occupational therapists are included in this section for two reasons. First, an increasing response to the shortage of mental health nurses in community mental health teams in metropolitan areas has been for occupational therapists to be recruited into case manager roles (historically a mental health nursing role). Second, occupational therapists have a role in the acute mental health sector, as they often undertake pre-discharge assessments of patients; for example, they might undertake a three-step assessment of budgeting, shopping and then cooking to ensure that a ‘low-functioning’ patient has the basic skills to feed themselves. Occupational therapists are increasingly becoming

incorporated into multi-disciplinary mental health teams in metropolitan areas, though not currently in remote Australia.

The AIHW (2013) reported that in 2012, 7,231 occupational therapists were registered in Australia. The supply of occupational therapists in Australia was highest in major cities, both in whole numbers and in FTE (per 100,000 population), and correspondingly lowest in remote and very remote areas (see Table 1.10). Of the total occupational therapist workforce, only 0.47% work remotely and very remotely. Accordingly, occupational therapists do not feature in remote nurses' social world in delivering mental healthcare.

Table 1.10

*Number of Occupational Therapists by Remoteness Classification and FTE per 100,000 population, 2012 (Source: Health Workforce Australia, Allied Health Practitioners, AIHW, 2013)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number	5,537	1,345	313	34
FTE per 100,000 population	48.4	40.1	27.0	16.7

#### ***1.6.9.5 Aboriginal and Torres Strait Islander Health Practitioners***

Since July 2012, Aboriginal and Torres Strait Islander health workers have been able to register under a national registration scheme as Aboriginal and Torres Strait Islander Health Practitioners, through the Australian Health Practitioner Regulation Agency (AHPRA). Previously, there was no national registration or specific career pathway for Aboriginal and Torres Strait Islander health workers. Since national

registration, the minimum standard (or equivalent) is a Certificate IV in Aboriginal and Torres Strait Islander Primary Healthcare.

The AIHW (2013) reported that 231 registered Aboriginal and Torres Strait Islander Health Practitioners were employed in Australia in 2012. Of this workforce, 142 were employed in Aboriginal health services.

Table 1.11

*Aboriginal and Torres Strait Islander Health Workers, 2012 (Source: Health Workforce Australia, Allied Health Practitioners, AIHW, 2013)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Number	7	9	73	142
FTE per 100,000 population	—	0.2	3.6	29.7

As at June 2015, AHPRA advised that there were 390 registered Aboriginal and Torres Strait Islander Health Practitioners, of which 55% were employed in the Northern Territory, 14% in New South Wales, 12% in Queensland and 12% in Western Australia. Many more than this number are actually working in Australia as ‘health workers’ who commenced working prior to June 2012 and do not have the minimum qualification for registration. For example, the National Aboriginal and Torres Strait Islander Health Worker Association (NATSIHWA) reports on their website that they have approximately 800 members.

#### ***1.6.9.6 Other Registered Allied Health Practitioners in the Field***

There are five reasons for including allied health practitioners in this study. First, allied health professions exist in the remote health field and hence are examinable in

relation to the case. Second, it is useful to compare the allied health professions with the other professions previously mentioned to observe whether trends in distribution are consistent. Third, mental health patients have poorer general health than non-mental health patients, and therefore require more allied health services (AIHW, 2014; Lambert, Velakoulis & Pantelis, 2003; O’Sullivan, Gilbert & Ward, 2006; Robson & Gray, 2006; Smith, 2008). Further, living in remote Australia increases mental health patients’ risk of poorer general health (AIHW, 2012; Harrison et al., 2010; Humphreys & Wakerman, 2008), and accordingly, per capita they are substantial consumers of these allied health services. Finally, a case study methodology requires a holistic investigation, and hence provides further justification for the inclusion of all allied health practitioners.

Table 1.12

*Number of Pharmacists, Physiotherapists, Optometrists, Chiropractors and Podiatrists by Remoteness Classification Index, 2012 (Source: AIHW, 2013)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Pharmacist	16,225	3,301	1,506	279
Physiotherapist	16,129	2,621	1,069	240
Optometrist	3,169	600	233	27
Chiropractor	3,033	718	241	36
Podiatrist	2,509	563	210	29

With reference to Table 1.12, it is clear that with increasing remoteness there are fewer available allied health services. It is not clear from the AIHW report (2012) how or whether these data include Fly-In, Fly-Out (FIFO) clinicians who are based in another remote classification index, yet work regularly in another; for example, a clinician who resides in an ‘inner regional’ area may FIFO to remote or very remote communities as a

sessional or outreach clinician. The report merely stated that ‘allied health workers identify where they work’, not whether they were based permanently in the region delivering a clinical service. Accordingly, comparing remote or very remote workers with those in major cities as a percentage of the total workforce, pharmacists are respectively 1.3% and 76%, physiotherapists 1.2% and 80.4%, optometrists 0.7% and 78.7%, chiropractors 0.9% and 75.3% and podiatrists 0.9% and 78.8%. On an adjusted FTE per 100,000 population comparison, across all allied health professions, remote and very remote were statistically significantly, to very significantly, lower than major cities and the lowest FTE of all remoteness classifications, across all allied health professions.

## **1.7 Overview of the Study Design**

The present study employed a single, explanatory and revelatory case study design using a holistic approach to positioning. Case studies are a form of intense inquiry, providing an in-depth picture of the unit of study (Flyvbjerg, 2011). In the present case, the unit of study is remote generalist nurses delivering mental healthcare, focusing on individuals, groups, organisations and social situations (Stake, 1995).

Qualitative data were collected using face-to-face and telephone semi-structured interviews of the study participants relevant to the case. The data were subjected to interpretive thematic analysis. Findings from the thematic analysis were combined with secondary data sources relevant to the case and subjected to situational analysis (Clarke, 2005) using messy, ordered and relational maps to construct a social world/arena map of the remote nurses’ social world in delivering mental healthcare. Actor-network theory (Callon, 1986a; Latour, 2005; Law, 1992) was employed to analyse the relationships between the actors and groups identified in the social world/arena map of remote generalist

nurses delivering mental healthcare. Combining the results from the thematic analysis, situational analysis and actor-network analysis, the three key findings of the study emerged.

## **1.8 Rationale**

The researcher was unable to identify any published study that had specifically explored, examined or reported how Australian remote nurses deliver mental healthcare within a social worlds framework utilising situational analysis (Clarke, 2005). Further, no study had employed actor-network theory to identify and explore the relationships among the actors and groups in the social world of Australian remote nurses in the delivery of remote mental healthcare.

## **1.9 Significance of the Study for the Nursing Profession**

Of Australia's population of 23 million, one in five will suffer from a mental illness during their lifetime. People who live in remote Australia are 1.1 times more likely than those living in urban areas to suffer a mental illness. They also have significantly higher rates of substance use disorders and are 1.3 times more likely to commit suicide (AIHW, 2010). Morrissey and Reser (2007) suggested that the higher prevalence of mental health problems in remote and rural communities is a reflection of socioeconomic disadvantage, a harsher natural and social environment, loneliness and isolation, and fewer available health services. It is clear that the demand for mental healthcare from generalist remote nurses is significant.

Remote nurses are the largest and most prevalent group of care providers, and are frequently the first to be contacted by patients in crisis (Burley & Greene, 2007). Nursing in remote areas has been described as one of the most complex areas of nursing practice.

There is some evidence that the attitudes and abilities of many of these nurses in providing such care are poor (Brunero, Jeon & Foster, 2012; Jelinek, Weiland, Mackinlay, Hill & Gerdtz, 2011; Sharrock & Happell, 2002).

Remote nurses working in general healthcare settings have ‘difficulty’ in meeting the needs of a patient with a mental illness. A number of studies have reported that generalist nurses perceive themselves as lacking knowledge, skills and confidence in the assessment and management of mental health patients (Bailey, 1998; Brinn, 2000; Brunero et al., 2012; Fleming & Szmukler, 1992; Jelinek, Weiland, Mackinlay, Gerdtz & Hill, 2013; Gillette, Bucknell & Meegan, 1996; Jelinek et al., 2011; Muirhead & Tilley, 1995; Roberts, 1998; Sharrock & Happell, 2002; Wand & Happell, 2001). They also experience feelings of fear, inadequacy and a lack of understanding in caring for suicidal patients (Bailey, 1998). In other studies, nurses have described reduced work satisfaction, questioning their role, and giving priority to physical needs and task completion rather than caring for a patient’s mental health symptoms (Bailey, 1994; Fleming & Szmukler, 1992; Gillette et al., 1996; Reed & Fitzgerald, 2005). They find it particularly difficult when patient behaviour is perceived as difficult, threatening or disruptive (Happell & Sharrock, 2002; Heslop et al., 2000; Reed & Fitzgerald, 2005). Compounding these difficulties is a lack of resources, expert assistance and workplace policies in relation to remote and rural mental health patient service delivery (Bailey, 1998; Brunero et al., 2012; Ellis & Philip, 2010; Gillette et al., 1996; Reed & Fitzgerald, 2005; Wand & Happell, 2001) combined with an attitude of negativity (Bailey, 1998; Brinn, 2000; Fleming & Szmukler, 1992; Gillette et al., 1996; Mavundla & Uys, 1997).



There exists a gap in the literature in the absence of any case study having been undertaken to identify and explain what factors affect remote generalist nurses providing care to mental health patients. This study provides an understanding of generalist nurses' experiences, manner and competency of caring for mental health patients in remote settings.

## **1.10 Organisation of the Thesis**

Chapter 1 has provided an overview of the study's aim, purpose and objectives. The researcher has positioned himself through his experience in the field concerning the subject matter of the study and also provided *raisons d'être* justifying the research. The concept of 'remote' was discussed and defined, including an outline of the remoteness classification system utilised in the study. Further, the demographics of the actors and health workforce professions in the study's field were presented.

Chapter 2 outlines the background and setting of the study. The chapter commences by outlining the poor health status and burden of disease in Australia's remote population, the types of mental health services and resources available and the current expenditure and investment in mental health. The next section of the chapter discusses the demographics of remote Australia and how these shape and determine models of mental health service delivery. Concluding the chapter is an outline of the formation of remote nurses into a professional cohort and an examination of the current issues and barriers that effect remote nurses delivering mental healthcare.

Chapter 3 reviews the current literature on remote generalist nurses caring for mental health patients. Embedded in the chapter is an article, under review for publication, that outlines the literature review undertaken by the researcher. This review identifies two

important themes in the literature: the demand for and lack of mental health training and education, and the self-perceived low levels of confidence, competencies, skills and knowledge of remote nurses concerning mental healthcare. The chapter concludes that there is very little published literature and research into the research topic, and none in relation to the remote nurses' social world of delivering mental healthcare.

Chapter 4 outlines the theoretical framework, study design and methodology of the study. The theoretical underpinnings of the study are identified and discussed. The researcher describes and justifies the case study design and concludes by discussing and addressing criticisms of case study as a method of qualitative research.

Chapter 5 outlines the methods of the study in relation to data collection and data analysis. The chapter describes components of the study including the participants, recruitment, sample size, data collection and analysis techniques, primarily coding and thematic analysis. Issues concerning the ethics involved in the study are also reviewed.

Chapter 6 commences by outlining the process of undertaking situational analysis (Clarke, 2005) of the data to create a social world/arena map representing remote generalist nurses delivering mental healthcare. The 'staged' process of creating and building upon each of the various maps—the messy, ordered, relational and, finally, social worlds/arena maps—of remote nurses delivering mental healthcare is outlined. The chapter concludes with a brief discussion of the researcher's experience of creating positional maps for the study, and the presentation of his attempt.

Chapter 7 is a discussion of the findings based on thematic and situational analysis. The findings are presented with reference to the groups in the healthcare system arena and the elements in the non-human arena, both contained in the social world/arena map.

Chapter 8 presents, analyses and discusses the actor relationships between the human and non-human actors in the social world/arena map utilising actor-network theory. The findings from this analysis are then presented and discussed. The chapter concludes by outlining and discussing how the relationships between the actors/groups in the social world are created, maintained and continue to operate and function.

Chapter 9 discusses the major three findings of the study related to the case of remote generalist nurses delivering mental healthcare. The three findings are:

1. that remote generalist nurses assume the status of obligatory passage points when delivering mental healthcare;
2. that self-perceived low levels of confidence, competency, skills and knowledge in caring for mental health patients are misguided, especially when juxtaposed against the attitudes of the actors in the remote nurses' social world, who have positive beliefs and opinions concerning the remote nurses actions, skills and mental health outcomes;
3. that the remote generalist nurses have certain unique characteristics that enable them to remain in their social world delivering mental healthcare; these are identified as resourcefulness, resilience, responsiveness and robustness.

The concluding Chapter 10 begins by describing the researcher's 'journey' in undertaking the study, then progresses to addressing the methodological rigour of the study and the steps the researcher undertook to ensure the same. The chapter then outlines and discusses the study's recommendations concerning four domains: research, practice, education and policy. The study's methodological limitations and strengths are canvassed,

and the chapter concludes by outlining the role of the researcher's relationship with the study.

### **1.11 Summary**

This chapter has provided the reader with the aim of the study, research questions and a discussion of the justifications for the study. The chapter has also defined the term 'remote' and discussed the constitution of the remote mental health workforce. The chapter then concluded with a definition of 'mental health', a brief overview of the study design and an outline of the rest of the thesis.

Having outlined the various groups who constitute the remote mental health workforce, Chapter 2 discusses the background to the study. The discussion focuses on the unique issues and substantial barriers facing the workforce in the delivery of mental healthcare, as well as the resources available. The chapter concludes by discussing the definition of primary healthcare and the factors that shape the models for delivering remote mental healthcare.

## **Chapter 2: Background**

### **2.1 Introduction**

This chapter discusses the background to the study and situates it in the context of the field of remote nursing. Chapter 1 answered questions of ‘who’ and ‘what’ regarding the make-up of the remote nurse’s field; in contrast, this chapter focuses on what is happening in the field. The chapter is divided into three sections. The first section outlines the poor health status and burden of general disease in Australia’s remote population, the types of mental health services and resources available, and expenditure and investment in mental health services. The second section discusses the demographics of remote Australia and how these shape and determine models of health and mental health service delivery. This section also discusses the dynamic external forces that affect changing remote models of healthcare delivery, and that remote nurses are obliged to accommodate. The final section outlines the formation of remote nurses into a professional and political representational body, concluding with an examination of the current issues and concerns that affect remote nurses delivering mental healthcare.

In this chapter, the terms ‘metropolitan areas’ and ‘major cities’ are employed interchangeably, as are the terms ‘remote’ and ‘very remote’. The adoption of the descriptors ‘major cities’ and ‘remote’ and ‘very remote’ is deliberate in the discussion of the terms used by AIHW and the AGSC-RA classificatory system of remoteness in Australia. On other occasions, the adoption of the terms ‘metropolitan areas’ and ‘remote areas’ should be read with the same referability.

Finally, the term ‘rate’ as used in this chapter means the number of events or occurrences per unit of population or class group over a set period of time. Unless

otherwise stated, the ‘unit’ is population (usually an AGSC-RA classified population) and the ‘period of time’ is 12 months (calculated either on a calendar year or financial year basis).

## **2.2 Remote Population Health Profile in Australia**

The health of Australians in remote areas is generally poorer than that of people living in metropolitan and regional areas (AIHW, 2008a, 2008b, 2012, 2014; Humphreys, 2002; Phillips, 2009; Smith et al., 2008). Mental health is a significant component of this health gap. In addition, it is common among people with a mental disorder to have comorbid illnesses and diseases. Research has demonstrated that people with a serious mental illness, like schizophrenia, have increased occurrence of physical illnesses (De Hert et al., 2011; Happell, Scott, Platania-Phung & Nankivell, 2012; Jacobi et al., 2004; Scott & Happell, 2011). People with comorbidities, like schizophrenia and diabetes, are more disabled and consume more health resources than those with only one disorder (AIHW, 2007). This is relevant for two reasons. First, the demands generated by such a disadvantaged population (remote mental health patients) on the time and available resources of limited number of remote nurses necessarily means that remote nurses are obliged to ration their time and to work under pressure. Though they may periodically become overwhelmed, they must continue to cope; however, this pressure is likely to have a negative effect on the delivery of remote mental healthcare. Second, remote mental health patients with complex comorbidities require multifaceted interventions and a greater level of nursing skills, creating an additional burden on the remote nursing workforce. The burden of the relative incidence and chronicity of poorer remote health, exacerbated by the

relatively higher proportions of remote mental health patients, is overwhelmingly borne by the remote nursing workforce.

The AIHW report *Australia's Health 2014* identified several areas of concern in the population profile of remote Australia:

- higher mortality rates and lower life expectancy
- higher road injury and fatality rates
- higher reported rates of high blood pressure, diabetes, and obesity
- higher death rates from chronic disease
- higher rates of alcohol abuse and smoking
- poorer dental health
- higher incidence of poor antenatal and post-natal health
- higher incidence of babies born with low birth weight to mothers in very remote areas

None of the above is absent in the remote mental health patient population. In addition, the link between mental illness and general poorer health is clearly established in the literature, resulting in a greater demand for the services delivered by remote nurses.

### **2.2.1 Remote illicit drug use and excessive alcohol use**

A substantial contribution to the generally poorer health status and profile of the remote population is lifestyles incorporating excessive alcohol and illicit drug use. In this thesis, 'illicit drug' refers to drugs that are illegal to possess or use, or any legal drug used in an illegal manner (e.g., volatile substances such as petrol and paint and pharmaceuticals being used for non-medical purposes). This is the definition used in the National Drug Strategy Household Survey (AIHW, 2011a). 'Excessive use', or use above or in excess of

levels of use deemed by health authorities as safe, negatively affects the general health of individuals, but also exacerbates and contributes to the development and treatment resistance of serious mental illness (Hartz et al., 2014). For these reasons, excessive levels of consumption of illicit drugs and alcohol increase workloads and complexity of work for remote nurses.

Table 2.1

*Drug Usage in People Aged 14 Years or Older, by Remoteness (as Percentage of Total Population According to Remoteness Classification Index), 2010 (Source: AIHW, 2014)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Illicit drugs	14.8	13.9	15.0	17.2
Cannabis	64.8	65.5	64.2	55.2
Ecstasy (MDMA)	3.3	2.0	2.2	4.1
Cocaine	2.6	1.0	0.9	2.0

MDMA: methylenedioxy-methamphetamine

Rates of use of illicit drugs (see above), which include heroin, methadone, morphine and ecstasy, are higher as a percentage of population in remote locations than other areas; the one exception is cocaine usage, for which remote areas have the second highest rate of usage (see Table 2.1) (AIHW, 2014).

There exists a strong association between excessive use and increased mental illness (both incidence and severity of symptoms) concerning the four drug classifications identified in Table 2.1. Excessive use of cannabis can contribute to the development of psychosis and affective disorders (Caspi et al., 2005; Di Forti et al., 2012; Moore et al., 2007; Radhakrishnan, Wilkinson & D'Souza, 2014). Excessive ecstasy (MDMA) use



increases incidence of mental illness such as psychosis (Guillot & Berman, 2007; Lieb et al., 2002; Stough et al., 2012; Thomasius et al., 2005; von Sydow et al., 2002). In relation to ecstasy, the remote population has the lowest per capita rate of abstinence and highest per capita rate of ‘recent usage’ (see Table 2.2). Excessive cocaine use can cause cocaine-induced psychiatric disorders (*Diagnostic and Statistical Manual of Mental Disorders* [5th ed.; *DSM-5*]; American Psychiatric Association, 2013), psychosis and schizophrenia (Haasen, Prinzleve, Gossop, Fischer & Casas, 2005; Morton, 1999; Vasconcelos et al., 2014). Research demonstrates that schizophrenic patients who abuse cocaine have an increased risk of suicide, are less compliant with treatment, and have higher hospitalisation rates than patients who do not abuse cocaine (Sayers et al., 2005).

Table 2.2

*MDMA Use in People Aged 14 years or Older, by Remoteness (as Percentage of Total Population According to Remoteness Classification Index), 2010 (Source: AIHW, 2014)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Never used*	92.8	93.8	94.1	88.8
Recent user**	2.0	2.0	1.5	4.0

\* Never used: a person has not used or consumed a drug (ecstasy) during their lifetime.

\*\* Recent user: a person has used or consumed a drug (ecstasy) within the last 6 months.

### 2.2.2 Alcohol use

With reference to Table 2.3, in remote areas, compared to any other area classification, alcohol has the highest rate of consumption, has the fewest abstainers or ex-drinkers, and has the highest risk associated with usage, both in the lifetime and single occasion categories (AIHW, 2011). Alcohol is the most common drug involved in

substance use disorders treated in 2010–2011 in Australia, accounting for almost half of all treatment episodes (47%). The high prevalence of alcohol in substance use disorders is also reflected in the literature (Teesson, Hall, Lynskey & Degenhardt, 2000). Alcohol is directly related to mental health.

Table 2.3

*Lifetime and Single Occasion Risk in People Aged 14 Years or Older, by Remoteness (as Percentage of Total Population According to Remoteness Classification Index), 2010*

*(Source: AIHW, 2011)*

		Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Lifetime risk	Abstainer/ ex-drinker	20.4	17.7	17.5	15.3
	Low risk	61.0	60.3	57.9	54.2
	Risky	18.6	22.0	24.6	30.5
Single occasion risk	Low risk	41.3	40.2	39.9	33.4
	At least yearly	23.4	25.0	24.1	25.6
	At least weekly	14.9	17.0	18.5	25.8

## 2.3 Summary of Remote Drugs and Alcohol Use

None of the data or tables, considered individually or in combination, can demonstrate that the generally poorer health of remote Australia is caused by drugs and alcohol. What they do illustrate is that, compared to other areas, rates of consumption are high, and this is consistent with a contributing role in the poorer health status of these communities. Under each of the aforementioned drugs, the researcher has referred to the effects of excessive use of the drug in relation to mental illness. In each case, research has

demonstrated that a drug causes, contributes or worsens the symptoms of serious mental illnesses, and often delays or complicates treatment. Hence, excessive drug usage adds to and complicates the care provided to mental health patients by remote generalist nurses.

As established in Chapter 1, it is overwhelmingly nurses who take up the role of addressing remote populations' poor health, including the care of mental health patients. Drug and alcohol abuse increases demand for mental health services. An example is found in McCullough, Williams and Lenthall's (2012) study, which found that intoxication due to alcohol and cannabis were the most significant risk factors to consider during an assessment of violence risk and mental health. It is well known that the combined effects of alcohol, drugs and mental illness increase risks of violence and suicide (Ferns, Cork & Rew, 2005; Sands, 2007). The addition of alcohol and drugs therefore complicates these important assessments, which in turn increases the difficulty and complexity of the workload for the remote nurse.

### **2.3.1 Tobacco**

While tobacco use does not cause mental illness, it is nevertheless a drug implicated in substance use disorders (*DSM-IV-TR*, 2000). Further, the deleterious side effects of tobacco on general health are a further complication and burden on nurses when providing mental healthcare. There is a clear association between serious mental illness and increased tobacco usage (Degenhardt & Hall, 2001; Jorm, 1999; Lawrence, Mitrou & Zubrick, 2009). People who reside in remote areas have the highest rates of smoking tobacco in Australia. In 2010, a self-reported national survey (AIHW, 2011) highlighted that, since 2007, those in remote areas had been the only cohort of Australia's population to increase rates of tobacco consumption (see Table 2.4).

Table 2.4

*Tobacco Smoking Status and Amount Consumed Per Week in People Aged 14 Years or Older, by Remoteness (as Percentage of Total Population According to Remoteness Classification Index), 2007 and 2010 (Source: AIHW, 2011)*

Location	2007 (Users %)	2010 (Users %)	2007 (Mean consumed per week)	2010 (Mean consumed per week)
Major Cities	18.0	16.8	89.1	94.5
Inner Regional	21.9	19.9	107.8	113.5
Outer Regional	23.0	20.7	117.3	120.9
Remote/Very Remote	25.0	28.9	107.4	140.7

The same publication (AIHW, 2011) reported that the proportion (as a percentage of total population) who had ‘never smoked’ was lowest in remote and very remote Australia compared to metropolitan areas (45.4% and 60.2% respectively) and highest for current daily smokers (16.8% and 28.9%).

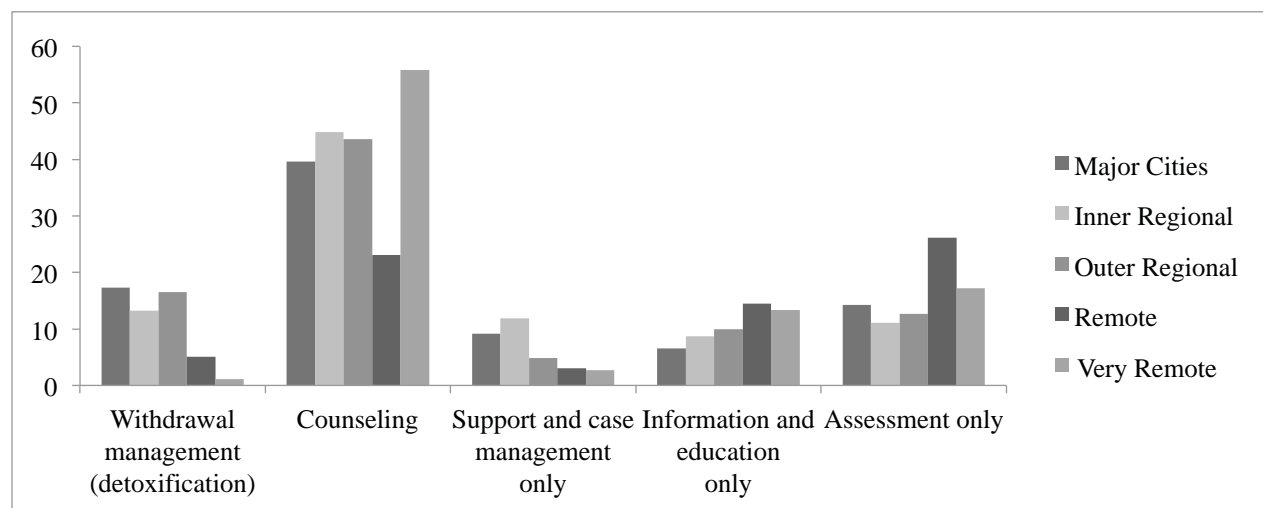
Consistent with the AIHW (2010) report, the Department of Health (2015) reported that people 14 years or older residing in remote and very remote areas were twice as likely to have smoked tobacco daily in the previous 12 months compared to those in major cities (22% compared to 11.0%). The proportion of people aged 14 years or older smoking daily rises with increasing remoteness: 11.0% in major cities, and 22% in remote and very remote areas. Tobacco use is an endemic health issue worsening with remoteness.

While tobacco has no causal relationship with mental illness, it does increase the burden and incidence of general illnesses (e.g., Chronic Obstructive Pulmonary Disease, emphysema, lung cancer) in the mental health patient population. Degenhardt and Hall

(2003) stated that tobacco use is the most common and overlooked comorbidity in mental health patients. The remote generalist nurse delivering mental healthcare is confronted with and must care for a cohort of patients who require complex care often related to multiple comorbidities, which requires a breadth of knowledge not limited to mental healthcare.

## 2.4 Treatment Facilities for Drugs and Alcohol

In 2010–2011, most drug and alcohol treatment agencies were located in metropolitan areas (52%, 344 agencies) and inner regional areas (27%, 182 agencies), with 7% located in remote and very remote areas. With fewer drug and alcohol service providers in remote areas, there are also fewer facilities and less infrastructure for providing in-patient or even out-patient treatment. This creates a greater reliance on counselling and education (see Table 2.8).



*Figure 2.1.* Mental health episodes by main treatment type and remoteness (as percentage of total population according to Remoteness Classification Index), 2010–2011. Source: AIHW, 2012.

Table 2.5

*Episodes by Main Treatment Type and Remoteness (as Percentage of Total Population According to Remoteness Classification Index), 2010–2011 (Source: AIHW, 2012)*

Location	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Withdrawal management (detoxification)	17.3	13.2	16.5	5.1	1.1
Counselling	39.6	44.8	43.6	23.1	55.8
Support and case management only	9.1	11.9	4.9	3.0	2.7
Information and education only	6.6	8.7	10.0	14.5	13.3
Assessment only	14.2	11.1	12.7	26.1	17.2

The disparity between remote and metropolitan mental healthcare has continued to grow since the 2011–2012 survey (AIHW, 2015a). In 2013–2014 there were 454 government and non-government drug and alcohol treatment agencies in metropolitan areas, compared to 32 in remote and 26 in very remote areas.

The lack of resources and specialist facilities for treatment in remote areas affects remote generalist nurses' practice due to the strong association between mental illness and substance use disorders and the challenges of this comorbidity (Kenny, Kidd, Tuena, Jarvis & Robertson, 2006). While both conditions exist, each may serve to maintain or exacerbate the other (Kavanagh, 2008). For example, a person may engage in alcohol misuse to reduce symptoms of anxiety; however, research has suggested that repeated alcohol use may lead

to increased anxiety (Stockwell, Hodgson & Rankin, 1982). Such comorbidities need to be treated simultaneously if treatment is to be effective (Kenny et al., 2006). Further, a lack of remote specialist services and facilities results in an increase in the number of violent and aggressive mental health presentations (Kenny et al., 2006) and levels of mental illness due to insufficient treatment.

Finally, the lack of specialist facilities for treatment of comorbidities involving drugs or alcohol increases the burden on remote nurses in another way. Often, withdrawing from a drug will induce a variety of mental health symptoms such as depression, anxiety and psychosis. For example, withdrawal from alcohol use can induce symptoms of depression or anxiety (Raimo & Schuckit, 1998) and psychotic symptoms can be induced by withdrawal from amphetamines, cocaine or cannabis (Kavanagh, 2008). Hence, ironically, a remote patient with a substance use disorder attempting to withdraw from their addiction, unassisted by specialist services, may actually increase their need for mental health services from remote nurses.

## **2.5 Suicide**

Use of drugs and alcohol is one of the risk factors for suicide; where remote populations lack specialist treatment for drug and alcohol misuse, that risk is not being addressed. The National Mental Health Commission's 2013 Report Card included data on Australian suicide rates, noting that:

[T]here are stark geographical inequalities in suicide rates ... People living in non-metropolitan areas are more likely to die by suicide than those living in capital cities and we know that men not living in major cities are almost twice as likely as

their urban counterparts to die by suicide. (National Mental Health Commission, 2013)

This is consistent with the AIHW (2012) report's findings as outlined in Table 2.6.

Table 2.6

*Standardised Mortality Ratio for Suicide, by Remoteness (as Percentage of Total Population and Incidence According to Remoteness Classification Index) (AIHW, 2012)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very remote
Suicide	1.00	1.18	1.43	1.78	2.89

There is no evidence that higher rates of suicide are due solely to mental illness in remote areas (Brumby et al., 2011). The cause of these higher rates (2.8 times higher in very remote areas compared to major cities per capita) is complex, and is attributable to factors such as a lack of early diagnosis, restricted access to mental health services, the distance-decay effect, poor physical health, access to firearms (Brumby et al., 2011), socio-economic deprivation (Cheug, Spittal, Pirkis & Yip, 2012) and social isolation and alienation (Inder et al., 2012), particularly in men aged 65 and over (Longman, Passey, Singer & Morgan, 2013). No matter what the cause, the rate of suicide in remote areas is disturbing, and from the researcher's remote working experience, takes an emotional toll on nurses.

In relation to remote Indigenous populations, in 2008–2012, the suicide rate for Indigenous Australians was almost twice the rate (1.9) for non-Indigenous Australians (based on age-standardised rates). For 15–19 year olds, the rate was five times as high as the non-Indigenous rate (34 and 7 respectively per 100,000 population) (AIHW, 2015b).



## 2.6 Mortality Rate by Remoteness

With reference to Tables 2.7a and 2.7b, male and female mortality rates increase with remoteness. The female mortality rate in remote areas was 1.3 times as high as that in major cities, and 1.6 times as high in very remote areas. For males, the same rate ratios were 1.2 and 1.4 respectively. The same disadvantage with remoteness is seen in the trends for ‘excess’ death and ‘potentially avoidable death’ rates (see Tables 2.7a and 2.7b). Some commentators have suggested that this increase in mortality is linked to the poor availability of the full range of health services and inadequate numbers of health clinicians in remote areas (Paliadelis, Parmenter, Parker, Giles & Higgins, 2012; Productivity Commission, 2005).

Table 2.7a

*Deaths (Male) by Remoteness Area, 2009–2011 (Source: AIHW, 2014a)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Deaths (per 100,000)	660	740	774	811	936
Rate ratio*	...	1.12	1.17	1.23	1.42
Excess deaths (% of deaths)**	...	11	15	22	41
Potentially avoidable deaths per 100,000***	175	209	227	233	378

Table 2.7b

*Deaths (Female) by Remoteness Area, 2009–2011 (Source: AIHW, 2014a)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Deaths (per 100,000)	453	506	535	577	730
Rate ratio*	...	1.12	1.18	1.28	1.61
Excess deaths (% of deaths)**	...	10	15	22	47
Potentially avoidable deaths per 100,000***	101	120	130	169	294

\* Rate ratio (relative inequality): The rate for the group of interest divided by the rate for the reference group.

A rate ratio > 1 indicates that group of interest's rate is higher than the reference group's rate. A rate ratio < 1 indicates that the group of interest's rate is lower than the reference group's rate. A rate ratio of 1 indicates that the rates for the two groups are equal.

\*\* Excess deaths (%): The proportion of deaths in the population that would not have occurred if the rate for the group of interest were the same as the rate for the reference group, expressed as a percentage of all deaths that actually occurred among the group of interest.

\*\*\* Potentially avoidable deaths: Deaths that might have been avoided through prevention or treatment within the current health system, classified using nationally agreed definitions based on cause of death for people aged under 75. Examples include deaths due to road traffic accidents, lung cancer, diabetes and skin cancer.

The probability of a newborn reaching his or her 65th birthday is the most appropriate means of comparing life expectancy in a given area, because this measurement reduces the effect of any migration of elderly people from less remote areas (AIHW, 2008). The probability of male and female newborns living to their 65th birthday decreases with increasing remoteness. In AIHW (2008; see Table 2.8), male and female newborns in very remote areas had the lowest probability of living to their 65th birthday (73% and 81% respectively in 2002–2004, up from 69% and 77% in 1997–1999), and those in

metropolitan areas had the highest probability (88% and 92% in 2002–2004, up from 85% and 91% in 1997–1999) (see Table 2.8).

Table 2.8

*Probability of Living to Age 65 Years, by Remoteness Area, 2002–2004 (Source: AIHW, 2008)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Males	87.5	85.6	83.6	82.5	72.5
Females	92.3	91.4	90.5	88.6	80.6

## 2.7 Life Expectancy for Non-Indigenous Australians by Remoteness

According to the AIHW (2015b), out of Australia’s total population in 2011 of 22,340,024, approximately 3% identified as Aboriginal or Torres Strait Islander (699,881). Of this number, 233,146 resided in major cities, representing 1.0% of the total population, and 142,943 resided in remote or very remote areas, representing 0.6% of the total population.

For the Aboriginal and Torres Strait Islander population born in 2010–2012, life expectancy was estimated to be 10.6 years lower than that of the non-Indigenous population for males (69.1 years compared with 79.7) and 9.5 years lower for females (73.7 compared with 83.1) (AIHW, 2014b).

## 2.8 Hospital Infrastructure by Remoteness

With increasing remoteness, the size and type of hospital services change. As shown in Table 2.9, the number of larger health service centres, and hence availability of specialised services embedded within hospitals, decreases with distance from metropolitan

areas. Correspondingly, hospital facilities and services provided become smaller in scale, more multi-purpose (i.e. less specialised) and less equipped to handle acute cases as remoteness increases (National Strategic Framework for Rural and Remote Health, 2012). For example, in 2008–2009 there were 19 psychiatric hospitals in Australia, none of which were situated remotely.

Table 2.9

*Diversity of Public Hospitals, 2008–2009 (Adapted from AIHW, 2010)*

Hospital Type	Major Cities	Regional	Remote	Total
Large	23	17	1	41
Medium	22	70	0	92
Small acute	0	110	40	150
Psychiatric	10	9	0	19
Small non-acute	13	62	11	86
Multi-purpose services	0	47	32	79

By 2011–2012, there had been a reduction of the 19 in 2008–2009 to 17 specialist psychiatric hospitals, 14 of which were located in major cities and 3 in regional Queensland (AIHW, 2013c).

## 2.9 Mental Health Hospital Separations by Remoteness

Having examined the relationships between remoteness and available health-related infrastructure and services, this section examines the effect of remoteness on mental health service delivery. As shown in Table 2.10, only 1.2% of all people admitted to hospital (including those admitted for specialist psychiatric care) via mental health patient separations were patients from remote areas. This is consistent with the lack of ability in remote areas to admit patients locally and the difficulty in transporting them to

metropolitan hospitals. The rate of separations for remote and very remote areas was less than half of that for metropolitan areas.

Table 2.10

*Admitted Patient Mental Health-Related Separations\* with Specialist Psychiatric Care by Patient Demographic Characteristics, 2009–2010 (Source: AIHW, Mental Health Services in Australia database)*

Location	Major Cities	Inner Regional	Outer regional	Remote	Very Remote
No. of separations (a)	96,237	21,771	8,159	987	503
Percentage of separations (b)	75.4	17.1	6.4	0.8	0.4
Rate of separation (per 1000 population)	6.3	5.3	4.1	3.1	2.9

(a) The number for each demographic may not sum to the total due to missing data.

(b) Does not include those separations for which the demographic information was missing.

\* Separation: Separation refers to an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care. Separation data provide information on the number of hospital stays completed in a designated period, typically a financial year. These data can be used as a measure of hospital activity, but can represent quite different types of activity. That is, some separations will occur after same day stays in hospital, some for stays of a few days, while others can be for stays of months or, rarely, years. Thus, the separation data do not allow accurate comparison of hospitals that tend to provide for longer stays and report fewer separations (for example, public psychiatric hospitals) with hospitals that concentrate on providing numerous short stays (for example, acute care hospitals).

Table 2.11 shows that only 4.1% of all people admitted to hospital (without specialist psychiatric care) via mental health patient separations were remote patients, which is consistent with the lack of ability to admit patients locally in remote areas and the difficulty of transport to metropolitan hospitals. On the same basis of comparison with Table 2.10, 2.9% represents an increase, but not a large percentage of all admissions; and second, 3,751 admitted remote mental health patients still did not receive specialist psychiatric care. The true worth of the increase is somewhat illusory. From the researcher's working experience, both remotely and in the acute sector of metropolitan mental health units, these types of admissions are often 'band-aid' solutions in response to a crisis presentation, or where the patient has to leave the remote community for a while for another reason—for example, until an issue in the community or family is resolved. In such circumstances, the patient is often discharged without their mental health issues having been addressed or treated.

Table 2.11

*Admitted patient mental health-related separations without specialist psychiatric care\* by patient demographic characteristics, 2009–2010. (Mental Health Services in Australia Database, AIHW, 2014d)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
No. of separations *	54,002	20,613	12,365	2,494	1,257
Percentage of total separations **	59.5	22.7	13.6	2.7	1.4
Rate of separation (per 1000 population)	3.5	4.8	6.1	8.0	7.8

\* Numbers for each demographic may not add up to the total due to missing data.

\*\* Does not include those separations for which the demographic information was missing.

Without specialist psychiatric care: A separation is classified as ‘without specialist psychiatric care’ if the patient did not receive any days of care in a specialist psychiatric unit or ward. Despite this, these separations are classified as mental health-related because the reported principal diagnosis for the separation is either one that falls within the mental and behaviours disorders chapter (Chapter 5) of the ICD-10 manual classification (codes F00-F99).

## **2.10 Hospital-Based Mental Healthcare Service Provision By Remoteness**

In cases of hospital separation, upon discharge, remote mental health patients have the lowest rates of follow-up specialist psychiatric care. Rates of these types of separations in metropolitan areas are almost double those in remote areas, and when the discharge of ambulatory remote patients occurs without specialist psychiatric care, it is at a rate of one thirteenth of that in metropolitan areas. A plausible reason for this is the lack of specialised mental practitioners and clinicians working remotely (see Chapter 1) and the lack of remote mental health resources and facilities. Certainly, these types of separations add to the workload and burden of remote nurses delivering mental healthcare. An opposite trend can be observed for separations without specialist psychiatric care after discharge (see Figure 2.2 and Table 2.12). Remote areas have the highest rates in both categories (ambulatory and non-ambulatory), with both being more than double the rates of similar discharges in metropolitan areas. Again, the rates of these types of discharges without specialist psychiatric care add to the workload and burden of remote generalist nurses.

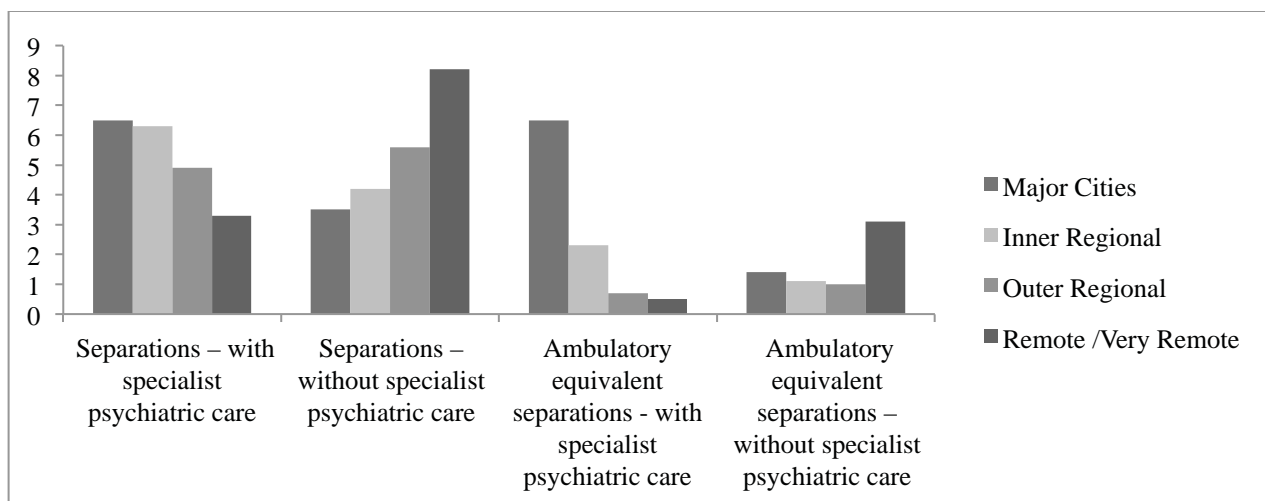


Figure 2.2. Hospital-based mental health service provision by remoteness area, 2011–2012. Source: AIHW, 2013c.

Table 2.12

*Hospital-Based Mental Health Service Provision by Remoteness Area, per 1,000 Population, 2011–2012 (Source: AIHW, 2013c\*)*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Separations—with specialist psychiatric care	6.5	6.3	4.9	3.3
Separations—without specialist psychiatric care	3.5	4.2	5.6	8.2
Ambulatory equivalent separations—with specialist psychiatric care	6.5	2.3	0.7	0.5
Ambulatory equivalent separations—without specialist psychiatric care	1.4	1.1	1.0	3.1

\* Sources: State and Territory (unpublished) community mental healthcare data, Private Mental Health Alliance (unpublished) Centralised Data Management Service data, Department of Health and Ageing (unpublished) MBS Statistics, Department of Veterans' Affairs (unpublished) Treatment Account System data, Australian Bureau of Statistics (unpublished) Estimated Residential Population, 30 June 2010.



## 2.11 Expenditure on Remote Mental Health Services by Remoteness

For each of the five identified mental health clinician groups (see Table 2.13), the total rate of health expenditure declines with remoteness (AIHW, 2011). Metropolitan clinicians received a total rate of 8.0%, compared to 5.0% for those in remote areas.

Table 2.13

*Expenditure for Remote Mental Health Clinicians (Source: AIHW, 2011)*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
Psychiatrist	1.6	1.1	0.7	0.5	0.3
General practitioner	6.2	6.7	4.8	2.7	1.3
Clinical psychologist	1.6	1.2	0.6	0.5	0.1
Other psychologist	2.2	2.4	1.4	0.6	0.3
Other allied health	0.2	0.3	0.3	0.1	0.0
Total	8.0	8.2	5.7	3.3	1.7

While spending allocated to admitting general patients increases with remoteness, expenditure on Medicare services and on the public Pharmaceutical Benefits Scheme (PBS) declines with remoteness (AIHW, 2011). This decline in expenditure on Medicare services is pronounced, with residents of remote and very remote areas receiving less than three quarters to half the rate of expenditure of major cities residents respectively. Expenditure on admitted patient services exhibited an opposite trend, with residents of major cities being recipients of the lowest level of age-standardised expenditure, increasing with remoteness, resulting in expenditure on very remote residents being almost twice that of metropolitan residents (see Figure 2.3; AIHW, 2011).

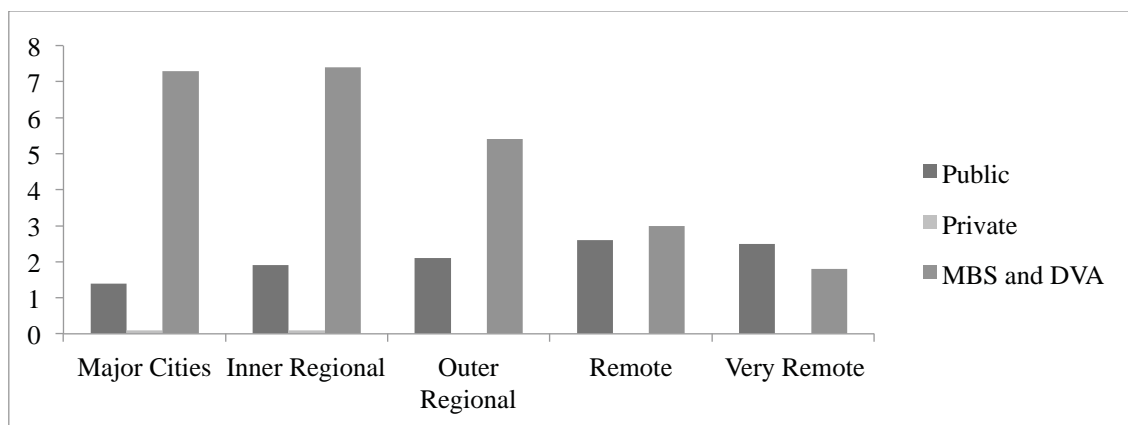


Figure 2.3. People receiving clinical mental health services by service type and remoteness area, 2010–2011. Source: AIHW, 2011.

The importance of Figure 2.3 is that it displays that there is no ‘private’ sector expenditure on mental healthcare in remote areas.

Table 2.14

*Rate per 100 Population Receiving Medicare-Subsidised Mental Health Services, by Provider Type and Remoteness Area, 2012–2013*

	Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote
Psychiatrist	15.51	7.93	3.95	1.96
GP	8.62	8.86	6.12	2.59
Clinical psychologist	9.78	6.58	3.27	1.38
Other psychologist	8.66	8.74	4.98	1.40
Allied health	0.87	0.99	0.76	0.13

With reference to Figure 2.3 and Table 2.14, the rate of Medicare-subsidised mental health services provided by GPs in remote and very remote areas indicates that there are insufficient numbers of GPs to adequately service and support mental healthcare delivery

(Rajkumar & Hoolahan, 2004). As Rajkumar and Hoolahan (2004) stated, 'in remote communities ... registered nurses ... are the first avenue for the provision of ... services. Professions ... who play a vital role in remote mental healthcare are: generalist and community nurses' (p. 81). The disparity between major cities and remote areas is even greater in relation to psychiatrists (rates of 15.51 and 1.96 practitioners per 100 population respectively).

Rates of follow-up care, shown in Table 2.15 below, are directly related to the data on hospital-based service provision and discharge, with and without specialist care. Information is provided by state and territory, with no data available for Victoria. The variations in discharge rates across the states and territories illustrate the point that the geographies and services within them are not uniform throughout the nation.

Table 2.15

*Rates of Follow-Up Care Within 7 Days of Discharge from a Mental Health Admission by Remoteness Area by State or Territory, 2011–2012*

	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote
NSW	52.9	54.0	51.7	40.0	41.7
VIC	UK*	UK	UK	UK	UK
QLD	62.8	69.7	67.1	65.7	62.2
WA	52.6	50.8	43.9	48.7	26.3
SA	52.9	41.2	41.1	34.4	30.5
TAS	26.5	24.3	37.2	24.9	NA
ACT	79.5	51.9	NA**	NA	NA
NT	70.0	50.0	58.1	45.8	26.3

\* UK: unknown.

\*\* NA: not applicable or not available.

Sources: State and Territory (unpublished) community mental healthcare data, Private Mental Health Alliance (unpublished) Centralised Data Management Service data, Department of Health and Ageing (unpublished) MBS Statistics, Department of Veterans' Affairs (unpublished) Treatment Account System data, Australian Bureau of Statistics (unpublished) Estimated Residential Population, 30 June 2010.

## 2.12 The Mental Healthcare System

Australia's mental healthcare system is large and complex, involving many interdependencies across government agencies, not-for-profit organisations, private mental health providers and jurisdictions (Medibank & Nours Group, 2013; National Mental Health Commission, 2014). In remote and very remote Australia, the majority of people with mental health disorders are managed from afar; people diagnosed with more severe mental illnesses, or during a crisis, are generally transported for treatment to regional and metropolitan hospitals (Andrews, 2006). The public health system provides the majority of

inpatient mental health services, jointly funded by state, territory and Federal governments (AIHW, 2015c). For example, 163 public hospitals provided mental health services for admitted patients during 2012–2013. These facilities combined had 6,768 specialised mental health beds available. In addition, 56 private hospitals delivered specialised mental health services, providing 2,286 specialised mental health service beds (AIHW, 2014c). Community mental health programs are also crucial to the management of mental illness, but most funds are spent treating hospital episodes of care, representing a reactionary approach rather than one of prevention or health promotion (AIHW, 2015d; Medibank & Nous Group, 2013). As a result, the largest proportion of government funds spent on mental healthcare go towards acute care services (AIHW, 2015c, 2015d; Mental Health Services in Australia, 2013).

Spending on acute mental healthcare services has been increasing at a greater rate than any other specialty in the healthcare system, consistent with the deinstitutionalisation of mental health patients beginning in the early 1990s (Rosen, 2006), a national increase in the prevalence of mental illness and an increasing reliance on acute care services (Medibank & Nous Group, 2013). Because of the complexity of funding models and the number of different agencies involved in delivering mental health services, this spending has not been undertaken using a coordinated national approach (National Mental Health Commission, 2014). These issues, combined with a tighter fiscal environment, have driven recent mental health reform (National Mental Health Commission, 2014). In response, policymakers have prioritised meeting service gaps, especially concerning early intervention and prevention services, adequate housing and accommodation (Council of Australian Governments, 2011). The reform agenda has been facilitated by the National

Mental Health Commission (NMHC), which was established in January 2012. Its first task was to undertake a national audit and review of mental healthcare services, including models and funding arrangements, before making reform recommendations. As part of the review, the NMHC considered *inter alia* the following:

- Mental health workforce development and training,
- Specific challenges for regional, rural and remote Australia,
- Specific challenges for Aboriginal and Torres Strait Islander peoples.

The final report was handed to the Government in December 2014 (National Mental Health Commission, 2014). The National Mental Health Commission (2014, Vol. 1, p. 37) found the following in relation to mental health challenges for people in remote areas:

- Mental health services in remote areas are transient, and face significant workforce shortages and decreasing services despite high demand.
- Funding for mental health programs is inadequate, sporadic and lacks an ongoing basis for the additional demands and costs of service delivery in remote areas.
- Access to services could be improved by wider use of technology and increasing community capacity.

The report made a number of recommendations related to remote mental healthcare in particular:

- ‘Reallocate ... Commonwealth acute hospital funding ... into more community-based psychosocial, primary and community mental health services’ (Recommendation 7). This includes ‘remote areas [being] funded on a more equitable basis to provide better access to services’ (2014, Vol. 1, p. 72).

- ‘Improve service equity for ... remote communities through place-based models of care’ (Recommendation 10). This can be achieved by acknowledging the ‘diversity between regions, a “one-size-fits-all” approach cannot be applied across ... remote Australia. Nor can assumptions be made about the availability of services in one area on the basis of those in another. Local circumstances need to be considered’ (2014, Vol. 1, p. 85).
- ‘Improve education and training of the mental health and associated workforce to deploy evidence-based treatment’ (Recommendation 22). This can be achieved to better target and equip ‘areas of need, particularly ... remote Australia, to deliver mental health services, we need to look at innovative ways of ensuring they still have access to a fit-for-purpose workforce’ (2014, Vol. 1, p. 120).
- ‘Implement cost-effective second and third generation e-mental health solutions that build sustained self-help ... and provide direct clinical support strategies or enhance the effectiveness of local services’ (Recommendation 25), targeted at ‘people in remote populations’ (2014, Vol. 1, p. 127).

Adoption of these recommendations would benefit and assist remote generalist nurses in the delivery of mental healthcare.

## **2.13 Profile of Mental Healthcare Delivery in Remote Australia**

Australia’s national health insurance scheme, Medicare (first established in 1975 as Medibank), was introduced to deliver the ‘most equitable and efficient means of providing health insurance coverage for all Australians’ (Parliament of Australia, 2003). In the 40 years since, questions have been raised about whether Medicare provides equitable access, particularly to mental health services (Harrison, Britt & Charles, 2012; Rosenberg &

Hickie, 2012). In 2006, the Australian Government introduced the ‘Better Access to Mental Healthcare’ (Better Access) initiative, consisting of new Medicare Benefits Schedule (MBS) items aiming to improve access to psychiatrists, psychologists and GPs. Evaluation of the program highlighted the success of Better Access in increasing psychological service use and doubling patient numbers in its first year (Harris, Pirkis & Burgess, 2011; Pirkis, Harris, Hall & Ftanou, 2010). Simultaneously, there were concerns as to whether Better Access was having the same effect in remote communities as it was in metropolitan areas (Bassilios et al., 2010; Byles, Dolja-Gore & Loxton, 2011; Harris, 2012; Harrison et al., 2012). The foundation of these concerns was recently confirmed by Meadows, Enticott, Inder, Russell and Gurr (2015), who found that despite Better Access, funding for all mental healthcare-related MBS items declined with remoteness (see Table 2.16). The funding initiative neglected remote areas.

Another initiative worthy of mention is the Mental Health Nurse Incentive Programme (MHNIP), which provides a non-MBS incentive payment to community-based general practices, private psychiatrist services, Divisions of General Practice, and Aboriginal and Torres Strait Islander Primary Healthcare Services who engage mental health nurses to provide clinical care for people with severe mental disorders. This programme is not discussed further in this study, as its continued existence is contingent on a current review and the establishment of future funding beyond June 2016 (Department of Health, 2015).



Table 2.16

*Medicare-subsidised mental health and related services: user rates per 1,000 population, 1 July 2007 to 30 June 2011*

	Major Cities	Remote	Very Remote
GP	79	25	8
CP	5	0	0
CP-291	0.3	0.0	0.0
CP+	92	4	2
PTS	52	5	2

GP: General practitioner mental health services created or significantly altered by Better Access to Mental Healthcare services.

CP: Consultant psychiatry items created or significantly altered by Better Access.

CP-291: Initial assessment for a GP-shared care plan by a psychiatrist (MBS item no. 291).

CP+: All/most psychiatry items.

PTS: Psychological therapy provided by a clinical psychologist.

This study demonstrates that macro- and meso-targeted interventions, designed with the best of intentions as ‘levers’ for change in remote areas, need to be more nuanced than those conducted to date. With reference to Table 2.16, the Better Access measures have produced no discernible change to the lack of psychiatric services in remote areas. This is consistent with previous studies that have found that the lowest levels of available psychiatric services are in remote areas (Meadows, Singh, Burgess & Bobevski, 2002). This is an example of the need for the National Mental Health Commission’s (2014) Recommendation 10: rather than a ‘one-size-fits-all’ approach, sustained funding must be targeted, specific and localised.

## 2.14 Drivers of Change in Delivery of Remote Healthcare

Remote nurses do not work in environments divorced from external forces of change. Such forces may range from macroscopic to microscopic in size and effect, be national or local, or health-related or not. Faced with any of these forces of change, remote nurses must adapt in order to remain in the field.

Humphreys and Wakerman (2008) identified a number of drivers of change to the delivery of healthcare, including mental healthcare, in Australia:

- *Demographic change*: Australia's ageing society faces increases in chronic diseases, and therefore greater demand for health services. Older mental health patients present with comorbidities, which increase remote nurses' workloads (see Chapter 2).
- *Epidemiological change*: Increases in the prevalence of chronic conditions, combined with an ageing population, requires seamless integrated care by multidisciplinary teams, not fragmented and insular health services ('silos'). This is the challenge for the future of delivering remote mental healthcare, for if there is no change, the burden will increase on remote generalist nurses.
- *Workforce changes*: The combination of an ageing health workforce, changing values of new graduates and their reluctance to work remotely makes workforce succession planning difficult (see Chapter 2).
- *Fiscal constraints*: Escalating costs combined with limited resources ensure continuing debate about how to fund the public healthcare system in a way that is politically acceptable. While beyond the control of the individual remote nurse organisations, the Council of Remote Area Nurses of Australia (CRANA) Plus and

the Australian College of Nursing can use their influence to advocate for remote area nurses in this policy arena.

- *Increased consumer expectations:* The spread of information about healthcare through the internet has increased questioning about and demand for healthcare.
- *Alternative models of delivering services:* Deinstitutionalisation of mental health patients, rationalisation and centralisation of health services has caused increased demand for home and community care, although this has not always been funded, especially in remote areas.
- *Increased role of technology:* Advancements in medical care have apparently lessened the need for extended hospitalisation. At the same time, the high costs, need for centralised expertise, and increased service threshold requirements have resulted in diminished access to care for many remote populations.
- *Changing emphasis from treatment to wellness:* Over recent years there has been greater focus globally on public and population health. The importance of ‘damming the river upstream’ rather than coping with ‘the deluge downstream’ requires a health system response to key risk determinants operating in remote areas in order to facilitate effective primary prevention and early intervention. This is the critical challenge for the future of remote mental healthcare delivery (Humphreys & Wakerman, 2008).

All of these issues will continue to buffer remote nurses delivering remote mental healthcare in any service model. It is the nursing workforce who will have the greatest adaptation to make, because compared to other remote health professions, they are the dominant and most permanent workforce in the field.

## 2.15 Primary Healthcare

Primary healthcare is a broad conceptualisation encompassing all social, environmental and lifestyle determinants of health (Félix-Bortolotti, 2009). In Australia, primary healthcare has been defined as incorporating personal care, health promotion, the prevention of illness and community development, including the interconnecting principles of equity, access, empowerment, community self-determination and intersectoral collaboration. These principles also encompass an understanding of the social, economic, cultural and political determinants of health (Keleher, 2001). Such an approach has been described as a world-wide imperative due to its comparative effectiveness and efficiency in delivering people-centred primary healthcare (Starfield, 2009). To deliver this approach to mental healthcare in remote Australia requires commitment of resources, including workforce, and sustainable funding; however, historically, such commitment has been lacking.

Under present conditions, a number of different primary healthcare models are the only means for sustainably delivering mental healthcare in remote areas, for there exist no or very few secondary and tertiary mental health services. In remote communities, mental healthcare services are integral to the primary healthcare system.

In remote areas, there is no separation between mental health and other primary healthcare services. Just as presentations of mild angina are cared for within the remote primary healthcare facility, while recoveries from severe heart attacks are not, mild to moderately severe mental health presentations are addressed by primary healthcare services in remote areas (Harte & Bowers, 2011), and only the severe presentations are transported to a regional facility. Mentally ill patients are often transported out of remote

areas to regional and metropolitan hospitals because the necessary specialist skills and facilities are absent in remote areas. Primary healthcare centres do not have the capacity to admit mental health patients.

Remote nurses do not have a stake in or influence over issues such as the sporadic or intermittent demand curve for mental healthcare services (e.g., the randomness of mental health crisis presentations); disjointed service delivery costs of care (e.g., costs of aero-evacuations); high, fixed and committed cost structures (e.g., cost of wages and transport in delivering remote healthcare); or lack of economies of scale (e.g., dispersal of remote population/level of recurrent expenditure) combined with resource depletion and rationing, culminating in economic deficiencies and funding shortfalls being borne by remote nurses. These economic drivers of remote mental healthcare provision force the remote nurse beyond their traditional scope of primary healthcare practice. It is a misnomer to describe remote nurses' work in delivering mental healthcare for seriously mentally ill patients as simply 'primary healthcare'. While this section discusses macro-scale primary healthcare models for healthcare delivery in remote Australia, the reality is that only remote nurses make this level of service provision functional and deliverable (Queensland Health, 2013; Wakerman & Humpherys, 2012). In economic terms, the 'real' sustainability of remote mental healthcare is fundamentally intertwined and linked to the remote nursing workforce.

An example of remote nurses being critical to sustaining the delivery of remote mental healthcare is that, regardless of the time of day, remote nurses must care for a detained patient for the duration of time that the patient is present in the remote area. While still detained in the remote location, the nurse must appropriately respond to the patient's

behaviours (whether insightful, violent, abusive, uncooperative or irrational), contain their movement and maintain constant observation of them. While this is not primary healthcare per se, it is care that is necessary and expected. Accordingly, when delivering mental healthcare in such circumstances, remote nurses are necessarily forced to extend their scope of practice beyond primary healthcare (which is their role description), thereby supporting and facilitating patients entering secondary and tertiary care.

## **2.16 Primary Healthcare Delivery Models in Remote Australia**

In the first systematic review of Australian remote and rural primary healthcare service delivery (necessarily inclusive of mental healthcare), Wakerman et al. (2008) found:

the different ... models [of primary healthcare delivery] relate to different geographical contexts, with a notable association with population size and remoteness. While larger rural communities are generally able to support a greater variety of local, discrete, more specialised healthcare services, increasing remoteness and diminishing population size and density constrain service model options and increase the impetus for the development of more integrated and comprehensive primary health services in order to maximise the economies of scale and use of existing health workforce. (p. 5)

There is no 'one size fits all' model for provision of care in different areas; different model types suit different locations. The major reason for this is that the nature of the population distribution in Australia is the critical factor in designing primary healthcare services: 'Successful models address diseconomies of scale by aggregating a critical population mass, whether it is a discrete population in a country town or a dispersed

population across a region' (Wakerman et al., 2006, p. 2). The same authors stated that a minimum population base of approximately 2,000 to 3,000 people for remote communities is required to support an appropriate and sustainable range of primary healthcare services (Wakerman et al., 2006). The average total cost of funding a primary healthcare service tends to increase with population size and remoteness (Zhao & Malyon, 2010). Zhao and Malyon (2010) found that average per capita expenditure was highest in clinics servicing populations of less than 200 people, and lowest for populations of between 600 and 999. These economies of scale are important drivers that influence the delivery of remote healthcare, including mental health.

The vast majority of remote areas have a small primary healthcare presence (varying from one to five nurses) under the categories (see Table 2.17) of 'Integrated Services', some Aboriginal Controlled Community Health Services (depending on local circumstances) but overwhelmingly outreach services, particularly hub-and-spoke, visiting and FIFO. Telehealth and telemedicine are also increasingly adopted into remote mental healthcare.

The discussion above has highlighted the drivers or conditions that affect the majority of models of remote healthcare delivery (including mental health) in Australia. Wakerman et al. (2008) identified a typology of four remote and rural primary healthcare delivery models (including mental health):

1. Discrete Services,
2. Integrated Services,
3. Comprehensive PHC Services,
4. Outreach Services.

These four models are further explicated in Table 2.17.

Table 2.17

*Typology of 'Innovative' Remote and Rural Models of Healthcare (Source: Humphreys & Wakerman, 2008, p. 6)*

Context: Rural-remote continuum	PHC Model and Examples	Main Drivers Underpinning Model
<b>RURAL</b> Larger, more closely settled communities	<b>Discrete Services</b> 'Walk-in/walk-out' model Viable models of General Practice University clinics	Population numbers are usually sufficient to meet essential service requirements (although some supports are still needed to address workforce recruitment and retention).
	<b>Integrated Services</b> Shared care Co-ordinated care trials PHC teams Multi-purpose services	Service integration resulting from pooled funding maximises efficiencies and access to locally available services. Single point-of-entry to the health system helps to co-ordinate patient care and reduces the need for travel.
	<b>Comprehensive PHC Services</b> Aboriginal Controlled Community Health Services	Community participation, service flexibility to meet local circumstances, and access to services are critical components where few alternative ways of delivering appropriate care exist.
<b>REMOTE</b> Small populations dispersed over vast areas	<b>Outreach Services</b> 'Hub-and-spoke' models Visiting services 'Fly-in, fly-out' services Telehealth/telemedicine	Periodic outreach services (sometimes co-existing with other models) provide care to communities too small to support permanent local services.

The most common of the four models in remote Australia is outreach services, which is comprised of four sub-classifications. The 'hub-and-spoke' (Battye & McTaggart,



2003; Stanley-Davies & Battye, 2004) model consists of a primary hub site providing a common core of acute services that are complemented by a range of intermittent visiting primary healthcare service providers (teams ‘parachuting’ into the community for a defined regular and periodic service provision). ‘Visiting (periodic) services’ (Booth, 1996; Neville, 1992) are teams of clinicians visiting for a predetermined period, (e.g., a week, 3 or 6 months at a time). FIFO services tend to involve visits for shorter periods than visiting services, but the same service delivery principles apply, for example, for a day or two. ‘Virtual Outreach Services’ includes telehealth and telemedicine (Misan, White, McKenzie & Paskett, 2002; Williams & Giles, 2012). These sub-classifications are not mutually exclusive, but rather can be designed and integrated to meet the needs and circumstances of a remote location.

The gap in health funding for remote areas persists (AIHW, 2010). Despite adjustments for remoteness and Aboriginal and Torres Strait Islander populations, there is no adequate formula for adjusting primary healthcare funding appropriately for morbidity and the higher costs of providing services to a highly dispersed remote population (Wakerman, 2015). Accordingly, remote nurses are confronted by patients who have reduced access to primary healthcare, which is reflected in higher compensatory hospitalisations and more potentially preventable hospital admissions with increasing remoteness (AIHW, 2010). Hence, there needs to be focus on prevention and ‘[moving] beyond a focus on specialist medicine and acute care beds, to appropriate generalist skills, team based community care and the training and development of the nursing ... workforce’ (Mason, 2013, p. 6). Access to primary (mental) healthcare reduces ‘down-stream’ costs

(Wakerman et al., 2009; Zhao, Thomas, Guthridge & Wakerman, 2014) and the pressures and reactionary nature of delivering remote mental healthcare.

## **2.17 Formation of Remote Professional Representation**

In 1982, 130 remote area nurses from across Australia convened in Alice Springs to put remote health issues on the national health agenda. This gathering gave birth to an organisation called the Council of Remote Area Nurses of Australia (CRANA), which became the leading national voice for remote health. At the time, the challenges confronting nurses working in remote locations were relatively unknown and poorly understood by their non-remote colleagues in the health professions, government and policymakers. The remote health workforce was thus exposed to great professional vulnerability. This impetus led the organisation to strive for recognition and support for remote area nurses and their broad scope of practice, and the promotion of the issues facing remote service delivery.

In 1991, a group of nursing academics launched a new nursing association, the Association for Australian Rural Nurses (AARN), whose mandate was to raise the profile of rural and remote nurses and to influence State, Territory and Federal Governments on issues facing rural and remote communities and their health professionals (Buckley, 1997). Prior to 1991, remote and metropolitan nurses' interests were represented politically through professional associations such as CRANA, the Royal College of Nursing Australia (RCNA) and New South Wales Country Nurses (NSWCN), which legitimised their claims for credibility (Hegney, 1996). Rural nursing, however, remained invisible until the formation of the AARN in 1991. The AARN provided rural nurses with a political voice

and representation on national and state executive committees, creating a platform for addressing the needs and concerns of ‘bush’ nurses (Hegney, 1996).

In 1992, the AARN was established ‘to discuss and advocate for inquiry into what had previously been an invisible area of practice’ (Mills, Birks & Hegney, 2010, p. 30; later, the AARN became the Rural Nursing and Midwifery Faculty of the RCNA, and from 1 July 2013, the Australian College of Nursing). A seminal article by Hegney, ‘The Status of Rural Nursing in Australia: A Review’ (1996), which defined rural nursing and identified the role and function of the rural nurse, was very influential in raising the profile of rural and remote nurses as a cohort who had space and unique considerations within the nursing profession. The article arose from the National Report, ‘The Role and Function of the Rural Nurse in Australia’ (Hegney et al., 1997), which at the time was viewed as a major and thorough investigation into the issue.

## **2.18 Nature of Remote Nursing**

Due to the unique circumstances of remote generalist nursing, delivering mental healthcare is only one of many skillsets that remote nurses must possess and maintain. Remote area nurses’ generalist roles may differ depending on their current circumstances, but irrespective of location, these roles encompass more similarities than differences (Kruske et al., 2008). This commonality distinguishes remote nurses as a unique cohort. As Paliadelis et al. (2012) stated, ‘[remote nurses] need to function as generalists, as opposed to a specialist’. Two reasons for this are, first, that remote nurses deliver care across the lifespan, and second, that they respond to any type of patient presentation and are overwhelmingly the only clinician available to do so (see Chapter 1). These features make remote nursing one of the most complex areas of nursing practice (Cramer, 2006, p. 1992).

Coyle, Al-Motlaq, Mills, Francis and Birks (2010) highlighted the breadth of remote nurses' duties by classifying them into four groups: clinical, health education and promotion, administration and general. While these four classifications describe remote duties in general, they are also relevant to the delivery of remote mental healthcare. For remote generalist nurses:

- *clinical* duties relate to any nursing care delivered for a mental health patient, for example, administering a depot psychiatric medication injection;
- *health education and promotion* duties could include a 'short clinical intervention' of Motivational Interviewing concerning the link between cannabis and psychosis, and advising a patient to cease or reduce their level of illicit drug use;
- *administration* tasks could include completing mental health patient documentation, such as charting medications or ensuring mental health Community Treatment Orders are current; and
- *general* duties directly or indirectly relate to the mental health patient, for example, transporting the patient from their residence to the primary healthcare for an appointment.

Coyle et al.'s (2010) classification of remote nurses' job tasks demonstrates the breadth of their role when operating within any of the many nursing 'specialty streams', which they are required to regularly assume, even simultaneously.

Kruske et al. (2008) argued that the generalist role of remote nurses increases as the population declines, and therefore, the more remotely nurses are located, the more generalist the nature of their work. Montour, Baumann, Blythe and Hunsberger (2009) agreed that '[remote] nursing practice is generalist in nature, requiring personal flexibility

and a broad knowledge base' (p. 6). Contextualisation of remote nursing requires identifying and describing the influences that shape the role. These influences include: 'distance from a tertiary referral centre, the size and composition of the team in which nurses work; the prevailing working conditions; and the size and composition of the community for whom nurses care (including ethnicity)' (Mills et al., 2010, p. 31).

While there exist certain factors that make remote nursing unique, there are other factors that directly challenge nurses' ability to remain in the field. The remote nursing workforce is ageing (Lenthall et al., 2011), and recruitment and retention of remote nurses remains problematic (Francis & Mills, 2011; Hegney et al., 2002), which has negative impacts through the loss of experienced mentors for new remote nurses (Schofield & Beard, 2005). Nurses endure inadequate staffing levels (Dade-Smith, 2004; Kennedy, Patterson & White, 2003), mandatory on-call duties and frequent overtime, which forces them to work the longest hours per week of any nursing workforce cohort (AIHW, 2013; Dade-Smith, 2004; Kennedy et al., 2003). They may also endure professional isolation and limited opportunities for professional development (Dade-Smith, 2004; Eley & Baker, 2007; Kennedy et al., 2003), workplace violence (McCullough et al., 2012; Morrell, 2005), limited supervision and perceived lack of management support (Yuginovich & Hinspeter, 2007) and concerns for personal safety. All of these challenges result in heightened levels of stress (Lenthall et al., 2009).

Another significant stressor for remote nurses relates to 'role conflicts' (Bushy, 2000, 2002; Paliadelis et al., 2012). Remote nurses working and living in the same community as patients frequently results in a lack of anonymity. Nurses are subject to unsolicited situations where there is blurring of professional boundaries and loss of

privacy, particularly when off duty (Manahan & Lavoie, 2008). This lack of anonymity is not generated by remote nurses being overtly social (although it can be an unintended factor of normal social interaction), but fundamentally occurs because of the everyday logistical contact and familiarity produced by everyday living in a small, isolated community (Paliadelis et al., 2012; Rosenthal, Zaslavsky & Newhouse, 2005). A quintessential example is where nursing accommodation is situated adjacent to the primary healthcare centre, or where the nurse's residence is embedded in the community and is identifiable by the clearly labelled primary healthcare centre vehicle parked in the driveway. These circumstances can lead to issues of work–life balance (Buchan, 2012) and a perception of always being 'on call' (Stewart et al., 2011), both of which have negative impacts.

All of the above issues are factors that negatively affect levels of recruitment and retention of remote nursing staff (Hegney et al., 2002). High levels of staff turnover make it difficult to cultivate and maintain collaborative remote work teams or environments for delivery of care, including mental healthcare (Hayes et al., 2012), as does greater reliance on staff on short-term contracts, who are less engaged in initiatives of ongoing quality improvement in healthcare (Busbridge & Smith, 2015). Research is clear that staff turnover is counterproductive to staff stability, and hence negatively affects health outcomes (Hickey et al., 2005). Staff turnover reduces the quality of healthcare (Bar-Zeev, Kruske, Barclay, Bar-Zeev & Kildea, 2013; Bar-Zeev, Barclay, Kruske & Kildea, 2013), and is consistent with strong anecdotal evidence that the effectiveness of primary health clinics is reduced (Wakerman et al., 2012). While FIFO models of delivery in nursing are becoming common practice (Morris, 2012) in response to recruitment shortages and low retention

rates of nurses (Hart, Morris, Collins, McMullen & Stanis, 2013), this has a deleterious effect on the permanent staff, who often have to increase their workloads. Further, Hart et al. (2013) expressed the view that communities and patients are ambivalent or reluctant to fully engage with FIFO nurses, as they see these nurses as not demonstrating professional and social commitment to the community.

The aforementioned issues and concerns also negatively affect remote nurses' 'professional and intrinsic issues', which include:

- professional isolation (Hanna, 2001; Williams, 2012);
- lack of training and education opportunities (Bell, Daly & Chang, 1997; Lenthall et al., 2009);
- lack of senior managerial career advancement opportunities;
- changing generational emphases on different career expectations, with greater emphasis in younger generations on work flexibility, work–life balance and lifestyle (Humphreys et al., 2009); and
- a perceived lack of support and understanding by senior management, who are often located in metropolitan areas (Misener et al., 2008; Warburton, Moore, Clune & Hodgkin, 2014).

## **2.19 Summary of Chapter**

This chapter has built upon Chapter 1 to identify and discuss important features of the field of study, including who and what characterise the field, and how and in what manner the field operates for remote nurses delivering mental healthcare. Having examined the field, the next chapter reviews previous literature published on the case study.

## **Chapter 3: Review of Literature**

### **3.1 Introduction**

This chapter outlines previous literature that relates to the field of study. The purpose of reviewing the literature was to ascertain what had been published in relation to the case study. The result was that very little has been published in relation to nurses delivering mental healthcare in remote Australia. This suggests a gap in the literature concerning this study's research aim.

#### **3.1.1 Article**

Embedded in this chapter is a journal article currently under final review with the *Australian Journal of Rural Health*. The article outlines in detail the search strategy of the literature review, the manner in which the search results were examined and the results. The researcher was the lead writer of the article and was assisted by two experienced supervisors. Under the International Committee of Medical Journal Editors (ICMJE) guidelines, the researcher acknowledges contributions to authorship as set out in Table 3.1.



Table 3.1

*Contributions to Authorship (ICMJE)*

Author	Contribution
Scott Trueman (the researcher)	The major contribution for the conception and design of the article, and the acquisition, analysis and interpretation of the data contained in the article.
Professor Jane Mills (principal supervisor)	Revising the article critically for important intellectual content with some editing. Final approval for the version to be published.
Dr. Tanya Park (supervisor)	Revising the article critically for important intellectual content with some editing. Final approval for the version to be published.

**3.1.2 Declaration by co-authors**

The undersigned hereby certify that:

- The above declaration correctly reflects the extent of the candidate's contribution to the work and the extent of contribution of each co-author;
- They meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least part of the publication in their field of expertise;
- They take public responsibility for their part of the publication, except for the responsible author, who accepts overall responsibility for the publication;
- There are no other authors of the publication according to these criteria;
- Potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

- The original data are stored at the following location and will be held for at least five years from the date indicated below:

Location: College of Healthcare Sciences, Cairns Campus, James Cook University.

Candidate signature

Date 4<sup>th</sup> March 2016

Signature 1

Date 4<sup>th</sup> March 2016

Signature 2

Date 4<sup>th</sup> March 2016

## **3.2 Article: Australian Rural And Remote Generalist Nurses Caring for Mental Health Clients: An Integrative Review**

### **3.2.1 Keywords**

Generalist nurses, mental health clients, rural and remote, Australia, mental health education.

### **3.2.2 Introduction**

The demand for mental healthcare in Australia is enormous. Estimates suggest that 7.3 million Australians (45% of the population) will experience a mental disorder during their lifetime (Australian Bureau of Statistics, 2007). Each year, 20% of the population (equating to 3 million Australians) will experience symptoms of a mental disorder (Department of Health and Ageing, 2009). These same percentages apply to the 2,047,432 Australians living in rural areas and the 525,020 people living in remote areas of Australia. Accordingly, some 514,409 mental health episodes in rural and remote Australia must be managed by a nursing workforce of only 30,340 (AIHW, 2011c). Despite the generality of the statement that the vast majority of people with a mental health issue will consult, and are managed by a GP (Department of Health and Ageing, 2009), this is not true in rural and remote communities. Apart from nurses, the ratio of health professionals relative to population diminishes in communities the farther away from major cities they are located. Hence in 'remote' areas, the GP to population ratio only slightly exceeds half of that in cities, and is less than one-fifth for medical specialists. The consequences of this lack of medical presence is borne by the nursing profession, which ensures their indispensability in providing mental health services in rural and remote Australia (Aoun & Johnson, 2002).

The paucity of nurses is highlighted starkly by using the figures above that show there are 16.9 rural and remote mental health presentations per year, per nurse.

Australia's rural and remote health profile is compounded by four truths: the total burden of disease increases with remoteness from major urban centres (Al-Motlaq, Mills, Birks & Francis, 2010); the health of people living in rural and remote areas of Australia is poorer than that of people living in metropolitan areas (Strong, Trickett, Titulaer & Bhatia, 1998); physical illness increases the risk of psychiatric disorder (De Hert, Cohen, Obes, Cetkovich-Bakmas, Leucht, Ndeti, . . . Correll, 2011; Clarke, 1998); and people with a psychiatric disorder are more likely to have physical health problems requiring access to public health facilities (Koranyi & Potoczny, 1992; Lawrence, Holman & Jablensky, 2001). In rural and remote Australia these physical health problems are often treated in a primary healthcare centre staffed by generalist nurses. These four factors add to the burden on rural and remote nurses caring for mental health clients.

### **3.2.3 Aims**

The aim of this integrative review is to identify and discuss the published research literature relating to rural and remote generalist nurses caring for mental health clients. The specific questions asked were:

1. What is known about the attitudes and experiences of generalist nurses caring for mental health clients in rural and remote locations?
2. What is known about the training given to rural and remote generalist nurses to support them in caring for mental health clients?

### **3.2.4 Methods**

Integrative review was the methodology chosen as it allowed for a comprehensive review of literature, with a wide range of methodological designs (Whittemore & Knafl, 2005), enabling a deeper and greater understanding of the topic (Schneider, Whitehead, Elliot, LoBiondo-Wood & Haber, 2007). A systematic search strategy was employed to identify relevant research literature. Each retrieved study was critically appraised against recognised criteria to identify relevant and robust primary research. An assessment of the studies was made by reading, classifying, comparing, evaluating and summarising selected journal articles (Whittemore & Knafl, 2005). Relevant themes were identified through a thematic analysis of each study's findings (Braun & Clarke, 2006).

### **3.2.5 Search strategy**

Databases CINAHL (EBSCO), Scopus and PubMed were searched using the following criteria: English language and text published between 1990 and August 2013. Google Scholar was utilised to identify studies unavailable in the three databases to ensure a comprehensive and adequate search (Conn et al., 2003; Cooper, 1998; Whittemore & Knafl, 2005). The timeframe was chosen to reflect an increased interest in rural and remote nursing in Australia following the convening of the first specific rural and remote nursing conference in 1992 (Humphreys, Hegney, Lipscombe, Gregory & Chater, 2002). Upon conducting the searches it was found that, contrary to the authors' assumption, the rural and remote nursing conference in 1992 did not stimulate research and the subsequent production of literature in the specific area of mental healthcare by generalist nurses in rural and remote settings. Interest in the area was non-existent until 2000. This absence of literature might be explained by considering the history of mental healthcare in Australia.

‘Mainstreaming’ mental healthcare into the community and other primary healthcare settings became a priority of the Australian Government in the mid to late 1990s (Happell, 2007). This process was gradual and different states reformed their mental healthcare services at different paces. Search terms utilised for all databases were ‘rural’ AND ‘remote’ AND ‘nursing’ AND ‘mental health’ AND ‘training’. The search was limited to peer-reviewed journal articles. While the search was for articles relating to ‘generalist nurses’, as opposed to ‘mental health nurses’ (an exclusion criteria) a broad search strategy was employed at the initial stage using the term ‘nursing’. Any retrieved articles relating specifically to mental health nurses were excluded. The abstracts of 135 extracted journal articles were screened. Table 1 outlines terms and definitions used in this paper.

Table 3.2

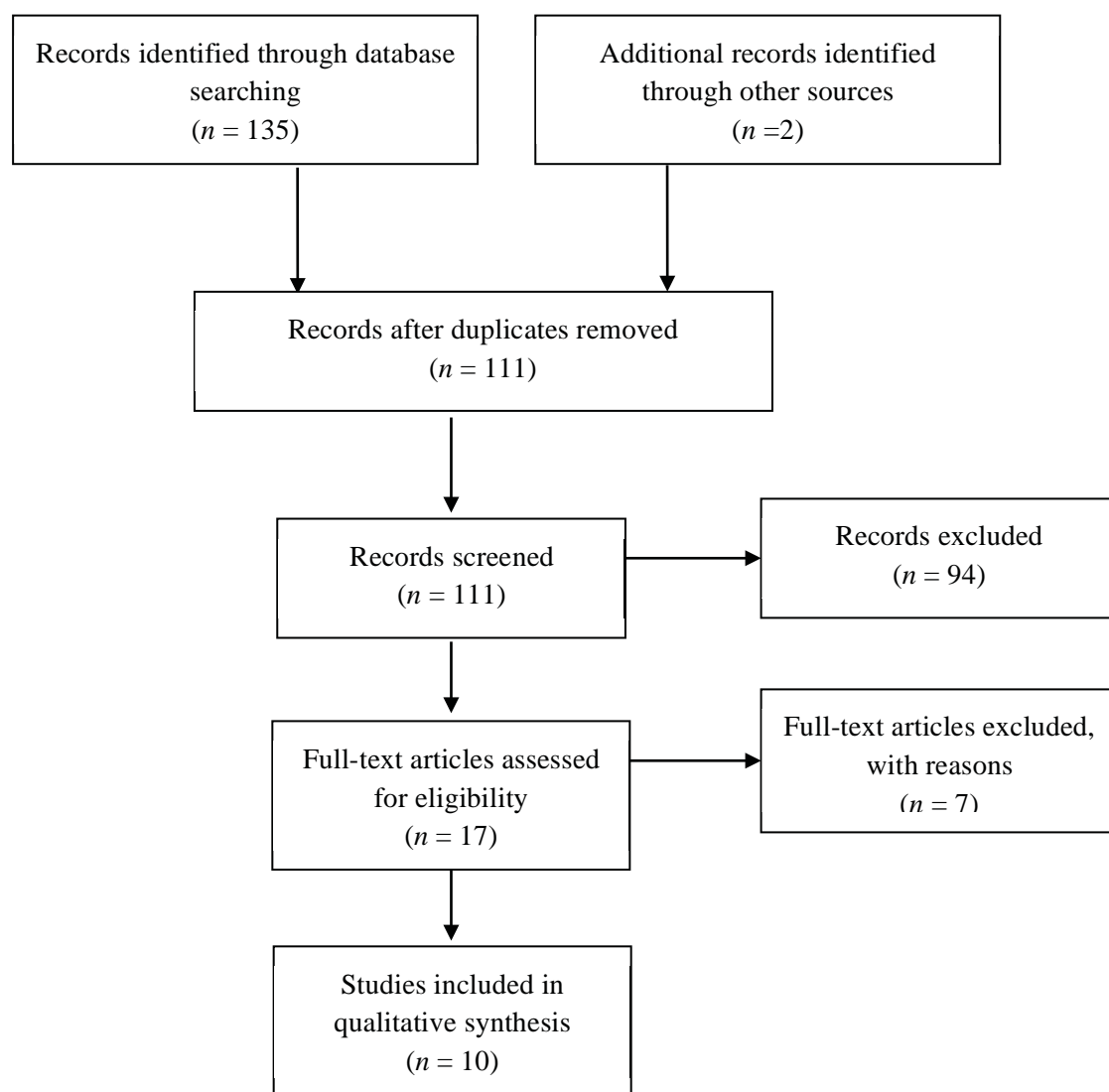
*Commonly Used Terms and Definitions*

Term	Definition
Generalist nurse	A registered or enrolled nurse who does not have a specialist nursing qualification in mental health nursing.
Generalist nursing	Nursing care and treatment in non-mental health settings.
Rural and remote	Accessibility/Remoteness Index of Australia Plus (ARIA+) is the standard Australian Bureau of Statistics-endorsed measure of remoteness. ARIA+ groups areas into five categories: major cities, inner regional, outer regional, remote and very remote (Commonwealth Department of Health and Aged Care, 2001). For the purposes of this paper, ‘rural’ equates to the ‘outer regional’ classification and ‘remote’ encompasses ‘remote’ and ‘very remote’.
Mental health client	Any person who has a mental health diagnosis or has experienced a mental behavioural disorder or illness and as a result required nursing care.

Retained articles were included if the abstract included one or more of the terms ‘rural’ and/or ‘remote’, ‘nurse/nursing/generalist nurse’ (but not mental health/psychiatric

nurse). The full manuscripts of retained articles were then screened to identify only those papers which referenced generalist nurses in an Australian rural and remote setting. This staged approach initially identified eight journal articles for inclusion in the integrative review. Two further articles were added through tracing, inspecting and analysing descendent citations of each of the eight second-stage screened articles. The culmination of the screening process harvested ten articles concerning generalist nurses in rural and remote Australia and mental health clients (see Table 2). The ten articles were appraised using the Critical Appraisal Skills Program (CASP) checklist, see Table 2 (Burls, 2009). The Preferred Reporting Items of Systematic Reviews and Meta-Analyses (PRISMA) flowchart (see Figure 3.1) diagrammatically illustrates the process and quantifies the number of articles at each stage. The flowchart is adapted from a previously designed flowchart for systematic reviews (Moher, Liberati, Tetzlaff & Altman, 2009).

Figure 3.1. Adapted PRISMA Flow Diagram. Source: Zmeyov, 1998; Moher et al., 2009.





### **3.2.6 Findings**

The articles were grouped into two broad themes according to their focus. The first theme related to studies concerned with exploring nurse's perceptions, opinions, beliefs and attitudes about their abilities and competencies when caring for and interacting with mental health clients. This theme included four papers. The second theme included six papers and related to the description and evaluation of mental health training (including alcohol abuse) and up-skilling workshops. Course content was assessed to measure any demonstrable benefit from the training intervention.

Table 3.3

*Studies Classified Using Critical Appraisal Skills Programme (CASP) Appraisal Tool for Qualitative Research (Source: Chur-Hansen, Todd & Koopowitz, 2004)*

	Q1. Aims	Q2. Methods	Q3. Designs	Q4. Sampling	Q5. Data Collection	Q5. Reflexivity	Q7. Ethics	Q8. Data Analysis	Q9. Findings	Q10. Value
Aoun and Johnson (2002)	√	√	√	√	√	Limited	No	√	√	√
Chang et al. (2002)	√	√	√	√	√	Limited	No	√	√	√
Chur-Hansen et al. (2004)	√	√	√	√	√	X	No	√	√	Limited
Clark et al. (2002)	√	√	√	√	√	Limited	√	√	√	√
Ellis and Philip (2010)	√	√	√	√	√	Limited	No	√	√	√
Jelinek et al. (2011)	√	√	√	Limited	√	√	√	√	√	√
Kennedy et al. (2013)	√	√	√	√	√	√	√	√	√	√
Mellor et al. (2012)	√	√	√	√	√	X	No	√	√	√
Reed and Fitzgerald (2005)	√	√	√	Limited	√	√	Limited	√	√	Limited
Slaven and Kisely (2002)	√	√	√	√	√	√	No	√	√	√

### 3.2.6.1 Theme 1: Nurses' perceptions and attitudes of caring for mental health clients

Table 3.4

*Summary of Studies (Alphabetically)*

Author (year)	Aim of Paper/Study	Sample Size	Research Design
Aoun and Johnson (2002)	Description and evaluation of a mental health educational program for rural and remote clinicians	( <i>n</i> = 32)	Post-test, follow-up evaluation (Questionnaire and open ended questions)
Chang et al. (2002)	To describe the development, implementation and evaluation of a continuing MH education program to effect change in the attitudes, knowledge and behaviour of R&R generalist nurses in assessing and managing MH clients	( <i>n</i> = 303) (202 in evaluation phase)	Post test evaluation (Questionnaire and content analysis to open ended answers)
Chur-Hansen et al. (2013)	Description and evaluation of a mental health workshop for rural and remote practitioners	( <i>n</i> = 39)	Pre and post evaluation (Questionnaire)
Clark et al. (2002)	To explore generalist nurses' perceptions regarding their therapeutic commitment, role competency and role support	( <i>n</i> = 163)	Exploratory quantitative study (Validated questionnaire)
Ellis and Philip (2010)	Description and evaluation of a mental health emergency training course to rural and remote generalist staff	( <i>n</i> = 456) (44 in the interview phase)	Pre, post and follow-up evaluation Questionnaires interviews
Jelinek et al. (2011)	To explore perceived differences in ED clinicians in rural and remote and urban locations in the management of MH clients.	( <i>n</i> = 16) (3 in rural and remote)	Descriptive exploratory study, using semi-structured interviews.
Kennedy et al. (2013)	Description and evaluation of an Alcohol Misuse workshop for rural nurses	( <i>n</i> = 15)	Purpose-designed, semi-structured interviews

Mellor et al. (2012)	Description and evaluation of an Alcohol Misuse workshop for rural nurses	( <i>n</i> = 32)	Experimental design. (Questionnaires pre, post and follow-up reporting; comparison between control and intervention groups)
Reed and Fitzgerald (2005)	To explore the attitudes & perceptions of o the issues that affect R&R generalist nurses in caring for MH clients	( <i>n</i> = 10)	Qualitative descriptive study (semi-structured interviews)
Slaven and Kisely (2002)	To explore barriers to the effective management of deliberate self-harm clients	( <i>n</i> = 25)	Qualitative descriptive study (semi-structured interviews)

MH: Mental health. R&R: Remote and rural.

The first theme has five sub-themes: a lack of confidence in ability, perceived lack of knowledge, negative attitudes, limited resources and support, and the need for mental health education.

#### 3.2.6.1.1 Abilities

Clark, Parker and Gould (2005) found that only 11.7% of participants reported knowing how to treat people with a mental illness and 71.2% did not know how to appropriately advise a mental health client. This was echoed by Reed and Fitzgerald (2005) who reported that the majority of interviewed nurses expressed a very limited ability to care for mental health clients. Regarding Deliberate Self Harm (DSH) clients, Slaven and Kisely (2002) found that 61.5% of nurses reported a lack of confidence and consequently avoided or were uncomfortable caring for DSH clients. Jelinek, Weiland, Mackinlay, Hill and Gerdtz (2011) did not canvass this theme.

### 3.2.6.1.2 Knowledge

Clark et al. (2005) reported only 19% of nurses agreed they had the necessary skills with which to work and 17.1% said they had the necessary skills to assess and identify clients with a mental illness. In the same article a majority (56.4%) of nurses reported not knowing how to treat a mental health client in a crisis. Likewise Reed and Fitzgerald (2005) reported nurses 'professed to a limited knowledge of mental illness and heavy reliance on personal and nursing experience to guide care' (Reed & Fitzgerald, 2005). In Slaven and Kisely's (2002) study, 46.5% of nurses reported a lack of knowledge and hence had difficulties determining the genuineness of threats of DSH and suicide when undertaking a risk assessment. Jelinek et al. (2011) reported some limited verbatim comments from interviews which highlighted the belief by rural nurses that they lacked knowledge in mental health nursing and, particularly, lacked the necessary skills.

### 3.2.6.1.3 Attitudes

Clark et al. (2005) explored this domain in the greatest depth of the four studies that were focused on nurses' experiences and perceptions of caring for people with a mental illness or issue. Clark et al. (2005) found that over a third of nurses (38.7%) did not want to work with mental health clients and just over a third of nurses were ambivalent (34.4%). Further, half (50.5%) reported feeling uncomfortable and 57% found difficulty in caring for mental health clients, yet the vast majority (88.4%) of participants believed that caring for clients with a mental illness was an important component of a rural generalist nurse's role. Reed and Fitzgerald (2005) also obtained a 50% negative response rate to nurse attitudes concerning mental health clients. 'Some ... stated they disliked caring for people with mental health problems and would not do so if they had a choice' (Reed & Fitzgerald,

2005) and that, '[N]egative experiences revealed ... nurses felt that people with mental health problems did not appreciate their care and were likely to be uncooperative and resistive (sic), reacting in a manner that caused management problems' (Reed & Fitzgerald, 2005). These negative themes are mirrored in comments reported by Slaven and Kisely (2002) that nurses admitted professional difficulties in dealing with DSH behaviour '[w]hat they have done goes against our values ... [T]hese people do it to themselves so it really goes against what we believe in' (2002). Jelinek et al. (2011) did not report findings against this theme.

#### 3.2.6.1.4 Resources and support

The gist of the findings of Clark et al. (2005) is that the majority of nurses felt they did not have adequate support and resources to care for mental health clients. Many nurses (42.3%) felt they could not easily find someone to help them with difficulties, 43.6% felt they could not easily find someone to assist in the most appropriate way to provide care and only 22.1% reported receiving adequate support from other agencies. On this topic Reed and Fitzgerald (2005) found a number of concerns related to environmental issues such as buildings and fittings not designed to care for such a population, and insufficient levels of workplace security and support such as 'being unable to access appropriate help when needed' (Reed & Fitzgerald, 2005), particularly after hours. Nurses also reported concerns about high client/staff ratios and a lack of available psychiatric beds on referral. Greater than three-quarters (76.9%) of the nurses in the study by Slaven and Kisely (2002) reported that they had received little information from GPs about DSH clients' levels of risk, clinical management or follow-up on admission to hospital. The lack of resources and support for rural nurses was a strong theme highlighted in interviews in the study by

Jelinek et al. (2011) study, with one participant stating ‘it all comes down to resources’ (2011).

### 3.2.6.1.5 Need for education and training

The sub-theme of needing education and training resonated most profoundly in the four articles. More than half (55.2%) of the respondents reported in Clark et al.’s (2005) study said they had received little or no mental health training and ‘results indicate[d] that respondents had not received adequate education or training regarding the management and care of patients with mental illness’ (Clark et al., 2005). Reed and Fitzgerald (2005) reported that nurses ‘believed that their lack of knowledge and fear of saying the wrong thing resulted in people in rural communities receiving limited mental healthcare from nurses working in the general hospital’ (Reed & Fitzgerald, 2005). Research demonstrated that the provision of education could be effective when it was provided in an on-going manner. Jelinek et al. (2011) reported this theme being raised by rural nurses, with one participant stating ‘we have no real training for mental health or no real understanding how to look after them’ (2011). Sombrey, Slaven and Kisely (2002) state that ‘[F]or nurses, further training and support (is) indicated’ (2002).

### ***3.2.6.2 Theme 2: Generalist nurse’s mental health up-skilling and workshops***

The second category identified five sub-themes in accordance with the approach of Brunero, Jeon and Foster (2012): using the headings content/subject, frequency/length, status of trainer, pedagogy and mode of delivery and training evaluations and effectiveness.

### 3.2.6.2.1 Course content and subject matter

Research reports of generalist nurse mental health up-skilling courses described some content without adopting traditional psychiatric descriptors. Aoun and Johnson (2002) described some topics as ‘social context of mental health’ and ‘intervening in selective maladaptive behaviours’ while Chang et al. (2002) referred to ‘management of individuals experiencing stressful life events’, ‘experiencing disturbances with reality’ and ‘experiencing multiple mental health concerns’. Traditional mental health descriptors were evident in course content concerned with mental state examination, suicide risk assessment, aggression and violence management and management of mental health presentations. This is not surprising as these descriptors represent some of the ‘core’ practical mental health skills required to manage mental health clients in any environment. There was also a strong focus on teaching the assessment of mental health clients, whether for mental state, or risk of alcohol related issues (Chang et al., 2002). Two of the articles (Kennedy et al., 2013; Mellor et al., 2012) reported findings from the same educational course concerning alcohol misuse. Both articles provided a comprehensive and detailed description of course content, reflective of the focus being alcohol-related as opposed to the more generic ‘mental health’. Only one article (Ellis & Philip, 2010) specifically mentioned substance misuse. This does not necessarily mean that substance use disorders were not part of mental health training, even though they were not specifically mentioned (Aoun & Johnson, 2002; Chang et al., 2002).

### 3.2.6.2.2 Length and placement of courses

All courses except that reported by Aoun and Johnson (2002) were delivered over one ( $n = 3$ ) or two days ( $n = 3$ ). Aoun and Johnson (2002) was the only course describing



residential and clinical placement components. It is not clear whether the components required consecutive days of attendance as ‘overall, the program was of 15 weeks’ duration’ (Aoun & Johnson, 2002). Again, except Aoun and Johnson (2002) all courses were held regionally or by distance education. This may be explained by the difficulty of staff having time away from small rural and remote health centres and the associated difficulty in ‘back filling’ absences due to limited staff numbers. The authors feel comfortable in suggesting that another reason for regional workshops is the vast distances involved and scattered nature of the participants mandating this as the only logistically viable approach.

#### 3.2.6.2.3 Status of instructors/facilitators

It is difficult to ascertain whether mental health nurses were the predominate facilitators in the non-alcohol related training. The multiple specialties of the facilitators in Chur-Hansen et al. (2004) combined with the total absence of nurse facilitators, could be explained by the inclusion of rural and remote GPs, being funded predominantly by medical specialist organisations and the content targeted to psychiatry (as opposed to mental health). This assertion is further corroborated in the content being medically-focused as opposed to nursing intervention-focused. Aoun and Johnson (2002) referred to ‘tutors with extensive mental health experience’, Chang et al. (2002) ‘staff’ and Ellis and Philip (2010) referred to ‘local mental health staff’. The two alcohol-related articles (Kennedy et al., 2013; Mellor et al., 2012) identified nurses who were specifically-trained in the treatment and management of alcohol misuse.

### 3.2.6.2.4 Pedagogy and mode of delivery

The predominate pedagogical approach was embedded within adult learning principles due to the participants' ages, maturity, level of experience and training (Fidishun, 2002; Zmeyov, 1998). Adult learning principles recognise that adult voluntary participants were goal-oriented and 'experience[d] a need to learn in order to cope more satisfyingly with real-life tasks or problems' (Knowles, 1970). Accordingly, a full suite of educational techniques were utilised (see Table 3.5).

Table 3.5

#### *Comparative Pedagogical Approaches (Alphabetical Order)*

Aoun and Johnson (2002)	clinical placements, tutoring, formal assessment, tele-tutorials, discussion groups.
Chang et al. (2002)	didactic learning, individual and group exercise, written & reading materials, audio materials, video presentation.
Chur-Hansen et al. (2004)	written materials, didactic learning, discussions groups, hypothetical problem solving.
Ellis and Philip (2010)	case studies, role plays.
Kennedy et al. (2013)	didactic learning (lectures), power-point presentations, practical sessions, visual/observational sessions, role-playing case scenarios, case studies, written materials.
Mellor et al. (2012)	as per Kennedy et al. (2013) above

Note: Kennedy et al. (2013) and Mellor et al. (2012) refer to the same course.

### 3.2.6.2.5 Training evaluations and effectiveness

The studies reported their evaluation results by a variety of means and level of comprehensiveness. Aoun and Johnson (2002) found a significant positive impact on the knowledge and awareness of participants in dealing with mental health clients and issues. 40.7% of participants rated their knowledge as either 'poor' or 'very poor' before the program compared with 100% identifying they had 'moderate' to 'very good' knowledge after the program's completion. Prior to the course more than one-third (37%) indicated that, they had 'poor' to 'very poor' understanding, although no participants gave such a rating after the program. The evaluation reporting the effectiveness in Chang et al. (2002) of the programs in developing knowledge, understanding, practice skills and awareness of resources for managing mental health presentations was high. The majority (91%) of the participants stated that the program content assisted them 'strongly' in developing their knowledge and understanding of mental health and psychiatric problems in rural and remote settings (p. 548).

The evaluation in Chur-Hansen et al. (2004) was both quantitative and qualitative. As part of the quantitative there was a significant increase in the participant's mental health knowledge demonstrated by pre-workshop testing (13.7 correct items) compared to post-workshop (14.4) ( $z = -2.3, p < 0.05$ ). Ellis and Philip (2010) also undertook a mixed methods evaluation, and similarly found a reported increase in participants' mental health knowledge. 'Nearly all interview participants said they had changed their clinical practice ... [and generally] ... felt better able to assess mental health clients... Almost all interview participants felt they had changed their attitude towards mental health clients as a result of the course. Many recognised that they had been stereotyping and stigmatising clients'

(p. 5). In Kennedy et al. (2013) 'all [the] participants reported the training either added to their knowledge or refreshed existing knowledge which produced an improved sense of competence and knowledge' (p. 335). The evaluation of a primary objective of the training namely, increasing the confidence in raising the topic of alcohol misuse with farm men and women, was achieved.

The outcomes of the evaluation in Mellor et al. (2012) were mixed. Results showed that training had no impact on the intervention group's mean score in perceived barriers, but the control group's reduction at the post-training assessment was maintained at three-month follow-up. However, there was an immediate positive impact (positive attitudes to working with people with alcohol problems) for the intervention group, but unexpectedly, both groups developed negative attitudes towards working with such clients by the 3-month follow-up. There was however a significant increase for the intervention nurses (greater than the controlled group) in the self-reported performance with clients with an alcohol problem. Lastly, over the course of the study the intervention group exhibited a significant increase concerning the frequency of engagement, while the control group exhibited no change from base line.

### **3.2.7 Discussion**

This literature review, in seeking to synthesise studies that examined the attitudes, perceptions and mental health training offered to rural and remote nurses, paints a relatively bleak picture of research findings. The four articles related to attitudes and perceptions have limited generalisability; Reed and Fitzgerald's (2005) study was confined to two wards of a hospital and both Slaven and Kisely (2002) and Clark et al. (2005), while regional, were confined to a single Australian state. Participant numbers varied greatly

with the smallest  $n = 10$  (Reed & Fitzgerald, 2005) and the largest  $n = 163$  (Clark et al., 2005). Slaven and Kisely (2002) had  $n = 25$  but, of this number, only  $n = 13$  (55%) participants were nurses. Three of the studies related to 'mental health' while Slaven and Kisely (2002) specifically researched the topic of alcohol misuse, which narrowed its relevance to this review. Slaven and Kisely (2002), Reed and Fitzgerald (2005) and Jelinek et al. (2011) were qualitative studies reporting their thematic analysis of participant interviews; it was only Clark et al. (2005) that utilised a validated questionnaire tool for data collection, enabling the reporting of statistical analysis (Analysis of Variance [ANOVA], un-paired  $t$ -tests, SDs, means,  $p$ -values and Spearman's rho correlation coefficients) across three domains of enquiry (therapeutic commitment, role competency and role support). Jelinek et al. (2011) is very limited as it only has three nurses out of  $n = 16$  who are in rural and regional settings and is therefore included on the basis of completeness. Interestingly, while of marginal benefit to this review, the findings mirror many of the other paper's findings. Slaven and Kisely (2002) is also of limited value due to its small nursing participant numbers and focused subject matter. Clark et al. (2005) through the use of a questionnaire tool, reports extensive and in-depth statistical responses and relationships combined with the greatest number of participants making it the most useful and reliable source of evidence concerning the topic of interest.

Generally, rural and remote nurses preferred not to treat or care for mental health clients and felt unsure of their skills irrespective of their years of nursing experience. Nurses often prioritised the physical needs of clients ahead of mental healthcare (Gillette, Bucknell & Meegan, 1996; Fleming & Szmukler, 1992). Rural and remote healthcare practice is largely generalist in nature (Bushy, 2002; Francis & Mills, 2011; Henwood,

Eley, Parker, Tuckett & Hegney, 2009) which creates challenges and the need for a diverse knowledge and skill set (Weymouth et al., 2007; Cramer, 2006). While nurses working in rural and remote settings reported feeling isolated and insufficiently-resourced to care for people with mental health needs, this feeling was not confined or unique to rural and remote nurses; generalist nurses caring for mental clients irrespective of location reported similar feelings (Bailey, 1998; Haddad et al., 2005; Lethoba, Netswera & Rankhumise, 2006; Mavundla, 2000; Reed & Fitzgerald, 2005). Findings from this literature review, and from studies in other settings (Bailey, 1998; Brinn, 2000; Fleming & Szmukler, 1992; Gillette et al., 1996; Muirhead & Tilley, 1995; Sharrock & Happell, 2002; Wand & Happell, 2001), indicate that generalist nurses perceive themselves as lacking knowledge, skills and confidence to competently assess and manage mental health clients. Wynaden, O'Connell, McGowan and Popescu (2000) whose study involved 241 nurses from 43 health services in Western Australia reported a lack of confidence in caring for a person with mental illness (58%), while 62% of respondents felt they did not have adequate and relevant knowledge and skills. This perception of being under-qualified to care for clients with a mental illness results in reduced work satisfaction for nurses and leads them to question their 'role(s)' (Owen, Tennant, Jessie, Jones & Rutherford, 1999).

In the literature included in this integrative review, rural and remote nurses consistently asked for more training and up-skilling to address their self-reported lack of knowledge and skill in mental health nursing. Clark et al. (2005), citing Shaw, Cartwright, Spratley and Harwin (1978), linked the lack of knowledge to other negative feelings and anxieties about role adequacy and role support which in turn causes role insecurity or low levels of therapeutic commitment: a vicious compounding cycle of negativity. This

argument is also consistent with generalist nurses in an urban setting (Bailey, 1998; Brady, 1976; Brinn, 2000). Reed and Fitzgerald (2005) advance the same theme, linking a lack of knowledge and negative feelings to stereotypical negative responses as identified by Rogers and Kashima (1998), who assert that education is an antidote to these nursing behaviours, whereby education enables the nurse to cease 'inhibit[ing] automatic [negative] responses' (Rogers & Kashima, 1998). Not surprisingly Reed and Fitzgerald (2005) advocate for mental health education for rural and remote nurses, as do Slaven and Kisely (2002) in relation to DSH. The question that arises then from this literature review is 'are nurses in rural and remote locations being offered training, and is this training making a difference to the mental healthcare they provide?'

The level of discussion in the six papers reporting the provision of education and training varied greatly concerning the justification of content and means of evaluating the courses. All studies relied on a pre and post-test methodology except for Kennedy et al. (2013), which employed a follow-up qualitative interview (at two months), and Aoun and Johnson (2002) which undertook no pre-course testing resulting in baseline being at completion of the course. Most researchers based the course evaluation on a Likert scale or a variation thereof and again, justification, discussion and limitations were not expansively canvassed. Ellis and Philip (2010) undertook a pre and post-evaluation questionnaire with no discussion concerning design, which limits its value. While the evaluation results of both the quantitative and qualitative phases were significantly positive, there was a very significant level of sample attrition between pre ( $n = 456$ ) and post ( $n = 163$ ) without any explanation/ or discussion concerning possible bias. Dependability of the findings was strengthened with 44 follow-up interviews, which is a significant sample size for the

qualitative component of a mixed methods design. A number of limitations remained however, namely that verbatim transcripts of interviews were not analysed; there was limited explanation of the process of thematic analysis used; limited discussion of the qualitative data findings; and no differentiation between professions in the findings.

Chur-Hansen et al. (2004) used a pre and post-evaluation questionnaire tool with no discussion concerning validation. The results of all questions are not reported although mean scores are provided for correct answers using *z scores* and *p values* and are significantly positive. The post-course satisfaction questionnaire is reported using mean scores and again, positive improvements are rated highly, but not according to profession, which limits the paper's usefulness for nursing. No limitations or bias were identified. The qualitative phase does not outline the methods of data analysis; verbatim transcripts were not utilised; and themes arising from the interviews were not clearly identified. The overall results have limited generalisability (Chur-Hansen et al., 2004) as they relate to one training course in one state.

In Aoun and Johnson (2002) there was also no pre-course testing, resulting in baseline at completion of course and then follow-up at four months. Questionnaires containing both Likert scales and open-ended response questions, related solely to assessing the training, were utilised at both stages of data collection. The follow-up questionnaire contained Likert scales to assess levels of knowledge and practice and some opened questions rating impact of training on clinical practice and support from management. The first questionnaire response rate was good at 87%; there was a good spread of participants from across the state but the results were not reported using a breakdown of the professions of attendees. Results were descriptive in reporting the



positive change strongly in all responses at benchmark and follow-up; there was no explanation as to how, or if, the open-ended answers were analysed with only a short discussion.

Chang et al. (2002) is the only article that details the research and development of course content utilising a pre-course 'needs analysis' questionnaire, focus groups and explanation of why topics were included. There were 303 nursing participants who undertook the course with 67% ( $n = 202$ ) evaluating the training. While training was delivered regionally within only one state and recruitment was uneven (90% rural; 10% remote) results were summarised by region. The results were consistently positive across all regions. Evaluation of the effectiveness of the course was undertaken using a validated questionnaire mailed out to participants with a good response rate ( $n = 303/202$ ; 67%). An independent consultant was engaged to ensure impartiality and reduce bias. The results were statistically significantly positive. The majority of open-ended answers were positive with a strong theme reported of bias towards training on the practical application of skills as opposed to theory.

Both Mellor et al. (2012) and Kennedy et al. (2013) reported on evaluations related to the same course. Mellor et al. (2012) reported that voluntary nursing participants from two states were randomised and checked to reduce cross-contamination. Data collection was undertaken using a Likert scale-based questionnaire. There are results from pre, post and three-month follow-up questionnaires. Each of the tools were checked for internal validity and test-retest reliability and Cronbach's Alpha. Mellor et al. (2012) undertakes the most extensive quantitative analysis in using SPSS to conduct separate repeated measure multivariate analysis of variance (MANOVA) tests. These calculations quantify

the following factors at the three testing points: interactions between time and participant group for perceived barriers and attitudes; and perceived performance and frequency of engagement with clients across two points (pre- and follow-up). Paired comparisons were then used to examine effects between time and group. Limitations of the study were outlined with the acknowledgment that there were only 32 participants and that a larger randomised control study (RCT) is needed. In the qualitative study by Kennedy et al. (2013) 15 nurses were interviewed by telephone two months after completing the course. One trained interviewer was engaged, transcripts were checked and rechecked for accuracy, an interpretative phenomenological analysis was adopted and data analysis was undertaken separately and as a group by three very experienced researchers. Eight themes were identified from the interviews were discussed in detail. These themes included usefulness/positive; not-useful/negative elements of the course, discussion concerning barriers in using the content and suggestions to modify the course. Kennedy et al. (2013) concluded the article with an extensive and thorough discussion about the course and its evaluation, including limitations of both of these features and recommendations for future directions of alcohol misuse training for rural and remote nurses.

### **3.2.8 Conclusion**

Rural and remote mental health clients rely heavily on generalist nurses for care. Research into the issue of generalist nurses caring for mental health clients in rural and remote settings is a developing field in which there is negligible literature published before 2000. This integrative review of the literature has found that many rural and remote nurses believe they do not have the necessary skills, competencies, resources and support to provide adequate care to mental health clients—a phenomenon that is not contained to

generalist nurses in rural and remote settings, but is noted in many locations. This article illustrates that there are benefits for nurses in undertaking more training; the nurses themselves clearly articulate the course content and manner of delivery that is most beneficial to their needs in the qualitative results reported in the various studies. Nurses see education and training as a key to addressing some of the issues of improving the quality of mental healthcare in rural and remote settings. Mental healthcare capacity can be built among generalist nurses in rural and remote settings by improving remote and distance mental health education and up-skilling. Rigorously-conducted and comprehensively-reported research will allow educators to make a better case for the type and extent of education needed.

### **3.2.9 Disclosure**

The authors report no conflicts of interest.

## Chapter 4: The Case and Methodology

### 4.1 Introduction

This study seeks to interpret and understand the phenomena of the social world constructed by Australian remote generalist nurses providing mental healthcare. The study utilises an interpretive case study design. This chapter presents a general discussion of the philosophical underpinnings of qualitative research, before examining interpretive case study design in more detail. The philosophical underpinnings of the research concern the concepts of *epistemology*, *axiology*, *rhetorical structure*, *ontology* and *methodology* (Creswell, 1998; Denzin & Lincoln, 2000; Guba & Lincoln, 1994; Ponterotto, 2002). As a methodological approach, the principles of interpretive case study are defined, described and justified in relation to their use in present research. Following this, an overview of the study framework and the role of the researcher is outlined. The chapter concludes with a discussion on criticisms, and acknowledges some potential limitations of case study research.

### 4.2 Philosophical Underpinnings

#### 4.2.1 Epistemology

The word ‘epistemology’ derives from the Greek *epistēmē*, meaning ‘knowledge, understanding’, while *logos* translates to ‘study of’. Accordingly, epistemology is a branch of philosophy concerned with the nature and scope of knowledge. Epistemology questions what knowledge is, and the extent to which knowledge pertinent to any given subject or entity can be acquired. Positivist epistemology asserts that only ‘facts’ derived from the scientific method can make legitimate knowledge claims. This approach suggests that by following rigorous, standard procedures, a researcher can study the participant and topic

without bias (*objectivism*). Conversely, interpretivists advocate a *subjectivist* stance that argues that reality is socially constructed. An interpretivist researcher captures and describes the ‘lived experience’ (*erlebnis*) of the participant within the social context of the research topic. This makes the resulting understanding more personal and subject to the interpretation of the observer (Andrade, 2009; Koch, 1995; Mertens, 2005; Wu & Chen, 2005). In this study, the researcher has adopted an interpretive lens.

The distinction between positivism and interpretivism should not be described as dichotomous, or one of polar opposites; this is a somewhat artificial and simplistic view when it comes to real research. There are a number of other ‘-isms’ that fall on the spectrum between the two: empiricism, realism, relativism, social constructionism, idealism and postmodernism. In any event, it is a false dichotomy concerning the nature of social reality (Kura, 2012). For example, to understand and to capture the diversity and complexity of remote generalist nurses delivering mental healthcare, many sources of data might be accessed from both quantitative and qualitative sources. Different types of data have complementary uses in the study. Hence, in Chapter 2, much emphasis was placed on statistically examining the data concerning the background to the study.

#### **4.2.2 Axiology**

The word ‘axiology’ derives from Greek *axiā*, which translates to ‘value, worth’. Accordingly, axiology concerns the role of a researcher’s values in the scientific process. Positivists eliminate any place for values in the research process, and hence a researcher’s ‘values, hopes, expectations, and feelings have no place in scientific inquiry’ (Ponterotto, 2005, p. 131). Interpretivists argue that a researcher’s values and lived experience (*erlebnis*) are inextricably entwined in the research process. They acknowledge, describe

and sometimes ‘bracket’ their values, but do not expect to eliminate them. In adopting an interpretivist approach, the researcher in the present study embraced the notion that his ability to know is affected by his perceptions and values. In response, the researcher kept a reflexive journal throughout the study, to minimise any distortion on the research caused by his own values.

#### **4.2.3 Rhetoric**

The language employed to present a piece of research to an intended audience is called rhetoric, and is directly influenced by a researcher’s epistemological and axiological position. Detachment, objectivity and emotional neutrality in a research role are central to the positivist approach. Positivists use rhetoric to present their results and findings as precise, objective and ‘scientific’. Conversely, an interpretivist adopts a more subjective approach that acknowledges the interactive involvement of a researcher: ‘The researcher’s own experience, expectations, biases, and values are detailed comprehensively’ (Ponterotto, 2005, p. 132). A degree of subjective reporting is employed in this study concerning the experiences of the research process, the researcher’s own ‘life’ experiences (e.g., working remotely for approximately nine years in various clinical and managerial positions), and the researcher’s emotional and intellectual life (Ponterotto, 2005).

#### **4.2.4 Ontology**

The word ‘ontology’ derives from the Greek *onto* (meaning ‘being’). It concerns the nature of reality (Hudson & Ozanne, 1988) and is a branch of metaphysics, the study of first principles and the essence of things, or what kinds of things exist. Ponterotto (2005) posited that the central question of ontological enquiry is: ‘What is the form and nature of reality and what can be known about that reality?’ (p. 130). Positivists assert a ‘realist’

stance regarding the nature of reality; they argue for the existence of a single, static, divisible and fragmentable reality. This enables a phenomenon to be removed from its natural contextual or social setting and be legitimately studied in a controlled environment. Conversely, interpretivists assert that reality is intersubjectively constructed based on meanings and understandings on social and experiential levels (Bryman, 2001), and consists of multiple realities reflective of different individual and group perceptions, as opposed to one independent and objective reality. Context situates each behaviour or event and influences the meaning of the phenomenon; thus, reality is socially constructed, subjectively interpreted, and cannot be separated from its natural setting or studied in isolation. The goal of an interpretivist researcher is to understand and interpret human behaviour rather than to generalise and predict causes and effects. Thus, motives, meanings, reasons and other subjective experiences are situated in time and context, and can only be understood as such (Hudson & Ozanne, 1988).

#### **4.2.5 Methodology**

The word ‘methodology’ derives from the Greek word *methodologia*. Methodology refers to the processes and procedures adopted in undertaking the research, and is situated within the researcher’s stance concerning ontology, epistemology and axiology. Crotty (1998) stated that methodology is the ‘strategy, plan of action, process or design’ (p. 3) underlying the choice and use of particular research methods. Table 4.1 summarises the contrasts between the positivist and interpretivist lenses of enquiry across the domains of epistemology, axiology, rhetoric, ontology and methodology.

Table 4.1

*Comparison of Positivist and Interpretivist Paradigms (Adapted from Carson et al., 2001, p. 6)*

	Positivist	Interpretivist
<b>Epistemology</b>		
'Grounds' of knowledge, or the relationship between reality and research	Possible to obtain hard, secure, objective knowledge Focus on generalisation and abstraction Thought governed by hypotheses and stated theories	Understood through 'perceived' knowledge Focus on the specific and concrete Seeks to understand specific context
<b>Axiology</b>		
The role of the researcher's values	Eliminate from the research process	Acknowledge values cannot be eliminated Take steps to minimise values
<b>Rhetoric</b>		
Language adopted to present research findings	Precise, objective, scientific	Subjective
<b>Ontology</b>		
Nature of 'being' and the world	Direct access to real world	No direct access to real world
Reality	Single external reality	No single external reality

*(continued)*



### Methodology

Focus of research	Concentrates on description and explanation	Concentrates on understanding and interpretation
Role of the researcher	Detached, external observer	Researchers want to experience what they are studying
	Clear distinction between reason and feeling	Allow feeling and reason to govern actions
	Aim to discover external reality rather than creating the object of study	Partially create what is studied and the meaning of phenomena
	Strive to use rational, consistent, verbal, logical approach	Use of pre-understanding is important
	Seek to maintain clear distinction between facts and value judgments	Distinction between facts and value judgments less clear
	Distinction between science and personal experience	Accept influence from both science and personal experience
	Formalised statistical and mathematical methods predominant	Primarily non-quantitative

### 4.3 Theoretical Underpinnings

A paradigm is a 'set of interrelated assumptions about the social world which provides a philosophical and conceptual framework for the organised study of that world' (Filstead, 1979, p. 34). Chalmers (1982/1994) defined a paradigm as 'made up of the general theoretical assumptions and laws, and techniques for their application that the members of a particular scientific community adopt' (p. 90). Chalmers (1982/1994, p. 91) outlined five components that constitute paradigms:

1. Explicitly stated laws and theoretical assumptions;
2. Standard ways of applying the fundamental laws to a variety of situations;

3. Instrumentation and instrumental techniques that bring the laws of the paradigm to bear on the real world;
4. General metaphysical principles that guide work within the paradigm;
5. General methodological prescriptions about how to conduct work within the paradigm.

Paradigms guide a researcher in their philosophical assumptions about their research and in their selection of the tools, instruments, participants and methods used in the study (Denzin & Lincoln, 2000). Hence, a paradigm implies a pattern, structure, framework or system of scientific and academic ideas, values and assumptions (Olsen, Lodwick & Dunlap, 1992).

Researchers in the interpretivist paradigm believe that there are multiple realities (Hudson & Ozanne, 1988) and not one objective, universal reality. Interpretivists assert that ‘truth’ is a relative concept, dependent on the individual’s own social construction of reality (Searle, 1995) and ‘[recognise] the importance of the subjective human creation of meaning, but [do not] reject outright some notion of objectivity. Pluralism, not relativism, is stressed with focus on the circular dynamic tension of subject and object’ (Miller & Crabtree, 1999, p. 10).

With reference to Table 4.1, this study was conceptualised within an interpretive paradigm. ‘Interpretivism’ does not enjoy a uniformly agreed and settled meaning. Erickson (1986) used it as an umbrella term for ‘the whole family of approaches to participant observational research’ (p. 119). Denzin and Lincoln (2005) subsumed interpretivism under the paradigm of qualitative research. Schwandt (1998, 2000) made a distinction between ‘interpretivism’ and ‘constructivism’, claiming that they differ in their

epistemological assumptions and claims regarding methodology. Despite the existence of fine distinctions, the terms *anti-positivism*, *interpretivism*, *qualitative inquiry* and *naturalistic inquiry* have similar meanings, and are used interchangeably by most researchers; these approaches are probably best characterised as a set of ‘family resemblances’ (Wittgenstein, 1973). Each rejects the assumptions made by positivists regarding the nature of human beings and the ways of knowing about social phenomena (Haralambos, 1985). These varied means of framing interpretivism highlight a loose coalition of inquirers seemingly unified only in their general opposition to the earlier ‘foundationalist-empiricist-representationalist nexus of beliefs’ (Schwandt, 2000, p. 198).

Within qualitative research, there exist two popular approaches to case studies. One approach is situated in a social constructivist paradigm, as proposed by Stake (1995) and Merriam (2009), and the second is situated in post-positivism, as advocated by Yin (2012), Flyvbjerg (2011) and Eisenhardt (1989). The researcher used elements of both Yin’s and Stake’s approaches, which is acceptable, as neither are positivists (see Table 4.1). Both Yin’s and Stake’s positions have changed in their recent writings, and both have become far less rigid in their approaches (Stake, 2005, 2008; Yin, 2005): ‘Yin’s appreciation of the interpretive aspects of case study methodology is now more apparent, while Stake has acknowledged the value of case study in quantitative research’ (Brown, 2008, p. 7). This is consistent with the three types of case studies that Hyett, Kenny and Dickson-Swift (2014) identified from the 34 reviewed in their literature review of case study methodologies: ‘Case study research can be situated within different paradigms or designed with an array of methods ... in order to maintain ... creativity and flexibility’ (Hyett, Kenny & Dickson-Swift, 2014, p. 9).

While the researcher used aspects of both Yin's and Stake's approaches in designing the present case study, he made sure to clearly describe the chosen paradigm, theoretical position and methods, thereby maintaining rigour in the method. The researcher relied primarily on Stake's interpretive or social constructivist approach, but also included quantitative data in response to the 'how often' and 'how much' questions posed in Chapters 1 and 2.

#### **4.3.1 The researcher's position**

The researcher's beliefs relevant to the philosophical underpinnings of the research are that human beings are enabled with choice, free will and individualism. Human beings are active moral and social agents capable of monitoring their own behaviour, use speech to make comment concerning their actions, and logically and rationally plan their behaviour. They are not docile, passive, static and disconnected from their environments, but rather are purposeful, active and involved with life experiences (Cohen & Manion, 1994). Accordingly, human beings act, not merely behave. An action is considered to be more than a behaviour, as behaviour encompasses only the physical act (Erickson, 1986): 'Thus, to understand a particular social action the inquirer must grasp the meanings those constitute that action' (Schwandt, 2000, p. 191).

By adopting an interpretivist paradigm, the researcher viewed 'meanings' as constantly being created, changed, modified and developed by interactions (Spivey, 1997) throughout the study. The researcher's social reality is constructed locally and specifically through its context (Guba & Lincoln, 1994; Orlikowski & Baroudi, 1991). As an interpretative researcher, the researcher's social reality is based on his definition of it (Neuman, 1997), not on a concept of an objective external world. The researcher's

epistemological assumption is that the study's findings were created as it proceeded (Guba & Lincoln, 1994) by 'understanding how practices and meanings are formed and informed by the language and tacit norms shared by humans working towards some shared goal' (Orlikowski & Baroudi, 1991, p. 14).

An "interpretivist" paradigm stresses the need to situate analysis in context (Reeves & Hedberg, 2003). The researcher by adopting the interpretive paradigm was concerned with understanding both the world (of delivering remote mental healthcare) and the subjective experiences of individuals (remote generalist nurses). The researcher considered meaning (versus measurement) oriented methodologies, such as interviewing and participant observation; relying on a subjective relationship between the researcher and participants. Interpretive research has no predefined dependent and independent variables, but focuses on the full complexity of human sense making as the 'situation' emerges (Kaplan & Maxwell, 1994), by aiming to explain the subjective reasons and meanings that lie behind social action. Further explanation and justification for adopting a case study methodology, consistent with an interpretive paradigm, is outlined in section 4.4.2.

#### **4.4 History of Case Study Design**

The term 'case study' is not new, and has been adopted in a number of disciplines, such as medicine, social work, education and anthropology (Merriam, 2009). Around the 1900s, a 'first generation' of case studies emerged from the discipline of anthropology, used in the investigation of cultures via field studies (Evans-Pritchard, 1940; Haddon et al., 1901; Malinowski, 1913, 1922; Rivers et al., 1901). Shortly thereafter, another source of case study methodology evolved through descriptions of individuals in medicine, social work and psychology, often called 'case work' or 'case history' (Johansson, 2003). The

culmination of this first generation of interpretive case studies arrived in the Chicago school of sociology, where anthropology's field study method was practiced on contemporary society (Platt, 1992; van Maanen, 1988).

Following the end of the Second World War, the social sciences began to favour positivism and quantitative methods, and thus case study methodology fell out of favour: 'During this period differing methodologies led to a distinction within the social sciences between two cultures: positivistic and anti-positivistic' (Johansson, 2003, p. 6). In this context, interpretive qualitative case studies were criticised as being non-scientific.

By the late 1960s, a 'second generation' of case study methodology had begun to emerge, 'one which bridged the gap between positivism and hermeneutics as a philosophical foundation of the social sciences' (Johansson, 2003, pp. 6–7). Grounded theory emerged from the Chicago school of sociology as the first vehicle for this second generation of case studies (Glaser & Strauss, 1967). Grounded theorists employed an inductive methodology based on the use of detailed procedures for analysing data (Johansson, 2003). Yin (1981, 1984, 1994) further developed the methodology by transferring 'experimental logic into the field of naturalistic inquiry and [combining] it with qualitative methods' (Johansson, 2003, p. 7). Simultaneously, other writers 'developed in the direction of eclecticism and pragmatism' (Johansson, 2003, p. 7): '[r]ather than believing that one must choose to align with one paradigm or the other, I advocate ... in favour of methodological appropriateness as the primary criterion for judging methodological quality' (Patton, 1990, p. 39).

Contemporary case study research has become a common study design within social sciences and is applied in many contexts such as law, history, politics, sociology

(Latour & Woolgar, 1986), urban planning (Flyvbjerg, 1998), education (Merriam, 1988; Stake, 1995) and public administration (Yin, 2003). Stewart (2013) wrote:

In each of these contexts a wide range of methods has been applied to investigating a ‘unit’ of interest, expanding the application of case study research to a much broader sphere than that of traditional sociology. As such, the definition of a case study retains a focus on the unit of investigation, rather than on the methodological execution of a particular set of methods. (p. 147)

#### **4.4.1 Definitions of case study**

The terms ‘case’, ‘case study’ and ‘case methods’ have been used by a variety of authors (Bromley, 1986; Creswell, 2007; Merriam, 1991; Stake, 1995, 2000; Travers, 2001; Yin, 2003) and have been attributed different meanings by different disciplines and commentators (Gomm, Hammersley & Foster 2004; Merriam, 1988; Stake, 1995). Case study methodology is not the same as case method (as a teaching device), case history (as an observational device) and case work (as a social work or medical service delivery device) (Merriam, 1988). Gerring (2004) stated that multiple attempts at clarification have mired the definitional arena, and any further attempts can only add to the confusion. Stake’s (1995) definition of ‘case study’ is ‘the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances’ (p. xi). Merriam (1988) emphasised the qualitative aspect, stating that a ‘case study can be defined as an intensive, holistic description and analysis of a single entity, phenomenon or social unit ... [case studies] are particularistic, descriptive, and heuristic and rely heavily on inductive reasoning in handling multiple data sources’ (p. 16). Yin’s (2003a, 2009) definition described case study as ‘an empirical inquiry that investigates a contemporary

phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (pp. 13–14), facilitating a holistic understanding of the phenomenon under investigation (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Thus, a case study is not so much a method as a research strategy (Hartley, 2004; Titscher, Meyer, Wodak & Vetter, 2000), utilising multiple sources of evidence. As Stake (2000) wrote, '[c]ase study is not a methodological choice but a choice of what is to be studied. By whatever methods, we choose to study the case' (p. 435); case study is not defined by its research methods, but rather in terms of its interest in individual cases (Hartley, 2004; Stake, 2000).

This study adopted Stake's (1995) definition of case study as an intensive study of an individual unit of interest, with a focus on the developmental factors of that unit (Flyvbjerg, 2011). This study's understanding of the term was also expressed by Zucker (2001): 'is an exploratory form of inquiry, providing an in-depth picture of the unit of study, which can be a person, group, organisation or social situation', with the research goal being 'to describe as accurately as possible the fullest, most complete description of the case' (Zucker, 2001). The definition of what constitutes the 'unit' or case to be studied is at the discretion of the researcher' (Stewart, 2013, p. 145). The boundaries of this study's case are justified by 'common sense' (Smith, 1978), and encompass a system of connectedness (Stewart, 2013). This study's focus is a phenomenon in its 'real life' context, aiming to explore and thereby understand the complexities of the contextually situated case. The researcher chose a single case study design because it allows for revelatory exploration of a previously unexamined phenomenon (Yin, 1994).



#### **4.4.2 Choosing the research methodology**

Both Flick (2006) and Patton (2002) stressed the importance of clarifying the purpose of the research during the embryonic stage of research design. This researcher's purpose was to describe and explain the case of Australian nurses providing mental healthcare in remote areas. The aim of this study was to understand and comprehend the social world of remote nurses delivering mental healthcare.

Based on the purpose and aim of the study (Polit & Beck, 2004; Gribich, 1999) the researcher's case study adopted a qualitative research methodology, which sought to develop an understanding of human action in social settings. According to Polit and Beck (2004) the naturalistic paradigm of qualitative research develops from the ontological assumption that reality is not fixed but exists within a context where there are multiple interpretations of reality. The researcher's qualitative case study was grounded in a philosophical position which accepts that the ways in which people construct and make sense of their worlds and their lives, is highly variable and locally specific (Flick 2006).

The study's purpose and aims influenced the researcher's choice of research design. In order to describe the provision of mental healthcare, the researcher needed to discover what methods remote nurses used, embedded in their practice, to provide such care. The literature review identified several factors that promote, facilitate, support, hinder or prevent remote nurses providing mental healthcare. The researcher's aim was to investigate the qualitative questions of 'how' and 'why' remote nurses deliver mental healthcare in the manner and circumstances in which they do, as opposed to the quantifiable questions of 'how much' remote mental healthcare is delivered or 'how many' individuals, professions or health clinician groups deliver remote mental healthcare (Benbasat, Goldstein & Mead,

1987; Yin, 2003). The choice of research method enabled the gathering of remote nurses' qualitative descriptions of their own experiences. Second, having worked in remote locations as a mental health nurse, the researcher had previously spoken to many remote nurses about their experiences providing care for mental health patients in remote areas. Consistently, these conversations revealed how remote nurses, regardless of location, confronted very similar issues and concerns regarding their praxis.

The researcher was influenced by Yin (2003) when choosing an appropriate research design. The second column from the left of Table 4.2 asks the researcher to classify the form of the research questions, which in this case are 'how' and 'why'. With reference to the third column, this study had no control over behavioural events, and, with reference to the fourth column, did focus on contemporary events. Table 4.2 identifies case study as the research strategy that meets these criteria.

Table 4.2

*Assisting Researchers to Choose an Appropriate Research Method (Source: Yin, 1994, 2003)*

Strategy	Form of research question?	Control over behavioural events?	Focus on contemporary events?
Experiment	How, why	Yes	Yes
Survey	Who, what, where, how many, how much	No	Yes
Archival Analysis	Who, what, where, how many, how much	No	Yes / No
History	How, why	No	No
Case Study	How, why	No	Yes

Table 4.2 compares and contrasts research designs that had potential for this study, including experimental, historical and case study designs. A dearth of literature relating to remote nurses caring for mental health patients makes experiments unsuitable. A historical approach is also unsuitable, as contemporary events are vital to understanding the research questions. Case study is the most appropriate method to answer ‘how’ and ‘why’ questions concerning remote nurses delivering mental healthcare (Siggelkow, 2007).

In summary the researcher’s goal in choosing a case study method was to explore and describe and understand how remote nurses deliver mental healthcare. The aim of the study favoured a qualitative methodology to explore the phenomenon of delivering remote mental healthcare within the context of nursing which made it a strong fit with the chosen design (Gerrish & Lacey, 2006).

#### **4.4.3 Identifying the case**

The identification of the case is critical to the nature of case study research. According to Stake (1995), there are three types of case study, each facilitating a different type of understanding: intrinsic, instrumental and collective. An *intrinsic* case study involves a researcher having an inherent interest in an entity or event. The need to understand it arises out of its distinct yet ordinary features, rather than a need to understand how it relates to other entities or to a problem more broadly; the aim is to learn about the particular case itself (Adelman, Jenkins & Kemmis, 1980; Patterson, 2000; Stake, 1995). In such instances, there may very well be no choice about which case to study, as the case is already determined.

In other circumstances, a problem or predicament is of interest, for which *instrumental* case study may provide greater insight. An instrumental case study facilitates

an understanding of a problem—what Stake refers to as the ‘issue’. The entity, or the case, is of secondary interest to understanding the issue; it merely provides a manifestation of it. Whether or not the case is typical of others representing the issue is not of interest. Instead, the focus is examining the ordinary case in its everyday context in order to arrive at an understanding of the issue (Patterson, 2000; Stake, 1995). Stake suggested that, in reality, little distinguishes intrinsic and instrumental case studies, as a case study may begin as intrinsic but evolve to become instrumental, depending on that which is of interest.

When there is a need to look to more than one case to understand an issue, *collective* case study is appropriate. The similarities and differences between the cases, and the variety and redundancy therein, are of value to both the inquiry and to understanding the issue. For this reason, the choice of cases is purposive, because studying them will provide a better understanding of the issue.

The present case study is categorised as an intrinsic case study because it was explorative in nature, investigated one particular case and was guided by the researcher’s interest in the particular case. Further, there was no expectation that the study’s results would have implications for other case studies or for extending theory. Finally, the primary aim of this case study was to learn about the particular case itself, namely remote generalist nurses delivering mental healthcare.

The concept of a ‘case’ encompasses a variety of meanings (Ragin, 1999). The researcher sought to understand and explain the situations of remote nurses caring for mental health patients throughout Australia. Due to the complexity of issues and unique circumstances of each primary healthcare centre and hospital setting, a variety of perspectives were explored and investigated. In order to fully understand the case, it was

necessary to study it within its context of occurrence using multiple data sources. The desirability of a case study approach lay in gaining an in-depth understanding from multiple stakeholder perspectives of the case, either through the actors (remote nurses), through those directly involved (Yin, 2009) as ‘key’ participants, stakeholders directly or indirectly knowledgeable of the case, or from physical artefacts. To understand and describe remote nurses’ mental healthcare delivery required interrogation of a range of key informants and stakeholders, including remote nurses, remote district managers and administrators, remote psychiatrists, recruiters, policymakers, academics specialising in remote issues of stress and violence, counsellors, mental health nurses, police, ambulance officers, GPs and Royal Flying Doctor Service personnel. In addition, documents such as policies, images, journals, plans and submissions were examined as data sources (Yin, 2009). Hence, a detailed empirical investigation of a contemporary phenomenon within its natural context and from multiple perspectives was achieved (Creswell, 1998; Hancock & Algozzine, 2006; Patton, 2002; Yin, 2009).

#### **4.4.4 Boundaries of the case**

Miles and Huberman (1994) stressed the need to identify the boundaries of a case: what the study is and is not. Yin (1994, 2003) defined cases as units of analysis and study propositions, thereby avoiding discussion of bounded or specific systems. While Stake (1995) took the stance that not everything is or can be a case, he also cautioned of the need to specify a case’s boundaries, when appropriate, for a given study. The definition of the ‘unit’ or ‘case’ is at the researcher’s discretion (Stewart, 2013); Smith (1978) described this as necessarily defining the ‘boundaries of the system under study’ (p. 342).

Yin (2009) argued that there is no more important decision in case study research design than defining the unit of analysis, for the object of the study defines the boundaries within which the research is undertaken. In the present study, the unit of analysis is the population of Australian remote generalist nurses providing mental healthcare. This unit of analysis was chosen to ‘maximize what we can learn’ (Stake, 1995, p. 4). Australian remote nurses providing mental healthcare is the ‘bounded system’ (Creswell, 1998; Merriam, 1998), thereby identifying the parameters of the research inquiry. This is consistent with Stewart’s (2013) statement that boundaries should be justified by common sense and include a system of connection. It is not the intention of this case study to generalise its findings across multiple additional cases, or to compare it to theory, and this is not necessary in order to answer the research questions (Carroll & Johnson, 1990). After all, the number of actual cases is not anywhere near as important as the quality of the collected data and the ‘case’ itself to understanding the issue (Patterson, 2000; Stake, 1995).

Identifying the confines of the study at the outset allowed the researcher to establish parameters for what would and would not be included. The boundaries of this case study were purposively selected; remote settings, generalist nurses and mental health clients thereby ‘bounded the case’ to identifiable individuals (generalist nurses, mental health clients), place (Australia, remote locations) and time (contemporary) (Miles & Huberman, 1994; Creswell, 1998). Hence this case study’s boundaries identify ‘who is included, context, phenomenon and time-period being studied’ (Gangeness & Yurkovich, 2006, p. 11).

#### 4.4.5 Case study design

Hartley (2004) described research design as ‘the argument for the logical steps which will be taken to link the research question(s) and issues to data collection, analysis and interpretation in a coherent way’ (p. 326). Case studies can be categorised into three types of study design: exploratory, descriptive and explanatory (Hartley, 2004; Yin, 2003, 2009). *Exploratory* case studies answer ‘what’ questions, and are used to develop hypotheses and test propositions for further inquiry (Yin, 2003, 2009). *Descriptive* case studies are used to describe phenomena within their context, and *explanatory* case studies are used to answer ‘how’ and ‘why’ questions and to understand cause and effect relationships (Fisher & Ziviani, 2004; Gangenness & Yurkovich, 2006; Hancock & Algozzine, 2006; Yin, 2003, 2009). The researcher in this study used an explanatory case study design to describe, explain and understand the case of remote generalist nurses providing mental healthcare. Table 4.3 summarises in the differences between the three design approaches.

Table 4.3

*Relevant Situations for Different Research Strategies (Source: Yin, 1984)*

	Explanatory	Exploratory	Descriptive
Study questions	X	X	X
Propositions	X		
Purpose	X	X	X
Units of analysis	X	X	X
Criteria for interpreting findings	X		

The next decision in case study design concerns whether the study should incorporate single or multiple cases (Baxter, 2003; Yin, 2009). A single case study is an

appropriate design under five circumstances: (1) in a *critical case* testing a well-formulated theory, (2) in an *extreme or unique case*, (3) in a *representative or typical case*, (4) in a *revelatory case* or (5) in a *longitudinal case* (Yin, 1970, 1978, 2003, 2009). This study did not involve critical, extreme or unique cases, as there is a level of uniformity of circumstances, issues and influences across the delivery of mental healthcare by remote nurses and it is not by design a longitudinal study. The choice between representative, typical and revelatory cases was decided in favour of the latter on the basis of a lack of previous literature, as addressed in Chapter 3. There have been no prior case studies concerning remote nurses delivering mental healthcare in Australia. Hence, a revelatory case study was chosen to probe and analyse a new area of discovery (Carroll & Johnson, 1990) and a set of poorly understood phenomena (Yin, 1994).

The next research design question was the choice between holistic (Gangeness & Yurkovich, 2006) and embedded units of analysis (Yin, 2003, 2009). Holistic case studies focus on the comprehensive understanding of a phenomenon (remote nurses delivering mental healthcare), where understanding the whole phenomenon is more important than understanding its parts or sub-units (i.e. individual studies of participant remote nurses delivering mental healthcare) (Heinz, 2007). This case study was not designed to use clustering or sampling techniques (McClintock, 1985), but was a study of the ‘global nature’ (Yin, 2003, p. 43) of the delivery of mental healthcare by remote nurses. The researcher examined multiple data sources from varying levels, degrees and perspectives of involvement in the delivery of mental healthcare by remote nurses, including Commonwealth, State, local, systems, funding, policy, academic, educative, professional representation and the remote nurses themselves. These multiple sources of data facilitated



a holistic view of the case study to determine what affects remote nurses delivering mental healthcare, and how (Patton, 2002). Irrespective of data source and level of analysis, the case remained a single ‘unit of analysis’; that is, a ‘case’ study of remote nurses delivering mental healthcare as a particular social phenomenon (Grbich, 1999).

#### **4.4.6 Research design components**

Yin (2003, 2009) identifies five components of a research design for case studies (see Table 4.4).

Table 4.4

*Five components of a research design (Yin, 2003, p.21)*

1. A study's questions;
2. Its propositions, if any;
3. Its unit(s) of analysis;
4. The logic linking the data to the propositions; and
5. The criteria for interpreting the findings.

The study's questions (the “how” and/or “why” questions) are outlined and discussed in chapter one (p.4) and chapter four (p.125). The propositions are outlined and discussed in chapter three as themes which arose from the literature search. The unit of analysis is identified in chapter four when discussing the boundaries of the case and the case study design. The logic linking the data to the propositions and the criteria for interpreting the findings are both means to establish credible and comprehensive empirical research (Yin, 2009). The logic used by the researcher is outlined in chapters six (situational and relational analysis) and chapter eight (actor-network theory). The criteria

for interpreting the findings relies on the four criteria outlined by Yin (2009); credibility, transferability, dependability and confirmability, all discussed in chapter ten.

#### **4.4.7 Criticisms of case study as a methodology**

The diversity of published case studies and current debates about the credible use of case study in qualitative research have arisen because researchers differ in their perspectives on case study methodology. This confusion fetters the development of a uniform, universal methodological understanding (Hyett et al., 2014). Other perceived case study limitations include whether case study is a methodology at all (Luck, Jackson & Usher, 2006; Meyer, 2001; Tight, 2010; Thomas, 2010). For example, Anthony and Jack (2009), Yin (2009) and Meier and Pugh (1986) regarded case studies as a research strategy, while others have argued that it is a teaching technique (Henning, Nielsen & Hauschildt, 2006; Kells & Koerner, 2005), and Lincoln and Guba (1985) referred to it as publishing the results of a naturalistic enquiry.

The first rebuttal to these criticisms is that case study has been gratuitously debased by comparisons with statistical methods (Eisenhardt, 1989; Flyvbjerg, 2006, 2011; Jensen & Rodgers, 2001; Piekkari, Welch & Paavilainen, 2009; Tight, 2010; Yin, 1999), often described as the ‘the weak sibling’ (Yin, 2009, p. xiii). A case study is not statistical research, and hence is not comparative; a case study’s ‘aim is not to produce outcomes that are generalisable to all populations’ (Hyett et al., 2014, p. 4; Thomas, 2011). Case study and statistical research are fundamentally at odds in their approaches to qualitative research, and hence are not comparable. The reason for this is that the two approaches measure, assess and examine phenomena using different and incompatible means. This

type of comparison fails to recognise the inherent value of some research better understood using an interpretive or social constructionist lens of inquiry (Merriam, 2009; Stake, 1995).

Second, critics have stated that case studies have limitations due to the issues of reliability, validity and generalisability. As Hamel, Dufour and Fortin (1993) stated, 'the case study has basically been faulted for its lack of representativeness ... and its lack of rigor in the collection, construction, and analysis of the empirical materials that give rise to this study' (p. 23). However, this argument against case study research is misguided, for it misunderstands the original reasons for doing this type of research. As Shields (2007) argued in support of qualitative case studies:

[t]he strength of qualitative approaches is that they account for and include difference--ideologically, epistemologically, methodologically--and most importantly, humanly. They do not attempt to eliminate what cannot be discounted. They do not attempt to simplify what cannot be simplified. Thus, it is precisely because case study includes paradoxes and acknowledges that there are no simple answers, that it can and should qualify as the gold standard. (p. 12)

Flyvbjerg (2006) outlined five 'misunderstandings' (criticisms) about case study research (including the second criticism outlined above), which he then dismantled, substituting a more accurate statement on the issue underlying each misunderstanding. These misunderstandings and their restatements are displayed in Table 4.4.

Table 4.5

*Five Misunderstandings About Case Study Research (Adapted from Flyvbjerg, 2006, p. 219–245)*

Misunderstanding	Restatement
1. General knowledge is more valuable than context-specific knowledge.	Universals cannot be found in the study of human affairs. Context-dependent knowledge is more valuable.
2. One cannot generalise from a single case, so a single case does not add to scientific development.	Formal generalisation is overvalued as a source of scientific development; the force of a single example is underestimated.
3. The case study is most useful in the first phase of a research process; used for generating hypotheses.	The case study is useful for both generating and testing hypotheses, but is not limited to these activities.
4. The case study confirms the researcher's preconceived notions.	There is no greater bias in case study towards confirming preconceived notions than in other forms of research.
5. It is difficult to summarise case studies into general propositions and theories.	Difficulty in summarising case studies is due to properties of the reality studied, not the research method.

Case study research has been, on occasions, used as a 'catch-all design' for some qualitative descriptive studies that do not fit traditional frameworks (Merriam, 2009). As Tight (2010) stated, in some reported case studies, it has been a 'convenient label for our research—when we 'can't think of anything "better"'—in an attempt to give [qualitative methodology] some added respectability' (p. 337). This lack of thoroughness, uniformity and consensus in the rigour of writing up or reporting 'case study' research has created fodder for the critics of case methodology. For example, some studies use a 'case report method', which is not in fact a case study (Creswell, 2013; Merriam, 2009; Stake, 1995; Yin, 2009). Purported case studies presenting data from small samples of no more than three people, places or phenomena are not case studies (Hyett et al., 2014), nor are 'case

reports' or single cases selected retrospectively from larger studies (e.g., Bronken, Kirkevold, Martinsen & Kvigne, 2012; Coltart & Henwood, 2012; Hooghe, Neimeyer & Rober, 2012; Roscigno et al., 2012). In other purported 'case studies', justifications for the selection of a case and the choice to use case study methodology are fatally absent (Thomas, 2011). Absent or insufficient justifications for the selection of a case study methodology call into question whether or not the research is in fact a case study (Hyett et al., 2014). Similarly, a lack of explicit explanation as to whether a given case is indeed something particular to a discipline or field also adds to the confusion regarding the nature of case study methodology and research (Adamson & Holloway, 2012; Bronken et al., 2012; Colón-Emeric et al., 2010; Jackson, Botelho, Welch, Joseph & Tennstedt, 2012; Mawn et al., 2010; Snyder-Young, 2011).

## **4.5 Conclusion**

This chapter has outlined the theoretical and philosophical underpinnings of the study. The discussion on case study design sought to justify why case study methodology is particularly suited to this research. Explanations were given for each of the four categories of case study design: single, intrinsic, explanatory and holistic. Importantly, the substantial academic challenges to case study as a methodology were discussed and addressed to support the utilisation of a case study methodology in this thesis. The next chapter outlines and discusses the research methods used to collect and initially analyse data in this study.

## **Chapter 5: Methods**

### **5.1 Introduction**

Chapter 5 describes and outlines the qualitative methods used in this case study thesis. First, the chapter describes the role of the researcher, case study data, sources of data and ethical considerations. The processes used to collect the data are then discussed. Finally, the chapter outlines and discusses the process of analysing the data.

### **5.2 Role of the Researcher**

In case study research, the researchers themselves are the instrument for data gathering and analysis, and who must undertake deep and prolonged engagement with the case in its context. Stake (1995) called on researchers to consider their role in data gathering and analysis. He emphasised that the role of researcher as interpreter is to examine ‘the nature and quality of activities and processes, portraying them in narrative description and interpretive assertion’ (p. 96). In such instances, the researcher is immersed in the context of the research, where it is their responsibility to develop an understanding of the issue(s) by spending ‘extended time on-site, personally in contact with activities and operations of the case, reflecting, and revising descriptions and meanings of what is going on’ (Stake, 2000, p. 442). The subjectivity of the researcher’s experience of nursing in remote locations and his interpretations is inherent in the research process. Interpretively, the researcher and the participants were inexorably linked in the study design, the generation of data and the analysis of findings.

It is acknowledged here that the gathering and interpreting of ‘insider’ perspectives in the present study enabled a deeper and richer (emic) understanding of the world of remote generalist nurses caring for mental health clients than would be available from

solely adopting an outsider's (etic) stance. As a very experienced remote nurse, the researcher possessed and could draw on a detailed understanding and familiarity with the field. This familiarity provided the researcher with a refined understanding of the context that would be absent in an inexperienced or non-remote nurse researcher. The researcher's familiarity with the written and spoken language of remote nurses enhanced his insider (emic) perspective of the study (Pike, 1967). With such familiarity, understanding the field and its practices added a further dimension of research understanding and analysis. Despite this previous insider experience, the researcher was very mindful to maintain the appropriate balance between the emic and etic perspectives. For example, the researcher had no direct supervisory or employment relationship with the participants in this study. This distancing between the researcher and the participants permitted what Brewer (2000) referred to as the 'critical gaze', which is essential in maintaining balance between the emic (insider) and etic (outsider) perspectives (Pike, 1967).

The researcher's experiences facilitated connections of understanding, identified areas of importance for closer interrogation, identified issues of divergence between the remote nurses' accounts and illuminated factors of influence (positive and negative) that affect remote nurses caring for mental health clients. Consequently, the researcher, as the primary analytic instrument, was readily equipped to move recursively and continuously through the data until arriving at theoretical saturation (Lincoln & Guba, 1985) and 'particularisation of the issue' (Stake, 1995, p. 8).

There exist a variety of methods for researchers to use in undertaking case study research (Bromley, 1986; Creswell, 2007; Merriam, 1991; Stake, 1995, 2000; Yin, 2003). All place particular emphasis on the recursive gathering and analysis of data. As the

researcher is an experienced remote nurse and mental health nurse, an important feature of the study was that there existed no discrete moment at which data gathering or analysis commenced. As Stake (1995) pointed out:

It begins before there is commitment to do the study: back grounding, acquaintance with other cases, first impressions. A considerable portion of all data is impressionistic, picked up informally as the researcher first becomes acquainted with the case. Many of these early impressions will be later refined or replaced, but the pool of data includes the earliest observations. (p. 49)

Accordingly, the researcher's nine years of experience of working in very remote locations in various clinical and non-clinical (educative, management and executive) roles was extremely relevant and valuable to the case study. The richness of observations, interactions, conversations and incidents concerning mental healthcare conducted prior to the commencement of the study were recursively and critically revisited throughout the study. At the original time of experiencing these events, they were not considered through any methodological lens, paradigm of interpretation or with the intent of being studied. These impressionistic experiences were 'raw', disconnected and uncoupled from the study, and hence their imbued value was prized and a valuable resource to the study. The elapsed time between the researcher's experiences and the study enabled an opportunity for reflection with the aim of developing some clarity about the meaning of these experiences, away from potential emotionalism and providing an opportunity for re-evaluation.

### **5.3 Case Study Data**

The word 'data' appears in writings as both a plural and singular noun, although a majority of researchers adopt the plural form (Yin, 2011). 'Data' as been defined as 'facts



and statistics collected together for reference or analysis’ (*Shorter Oxford Dictionary*, 2007) and may consist of numbers, words, or images, particularly as measurements or observations of a set of variables’. Hence ‘data’ are the smallest entities or ‘recorded elements resulting from some experience, observation, experiment, or other similar situation’ (Yin, 2011, p. 130).

The impressions of a researcher are derived from their use of, and engagement with, multiple types and sources of data (Stake, 1995; Yin, 1994, 2003). The use of multiple types and sources of information along converging lines of inquiry is critical to the trustworthiness and credibility of the inquiry when compared with a single source of information. Traditional types of data include documentation, archival records, interviews, direct observation, participant observation and physical artefacts. A case study’s strength is ‘its ability to deal with a full variety of evidence—documents, artefacts, interviews, and observations’ (Yin, 2003a, p. 8). The choice of data sources depends on a number of factors such as the phenomena under investigation, access to information, and the skills of the researcher. It is not critical for a case study to make use of most or all of the different types of data. Each type of data has its strengths and weaknesses, and no single type of data has a complete advantage over another. Ideally, data types should complement one another (Denzin & Lincoln, 2005; Stake, 1995). Hence the researcher used a combination of participant interviews, policy documents, research reports and publications, self-knowledge and reflection, observation through embeddedness in the field, historical and pictorial artefacts.

This approach is consistent with Creswell (2007) who states, ‘... the investigator explores a bounded system (a case) ... over time, through detailed, in-depth data collection

involving multiple sources of information (e.g., observations, interviews, audio-visual material, and documents and reports' (p. 73). Table 5.1 lists data sources used and their respective strengths and weaknesses.

Table 5.1

*Sources: Strengths and Weaknesses (Adapted from Yin, 2009, p. 102)*

Source of Data	Strengths	Weaknesses
Interviews	Targeted to case study topic. Insightful—provides perceptions of informants.	Bias due to poorly constructed questions. Response bias. Inaccuracies due to poor recall. Interviewee gives what interviewer wants to hear.
Documentation	Stable—may be reviewed repeatedly. Unobtrusive—not created by case study. Exact—contains detail of events. Broad coverage—extended time span.	Retrievability may be low. Biased selectivity. Reporting bias. Access—may be blocked.
Direct Observation	Reflects reality. Contextual.	Time consuming. Events may proceed differently because of observation. Costs—associated with time needed by observer.
Participant Observation	As above. Insightful into interpersonal behaviour.	See above. Bias due to investigator's manipulation of events.
Archival Records	As for 'Documentation' above. Precise and quantitative.	As for 'Documentation' above. Accessibility due to privacy.
Physical Artefacts	Insightful into cultural features and technical operations.	Selectivity. Availability.

While quantitative data can be incorporated into case studies (see Chapters 1 and 2), qualitative data usually predominates (Patton & Appelbaum, 2003). The primary source

of data was derived from interviews. The researcher also accessed and examined relevant key documents, history's, photographs, newspaper articles, biography's, policies, procedure manuals and published journals as secondary data sources (Miller & Alvarado, 2005). The following table provides an overview of the phases of data collection and analysis undertaken in this interpretive case study utilising situational analysis methods.

Table 5.2

*Adapted Data Collection and Analysis Plan (Adapted from Clarke, 2005)*

Data Collection	Scanning the 'big picture'. Collecting and/or accessing situational, narrative, historical and visual data.
Data Analysis	Coding. Thematic analysis.
Mapping	Social worlds/arena map of remote generalist nurses delivering mental healthcare. Positional mapping of remote generalist nurses' social worlds in delivering mental healthcare.
Synthesising and Integrating	Identifying constituent themes. Categorisation of key elements of the maps. Relational analysis of the maps.
Rigour	Reflective journaling process of the researcher. Enhancing credibility through 30 semi-structured interviews. Interviews utilised open-ended questions.

## 5.4 Participants

In answering the research aim and questions, interviewing remote nurses and relevant others was chosen as the most appropriate method of data collection. The case study design dictated that data was obtained from sources such as remote nurses, mental health nurses, significant stakeholders, health professionals, academics and policy-makers and electronic, historical and visual artefacts. A set of inclusion criteria were formulated.

### **5.4.1 Inclusion criteria**

Participants in the study are divisible into two groups; remote generalist nurses and other relevant persons. To be included in the study remote generalist nurses had to meet the following inclusion criteria:

- Generalist nurse (including Level 1 or Level 2).
- Have worked in a remote setting in Australia.
- Have cared for a client with a diagnosed mental illness or cared for a client presenting with a mental health issue in a rural and remote setting.
- Be 18 years of age or older.
- Voluntarily consented to be a participant in the study.

To be included in the study participants as a 'relevant person' (non-remote generalist nurse) had to meet the following inclusion criteria:

- Be a person, either directly or indirectly, with a significant level of knowledge, awareness and experience concerning the delivery of mental healthcare by remote nurses.
- Be 18 years of age or older.
- Voluntarily consented to be a participant in the study.

### **5.4.2 Sample**

Congruent with case study methodology a range of different, yet relevant participants were selected to achieve multiple perspectives of the case. Utilising purposeful sampling, participants were deliberately selected for the information they were likely to provide to answer the research questions. In attempting to provide maximum variation among the data sources (Lincoln & Guba, 1985), participants included remote generalist

nurses, nurse practitioners (NPs), remote psychiatrists, remote director of Nursing, remote district mental health nurse managers, remote general medical practitioners, and where possible, community members. This enabled the production of a detailed and comprehensive set of data for analysis.

Table 5.3

*Participants by Employment Status*

Participant's Employment	Number
Remote generalist nurse	12
Remote psychiatrist	2
Remote district mental health nurse manager	2
Remote general medical practitioner	1
Remote nurse practitioners	1
Remote police officers	2
Remote ambulance officers	2
Remote nurse academics	2
Remote health service researcher	1
Remote health nurse educators	2
CEO of remote professional nursing organisation	1
Director of remote nurse counselling service	1
RFDS remote nurse coordinator	1

Twelve remote generalist nurses were interviewed. The endeavour or goal of the researcher was to secure the widest distribution of participant nurses from across Australia. The participants, at the time of interviewing, were working in the following jurisdictions;

Table 5.4

*Participants' Location of Employment by State or Territory*

State or Territory	Number of Participants
Western Australia	1
Northern Territory	1
South Australia	4
Queensland	4
New South Wales	1
Victoria	1
Australian Capital Territory	0
Tasmania	0

All nurse participants were currently registered with the Australian Professional Regulatory Authority (ARPR) at the time of interview. All participants were registered nurses (level 1), one nurse also held qualifications in midwifery and none held qualifications in mental health nursing. One nurse held a managerial position.

The majority of participants were female ( $n = 7/5$ ) and ages ranged from 43 to 53 years of age (mean 48.3 years). Years of nursing experience since graduation ranged from 10 to 35 years (mean 24.7 years) and years of remote nursing experience ranged from 5 to 31 years (mean 13.5 years). No participants were asked about their marital status or whether they had children, although one nurse did describe her husband as being a 'local farmer'.

#### **5.4.3 Recruitment**

Nurses meeting the inclusion criteria were invited to contact the researcher via written advertisements in the publications of relevant professional organisations such as CRANA Plus and Australia College of Nurses (ACN). The advertisements were placed in

the publications during October and November 2013. The publications were both in electronic and hard copy format. Some of the advertisements were paid for. The advertisements stated the title of the study, the purpose of the study, the eligibility requirements of potential participants, confirmation that ethics approval had been obtained, that the researcher was reporting to experienced academic supervisors (with the principle supervisors name and contact details) and, the contact details of the researcher through his James Cook University email address and phone number.

Another avenue of recruitment was through the researcher's attendance in September 2013 in Darwin at the CRANA Plus annual conference. Having obtained prior written consent from CRANA Plus management, consent was then granted from the conference organisers, for the researcher to address the conference for a short presentation concerning the study, *inter alia* outlining its aims, the nature of the study, confirming ethics approval and contact details while at the conference for any delegates should they wish to discuss any issues. Further, the researcher was permitted to place a number of copies on each conference table of a flyer concerning the study covering the information in the presentation. At no stage during the conference did the researcher approach delegates directly in an effort to recruit them as participants.

#### **5.4.4 Communication with potential participants**

When potential participants were contacted, either by email or telephone, the researcher appropriately desisted from entering into detailed discussions concerning the study during this initial contact. Politeness and respect was maintained to endear a sense of friendliness, but as explained to the potential participant, the researcher's primary aim was to obtain their contact details so that an information sheet, consent form and a copy of the

James Cook University Human Research Ethics approval form could be posted or a scanned copy emailed to them. Following initial contact, if potential participants wished to proceed, this was demonstrated by the receipt of a signed copy of an Informed Consent form by the researcher.

Upon receipt of a signed copy of an Informed Consent form arrangements to participate (interviews) in the study were directly negotiated with the potential participant (or through their administrative personnel, e.g., personal assistant, secretary). If the researcher did not receive a signed consent form arising from the initial contact, he did not attempt to make contact either in writing or by telephone with that individual. The reason for this inaction was that the researcher did not wish to, in anyway whatsoever, appear to be applying 'pressure' on potential participants to partake in the study.

#### **5.4.5 Arranging interviews**

Once a participant agreed to take part in the study, the researcher either in writing and/or by telephone, negotiated a mutually convenient time for an interview. These discussions elicited whether the interview was to be conducted in person or by telephone, confirming the tape recording of the interview and ensuring that the participant was aware when specifying a time, that the anticipated duration of the interview would be approximately 35 to 50 minutes.

Upon an agreed interview time, the researcher emailed confirmation. The day before the scheduled interview the researcher contacted the participant by phone and/or email to confirm, and if necessary remind the participant of the scheduled interview time (and if necessary, location). On some occasions the researcher had to confirm the interview shortly before the scheduled time, by telephone; these often involved participants



employed in a fluid and demanding work environment whereby they could not make with certainty, prior diarized appointments. Approximately half of the remote nurse participants required this approach.

## **5.5 Ethical Requirements**

To permissibly undertake this study consent was received from the James Cook University Human Research Ethics Committee (HREC). The purpose of the Human Ethics Committee is to protect the welfare and rights of participants involved in any research in accordance with the National Statement on Ethical Conduct Involving Humans of the National Health and Medical Research Council (NHMRC), Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research (NHMRC) and James Cook University guidelines.

The principles outlined by the NHMRC for the conduct of human research such as respect for human beings, research merit and integrity, justice, and beneficence were adhered to throughout the study (National Health and Medical Research Council, 2007).

Informed consent was gained from all participants involved in the study and adherence to the NHMRC guidelines for consent of human participants in research was abided by. Particular adherence was paid to Section 2.2 of the National Statement on Ethical Conduct in Human Research which requires that informed consent involves giving due scope to people's capacity to make their own decisions and that participation is the result of a choice made by participants (National Health and Medical Research Council, 2007). The circumstances surrounding consent included; consent being a voluntary choice, based on sufficient information and adequate understanding of both the proposed research

and the implications of participation (National Health and Medical Research Council, 2007).

The collection of qualitative data guidelines stipulated by the NHMRC was adhered to throughout the study. As qualitative research involves enquiry and investigation into people's lives, experiences and behaviours (Denzin & Lincoln, 2000), the values and principle outlined in Section 3.1, such as merit and integrity, justice, beneficence, and respect were maintained. The storage of data collected throughout the study is in alignment with the recommendations of Section 3.2 of the NHMRC databanks. The principles including merit and integrity, data usage and consent were followed and storage of data is in accordance with James Cook University Ethics requirements for data storage. During the study all data were stored securely in the office of the researcher. Once the study is concluded, the data will be gathered together, labelled referable to the researcher, date for destruction and placed in a secure location for the period required by the NHMRC.

The Institutional requirements outlined in Section 5.1 of the National Statement on Ethical Conduct in Human Research were maintained throughout this study and most importantly the welfare and decisions of the participants was considered at all times.

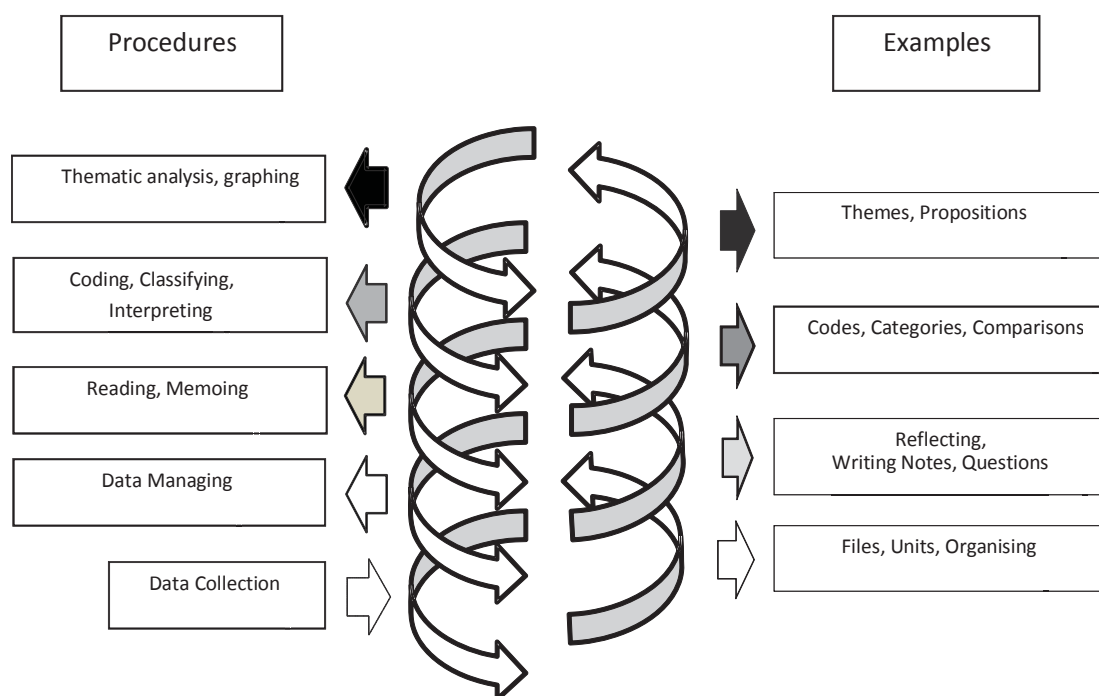
## **5.6 Overview**

The rest of the chapter outlines and discusses data collection and analysis. This part of the research process required a number of progressive and 'ordered' steps to be undertaken. The steps are both sequential and iterative. Hence Figure 5.1 illustrates the overarching or generalised sequence of methods undertaken in the study. It does not diagrammatically illustrate the need for the researcher to 'go back and forth' checking, clarifying, rechecking, ensuring, inspecting and re-analysing data at various stages of data

collection and analysis. What Figure 5.1 does illustrate is the overall progression of data collection and analysis.

### The Data Analysis Spiral

John W. Creswell. *Qualitative Inquiry & Research Design*, 2013, p. 183.



*Figure 5.1.* Data analysis spiral. Adapted from Creswell, 2013, p. 183.

## 5.7 Data Collection

### 5.7.1 Interviews

An interview is a data collection method in which the interviewer asks questions of an interviewee in order to gather information and are 'are ideally suited to experience-type research questions' (Braun et al., 2013, p. 81). With reference to this study the research

questions relate to remote generalist nurses' construction of a social world in delivering mental healthcare and hence inquiring about their experiences.

When considering the actual interview format three types of interviews exist: structured, semi-structured, and unstructured (Bowling, 2009). Structured interviews have predetermined questions pursuant to an interviewer schedule; a formulated sequence of questions for each interview. Accordingly the interviewer dictates the interview schedule and questioning sequence (Watson, McKenna, Cowman & Keady, 2008). Semi-structured interviews can be situated between these two types. They are flexible, and allow new questions to be added to the interview schedule, in contrast to the structured interview. Accordingly the interviewer did refer to an interview schedule unlike in a completely unstructured interview (May, 2011) and hence, conducted semi-structured interviews with all participants.

The study employed the semi-structured interview method for the following reasons. Firstly, the remote nurse participants had an enormous wide ranging degree of work experiences and this variation in experiences and settings precluded the use of a standardised method. Secondly, a semi-structured method was appropriate for exploring and gathering information and tapping into the knowledge of non-remote generalist nurse participants. Thirdly, the approach permitted the researcher to probe for more information or clarification of participant's replies, which would not have been possible via a structured method. Probing does not necessarily mean further questions of clarification on every occasion, it can mean 'an expectant glance' or 'um, hm, um or yes, followed by an expectant silence' (Kvale & Brinkmann, 2009). The researcher engaged in 'probing' without aforethought or planning but when cued by a response. In summary the semi-

structured interview format was appropriate for exploration of attitudes, beliefs, values, experience and motives (Barriball & While, 1994), and to explore in substantial depth complex and sensitive issues (Parahoo, 2006).

### **5.7.2 Interview questions**

Prior to commencing interviews the researcher planned a format by designing and testing a number of sample questions. Accordingly the researcher wrote down the topics and possible related questions. The researcher then considered sub-questions which conceivably he might want to ask in response to possible interviewee's responses. The researcher then grouped related sub-related questions to the primary question and then considered various means of arrangement. The purpose here was to organise questions so that they had a logical flow and were clustered without ambiguity around the various topics (Braun et al., 2013).

Once satisfied with the format and sequence of the questions, the researcher examined the questions to ensure that they were broad and open-ended enough to facilitate interviewee latitude and freedom to answer unfettered. The researcher was mindful to understand the interviewee's style of speech and language thereby understanding the meanings contained therein (Reinharz, 1983). This reduced the requirement of rephrasing or clarifying answers which if frequent, tends to stultify the flow and rhythm of the discussion.

Satisfied with the draft interview guide, the researcher met with his doctoral supervisors to check the appropriateness of each question and sub-question, its format and the interview guide. The draft interview guide was then forwarded to three nurse academics for revision and feedback (Smith, 1995). This resulted in some minor

amendments. Finally a pre-test was conducted with three experienced nurses and their feedback sort. No further amendments were required. Undertaking the pre-testing of the interview guide afforded the researcher the opportunity to ‘practice’ and gain confidence in undertaking the interview and an opportunity to reflect on his style and interview manner. Through the aforementioned process of validation the draft interview guide had ‘morphed’ into an acceptably polished interview guide and was ready for use.

### **5.7.3 Interviews**

Prior to commencing the interviews, whether face to face or by telephone, the researcher checked for quietness, comfortableness on the part of the participant to proceed and the minimising of potential interruptions. The interviewee’s availability of allotted time to undertake the interview was again confirmed. There were no interviews which needed to be cancelled and rescheduled nor any which were concluded prematurely as a result of time restraints.

Prior to the commencement of an interview the researcher ensured an interviewee’s consent by adopting a three stage process. Firstly, ensuring a participant understood the broad nature of the study with reference to the information sheet (which accompanied the original written consent form). Secondly the researcher had a signed a consent form completed by the interviewee. Thirdly, the researcher asked whether the participant understood everything the researcher had said and whether there were any questions or issues which needed to be clarified or answered. No participant withdrew their consent and all stated they understood they were being recorded. Finally the researcher, at the commencement of the recorded interview, verbally confirmed the participant’s consent.

A total of 30 participants were interviewed from across Australia. Seven were interviewed face to face and the balance ( $n = 23$ ) via telephone. If the interview was face-to-face the researcher had two digital recorders which were tested to ensure they were recording and then placed openly in front of the participant. The participant was advised by the researcher when the recording had commenced. At the conclusion of the interview the researcher turned off the recorder to cease recording.

If the interview was conducted by telephone, the researcher prior to the interview organised for a teleconference call to be arranged, in accordance with the time negotiated with the participant. The arrangement to record the interview was not undertaken by the researcher direct but through the administrative staff of the School of Nursing, Midwifery and Nutrition, James Cook University. Approximately two days prior to the interview an email was received by the researcher confirming the recording time and the various Personal Identification Numbers (PIN) and dial in numbers for the teleconference. The participant's required 'dialling in' and PIN information was emailed to them at the same time. By dialling into the teleconference this automatically meant that the interview was being recorded by the teleconference facilitator. Once the researcher and the participant hung up the phone, recording ceased.

In commencing each interview the researcher asked approximately ten demographic questions, including participant's age, sex, post code, years of nursing since graduation, whether they worked in a primary healthcare centre or hospital and number of years working in a remote location. By the process of garnering this very rich descriptive information (Geertz, 1973) it facilitated a sense of easement into the interview, by being

asked disarming, non-confrontational, less probing and less intrusive questions. This assisted the interviewee to feel relaxed and more comfortable about being asked questions.

The most time consuming section of the remote nurses interviews were questions related to the broad topics of perceived levels of competency, attitude and confidence, questions concerning mental health training and skill levels, coping strategies and perceived levels of resources available to deliver mental healthcare. Most questions for the nurses were couched within a self-assessment framework and involved their opinions, based on their experience and observations of other nurses when caring for mental health clients. Most of these questions required a degree of introspection, making of value judgments, disclosing personal bias's and prejudices, personal feelings and beliefs and assessing others behaviour and those of their employer. Accordingly the researcher was delicate and sensitive in his style and manner (Kavanaugh & Ayres, 1998). Mindful, attentive and 'gentle' in his approach to questioning, the researcher employed a suite of 'tools' to entice and facilitate the telling of the participant's stories; that stated, no participant cried, refused to answer or displayed overt signs of being uncomfortable. The researcher employed at appropriate times self-disclosure, being at times self-referential, humour, silence, softness in tone, pause, banter, re-visitation to topics, touch, at times expressing feelings of connectedness, agreement, solidarity and empathy to encourage and facilitate the rich, deep and personal data being disclosed.

In 'closing the interview' the researcher ensured he had addressed all the topics from the interview guide. Further the researcher asked whether there was anything which the participant felt, in light of what had transpired, the researcher should know, discuss or had been missed, 'sometimes clean-up questions [and opportunities] trigger really useful



unanticipated data' (Braun et al., 2013, p. 81). Almost always the participant took this opportunity to talk generally in a disarming manner, about the participant's experiences and opinions. Clarke and Braun (2013) state that this strategy helps to avoid the participant not providing or forgetting valuable rich information in the 'afterglow' of an interview, once it has ceased. The interviews concluded when it felt 'natural that the interview had come to an end'. Follow-up letters or telephone calls were made shortly thereafter to participants to convey acknowledgement of the researcher's gratitude.

## **5.8 Face-to-Face Interviews in Comparison to Telephone Interviews**

An apparent assumption is that face-to-face interviews are superior to telephone interviews. Some criticisms of telephone interviewing are that there a loss of visual cues (Garbett & McCormack, 2001; Rubin & Rubin, 1995) and potential participant distractions through environmental activities (McCoyd & Kerson, 2006; Opdenakker, 2006). While acknowledging that there are no visual cues, qualitative telephone data has nevertheless been assessed to be 'rich, vivid, detailed, and of high quality' (Novick, 2008, p. 393; Sturges & Hanrahan, 2004).

While Novick (2008) reports that face-to face interviews appear from the literature to be the "gold standard" (McCoyd & Kerson, 2006, p. 389) for qualitative research, a counter argument is that participants may feel more relaxed and able to disclose sensitive information when the interviewer is physically absent (Chapple, 1999; Kavanaugh & Ayres, 1998; Opdenakker, 2006), particularly if strategies are utilised to foster a sense of connectedness and to put participants at ease (Burnard, 1994). This was upper mind in the researcher's thinking and hence he invested time to chat informally before the interview commenced to build trust or, as Clarke and Braun (2013) state, not to 'immediately jump

into it, without rapport-building pre-interview chit-chat' (p. 88), thus allowing the participant 'to find their voice' (Dillman, 1978, p. 44). Further the researcher sought a 'connectedness' having previously worked as a remote nurse and hence, built a mutual level of similar understanding by sharing informally stories, experiences and anecdotes. This approach cajoled and coaxed the nurses into feeling the researcher was a colleague of 'liked experience and mindedness' and hence, made participants more comfortable to disclose sensitive information with someone 'who truly understood' (Tausig & Freeman, 1988).

### **5.8.1 Disadvantages of interviews**

Interviews are generally a time consuming method of data collection. Organising arrangements to conduct the interviews, administering them and finally analysing their content all take time (Bowling, 2009). Polit and Beck (2006) also argue that using interviews as a data collection method is an expensive process and can potentially preclude the feeling of participant anonymity.

While time was incurred in arranging and undertaking the interviews, the researcher did not find this particularly onerous as the research was a doctoral study and so had expected to invest this level of time in data collection. Further, participants were scattered across Australia which meant that teleconferencing as a method of interviewing, substantially reduced otherwise invested time, by eliminating substantial travel and waiting time(s).

## **5.9 Data analysis**

Relevant to research are the questions of what is analysis and how should it be undertaken? Two complementary definitions are helpful. The first is very general (Bernard,

2002), '[A]nalysis is the search for patterns in data and for ideas that help explain why those patterns are there in the first place (p. 429). The second is more detailed, '[D]ata analysis consists of examining, categorizing, tabulating, testing, or otherwise recombining...evidence to address the initial propositions of a study' (Yin, 2003, p. 109).

There are many approaches to analysing qualitative data all of which are dependent on the type of qualitative study being undertaken (e.g., phenomenology, grounded theory, case study, ethnography, narrative). Creswell (2007) points out that the main tenets that apply across all forms of qualitative data analysis are 'preparing and organising the data for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in figures, tables, or a discussion'

### **5.9.1 Data preparation**

After the face to face interviews had concluded the researcher would connect the digital recorder to his computer and 'download' the digital recording to his computer and save as a 'mpg' audio file. The 'mpg' audio file was emailed to a transcribing company who then typed the interview recording into a document that was then emailed back to the researcher. The researcher then checked the accuracy of the typed document against the saved audio file and made any necessary typed amendments to reflect accuracy (Braun et al., 2013). In this process of checking, the researcher was mindful of and guided by, Poland's (2002) four common types of transcription errors; sentence structure errors, quotation marks errors, omission errors and mistaken word or phrase errors. While errors were identified and rectified among the 30 transcripts, the thrust of checking was directed at ensuring a thorough written record (transcript) of the recording, as opposed to being 'overly checked' for semantic sounds, hesitation, repetition, false-starts, pauses and

laughter. Very rarely were amendments made, and if so, these errors had resulted from intermittent poor and compromised volume for the transcriber.

If the interview was by telephone then the recording ceased when the telephone call ended. Usually within 48 hours after the teleconference the researcher received a 'mpg' audio file as an attachment to an email from the teleconference convener. The researcher undertook the same process as with the digital recordings, to obtain a written transcription. Again the researcher checked the accuracy of the written transcript against the 'mpg' audio file and made amendments if necessary.

### **5.9.2 Coding**

Coding is fundamental to qualitative data analysis. 'Coding is a process of identifying aspects of the data that relate to the research question' (Braun et al., 2013, p. 206) or as Saldana (2009) states, codes are a word or short phrase which symbolically 'assigns a summative, salient, essence capturing, and/or evocative attribute for a portion of language based ... data' (p. 3). The researcher kept in mind that it was not the words themselves but their meaning that mattered (Miles & Huberman, 1994). During this initial phase the researcher was mindful that when deciphering passages to discover their core meaning—*decoding*—having determined its appropriate code, the text was then labelled—*encoding* (Saldana, 2009). To ensure that the context of codes were not lost (Bryman, 2001) coding of the data was undertaken inclusively, meaning keeping small amounts of surrounding data if relevant (Braun & Clarke, 2006). During this stage the researcher was mindful that coding is merely a transitional step in the process of moving from data collection to that of analysis; a process which is transitional and an organisational (of the collected qualitative data).

Miles and Huberman (1994) argue that coding is a complex analytical task. A researcher does not just label but also makes linkages. '[Coding] leads from the data to the idea, and from the idea to all the data pertaining to that idea' (Richards & Morse, 2007, p. 137). This coding process is heuristic in nature; 'an exploratory problem-solving technique without specific formulas to follow' (Saldana, 2009, p. 8). The exploratory aspect of coding is what generates the cyclical nature of the process. The data was broken apart and deconstructed 'in analytically relevant ways in order to lead towards further questions about the data' (Coffey & Atkinson, 1996, p. 31). Achieving this process took a number of coding cycles whereby the researcher applied and reapplied different interpretations and approaches to coding the data to discover and uncover meanings in the data—a process of segregating, grouping, regrouping and relinking in order to consolidate meaning and explanation (Grbich, 2007). A consequence of coding and recoding was the refinement of initial codes through the process of rearranging and reclassifying. This refinement meant that some codes ... were subsumed, relabelled, combined and even eliminated (Saldana, 2009). The process of coding ceased when there were enough codes 'captur[ing] both the patterning and the diversity within the data' (Braun et al., 2013, p. 211).

Practical aspects of the coding process involved working manually and systematically through the entire data set, affording thorough and equal attention to each data item thereby identifying interesting aspects of the data, which related to answering the research question. Coding manually involved a combination of writing notes in the margins of the transcripts being analysed, significant and relevant aspects of the transcripts being highlighted using pre-chosen colours to denote similar meanings or concepts and using

‘post-it’ notes for ease of reference to identify segments of data. Initially having manually identified codes the researcher, using an electronic copy of the transcripts, then matched them with data extracts thereby highlighting the code. All highlighted data extracts were then collated together within each code.

### **5.9.3 Identifying patterns and forming themes**

On completion of coding the researcher commenced identifying patterns (as opposed to pattern-matching) across the data and categorising the codes. This process was iterative; moving back and forth across the data and codes, reading and re-reading the data. While identifying patterns and making themes occurred simultaneously, this dissertation will describe the process separately.

Reoccurring codes were identified which were noted for their regularity and any emerging patterns and relationships of connection (Agar, 1996; Saldana, 2003). Patterns are not just stable regularities but can be in varying forms (Hatch, 2002). Saldana (2009) outlines six possible ‘characteristics of patterns which guided the researcher in this study;

- similarity (things happen the same way)
- difference (they happen in predictably different ways)
- frequency (they happen often or seldom)
- sequence (they happen in a certain order)
- correspondence (they happen in relation to other activities or events)
- causation (one appears to cause another)’ (p. 6)

Identifying patterns across the data meant not just identifying the most frequent. While frequency is important, the researcher also interrogated and interpreted the identified patterns ‘to capture the different elements that are most meaningful for answering the

research question' (Braun et al., 2013). The researcher undertook this by asking and re-asking the following rhetorical questions (Frechtling & Westat, 1997);

- What patterns and common themes emerge in responses dealing with specific items? How do these patterns (or lack thereof) help to illuminate the broader study question(s)?
- Are there any deviations from these patterns? If yes, are there any factors that might explain these atypical responses?
- What interesting stories emerge from the responses? How can these stories help to illuminate the broader study question(s)?
- Do any of these patterns or findings suggest that additional data may need to be collected? Do any of the study questions need to be revised?
- Do the patterns that emerge corroborate the findings of any corresponding qualitative analyses that have been conducted? If not, what might explain these discrepancies?

At this stage, unlike quantitative researchers who need to explain 'away' deviant or exceptional cases, the researcher as a qualitative analyst was challenged by these in the data. Miles and Huberman (1994) discuss 'checking the meaning of outliers' and 'using extreme cases' (p. 269, 270). In qualitative analysis deviant instances or cases that do not appear to fit the pattern or trend were not treated as statistical outliers. Rather, deviant or exceptional cases were appropriated as a challenge to further elaborate and verify any evolving themes. For example the lack of representativeness of mental health practitioners in the case, required the researcher not just to accept this, but to inquire why?

A theme ‘captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set’ (Braun & Clarke, 2006, p. 82). While a code captures one idea, a theme has a ‘central organizing concept’ (Clarke & Braun, 2013, p. 224) which contains different ideas or aspects related to the concept and ‘tells’ something about the content of the data that is meaningful in relation to the research question (Braun et al., 2013).

The researcher re-read the codes to identify patterns by looking for concepts, topics and issues which related to and formed the basis of ‘central organising concepts’; themes (Braun et al., 2013). Some themes were obvious due to salient patterns in the data or consisted of large ‘chunks’ of the data represented in a large code (Charmaz, 2006). The process was revised throughout the analysis stage and refinement resulted in a greater concentration of patterned data around central themes and irrelevant codes being excluded. The themes were visually represented in handwritten matrices, flowcharts, tables, mind-maps and thematic maps. The process of making these various visual diagrams aided the researcher to focus his attention on the relationships between themes, and different levels of themes (e.g., main overarching themes and sub-themes within them).

The researcher was guided by Braun and Clarke (2006) during the next phase which involved two levels of reviewing and refining the themes. The guiding principle during this phase was assessing the themes against two criteria, *internal homogeneity* and *external heterogeneity* (Patton, 1990). ‘Data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes’ (Braun & Clarke, 2006, p. xx). The first stage meant the researcher read all the collated extracts of each theme, and considered whether they formed a coherent pattern. Some of



the initial themes did not appear to fit into a coherent pattern and hence reworked, new themes were created and 'tried', moving extracts that did not work in already-existing themes and discarding some. Once the researcher was satisfied that the initial themes 'adequately capture[d] the contours of the coded data' and a settled 'thematic map' was created. The researcher then moved to the second stage of this phase. This involved a similar process, but concerned the entire data set. The researcher considered both the validity of individual themes in relation to the whole data set and also whether the thematic map (see Figure 5.2) 'accurately' reflected the meanings evident in the data set as a whole (Braun & Clarke, 2006). On occasions this required the researcher to re-read and again consider codes. Once the researcher was satisfied with the thematic map representing the different themes, how they fitted together and an overall story about the data he commenced to define and name the themes with precision.

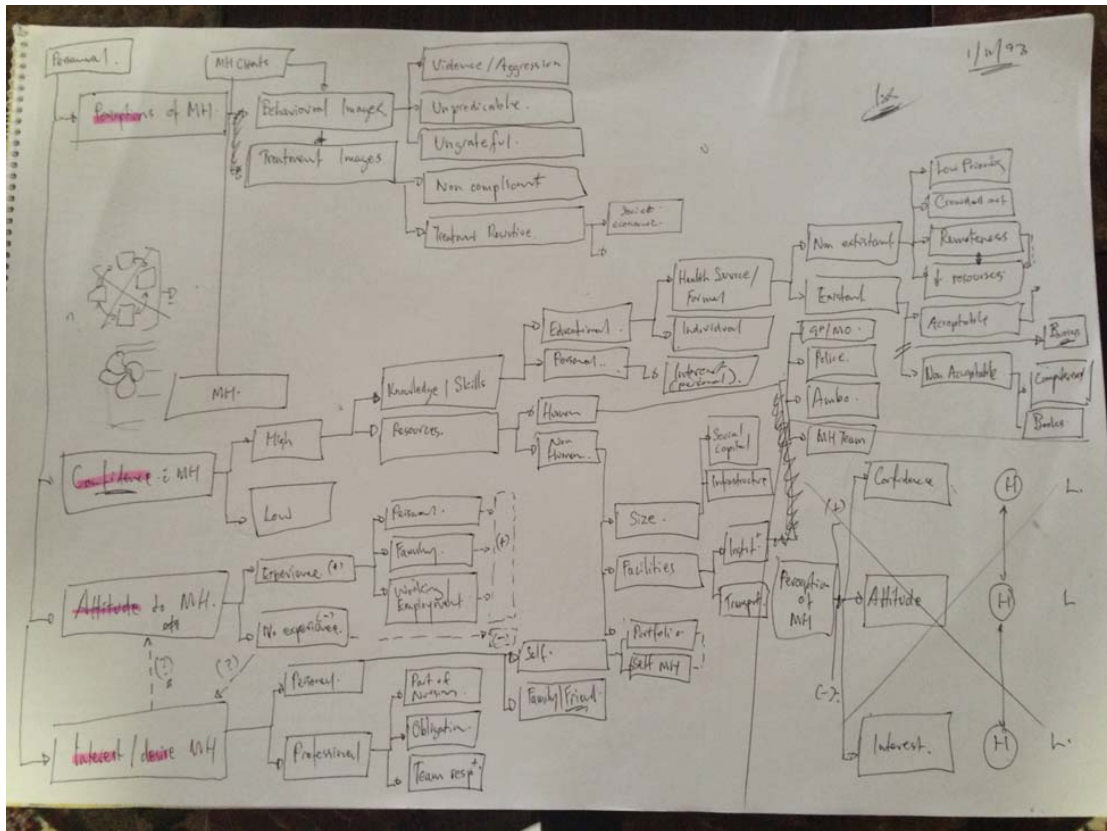


Figure 5.2. Handwritten thematic map.

### 5.9.4 Memo writing

Throughout the process of data analysis the researcher engaged in reflective thinking about both the process of analysis and the data itself. Gibbs (2002) refers to this as ‘metadata’ and ‘is written by researchers during the life of a project about the data, how they were collected and the process of data analysis’ (p. 83). Glaser (1978) defines memos as ‘theorizing write-ups of ideas about codes and their relationships as they strike the analyst while coding ...it can be a sentence, a paragraph or a few pages’ (p. 83). In this study, the researcher recorded metadata by keeping memos, data annotations, draft summaries and mind maps about the study project. Each document was hand written and dated. The vast majority of the hand written reflective thinking was recorded in a number

of A7 'art sketch books'. Keeping and maintaining these documents from the beginning of the data collection process was deemed by the researcher as important, for it helped him to think analytically and reflectively within a developing/evolving structural framework.

The researcher when writing memos did adhere to some basic guidelines mentioned by Gibbs (2002) including:

- 'Write memos the moment the idea comes to mind.
- Memos are not about people/cases but are about thoughts/concepts/ideas.
- Memo styles should be flexible.
- In order to audit trail the memos, date and time can be added to them.
- Memos can be modified anytime and there is no fixed length' (p. 85).

In the initial stages of the study, the researcher had doubts about the worth of writing memos as a form of analytical thinking, but as he continued the practice he slowly came to see their worth, as a means to support the development of analysis. Certainly when it came to the final 'write up' of the study, he was grateful for their existence as they jogged memories and aided reflexivity (Gurdial Singh & Jones, 2007). Retrospectively examining the memos it was clear that the researcher did begin to fine tune them by ensuring that the content of memos comprised the following aspects; reflective remarks where ideas from previous writings were merged, new ideas mentioned by a participant, and to identify anything that was surprising or puzzling (Berkowitz, 1996; Gibbs, 2002, p. 88). Over time the memos became more complex and richer in information.

### **5.9.5 Manual vs computer assisted coding**

Qualitative data analysis can be undertaken manually or by utilising computer software. A major benefit of using computer software in research is to manage large,

voluminous, detailed and diverse data sets; computer technology provides creative tools for managing data in depth and detail (Andrew, Salamonson & Halcomb, 2008; Prein & Kuckartz, 1995). However, insightfully Weitzman and Miles (1995) state that ‘there is no computer program that will analyse your data’ (p. 3). While computers are a tool for a researcher to facilitate systematic data management and analysis, the researcher must still be the critical analyst (Bean & Metzner, 1985; Burgum, Martins & Northey, 1993; Tinto, 1975, 1988; Wells, 2003). To facilitate an intimate deep appreciation, familiarity and understanding of the data, the researcher manually coded the data. In any event the study consisted of 30 interviews and hence was relatively moderate compared to other more data heavy studies.

### **5.10 Summary**

This chapter has outlined the methods used to collect the data and described how it was analysed thematically. At the end of this stage of the study the researcher had ascertained from the data what the themes were which responded to the research questions concerning remote nurses delivering mental healthcare. It was time to write the ‘Findings’ chapter.

After writing approximately 1,500 words the researcher became disillusioned. It became apparent to him that the analysis was not deep enough or sophisticated. Thematic analysis alone had resulted in a superficial level of presenting the study findings. The researcher aired his frustrations with his principle supervisor. After two discussions it was suggested that, in the search for a way to deepen this analysis he read ‘Situational Analysis; Grounded Theory After the postmodern Turn’ by Adele Clarke (2005). The researcher was sceptical as he had previously read about grounded theory and had formed a

view that as a methodology, it did not suit him. In desperation he commenced reading Clarke (2005). By the end of Chapter 2 the researcher was intrigued, but when the researcher finished reading Chapter 3, 'Doing Situational Maps and Analysis' it became abundantly clear that this was a data analysis technique which eminently suited him. The researcher then commenced an informal but thorough literature search concerning situational analysis. There have been very few published studies. After discussions with his supervisors, the researcher then commenced his situational analysis of the data in accordance with Clarke's (2005) writings. The next chapter outlines and describes this process.

## **Chapter 6: Situational and Relational Analysis and Social World Theory**

### **6.1 Introduction**

Having undertaken coding and thematic analysis of the data as described in Chapter 5 (Methods), the researcher decided to further interrogate and analyse the data. Situational analysis (Clarke, 2005) was the chosen method for this analysis. This chapter is divided into three sections. The first section of the chapter outlines and discusses the researcher's method of undertaking situational analysis by creating and utilising three situational maps, and then outlines relational analysis using the same three maps. The second section of the chapter discusses Clarke's (2005) two enabling tools for developing and creating a social world/arena map, based on the previous three situational maps and broader data. This process culminates in the social world/arena map, which is presented in this chapter. The last section discusses the process of developing positional maps and then using all the maps (messy, ordered/working, relational, social world/arena and positional) to examine and interrogate the data using the rhetorical questions suggested by Clarke (2005).

### **6.2 Situational Analysis: Background**

Situational analysis is embedded within grounded theory's fundamental principles of theoretical sensitivity, theoretical sampling, constant comparative methods, coding, memoing and diagramming (Clarke, 2005; Mills, Chapman, Bonner & Francis, 2007). A central difference between the two approaches is that situational analysis takes raw data and creates visual maps (Mills et al., 2007). This facilitates a deeper and richer

interpretation than Straussian social worlds/arena maps (Mathar, 2008) by initiating broader and newer ideas for interpreting the field of research (Mathar, 2008; Shoop, 2009).

Situational analysis adopts three mapping strategies for visually representing the complexity and heterogeneity of the situation being researched (Clarke, 2005, 2009) by ‘elucidating the key elements, discourses, structures, and conditions of possibility that characterize the situation of inquiry’ (Clarke, 2009, p. 211). Situational analysis involves ‘making and analyzing ... three kinds of maps—*situational*, *social worlds/arenas*, and *positional* maps—as a means of opening up and analyzing data cartographically, emphasizing relationality and positionality’ (Clarke, 2005, p. 291–292). Similarly to other postmodern qualitative approaches (Denzin, 1996), situational analysis offers flexibility, ‘reflexivity and accountability’ (Clarke, 2005, p. 292). In the present study, this led the researcher’s inquiry towards *sensitising concepts* (Blumer, 1969, p. 147–148), in contrast to *definitive concepts*, which ‘refers precisely to a class of objects by the aid of a clear definition in terms of attributes that may be “provocative”’ (Clarke, 2005, p. 301). The researcher wanted to develop a *thick description* (Geertz, 1973) and deepened understanding of the remote nurses’ social worlds and how they deliver mental healthcare.

### **6.3 Social Worlds and Arenas**

In this chapter, reference is made to the notions of social ‘worlds’ and ‘arenas’ as used by Clarke (2005) in situational analysis. Clarke and Star (2007) defined social worlds as ‘groups with shared commitments to certain activities, sharing resources of many kinds to achieve their goals and building shared ideologies about how to go about their business (p. 115). The units of analysis are the social group and its interactions with other social groups; the analysis does not take place at the level of individuals and their interactions

with others. Strauss (1978, 1991) referred to social worlds as ‘universes of discourse’; Mead (1938/1972) described them as social groups concomitant with their own meaningful universes of discourses, while Clarke (2005) described them as ‘collectives which participate in the same discourse or ... simply a number of people acting together’ (Mathar, 2008).

Clarke (2005) differentiated social worlds from social arenas by narrowing the scope of ‘worlds’—there are several social worlds (i.e. collectives which participate in the same discourse or, to describe it simply, a number of people acting together) within one arena. The researcher in this study reversed this classification; in other words, in this study, there are a number of arenas within the broader social world. There were two reasons for this. First, etymologically, ‘arena’ derives from the Latin word *harena*, meaning ‘sand-strewn place of combat’. The researcher visualised aspects of the remote nurses’ social world as places of combat, for example, their workplace, resources and skills; however, the researcher did not see the whole life of the remote nurse delivering mental healthcare as a place of combat. There are spaces in their lives of peacefulness, tranquillity and enjoyment, such as holidays, family and beautiful landscapes. Second, the definition of ‘world’ is ‘a person’s normal or habitual sphere of interest, action or thought’ (*Shorter Oxford Dictionary*, 2007), which connoted to the researcher a sense of largeness or wholeness. This case study aimed to examine the entirety of a remote nurse’s social world. While in a remote setting, a remote nurse, even if not at the workplace or on duty, remains within the ‘world’ involved in delivering mental healthcare. Accordingly, the difference between the researcher’s and Clarke’s (2005) classifications is that when the researcher refers to



‘world’, Clarke refers to ‘arena’ and vice versa. In all other means of conception they remain identical; only the descriptor has been changed.

## **6.4 Situational Mapping**

The process of mapping commences with constructing situational maps. This requires a researcher to firstly examine the ‘overarching context’ of the remote nurse’s social world of delivering mental healthcare. A researcher focuses their interest in the ‘situation’ itself and in its broadest context (Clarke, 2005, p. 94); they rhetorically asked himself, who constitutes the parties in the situation, the controversies, the reasons for coming together, the organisations or social institutions involved, and ‘cultural symbologies and discourses’ (p. 94). A researcher can obtain the relevant information from any source including their own personal experiences. Once an overarching context for the situation is obtained, the process of mapping commences.

### **6.4.1 Abstract situational map: messy/working version**

The first abstract situational map (see Figure 6.1) is the ‘messy/working version’ (Clarke, 2005, p. 87), which assisted the researcher to identify the broad human and non-human elements that influence and/or affect remote nurses delivering mental healthcare. The conscious reason for the maps being ‘messy’ and ‘dirty’ is that ‘too much order provokes premature closure, a particular hazard with grounded theory’ (Clarke, p. 95). To obtain the ‘big-picture’ idea of remote nurses delivering mental healthcare the researcher first placed the codes from his initial codebook on a messy map (see Figure 6.1), which is “‘a preliminary map that roughly lays out all the elements you (the researcher) think may be in that situation’” (Clarke, 2005, p. 267). The construction of the messy map was similar to a brainstorming session, aiming to capture and discuss the ‘messy complexities of the

situation in their dense relations and permutations' (Clarke, 2005, p. 370). At this stage the researcher was mindful to ask the following questions posited by Clarke, 'Who and what are in the situation? Who and what matters in this situation? What elements 'make a difference'?' (p. 87).

Figure 6.1. Messy map. Adapted from Clarke, 2005, p. 88



Importantly the researcher was also mindful of Clarke's (2005) belief that the symbolic meaning of elements must not be forgotten; but captured. Hence, meanings and the actors who produce them, should be 'mapped in' as they may provide a key to the nature of the field. Accordingly, when remote nurses deliver mental healthcare there are 'self-attached' meanings generated by the remote nurses; 'rewarding', 'dedication', 'unique', 'dangerous' and 'flexibility', all of which were recorded in the messy map.

The messy map in Figure 6.1 was created using various forms of available data, including: transcripts from all the participants, codes/themes, the researcher's journal and documents accessed during the study (hardcopy and electronic). In the messy map the researcher laid out all of the codes, largely constituted around the individual, relational and discursive elements that shape the delivery of mental healthcare by remote nurses. While messy mapping includes relational activity, Figure 6.1 does not make an effort to define hierarchies or priorities of relationships, or to physically arrange or illustratively link the elements.

The researcher constructed the messy map manually. The researcher preferred to manually assort the messy map as this would necessarily mean a greater and deeper analysis. The making of the messy map was an iterative process, with several variations being developed as the data analysis process unfolded. The researcher made sense of the data by going back and forth between the messy map and the collected data described above. The researcher moved his focus around in these maps to draw himself in and out of the data, trying to see new discernible elements during the analysis process. This back and forth process of making the maps, by adding, deleting, and rearranging the messy map was useful for going deep into the transcribed data, and prevented a premature closure to the

analysis (Clarke, 2005). When the researcher was of the opinion that no new elements needed to be added or anything amended, he was comfortable to move to the next stage. As Clarke (2005) states, a researcher reaches saturation when ‘it has been awhile since you [a researcher] felt the need to make any other changes’ (p. 108–109). Having completed the messy map the researcher moved to the ordered/working maps.

#### **6.4.2 From messy maps to (situational) ordered/working maps**

The aim of the study’s next stage of analysis is to map some sense of ordered/working map from the messy maps. A researcher utilises the 12 major categories that Clarke (2005, p. 90) identifies for the working/ordered map. Table 6.1 outlines the 12 major categories. As Clarke (2005) states, not all of the categories need to present in an analysis. ‘The goal ... is not to fill in the blanks but to really examine *your* situation of inquiry thoroughly’ (Clarke, 2005 p. 89). This is undertaken by reviewing the messy maps and analytically collapsing/expanding and adding/deleting categories/items.

Table 6.1

*Twelve Categories for Working/Ordered Map (Source: Clarke, 2005, p. 90)*

Category	Description
Individual Human Elements/Actors	Significant and key individuals in the situation
Collective Human Elements/Actors	Particular groups and/or specific organisations
Discursive Constructions of Individual and/or Collective Actors	As found in the situation
Political/Economic Elements	The state, particular institutions, political parties, NGOs and politicised issues that may affect the situation
Temporal Elements	Historical, seasonal, and other temporal components
Major Issues/Debates	Usually contested, found in the situation and illustrated on positional maps
Nonhuman Elements/Actants	Information, knowledges, technologies, materialities, infrastructure, 'things'
Implicated/Silent Actors/Actants	As found in the situation (or 'visibly' absent)
Discursive Construction of Nonhuman Actants	As found in the situation
Sociocultural/Symbolic Elements	Symbols, visuals, rituals, religions, race, icons
Spatial Elements	Spaces in the situation, spatial and geographical aspects/issues
Related Discourses	May be historical, narrative, and/or visual and from the cultural context or situation-specific discourses
Other kinds of elements	As found in the situation

At the end of this mapping session of the working/ordered map, a researcher undertakes memoing 'noting new insights, shifts of emphasis or direction, detailing further directions for theoretical sampling' (Clarke, 2005, p. 89–90). This necessarily results in the ordered/working maps not being static documents but fluid to accommodate 'repositionings' and the addition and deletion of actors and/or actants (Clarke, 2005, p. 90).

### 6.4.3 Ordered/working maps

Taking the elements from the messy maps the researcher began creating the ordered/working maps to highlight contextual relationships between the spatial, temporal, social and cultural of the remote nurse's social world of delivering mental healthcare. The ordered/working map illuminates the main actors, (e.g., remote nurses, mental health patients, police officers), the main key elements and debates (e.g., isolation, lack of resources, mental healthcare skills) and the main associated/linked discourses (remote nurse discourse, mental healthcare discourse, lack of funding discourse) of remote nurses delivering mental healthcare. The researcher relied on the 13 categories outlined by Clarke (2005) (see Figure 6.1). Clarke (2005) says that researchers do not have to use all of the categories; which and how many, is at their discretion. The researcher utilised all 13.

The starting point was for the researcher to review the questions posed by Clarke (2005) namely; 'Who and what are contained in this situation? Who and what matters in this situation? What elements 'make a difference' in this situation?' (p. 87). When asking these questions, the researcher immersed himself in the data from its multiple sources (transcripts, codes/themes, memos, research journal, research documents and messy maps).

The researcher worked on many versions of the ordered/working maps, often moving elements around and between categories, deleting, renaming and creating new elements for each of the categories. The researcher collapsed and then re-opened labels for groups of elements. The process was thought provoking, due to the need for a sense of assurance instilled in the researcher, that the categories were fully populated by all the elements in the situation and also correctly populated. Table 6.2 is the final version of the ordered/working map. As the researcher clustered similar elements together and re-named

them, the following is a brief explanation of what the words, names and labels, which populate the 13 categories are;

#### **6.4.3.1 Individual human elements (actors)**

This category includes ‘key individuals and significant [unassembled] people in the situation’ (Clarke, 2005, p. 90). The preliminary mapping of data in Figure 6.1 (messy map) and categorised in Table 6.2 (ordered/working map) identifies the following that can be viewed as fitting into this category relative to the *situation or world* of remote nurses delivering mental healthcare; *experts, administrators, facilitators* and *participants*. *Experts* are those who have high levels of knowledge and/or skills in caring for mental health patients and from whom, in the world of remote nurses rely on, for advice and assistance. Their domain or arena of influence is not constant but is highly valued and sought in times of crisis or uncertainty. Members of this arena include psychiatrists, medical officers, mental health clinicians and paramedics. *Administrators* are those in the world who manage and/or facilitate resources and assets for remote nurses so that they can deliver mental healthcare. Membership is usually more stable and demand more constant. Members of this arena include District/Area Managers, Directors of Nursing (DONs) and hospital administrators. *Facilitators* assist and aid in the delivering of mental healthcare within the remote nurses world. Membership into this arena is diverse and not reliant on one particular skill set or body of knowledge. Again demand for this arena influence can vary depending on circumstance and locality. Members of arena include, allied health professions, ambulance officers, security staff, police and pilots. *Participants* are those who receive, within the remote nurse’s world, care and assistance from the delivery of mental healthcare. Members of this arena have the greatest influence, as they trigger the



level of demand for mental healthcare and hence other three arenas respond to the same.

Members of this arena include mental health patients, their family members and significant others and members of society at large.

Table 6.2

*Ordered/Working Map (Adapted from Clarke, 2005, p. 90)*

Category	Description
Individual Human Elements/Actors	Experts, Administrators, Facilitators, Participants.
Collective Human Elements/Actors	Affected parties, Group processes, Organisations, Groups, Relationships.
Discursive Constructions of Individual and/or Collective Actors	Leaders, Structures, Opinions, Relationships, Responsibilities, Duties, Accountabilities, Roles, Arrangements, Rules, Consequences, Beliefs, Discourse, Voices, Expectations, Purposes, Focuses, Facts, Answers, Decisions, Communications, Concerns, Feelings, Reactions, Passions, Explanations, Silences, Absences.
Political/Economic Elements	Hierarchies, Power, Rules, Positions, Economics.
Temporal Elements	Time, Space, Schema.
Major Issues/Debates	Concerns, Apprehensions, Issues, Problems, Disagreements.
Nonhuman Elements/Actant	Infrastructure, Information, Knowledges, Technologies, Resources, Presence, Beliefs, Decisions, Relationships.
Implicated/Silent Actors/Actants	Absent questions/issues, Absent participants, Affected voices, Non-represented relationships, Power.
Discursive Construction of Nonhuman Actants	Race, Individualism, Collectivism, Age, Stereotyping.
Sociocultural/Symbolic Elements	Belief systems, Rituals, Consensus, Boundaries, Relationships, Dominance.
Spatial Elements	Vastness, Space, Empty spaces, Non-existent spaces, Reduced, Inappropriate.
Related Discourses	Interruptions, Distancing, Withdrawal, Silent discourse(s), Non-verbal communication, Posturing, Expressions, Gestures, Hidden agendas.

As with all arenas (and worlds), the boundaries between them are flexible, porous and at times difficult to determine. Membership is not mutually exclusive from each other as individuals can be members of multiple arenas simultaneously. Arenas are not static or stable but are constantly changing. The social world/arena map (see Figure 6.8) of the situation will articulate the ways in which these individual human actors ‘become social beings again and again through their actions of commitment to social worlds and their participation in those worlds’ (Clarke, 2005, p. 110).

#### **6.4.3.2 *Collective human elements (actors)***

This category includes *organisations* such as health services and districts, in a collectivist context. Within organisations are *groups* which varied both in form, structure, size and composition. Groups can range from a physical location such as primary healthcare centres, hospitals to homogeneous groups of individuals in multiple locations, such as mental health teams through to heterogeneous groups such as organising the air evacuation of a client from a remote community. Essential for these organisations and groups to function are *relationships*: relationships facilitate coordination and functionality of the organisations and the groups contained therein. Less evident in this category is the collective human element of *affected parties*. Entire categories or groups of individuals as well as other organisations, peoples and groups can be *affected parties*. These may or may not be physically present in the arenas in the remote nurse’s social world.

#### **6.4.3.3 *Discursive constructions of individual and collective human actors***

Discourse is a body of texts patterned by certain structural features. Discourses operate at various levels and can interrelate in a variety of reinforcing or conflicting, ‘ways of constituting knowledge, together with the social practices, forms of subjectivity and

power relations which inhere in such knowledges and relations between them. Discourses are more than ways of thinking and producing meaning' (Weedon, 1987, p. 108).

Relational analysis concerning the situational map of the remote nurse's world of delivering mental healthcare includes the following; *Leaders, Structures, Opinions, Relationships, Responsibilities, Duties, Accountabilities, Roles, Arrangements, Rules, Consequences, Beliefs, Discourse, Voices, Expectations, Purposes, Focuses, Facts, Answers, Decisions, Communications, Concerns, Feelings, Reactions, Passions, Explanations, Silences, Absences.*

#### **6.4.3.4 Political and economic elements**

Individuals, groups and arenas are all vying for the contested space(s) which exist within the social world. Many of these contests arise out of the rationing of resources including finance (*Economics*). These contests must be ordered and not lead to conflict and dysfunction and hence *Power, Positions* and *Rules* need to be created within the world and arenas. From a Foucauldian perspective *Power* is everywhere with the arenas and world. No one individual, group or organisation has all the power; power continually swirls around every changing in its form and effect. Hence, reinforcing that arenas and worlds are not static.

#### **6.4.3.5 Temporal elements**

Worlds and arenas are abstract concepts but are 'worldly' in nature (Clarke, 2005). *Time* and *Space* are significant influences on all aspects of the social world, including its functioning and continued existence. Time is not meant just in its currency of the present but includes 'time past' (histories) and 'time future' (planning); both meanings affect the present for individuals, organisations and groups. Space in this section relates to positions

taken within the world and arenas (spatial considerations are addressed below). As time and space are continuous and cannot be stored, saved or observed all at once within the world and arenas, there must be plans or *Schemas* to take this into account for individuals, organisations and groups to function and interact in an ordered fashion.

#### **6.4.3.6 Major issues and debates**

Within the social world arenas, individuals, organisations and groups are at all various and different stages of collaborating, contesting, colluding, amalgamating, forming, developing, changing and failing. This necessarily raises *Concerns, Apprehensions, Issues, Problems, and Disagreements* for those who occupy the world at various times and with varying degrees of intensity.

#### **6.4.3.7 Nonhuman elements (actants)**

Those who occupy the world and arenas do so with various non-human actants. They need creatures, artefacts, materials, ideas, information, knowledge's and 'things' to be able to operate and function. Those who operate within the remote nurse's social world therefore utilise; *Infrastructure, Information, Knowledge's, Technologies, Resources, Presence, Beliefs, Decisions, Relationships*. Who, why, how and to what degree each of these is adopted or utilised, will continually change and be in a state of flux.

#### **6.4.3.8 Implicated (silent) actors and actants**

Clarke (2005) declares that any analysed social world and/or arena will usually contain implicated or silent actors and actants. Implicated actors are those who are 'not physically present in a given social world but ... conceived, represented [only discursively], and perhaps targeted by the work of those others' (p. 46). They are conceived this way 'by those in power in the social world or arena' (p. 46). Implicated or

silent actors may include or not include those ‘who are physically present but are generally silenced/ignored/invisible (sic) by those in power’ (p. 46; Clarke & Montini, 1993). This appreciation facilitates a means of analysing the ‘situatedness’ of less powerful actors and ‘actions’ and ‘raises issues of discursive constructions of actors and of nonhuman actants’ (Clarke, 2005, p. 46).

Neither category of implicated actors are actively involved in negotiations of self-representation nor their thoughts, opinions or identities sought out by others situated within the social world or arenas. (Clarke, 2005). ‘They are neither invited by those in greater power to participate nor to represent themselves on their own terms. If physically present, their perceptions are largely ignored and/or silenced... [D]ifference ... turns on the issue of their physical presence’ (Clarke, 2005, p. 46). Accordingly, *Absent questions/issues*, *Absent participants*, *Affected voices*, *Non-represented relationships/power* are situated in this social world and to various degrees in the arenas.

#### **6.4.3.9 Discursive construction of non-human actants**

Relational analysis of the situational map of the remote nurses delivering mental healthcare includes the following in this category: *Race*, *Individualism*, *Collectivism*, *Age* and *Stereotyping*. The social world (and arenas) of delivering mental healthcare by remote nurses is largely described in terms of this category.

#### **6.4.3.10 Sociocultural and symbolic elements**

Clarke (2005) describes this category broadly as including elements such as ‘religion, race, sexuality, gender, ethnicity, nationality, logos, icons, other visual and/or aural symbols’ (p. 90). From the preliminary mapping of the situation of remote nurses delivering mental healthcare, the analysis identifies, *Belief systems*, *Rituals*, *Consensus*,

*Boundaries, Relationships* and *Dominance* in this category. The defining of boundaries concerning arenas incorporates significant elements of being both sociocultural and symbolic in nature.

#### **6.4.3.11 Spatial elements**

Clarke (2005) describes this category broadly as the ‘spaces in the situation’ (p. 90). This category is of special interest to this inquiry for two reasons which are contextually very different. Firstly because of the vast geographical distances which are central to the study and the impact of this on the data and secondly, in reference to positions taken up by the individuals, organisations and groups within both the situational and social world maps. Included in the data and identified in these maps are *empty spaces* and *non-existent spaces*.

#### **6.4.3.12 Related discourses**

There exists a significant space in the data for components that fall outside of the verbal discourse of remote nurses delivering mental healthcare. Specifically, this includes a cluster of components concerning non-verbal communication. It is evident that ‘not everything is said’. The unstated may be factual and truthful constituents (components) of the social world/arenas. It is equally evident that an analysis that includes only the written text, verbal transcript the ‘materiality’ of remote nurses delivering mental healthcare does not account for these (or all) components. Included here are; *Interruptions, Distancing, Withdrawal, Silent discourse(s), Non-verbal communication, Posturing, Expressions, Gestures, Hidden agendas*.

Once the researcher was satisfied with the population of the 13 categories and the contents within each reflected the elements, groups, individuals, organisations, issues,

concerns and absences he felt that saturation of the ordered/working map had been achieved. The researcher then moved to the next stage of creating a situational/ relational map.

#### **6.4.4 Relational analysis of situational maps**

Sequentially the next stage of the study is for a researcher to ask questions about the situational map(s). Clarke (2005) states that ‘relational analysis using the messy situational map should get the analyst up and moving into the data, into the analysis, and into memos’ (p. 108) and to use the maps to provoke a researcher to interpret the field of research more broadly (Mathar, 2008; Rogo, 2009). ‘*Relations* among the various elements are key’ (Clarke, 2005, p. 102). A researcher needs to consider the relations and juxtapositions (Allen, 2010) contained within the map between its various elements, to decide which relationships to pursue.

Procedurally, a researcher needs to take each element (of the ordered/working map) in turn and examine its relations to each and every other element contained within the map. A researcher literally centres attention on one element/topic/issue and draws connecting ‘relational’ lines between them ‘and *specif[ies] the nature of the relationship by describing the nature of that line*’ (Clarke, 2005, p. 102), ‘[T]his [is] systematic mapping to every other’ (Clarke, 2005, p. 102). Multiple maps may assist a researcher ‘to diagram’ through this analytic exercise, combined with multiple sequential memos. ‘Relational analyses using situational maps ... provide[s] a systematic, coherent, and potentially provocative way to enter and memo the considerable complexities of a project laid out in a situational map’ (Clarke, 2005, p. 103).

Undertaking relational analysis is personal to a researcher's way of 'working analysis'. Clarke (2005) suggests the maps can diagrammatically illustrate interesting/significant relation(ship)s by ascribed circling, boxing, triangling, arrowing of various elements and connecting them. 'The same element[s] can, of course, be 'related' to multiple others' (Clarke, 2005, p. 103) by asking what the significantly identifiable 'element/centre of inquiry' has to say about, relates to and interacts with other and/or all the elements. Circling the most significant relations visually represents to a researcher the very nature and quality of the relationship. In undertaking relational analysis, the primary question to ask is: What do the central elements or centres of inquiry have to say about all the other elements or centres of inquiry? When conducting relational analysis (of situational maps), Clarke (2005) asserts that researchers should *not* limited themselves to focusing only on one 'element/centre of inquiry' but to all relations with all other 'elements/centres of inquiry'. This creates a diagrammatic unstructured web of relations.

A researcher becomes aware when a situational map is complete due to 'saturation'; from classical grounded theory (Strauss & Corbin, 1998). The map has been worked on 'many times, tinkered, added, deleted, reorganized' (Clarke, 2005, p. 109). A researcher must be comfortable with every entry, about its relations to other entries, no longer 'feels' the need to make any major changes, no entries have been missed out and that the most important elements have been included.

#### **6.4.5 Overall situational (relational) map**

Relational maps highlight the interactions between the various elements in the situation. These elements (see Table 6.2, ordered/working map) are not static but forever negotiating, repositioning, reshaping and reforming through everyday activities (Mathar,



2008). This fluidity is addressed by examining the various relationships between the elements (e.g., strong, weak, direct, indirect, absent, silent, dependent, formal, and informal; or any combination and/or degree of the aforementioned). This assisted the researcher to decide ‘which stories—which relations—to pursue’ (Clarke, 2005, p. 102) both at this stage of analysis, but also in reporting the ‘Findings’ (see Chapter 7).

The researcher took the categories forming the basis of the ordered/working map and then drew lines between the categories/elements simultaneously describing and articulating the nature of the relationships. This illustrated both relationships of connection but also ‘grey areas’ of dis-connectedness. Not every relationship in the remote nurse’s social world of delivering mental healthcare is equal, stable or of importance. The remote nurse’s relationships involved in delivering mental healthcare are fluid and diverse. This will be discussed in detail in Chapter 8 utilising actor-network theory to describe how these relationships work, their importance and function in the in the remote nurse’s social world.

In creating the relational map, the aim was to link by differentiated (representational) lines, the nature, quality and context of the relationship under analysis between two (and more) elements/categories. The researcher commenced with the manual and traditional approach (Sen & Spring, 2013; Vasconcelos, 2007; Vasconcelos, Sen, Rosa & Ellis, 2012) of circling or boxing the elements and then drawing distinctive representational lines between the same and describing the nature of the relationship between the two (or more). The researcher commenced creating the relational map in this manner as he had a belief, at that time, that manually undertaking situational analysis facilitated a deeper and richer working with, and analysis of, the data.

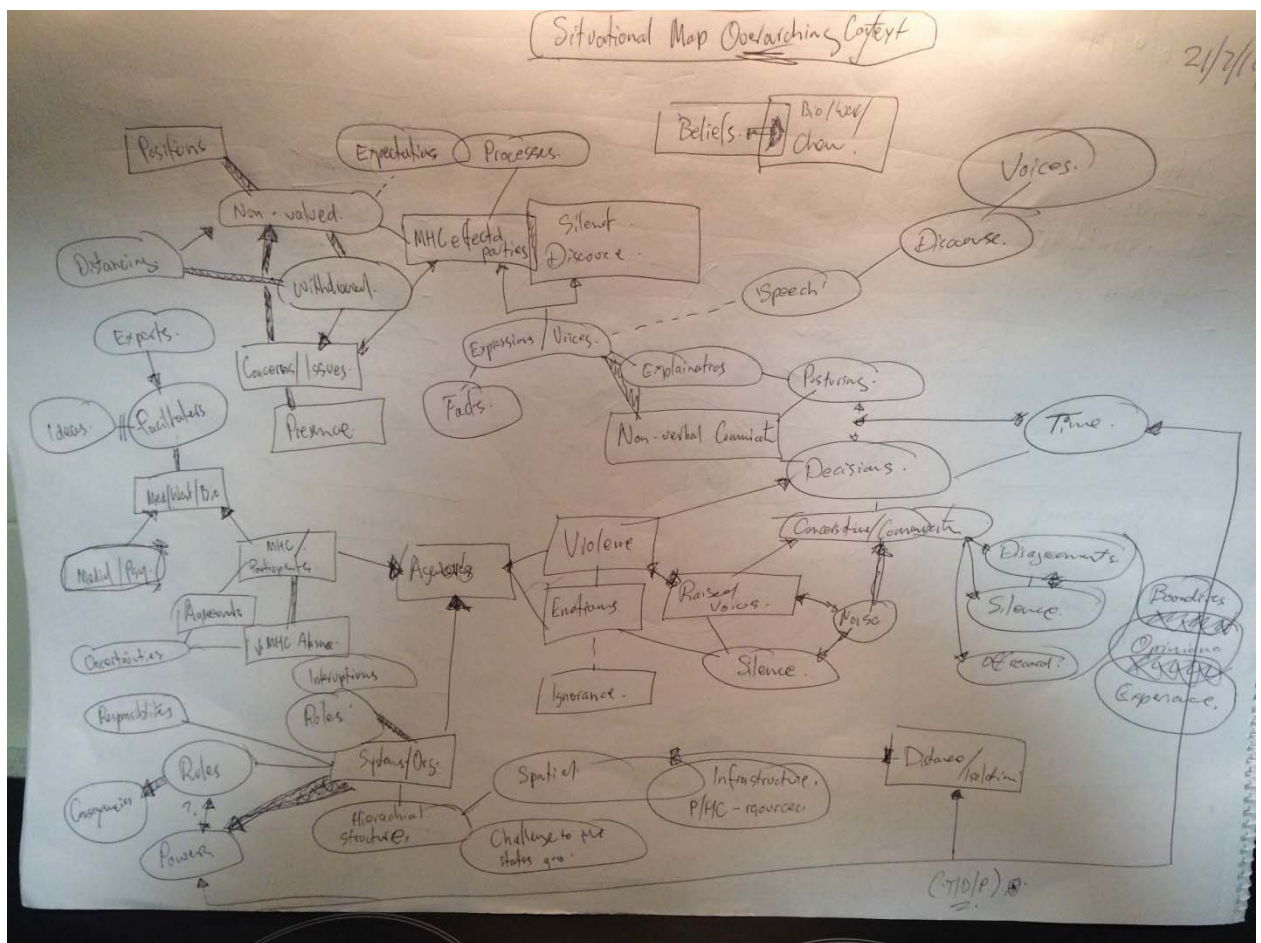


Figure 6.2. Initial (first generation) manually drawn relational map.

Abandoning this approach the researcher thought that a ‘fresh’ and renewed approach of constructing a simpler computer ‘Word’ document relational map would assist. Hence the researcher collapsed various related elements into domains of relatedness (collectives of elements) thereby reducing the necessity and complexity of lines between the elements in the relational map. Simultaneously, rather than hand-written, the researcher entered his workings on to a ‘Word’ document in his vain attempt to facilitate simplicity of interpretation. Table 6.3 is the final version of this process.

Axiomatically Table 6.3 resembles nothing like a relational map according to Clarke’s (2005) writings and therefore was an ‘epic’ failure! The ‘map’ did not represent nor display the interconnectedness, complexity and interrelatedness of the elements/categories between the elements/actors within the remote nurse’s social world of delivering mental healthcare. The ‘map’ is sterile, simplistically bland and hence unrepresentative of what such a map should display and denote according to Clarke (2005).

In consultation with his PhD supervisors, the researcher recalibrated his approach, thereby constructing a relational map consistent and worthy of Clarke’s (2005) situational analysis approach. The novice researcher, up to this point of the study avoided using computerised software. The researcher believed (then) that by not using computers in the analytic data phase would cause him to be more intimate with, and hence have a deeper understanding of the data. Having exhausted the previous two outlined approaches to constructing a relational map, the researcher employed a piece of computer software, MindMeister (2016). MindMeister is a mind-mapping software package that allows users to visualise their thoughts in a computerised map. The researcher took the elements and

categories from the ordered/working map and entered them onto the mapping interface. He then drew relationships between the various elements/categories using lines of connection. Several colours were chosen to differentiate the nature of the relationships;

Table 6.3

*Representational Colours Depicting Different Relationships in the Relational Map*

<b>Colour</b>	<b>Description</b>
Red	Direct/Strong
Green	Indirect/Weak
Yellow	Direct/Weak
Blue	Absent

More colours and relationship descriptions could have been created but due to the numerous lines it would become even more confusing. The researcher changed, added, tinkered, deleted and reorganised the relational map on the computer interface as he worked with the data to analyse it. Many relational maps were created which were printed off and stored as he kept working with the relational maps. On each occasion a memo was written as to the changes made and why. These were then reflected on when returning to the relational maps. When drawing the lines between the elements the researcher adopted Clarke's (2005) suggestion of talking to yourself as to why (or why not) a line is not made. While this may sound strange it did make the analysis more 'alive' or 'workable' rather than undertaking the process in silence. The researcher knew when the relational map was completed when he no longer could add, delete or rearrange any elements and/or lines. At that point saturation had been achieved.

Figure 6.4 is a copy of the final relational map. The purpose of the map is not for the reader to analyse the individual relationship between elements but to visually, through

a diagram (map), highlight the complexity and the large number of relationships in the situation of the remote nurse's social world in delivering mental healthcare. The relational map (see Figure 6.4), better represents the 'analysis look[ing] a bit chaotic' (Clarke, 2005, p. 103) than both of the other two maps (see Figures 6.1 and 6.2). As Clarke (2005) states this representation 'reminded' the researcher of the 'disorderliness' and orderliness of delivering mental healthcare in the situation by remote nurses 'and the many elements that must be juggled' (p. 103). One other issue concerning the relational map which Clarke reminded the researcher was to notice the wide variety and nature of elements yet remaining in relationship to each other either directly or indirectly.

#### **6.4.6 Conclusion**

On completion of the relational map the researcher was ready to embark upon the creation of a social world map of remote nurses delivering mental healthcare. He kept all of the draft maps of the three different types, along with memos and journal entries so that he could in drafting the social world map, if required, go back and trace why elements, relationships, groups, issues were identified. The process of creating the three types of maps enabled the researcher to better understand the data than by coding transcripts and reading research documents alone. He felt more assured that with the deeper and richer understanding and analysis that constructing the social world map would be undertaken with greater confidence and accuracy. The next section will outline the creation of the social world map and describe what actors, actants, issues, relationships, concerns populate the remote nurse's social world, followed by Chapter 7 as to who they are and Chapter 8, utilising actor-network theory, as to how they operate and function.



Figure XX. Situational Map of Overarching Context of RGN's delivering MHC.

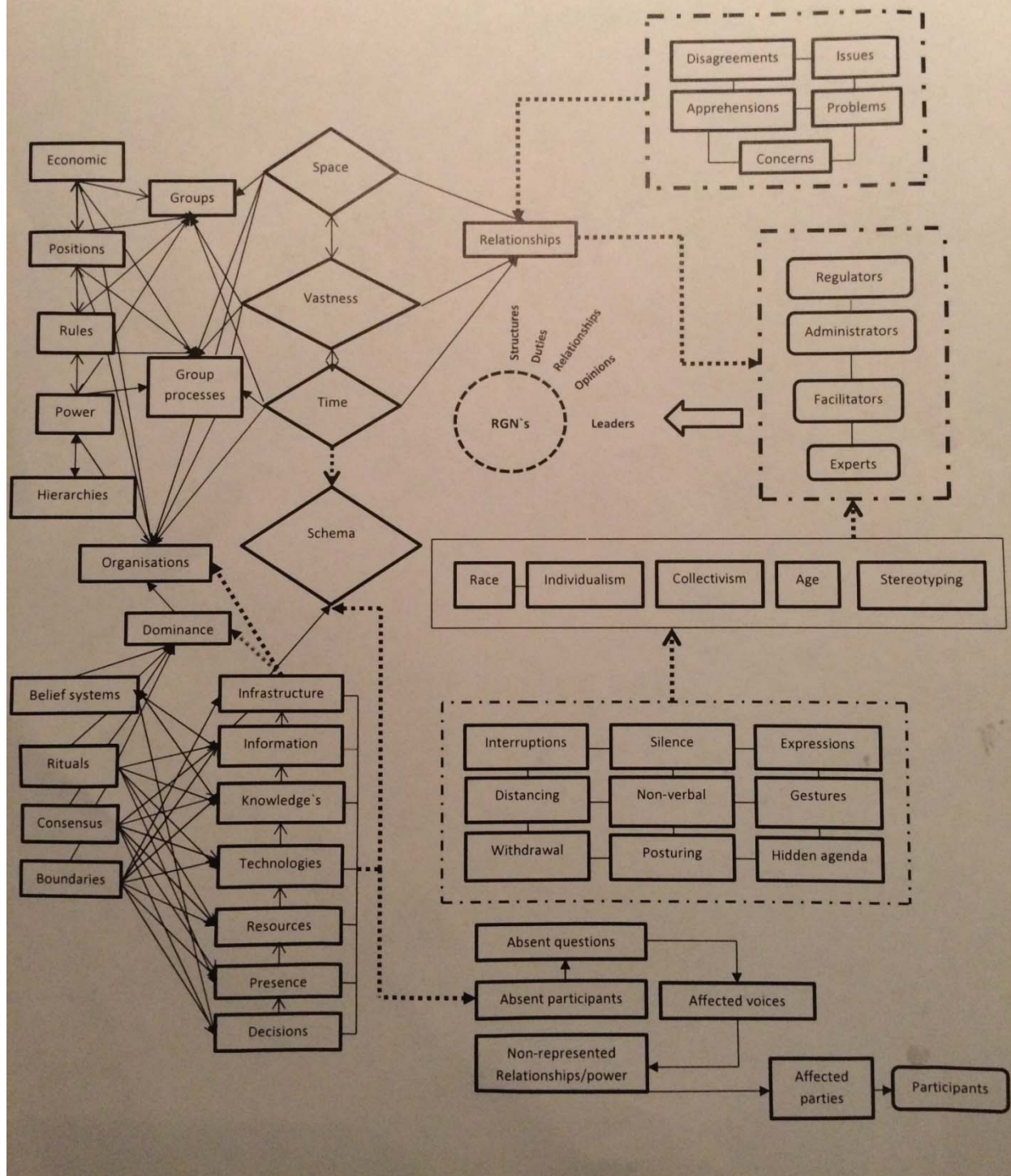


Figure 6.3. Situation map.

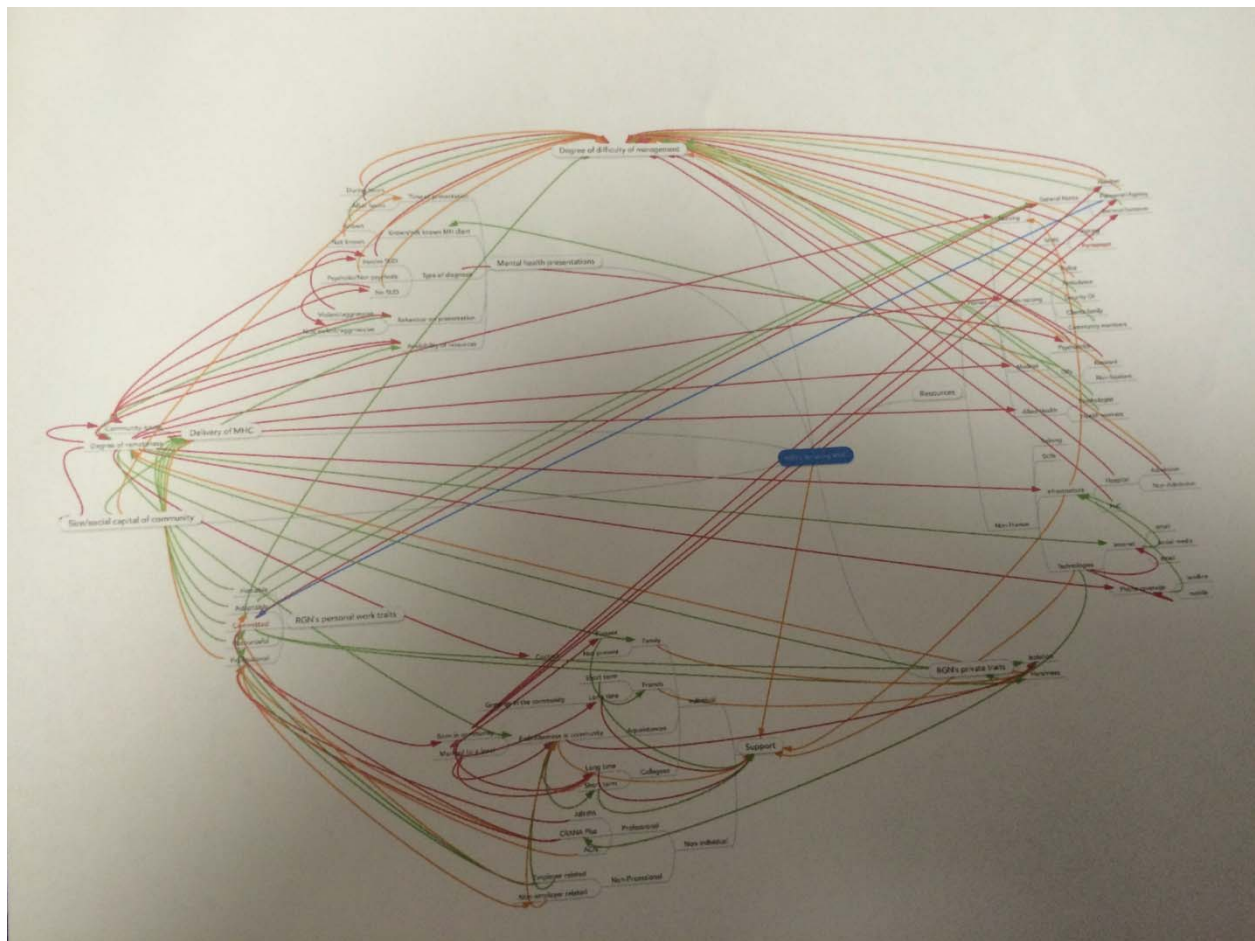


Figure 6.4. Situation map (computer-generated relational map).

## 6.5 Social Worlds Theory and Maps

### 6.5.1 Introduction

In this section the researcher describes the process of creating the social world's map of remote nurses delivering mental healthcare. Following this description of the layout and explanation of the elements (groups) in the social world map and finally, a short discussion concerning the notion of Foucauldian power (Foucault, 1975) operating within the same.

### **6.5.2 Social worlds/arenas**

Social world/arena maps are based on the proposition that social worlds/arenas are more than the aggregate of individuals collectively acting together. Social world/arena maps facilitate individual discourses to be reconstituted into universal discourses. These universalities are visually represented by drawing the social world/arena maps. The maps look for and examine the patterns that emerge from people doing ‘things’ together (Becker, 1986). The researcher examined the social world/arena map for ‘the patterns of collective commitment’ and asked ‘what are the salient social worlds operating here?’ (Clarke, 2005, p. 110). As Clarke states, they present a ‘working big picture of the structuring of action in the situation of inquiry’ (Clarke, 2005, p. 116). The researcher created the social world/arena map as a new perspective drawn from the situational maps, and in turn the messy maps. While the social world/arena map was created solely by the researcher, its design was created by closely following the approach advocated by Clarke (2005). This was a deliberate decision by the researcher to try and be as authentic and true to the process as outlined by Clarke and minimise adaptations.

### **6.5.3 Social world and arena mapping theory**

Developing the social worlds/arena maps requires a sociological perspective of investigation concerning the ‘situation’ by asking, ‘[W]hat are the patterns of collective commitment and what are the salient social worlds operating here?’ (Clarke, 2005, p. 110). Influenced by symbolic interactionism (Strauss, 1978) creating social worlds/arena maps focuses on what people ‘do together’ (Becker, 1986) including how the social worlds and arenas be ‘simultaneously creating and being constituted through discourses’ (Clarke, 2005, p. 110). A researcher is focused on the ‘meaning-making’ activities of the social



worlds and arenas (Becker & McCall, 1990). Social worlds/arena maps ‘do not explicitly represent discourses per se’ (Clarke, 2005, p. 114) but as analysed are separated into various discourse maps, as ‘social worlds/arena maps [relate to] collective social action’ (Clarke, 2005, p. 114). This separation is consistent with Clarke’s understanding of Strauss; that a social world is itself a universe of discourse, ‘constituted and maintained through discourses’ (Clarke, 2005, p. 114; Strauss, 1978).

To create social worlds/arena maps a researcher ‘enters the situation of interest’ (Clarke, 2005, p. 110) to understand it. This is undertaken by asking a number of questions such as, what are the patterns of collective commitment, what salient social worlds are operating, do arenas exist constructed of social worlds and subworlds and if so, why, what collective action is taking place and for what purpose, ‘[w]hat older and newer/emergent nonhuman technologies and other nonhuman actants are characteristic of each world ... [w]hat constraints, opportunities, and resources do they provide in that world?’ (Clarke, 2005, p. 110). Importantly a researcher must understand that social worlds are actor-defined. Hence analysis is of the collective’s meaningfulness as construed by the actors themselves (Clarke, 1991; Strauss, 1993). Accordingly the absence of some actors in the social worlds/arena maps is telling and should be explored on the same analogical basis.

Clarke (2005) states that social worlds/arena maps are a fluid and conceptual task. This reflects the plasticity of the analysis which in turn is displayed by the porousness of boundaries, multiplicity of social worlds, lack of rigidity concerning heterogeneous perspectives, overlap of world boundaries (‘reflective of demonstrating visually that some people and collectivises are participating in more than one’; Clarke, 2005, p. 111) and specifying differences and variations both within, as well as between worlds. A researcher

is ‘always juggling and trading off, back and forth, among similarities, differences (‘ambiguities’ as ‘segments’; Bucher, 1962, 1988), boundary placements, and negotiating conflicting subgroup perspectives in doing these maps’ (p. 112).

## 6.6 Creating the Social World/Arena Map

To create the social world/Arena Map, the researcher utilised two concepts.

The first was Clarke’s (2005) ‘conceptual toolbox’ (p. 112) which the researcher referred to in creating the social world/arena map. Clarke proposed 22 analytical tools that guided the researcher when exploring the previous maps to identify and then replicate the relationships within the social world/arena map. Clarke (2005, p. 112) offers a researcher a ‘toolbox’ of concepts as a theoretical framework for analysing the data to construct social worlds/arena maps (see Table 6.4). Utilising the conceptual toolbox a researcher focuses on collective social action of the social worlds/arena maps.

Table 6.4

### *Social Worlds/Arena Theory Conceptual Toolbox*

Universes of discourse	Situations	Identities
Shared ideologies	Primary activities	Particular sites
Technologies	Specialised knowledges	More formal organisations
Going concerns	Entrepreneurs	Mavericks
Segments/subworlds	Reform movements	Bandwagons
Intersections	Segmentations	Implicated actors and actants
Boundary objects	Work objects	Discourses
Commitments		

Not all of the analytical tools have to, or need to be utilised (Clarke, 2005). It is entirely in a researcher’s discretion which tools to select and which to reject based on their relevancy to the study at hand. The researcher rejected most of ‘conceptual tools’ on the

basis of his heavy reliance on the criteria's outlined in ordered/working map and also felt that there was a level of duplication between the two. Table 6.5 is the four tools which the researcher chose to assist him create the social world/arena map.

Table 6.5

*Conceptual Tools Selected for Creating the Social World/Arena Map (Adapted from Clarke, 2005, p. 112)*

Particular sites, situations and more formal organisations	Organisations Groups Gatherings/meetings
Shared ideologies and ongoing concerns	Culture Discourses Agreements Social norms
Implicated actors	Organisations and institutions Governments
Boundary objects	Policies Procedures Systems MOUs

MOUs: Memos of understanding.

The next section describes in some detail the conceptual tools as outlined in Table 6.5.

*Particular sites, situations, and more formal organisations.* Particular situations or sites of 'situated actions' (Mills, 1940) depicted in this social world/arena map include organisations, groups, and gatherings/meetings. Organisations can be professionally related

(e.g., ACN, CRANA Plus), employment related (e.g., health service, Australian Nursing Federation), or a relevant organisation (e.g., police, Queensland Ambulance Service, RFDS). Groups are varied and fluid depending on the state of play in the SW but could be by profession (e.g., mental health nurse, psychiatrist) by location (e.g., community or placement of infrastructure) or by tasks (e.g., transferring a mental health patient, applying for a Community Treatment Order or admitting a mental health patient to a Mental Health Unit). Gatherings/meetings can occur in a multitude of means, ways and for reasons involving delivering mental healthcare by remote nurses, for example, formal, informal, large, small, personal, professional or in person.

*Shared Ideologies and Going Concerns.* Cultural issues can be professional (e.g., nurses are caring), or personal (e.g., must cope in any circumstances), or societal (e.g., remotely located people are entitled to the best healthcare available). Discourses are extremely varied and depend on a multiple number of factors, such as mental health patients are difficult to care for, not enough resources, more mental health training is required. Agreements within the remote nurse's social world are also very varied depending on the situation under consideration; for example, police assist with violent mental health patient presentations if requested, or telephone the closest mental health nurse team in certain circumstances and the psychiatrist in other circumstances. Social norms are those acts, beliefs and activities which are acceptable to society and inoculated by the individual; for example, remote nurses are polite and treat patients with dignity irrespective of health issue/presentation, or medications are an appropriate treatment option.

*Implicated Actors.* These are groups, organisations or individuals who have a role in supporting and/or assisting the remote nurses in the delivery of mental healthcare; organisations like RFDS, groups such as mental health nurse teams and psychiatrists as groups. Each plays an essential role. Of course the largest and most influential is both levels of government.

*Boundary Objects.* Boundary object theory is discussed in more detail in Chapter 6. Suffice to state that boundary objects are objects that cross boundaries between multiple social worlds and arenas and are adapted to local needs (Star & Griesemer, 1989). Policies, procedures, systems and memos of understanding (MOUs) are all objects which move across arenas and facilitate the efficient and uniform delivery of mental healthcare by remote nurses (see Chapter 8).

### **6.6.1 Situational matrix**

The other ‘tool’ the researcher utilised was Clarke’s (2005) situational matrix in creating the remote nurse’s social world/arena map. Clarke’s situational matrix draws on the previous works of Strauss’s and Corbin’s (Corbin, 1991; Strauss, 1991; Strauss & Corbin, 1990, 1998) versions of conditional and conditional/consequential matrices/matrix, ‘intended to provide a systematic path for grounded theorists to follow in order to facilitate specifying the salient structural conditions ...[of] the phenomenon under study’ (p. 66). For Clarke (2005) pushing around the postmodern turn means adopting a view that ‘[T]he conditions of the situation are in the situation’ (p. 71); there is no ‘context’. The fundamental assumption is, everything in the situation both constitutes and affects everything else, in the situation in some way(s). Everything in the situation or understood to be so, conditions the possibilities of action and constitutes ‘the conditions of possibility’

(Foucault, 1975). People and things, humans and nonhumans, fields of practice, discourses, disciplinary and other regimes/formations, symbols, controversies, organisations and institutions, each and all can be present and mutually consequential (Clarke, 2005; Foucault, 1975). Here the macro/meso/micro distinctions dissolve in the face of presence/absence.

Figure 6.5 is a copy of Clarke's (2005) situational matrix. The researcher utilised the matrix as a tool of abstract concepts requiring specific explanations/examples for each. 'The diagram as a whole is the situation of inquiry. Many kinds or genres of people and things can be in that situation and the labels are intended as generic' (p. 72). The researcher systematically used the various 'elements' as 'lens' or prompts to examine the situation of action, namely the social world of remote nurses delivering mental healthcare, when creating the social world/arena map. The situational matrix was constant referential guide the researcher used each time he reviewed, changed or created a revised social world/arena map.

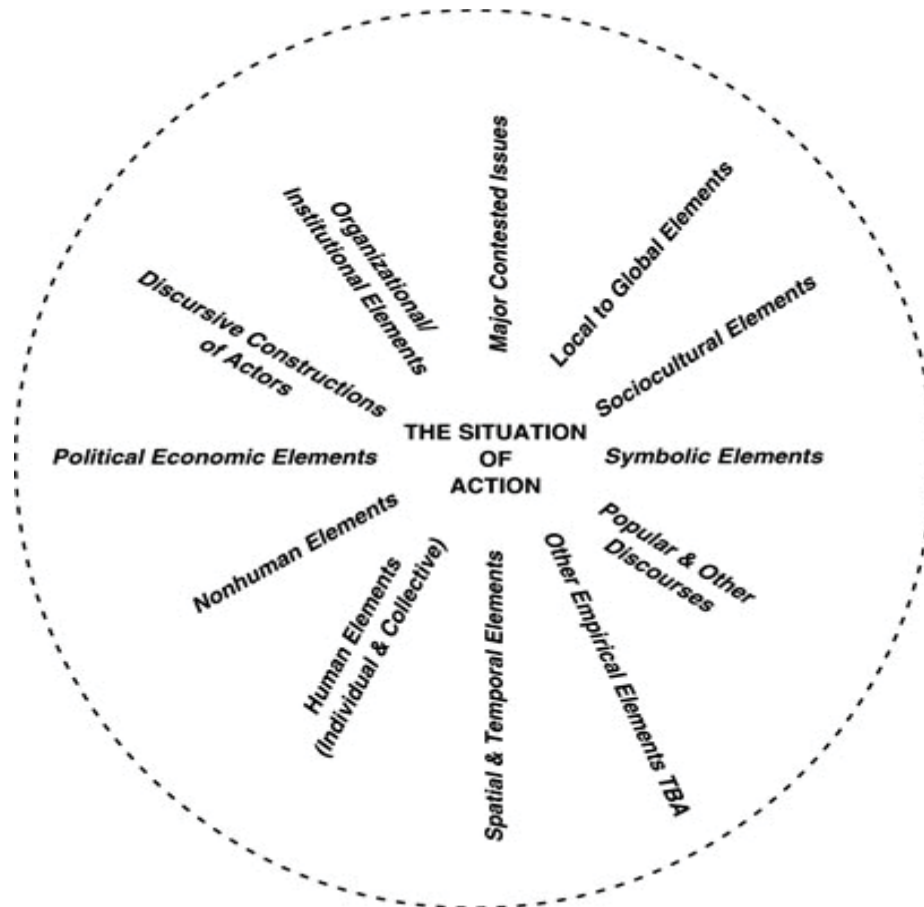


Figure 6.5. Clarke's situational matrix. Source: Clarke, 2005, p. 73.

### 6.6.2 Creating the social world/arena map

Like the other maps, the researcher physically commenced the process of creating the social world/arena map by looking at the various data (transcripts, various maps, codes/themes, research documents, previous experience in the field, memos and journal entries) and guided by the conceptual toolbox and situational matrix. He began with rough drafts onto large blank pages (60cm wide by 40cm deep) sketchbook pages, often as musings or streams of thought. There was no defined structure to begin with; no inflexibility or preconceived design. By this stage of the study the researcher had a fairly clear idea of the various elements (issues, groups and influences), so he was not overly

troubled by entering in the various elements. The difficulty for the researcher was the layout/format of visually representing the social world/arena map. The researcher drew multiple drafts as he moved elements around and clustered them in various ways. This process took place over a three week period of daily going back over the drafts of the social world/arena map. While the researcher became relatively frustrated he did realise that eventually the final layout would eventuate. Figures 6.6 and 6.7 (below) are two examples of this iterative process.

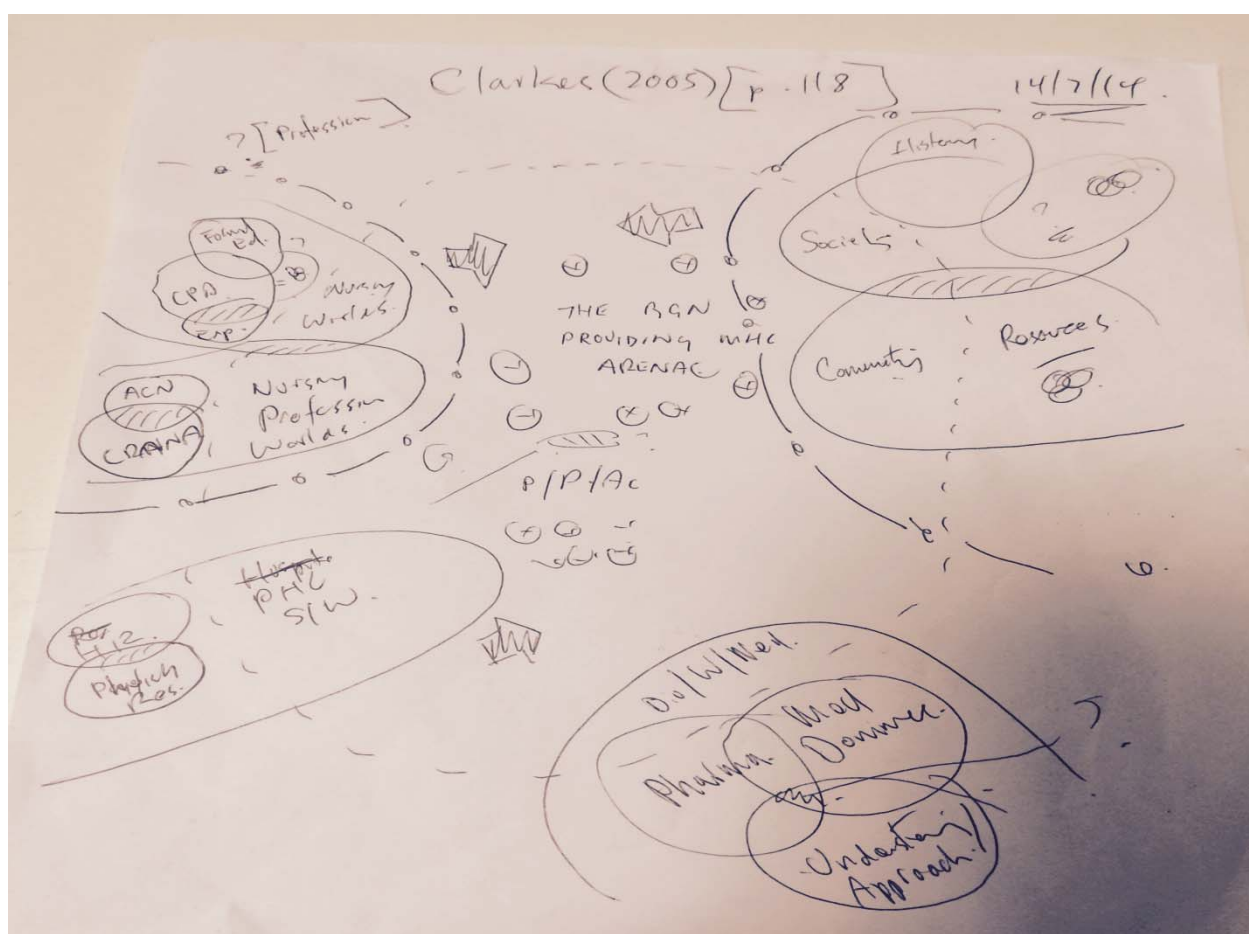


Figure 6.6. Early handwritten draft social world/arena map (1).



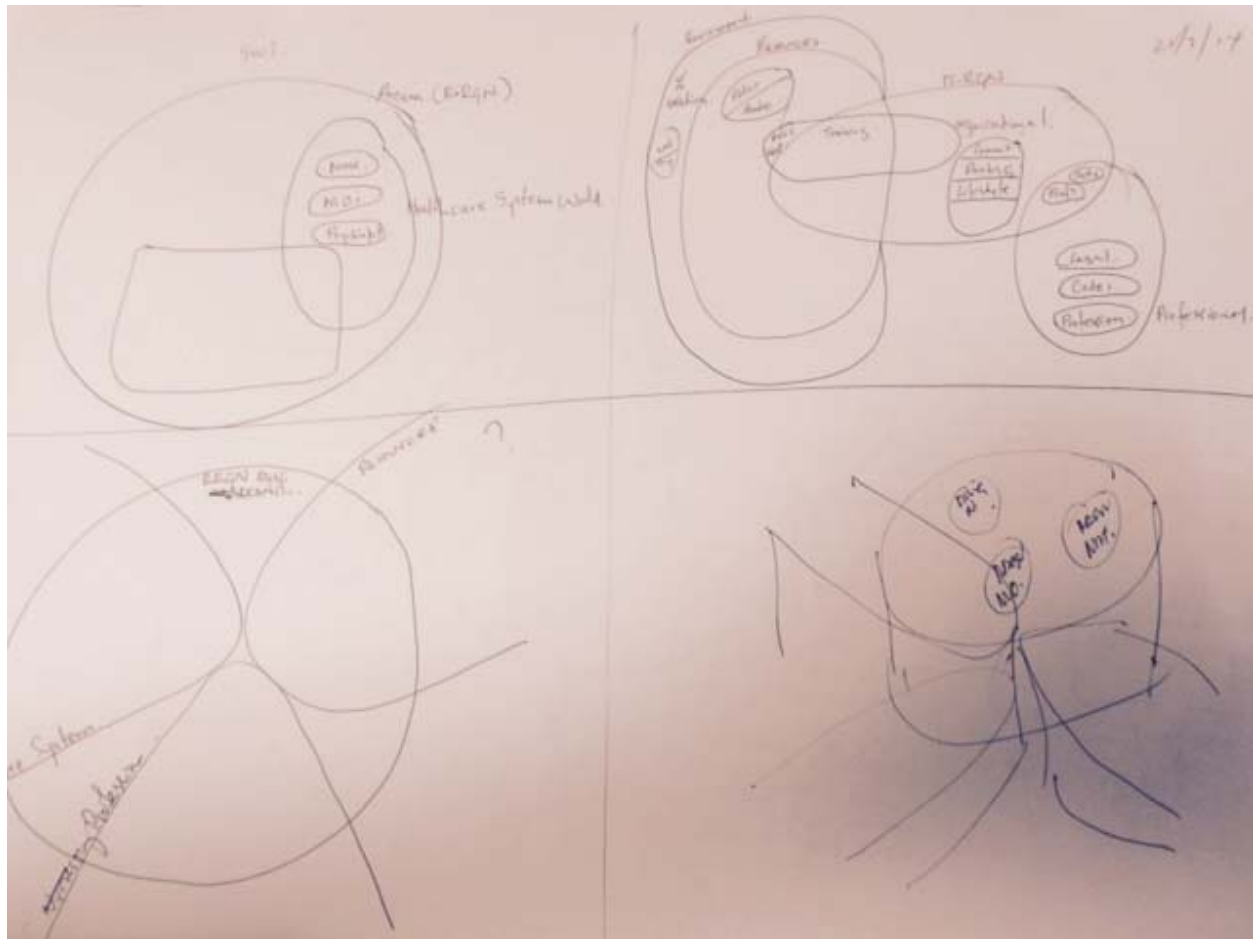


Figure 6.7. Early handwritten draft social world/arena map (2).

The final version of the social world/arena map morphed, from adopting yet another approach to laying out the remote nurse's social world of delivering mental healthcare, and then crystallised very quickly during one drafting session over approximately 15 minutes. The researcher then copied the hand drawn layout into a Word Document format. Once that was completed, there was only one minor change to the layout. The researcher knew then that the social world/arena map represented his understanding of the situation, based on his familiarity with the data, was in its final format. This familiarity was generated by having thoroughly analysed the data using

multiple techniques, each building on the next, which eventually culminated into this stage. Figure 6.8 is the study's social world/arena map of the remote nurse's social world of delivering mental healthcare.

The social world/arena map (see Figure 6.8) and its multifarious elements and groups, are displayed in a static visual representation; like a 'snap shot' of the social world. The reality is that it is fluid, dynamically ever changing, regenerating and evolving. No single element, individual, group or arena is immune. This results in remote nurses not being passive tenants in their own social world but actors who must be responsive, assertive, malleable, proactive and flexible to 'survive' while acting within the situation. 'People [remote nurses] inhabit many different domains at once...and the negotiation of identities, within and across groups, is an extraordinarily complex and delicate task' (Star, 1991, p. 52).

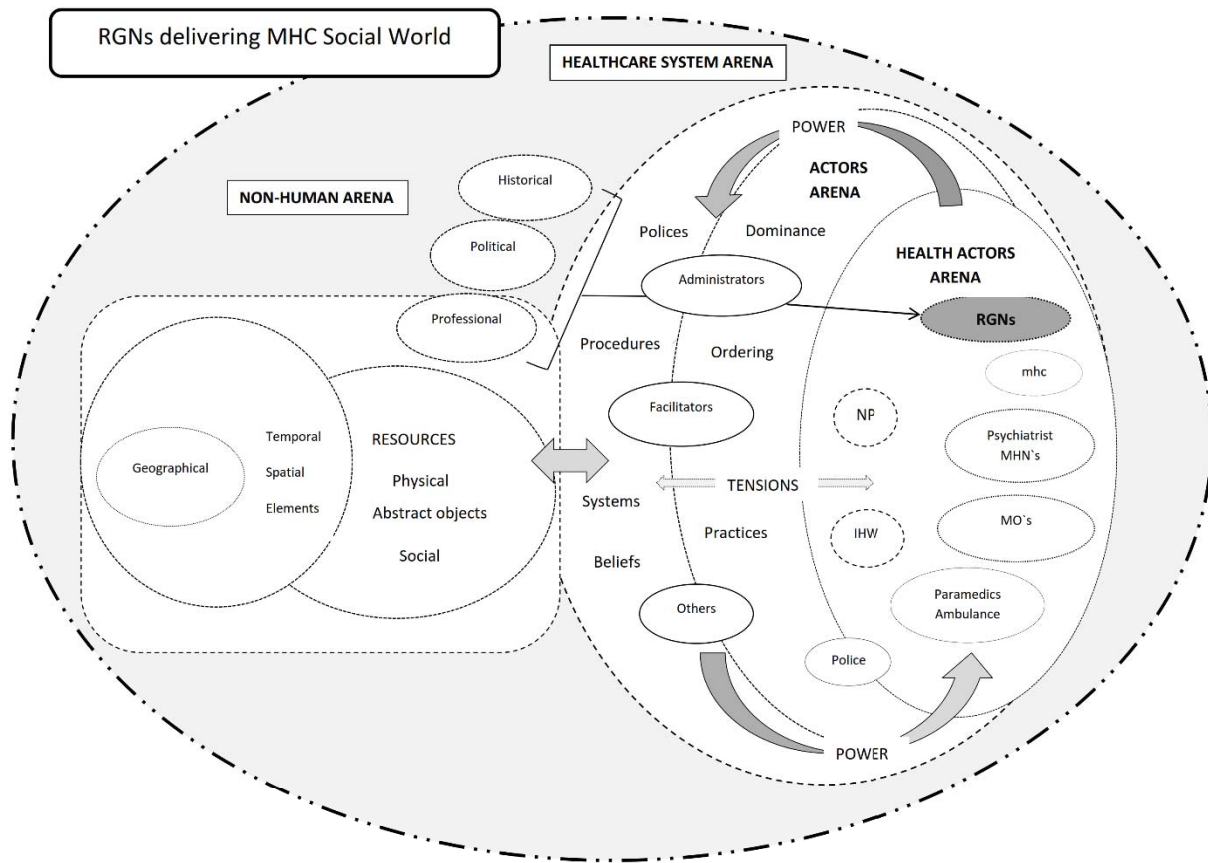


Figure 6.8. Social world/arena map.

Once the researcher had completed the social world/arena (see Figure 6.8) map he used it as the basis for other forms of interrogating the data

‘[by asking];

- What is the work of each world?
- What are the commitments of a given world?
- How do its participants believe they should go about fulfilling them?
- How does the world describe itself—present itself—in its discourse(s)?
- How does it describe other worlds in the arena?

- What actions have been taken in the past and are anticipated in the future?
- How is the work of furthering that social world's agenda organised?
- What technologies are used and implicated?
- Are there particular sites where the action is organised? What are they like?

(Clarke, 2005, p. 115).

The researcher also created

'memo[s of] a description of the arena or arenas in which the social worlds of concern are involved or implicated—situating them appropriately:

- What is the focus of this arena?
- What social worlds are present and active?
- What social worlds are present and implicated or not present and implicated?
- Are there any worlds absent that you might have expected?
- What are the hot issues/contested topics/current controversies in the arena's discourses?
- Are there any surprising silences in the discourse?
- What else seems important about this arena?' (Clarke, 2005, p. 115).

Clarke (2005) asserts that social worlds/arena maps assist a researcher in three ways. Firstly a researcher in drawing and creating the social world/arena map(s) is forced to design how best to conceptualise and represent collective actors. 'The process of producing the map is analytically important in itself' (p. 116). Secondly social world/arena maps, as representations of the site of inquiry, 'become the conceptual infrastructure of the [study] under-girding many of the analytic stories later told' (p. 116). Lastly, the act of

creating the social world/arena map(s) engages a researcher and keeps them motivated, in seeking to improve it and make it a better representation of a researcher's interpretation of the data. 'They set up ongoing interrogations of the self as analyst' (p. 116); the researcher agrees. The researcher found that these three influences personally arose in the study.

The researcher pursued deeper and more intense focus in the social world/arenas analysis on areas suggested by Clarke (2005):

on the work of a particular [arena], on a technology an [arena] uses or produces and how it travels within and among [arenas], actions taken by particular [arenas] on particular issues, boundary construction processes between [arenas] by different [arenas] in the arena and discourses about them, discourses produced by a[n arena] or [arenas] within the [social world] and the [social world] wide discourses (which may also implicate other arenas). (p. 116)

## **6.7 Positional Maps**

To create positional maps of the remote nurse's social world in delivering mental healthcare requires a focus on 'positions', 'issues' and 'concerns' adopted and/or understanding/explaining their absence in the data (Clarke, 2005). Rhetorically; [W]here do we see differences and where do we see agreements? [A]re these spoken or unspoken? [W]hat are the controversies in the situation? The investigative examination does not concern how the 'positions' are represented and situated from an etic perspective or lens but with the deeper level of analysis of 'situated positions' (Clarke, 2005, p. 127). 'Positions on positional maps are positions in discourses' (Clarke, 2005, p. 126), yet it is not the actual positions which is the focus but the map itself (Clarke, 2005). All the positions of complexities, messiness and contradictions in the world/arenas of remote

nurses providing mental healthcare are starkly highlighted in the ‘space[s] between the actors and positions’ thereby facilitating ‘fresh analysis’ (Clarke, 2005, p. 127).

When constructing positional maps a researcher seeks, by analysing the data, contested issues within the situation of inquiry. Different positions (some polarised) are arrayed on a dimensionally two axis map. The two main axes allows for an infinite of positions within the positional map. While a researcher may attempt to arrange the axes in terms of ‘more versus less’, ‘important versus less important’ and ‘stronger versus weaker’ alternative means of articulating the axes could evolve from ‘analytic fracturing’ (Clarke, 2005); ‘basic grounded theory coding and situational and social worlds/ arenas mapping—opens up data for positional analyses’ (p. 126). The process of coding enables a researcher to identify and ‘name the different positions held down in the data’ (p. 126).

A study will likely produce a number of different positional maps is dependent on how many contentious issues there are within the field of inquiry. There is no set number nor do all positional maps survive the rigorous process of analysis during the study’s journey. A researcher has to decide the positional maps which make it to the final analysis but yet this is not their sole aim. An important aspect of doing positional maps ‘is that they allow the researcher to see possible positions that are not taken in the data, positions that remain unarticulated’ (Clarke, 2005, p. 136). Absence of positions should result in further worthwhile data collection or be noted in memos. ‘The presence and/or absence of articulations of particular positions in various sites is itself information that aids in the analysis and in situating research more broadly’ (p. 136).

Creating positional maps is an intellectually and challenging exercise which is not simply following an articulated defined/set procedural task. It requires a depth of

understanding and thinking concerning the data which *prima facie* could be assumed to not exist. Determining the axes and deciding possible positions by interrogating the data is a major analytic and cognitive task. The researcher struggled in this area of the study. He made multiple positional maps, but was not satisfied as they intellectual rigor to the standard that they add anything further, or meaningful to the study. Figure 6.9 is an example

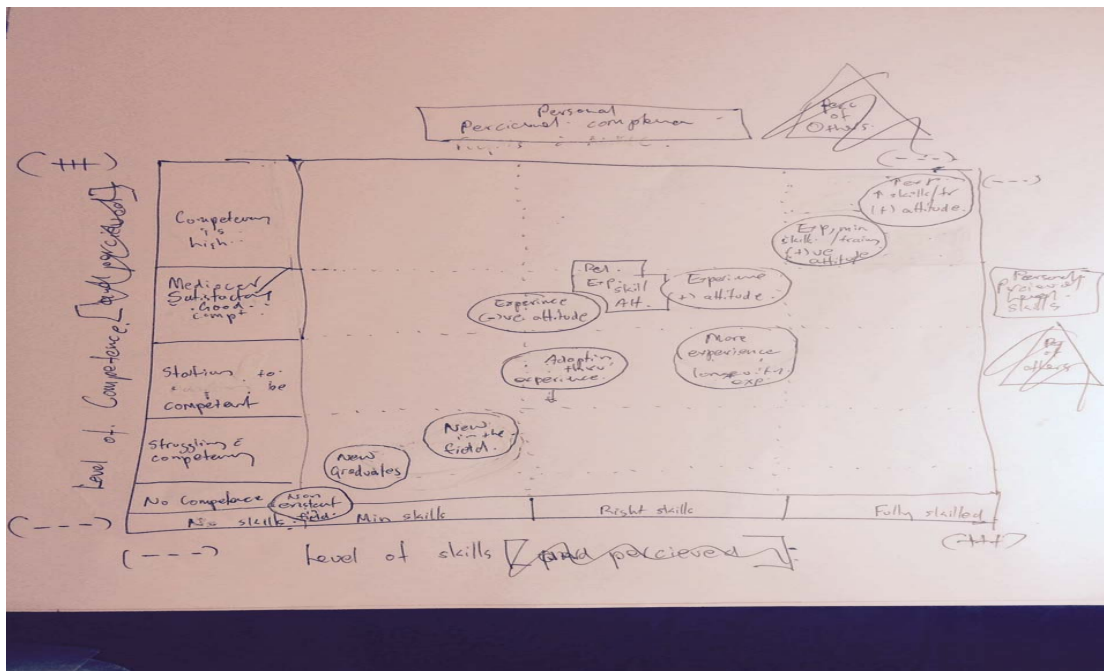


Figure 6.9. Discarded example of positional map.

One positional map was created to the researcher's satisfaction (see Figure 6.10).

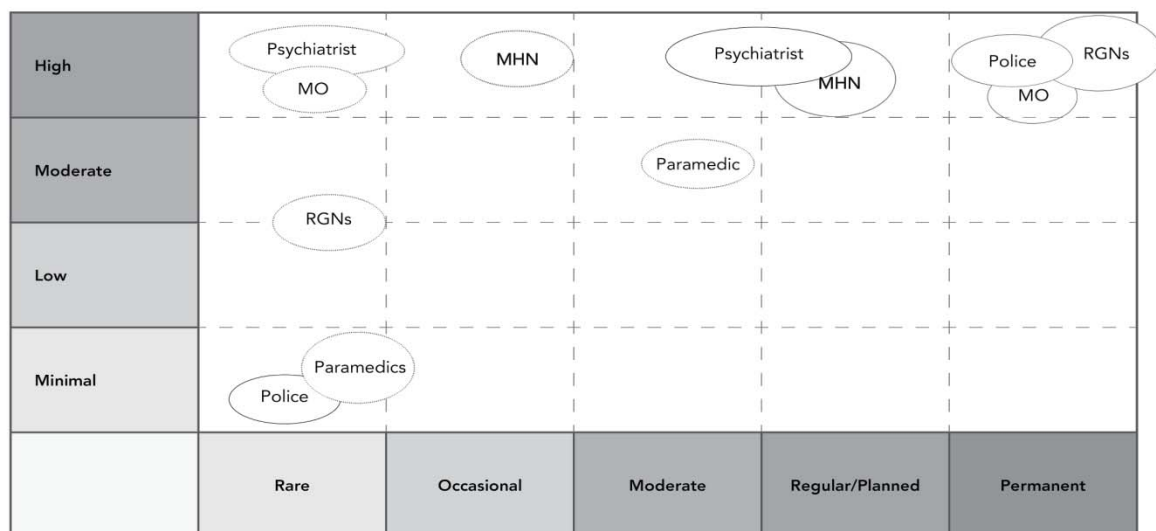


Figure 6.10. Positional map.

The 'x' axis is the frequency or amount of time spent in remote locations. The 'y' axis is the degree of assistance provided to the remote general nurses in delivering mental healthcare. The map is then populated with some of the groups from the social world (see Figure 6.8). The reason that there exists more than one position for some groups is that their importance to the nurses varies. For example a police stationed in metropolitan areas and who rarely if at all attend remote areas of minimal assistance (bottom left corner). Whereas a permanent police presence in a remote location is great assistance (top right corner). From a visual perspective it is noteworthy that there is no positions assumed by the groups in the bottom right quadrant. This reflects that all the groups can be of great assistance but is primarily determined by their location or permanency in the remote location. There is no group permanent in the remote area that would be of minimal assistance to the nurses. The limitations concerning the map are that, it is a generalisation from the data and not based on actual calculated time. Additionally depending on the level of analysis, there could be multiple positions which are absent from this map.



## 6.8 Summary: How the Three Types of Maps Present Different Ways of ‘Interrogating’

The three types of situational maps ‘interrogate’ the same data in different ways. It is this aspect of situational analysis that facilitates a depth of understanding of the ‘complexities’ that Clarke (2005) finds missing in grounded theory. Table 6.6 summarises the way in which the three types of maps (Clarke, 2005) facilitates the three distinct ways of interrogating the same data. The table outlines the types of questions that each map asks in regard to the situation of remote nurses providing mental healthcare.

Table 6.6

*Three Situational Maps ‘Interrogating’ the Same Data Utilising Three Different Means*

(Source: Clarke, 2005)

Type of Map	Questions Asked of the Data
Situational Maps	Who are the parties and what are the institutions involved?
	What are the cultural symbologies and discourses?
	Who is speaking and who is not?
	What are the human and non-human elements?
Social Worlds/Arena Maps	What social worlds are operating here?
	What are the salient discourses?
	How is meaning being constituted?
	What are people ‘doing together’?
Positional Maps	Where are agreements and where are differences?
	What are the controversies in the situation?
	What are the positions and issues?
	Where is there dynamic tension in the situation?

Cumulatively the study’s three approaches to situational analysis observed ‘the society of the spectacle’ (Debord, 1967/1999) and perceived, ‘the explosion of discourses that constitute the cultures of consumption, the seas of narrative, visual, and historical

discourses in which we are all routinely awash' (Clarke, 2005, p. 142). This creates a 'thick analysis' (Fosket, 2002, p. 40); reflective of Geertz's (1973) 'thick descriptions'. A thick analysis assertively considers and depicts 'the complexity of elements (situations, social world/arenas, and positions) that were present and influential in the social world, 'as well as their obvious nuanced interrelationships with each other' (Bergeron, 2008; Larsen, 2010; Ness, 2011, p. 58).

## **6.9 Summary**

Having interrogated the data in greater depth using situational analysis, and having created the maps, particularly the social world/arenas map, the researcher is in a position to present the study's findings. To present the findings in an orderly fashion, the discussion of findings is structured with reference to the groups and elements contained in the social world/arena map and to the map itself (see Figure 6.8). This discussion is presented in the next chapter.

## **Chapter 7: Findings**

### **7.1 Introduction**

This chapter discusses the findings arising from the data analysis discussed in Chapters 5 and 6. The framework for discussion in this chapter refers to the social world/arenas map presented in the previous chapter (see Figure 6.8). The chapter commences by discussing the findings with reference to the each of the groups in the health actors' arena, followed by the findings in relation to the groups in the actors' arena. Having discussed these two arenas, which together constitute the healthcare systems arena, the concluding discussions focuses on the findings concerning the elements in the non-human arena.

When analytically reviewing the transcript data of the remote general nurses, it quickly became apparent that there existed some reoccurring personal characteristics shared by the different individuals interviewed. In this chapter, in which the interviews are discussed, these characteristics are identified. These characteristics form part of the major findings in the discussion chapter (Chapter 9).

### **7.2 Groups Within the Remote Nurse's Social World of Delivering Mental Healthcare**

The health actors' arena represents those groups that directly interact and assist remote nurses in the delivery of mental healthcare. Except for the patient group, all other groups consist of health clinicians.

#### **7.2.1 Remote mental health patients**

Mental health patients are clearly the most central and important group in the social world and the actors in the health actors' arena. Even though they are not clinicians, their

centrality to the social world dictates their position in the health actors' arena and proximity to the groups contained therein. Without patients, there is no arena or social world; there is no need for their existence.

While recognising the central importance of patients in relation to the remote nurses' social world, this study did not seek ethical approval and did not interview mental health patients. Accordingly, the findings do not contain input from the patients.

### **7.2.2 Remote general nurses**

During analysis, it was found that the remote nurses in this study demonstrated four particular characteristics: *resourcefulness*, *resilience*, *responsiveness* and *robustness*. Throughout this section, the researcher has tagged each nurse's response as an example of the relevant characteristic. This will assist the reader to identify the justification for one of the major findings, discussed in Chapter 9.

Remote nurses support each other. Remote nurses reported that their colleagues are highly valued for their ability to provide assistance; particularly in a mental health crisis presentation. A nurse participant stated:

On one level, from your mates [fellow remote nurses]. You know, like if you ask a fellow colleague to help you, yes, no problems. [T7, p. 11] [Responsiveness]

The starkest example of the importance of colleagues in supporting each other is those remote nurses who operate single-post primary healthcare centres. Remote nurses in such situations lack the human capital and resources to share the task of providing mental healthcare in the face of unpredictable demand, over a 24 hour cycle. Unsupported, they reported higher levels of workload, stress, vulnerability and burnout. One such participant stated:

So there's no other nurses in town, no doctors. It's just me for my 600 people community so if I [have] ... a mental health crisis, I have to try and deal with both of those by myself ... I'm stressed for them [mental health patients]. [T4, p. 12]  
[Resilience]

Some nurse participants were of the opinion that mental healthcare was a low priority due to the volume of other types of presentations exacerbated by low staff numbers:

Mental health issues rated the lowest of all things. First and foremost, we dealt with daily trauma, and then followed by more chronic illness follow-up. [T3, p. 10]  
We were patching up people a lot of the time. So, mental health was just left out, or not thought about. [T3, p. 11].

Some commentators and researchers have called for single-post remote primary healthcare centres to be abolished (Cramer, 1995).

There was a clear association between increased feelings of confidence in providing mental healthcare and increases in the number of proximal colleagues. Fellow remote nurse colleagues not only logistically reduce each others' workloads, but in times of a mental healthcare crisis, are able to provide advice, support and assistance, which reduces levels of stress and feelings of isolation. This is particularly the case when de-briefing:

We tend to bounce off each other ... it's a way of sort of venting your frustrations or your stress and all nurses do that.' [T4, p. 15] [Robustness]

Another nurse described de-briefing after a mental health crisis thus:

Once again it's our support ... and it's usually fairly straightaway. [T2, p. 12]  
[Robustness/Responsiveness]

Nurses also display ingenuity in relieving their colleagues from feeling stressed when delivering mental healthcare. Remote nurses will alter shifts to accommodate a nurse's feelings of vulnerability to mental health presentations,

[If] we know that, so we try to avoid putting them in the situation. Even though there is only two staff, we can swap shifts. [T2, p. 5] [Resourcefulness]

All remote nurse participants reported that working in remote locations was stressful. Providing mental healthcare increased their levels of stress. The fundamental reason for this stress emanated from believing mental health nursing is a specialty and different from general nursing.

I think it is a separate specialty, similar but separate specialty, because it is entirely different. [T2, p. 8]

[When a mental health patient is] presenting psychotically or suicidally, they [remote nurses] see that it's a distinct discipline, which they're not trained in. [T7, p. 13]

They [remote nurses] see it [mental healthcare] as something different [from general nursing]. [T5, p. 14]

Arising out of this misconception, remote nurses believe they require specialised mental health skills and knowledge, which they believe they do not possess. This results in a lack of confidence and low self-assessed levels of competency in caring for mental health patients, as discussed in this Chapter 3.

I think you have to have knowledge, a fair bit of knowledge of how to deal with them [mental health patients]. [T4, p. 8]

Concerning remote nurses, a mental health nurse practitioner reported:

They could do a lot better if they just believed in themselves a little bit more. [T17, p. 6]

Another reason for stress in relation to delivering mental healthcare is violent and aggressive mental health patient presentations. This primarily relates to the unpredictability associated with drugs and alcohol. This study reports that alcohol is still the dominant drug causing remote violence and aggression, but that there is change occurring:

A real increase actually in methamphetamine use, but THC is pretty much a given. [T10, p. 9]

When one remote nurse participant was asked which type of mental health patient presentation was the most stressful, he stated:

When they [mental health patients] are aggressive, either physically or verbally aggressive, and ... they're pissed or under the effect of—or they're stoned. Very difficult to look after them. [T7, p. 15]

Another nurse participant stated:

I would say probably eight out of ten [mental health] presentations in ... remote places ... have had violence involved. [T17, p. 8]

This then results in a self-reinforcing and perpetual belief that the environment is stressful. This results in the remote nurses anticipating intermittent violence and aggression, but are unable to know when. As a participant psychiatrist noted:

For anyone it's about **anticipation** ... If you're in an environment where every time you go on call there's violence coming through the door then you know people [remote nurses] are arriving at work anxious. [T11, p. 14–15, emphasis added]

Yet despite this, remote nurses remain professional, insightfully compassionate and stoic:

Keep in mind that these people [mental health patients] are unwell, mentally unwell. They would not be doing this towards us ... if they were well ... When they're back on their medications, they're not violent towards us [remote nurses]. [T17, p. 9]

When violence and aggression becomes unacceptable, nurses do have to resort to extreme measures:

If they became too threatening, we'd have to get them out the door and lock ourselves in until they calmed down or went away. [T3, p. 4]

[Robustness/Resourcefulness]

Their stoicism was evident when nurses were questioned about whether they ever took sick leave as a result of mental health presentations. All nurses responded 'No' (e.g., T2, p. 8) [Robustness]. Instead, remote nurses employ inventive methods to look after their own mental health. All nurse participants reported regularly distancing themselves from the issues of working in the remote community and not being on-call:

We save up your days off and go bush, camping, fishing or go to the nearest town and chill out away from the place ... Try and go with some of the other nurses, as a group. [T29, p4] [Resourcefulness]

### **7.2.3 Psychiatrists**

Psychiatric advice and assistance is sought from two primary sources: psychiatrists and mental health nurses. Psychiatrists are positioned in the health actors' arena due to their critical role in delivering mental healthcare (see Figure 6.8). Psychiatric relationships



with remote nurses can be close, distant, regular, variable and multifaceted depending on circumstances. Advice and assistance can usually be grouped around medication orders, organising mental health patient appointments, providing update medical and social patient histories for visiting psychiatrists, medically monitoring (particularly for serious side-effects, e.g., Clozapine i.e. agranulocytosis, myocarditis), reporting against established regimes concerning patient depot injections and assisting in Community Treatment Order applications. Beyond these types of interventions, there are interactions with psychiatrists that are less regimented, planned and involve less predictability. There are two types of these less regimented interactions.

Mental health crisis presentations, particularly involving violence and aggression, result in rapid and intense interactions. In such circumstances, assistance is primarily sought for two reasons. First, nurses seek telephone medication orders:

[Remote nurses] in those settings aren't interested in the long-term welfare ... they're interested in getting through the next 24 hours and getting through this shift. Sedatives solves that problem. [Psychiatrist, T11, p. 5]

Second, nurses may seek authorisation to aero-evacuate mental health patients to regional hospitals.

The medication orders primarily relate to the sedation of patients, particularly when there is associated violence and aggression. All nurse participants in the study nominated the prioritisation of obtaining sedative medication orders for such crisis presentations. Only two nurse participants mentioned 'de-escalation' as a first response. One nurse participant stated, when responding after hours to violent mental health presentations:

[What] we would most likely do is get an order for medication to make them a little more—like a chemical restraint ... We'd probably use a chemical restraint overnight. [T4, p. 7]

Another nurse participant stated:

Initially, ... we ... gave him [patient] ... Valium. [T3, p. 5]

The best we [remote nurses] could think to do was to sedate him [mental health patient]. [T3, p. 6]

This is consistent with a participant psychiatrist's view:

When it's a real serious [psychiatric] emergency, it doesn't require a psychiatrist—it requires someone with anaesthetic/tranquilisation skills ... I think they [remote nurses] can do a lot. [T24, p. 6]

A mental health nurse practitioner said:

For [remote nurses] that's the safest thing, to sedate somebody. Then they don't have to worry about being attacked during the middle of the night. [T17, p. 11]

A request for sedation and aero-evacuation is embedded in a larger 'tension' (in which remote nurses have no stake) of cost shifting for the service. The police do not want to incur the cost of providing overnight security, and the health departments do not want to incur the costs of aero-evacuation, or if the patient is not aero-evacuated, the payments for the nurse's overtime. Hence the remote nurse's requests fall to this fertile area of competing financial interests. As an eminent remote participant psychiatrist stated:

What does cost shifting result in? ... one or both of two things—more sedation or evacuation. Evacuation is a quantum leap in expense but it resolves local problems because their [health departments and police] budgets are different. [T11, p. 6]

Remote nurses reported good working relationships with psychiatrists and that they were very beneficial in caring for mental health patients (although often general medical officers or RFDS were the first to be contacted):

We have a psychiatrist who is absolutely wonderful ... we can ring him 24 hours a day basically. [T5, p. 17]

Reciprocally, psychiatrists reported that the skills of remote nurses in handling mental health patients, in the circumstances of a lack of resources, were usually very good to excellent. They further reported that remote nurses tended to have low levels of confidence and feelings of competency in delivering mental healthcare.

I say that to the remote area nurses—when they say, ‘Haven’t got the skills’, I say, ‘In fact you do because we all know the patient’s not well. (T24, p. 10)

This is consistent with the remote nurses’ self-reported low levels of confidence in delivering mental healthcare:

Not particularly confident ... because I don’t have a great deal of mental health training ... You sort of learn by trial and error... not particularly confident. [T4, p. 9]

I believe that they [remote nurses] believe they lack confidence [in delivering mental healthcare]. [T6, p. 11]

This is also consistent with remote nurses’ self-reported low levels of competence in delivering mental healthcare:

I don’t think my assessment skills of mental health clients is particularly good. [T4, p. 9]

I think they [remote nurses] see that they don't have the [mental health] skills. I think they believe that they don't have the skills. [T7 p. 13]

One psychiatrist (T24) reported that remote nurses tended to have misconceptions about the skills that are required to manage a mental health presentation, and that a bit of common sense goes a long way in a remote area. (p. 5)

Psychiatrists in the study reported that remote nurses tend to misconceive the value and level of their understanding concerning a mental health patient's presentation and hence, believe their input is of limited value,

They [remote nurses] know they're [patient] unwell and they know that they've got [a] disorder and they know that they've got delusions of persecution or ideas of reference, whatever—they just don't have the words to describe it and they don't have a structure to present it. (T24, p. 9)

#### **7.2.4 Mental health nurses (MHNs)**

Remote nurses have more contact with MHNs than psychiatrists for two reasons: first, MHNs more frequently visit the remote communities, and second, they have greater need for frequent communication.

Most mental health nurse teams deliver mental healthcare pursuant to a hub-and-spoke model of service delivery to remote communities (see Chapter 2). A state-wide mental health administrator participant referred to the mental health service delivery in remote Australia as follows:

In my mind is the satellite sites. There'd be a hub, a major regional resource centre ... and then we ... travel out to these communities and provide them with that multidisciplinary [mental health] care. [T19, p. 8]

The frequency of mental health nurse visitations to remote areas fluctuates enormously based on three main variables; the number of members in the mental health nurse team, the number of communities assigned to that team and the number or level of mental illness in the assigned district or region (this is without considering other considerations, such as seasonal weather and availability of transport). The first variable in this study was a constant challenge due to the lack of MHNs (see Chapter 1). The teams were often not able to recruit to fill vacancies resulting in the teams attempting to deliver optimal services with reduced staffing levels.

Those ... [mental health teams] are always working one or two down, cause you can't fill the positions, people are on holidays, no agency [casual staff], come and go ... then can't get to the communities and we [remote nurses] have to deal with them [mental health patients]. [T29, p. 3]

Mental health nurse visitations are rare in response to local mental health issues: [The remote nurse] can call the troops [aero-evacuation/mental health personnel] in, but it's going to take 24, 38 hours to get them there. [T24, p. 18]

The reasons for this are primarily isolation, distance and time, which includes not only the travel time itself, but also the time to make travel arrangements (e.g., book air flights, charter planes). These facts reinforce the isolation of the remote nurse, and at times the delay and limited assistance MHNs can provide. As a nurse participant stated:

The mental health nurses is a different story, because ... they don't do after hours call-outs and they don't work weekends. [T5, p. 17]

They [mental health patients] stay overnight until the chopper comes in the morning, because it is quite dangerous. Flying out at night time. [p. 25].

There is a (non-personal) tension between the reality of mental health nurses' abilities to assist remote nurses, and the desires of remote nurses. Remote nurses wish that mental health nurse visits were regular. Regularity ensures that the workload of delivering mental healthcare by the MHN's team is not 'missed' or falls behind schedule. Any inability of the MHNs has to be taken up by the remote nurses. One of the reasons for this is when mental health nurses do not complete their tasks it has to be undertaken by the remote nurses. Hence, if a mental health nurse visit is cancelled and a number of depot medication injections were due to be given, these cannot wait until the next planned visit. This task therefore becomes 'additional' work borne by the local remote nurses.

Visits from mental health nurse teams may or may not coincide with visits from a psychiatrist. The majority of MHN team visits are not accompanied by a psychiatrist simply because there are more MHNs than psychiatrists (see Chapter 1). It is not physically possible for the psychiatrist to be present when mental health nurse teams visit a number of communities simultaneously.

Remote nurses reported that when mental healthcare advice or assistance is sought during 'work hours', MHNs were the first to be contacted as opposed to a psychiatrist. There are number of reasons why this occurs. MHNs are more readily contactable, have an established working (and usually personal) relationships, know the clients more intimately and act pursuant to protocols that deem contact direct with a psychiatrist, occur either after discussion with a mental health nurse (or GP, and/or RFDS medical officer), or only for the more serious mental health issues.

This study found that visiting MHNs tend to work independently of the remote nurses while in the same community:

I think the residential workforce [remote nurses] in those communities often ... just don't get involved, don't want to get involved, it's not their specialty. [Psychiatrist, T10, p. 13]

Visiting MHNs are usually based in an office of the primary healthcare centre, but do not actively work in conjunction with the remote nurses. Hence mental health patient interviews, consultations and depot injections are undertaken automatically.

Nurse participant explanations involved limited time, staff resources and work pressures:

There's only two nurses here, they can't afford me to be off the floor for an hour to go and sit and listen to a mental health person. I've got clients to see. [T4, p. 13]

No, because you've got your own stuff going on. As a result of that, it's very difficult to marry up with them [mental health nurse] and work with them and see how they operate. [T7, p. 11]

One participant mental health nurse's perspective was more attitudinal:

A lot of times the attitude of [remote nurses] ... they'd rather not deal with mental health patients ... they equate mental health with violence ... as opposed to someone in crisis, they just see [mental health] differently. [T17, p. 12]

Seeking information from MHNs concerning mental health patients is undertaken ad hoc as opposed to formally. Mental health nurse teams infrequently make formal handovers to remote nurses concerning mental health patients when departing from the

communities. Remote nurses rely on the nursing note entries made by the MHN teams for information concerning mental health issues and patients:

There isn't a lot of handover or hand back to the residential workforce about what is the plan of action for this individual ... I think that's one of ... the disadvantages of the specialisation and the fly-in/fly-out ... you don't have ... people in community imparting knowledge daily and building capacity within the workforce. [T10, p. 13–14]

We don't sit in and we don't interact during the sessions ... I tend to read the mental health nurse's notes once they've left, just out of curiosity. [T4, p. 12]

No. It's the mental health nurse and the psychiatrist. But he [the psychiatrist] always leaves notes. Notes are available. [T5, p. 17]

### **7.2.5 General (medical) practitioners (GPs)**

GPs are rarely permanent in remote locations (see Chapter 1). If a GP does reside or is sessionally present in a community, they are a valuable asset for nurses. GPs are contacted to manage mental health patients either for mental health advice/medication or for referrals. One remote nurse participant stated in relation to the significance of a resident GP:

Hell, yeah. Yes, yes. Yes, because you can get medication orders ... get them [GPs] in to check the patient over, because you always worry that you might miss something because you're not trained that way. [T7, p. 11–12]

Referrals to GPs reduce the nurses' mental health workload, and their mental health advice makes delivering mental healthcare less stressful and burdensome.



As a nurse participant stated:

We had GPs there ... in business hours, so ... we often referred to our GPs and our GPs dealt with a lot of these issues [mental healthcare]. [T20, p. 9]

Most contact by remote nurses is with a regional district duty medical officer, such as Health Direct Australia ('after hours' GP helpline) or through the RFDS's 24 hour/7 day on-call medical officer. As participant psychiatrist stated:

We [psychiatrists] wouldn't consult with the RFDS doctor about whether to evacuate or not. That decision would be made by the remote area nurse, usually in conjunction with someone like the RFDS doctor. (T24, p. 16]

The paramount reason for contacting GPs mirrors the reasons for contacting a psychiatrist. There appears to be little difference in the reasons for initiating mental health advice in times of a mental health crisis presentation, particularly if there is a violent and aggressive presentation. The major reason for seeking GP assistance is usually to obtain a medication order for sedation. The second major reason concerns organising and obtaining authorisation for evacuation of mental health patients. While MHNs are usually part of the decision-making process, they do not have authority to unilaterally authorise the aero-evacuation of a mental health patient. Remote nurses then escalate the decision-making process to the psychiatrist once the request has been vetted by the GP.

Should a GP reside in a community, remote nurses expressed that at time of mental healthcare crisis they became a resource which considerably eases stress for them. One remote nurse participant described GPs who live in the community during a time of a mental health crisis presentation as a

significant resource to handle [mental health patients] ... because I don't know what else is there that is available. [T6, p. 11]

Another participant nurse said:

It always helps if there's a [GP] in the community, if someone is really unwell mentally. [T5, p. 23]

### **7.2.6 Paramedics and ambulance officers**

Paramedics and ambulance officers are rarely permanently located in remote communities. The majority of contact with remote nurses is pursuant to a mental healthcare crisis presentation. There are two types or reasons for contact. First is where the mental health patient requires evacuation out of the community for admission to a mental healthcare facility or hospital. Such evacuations are usually done by aircraft and therefore involve the RFDS. Paramedics in such situations are in the employ of RFDS, and are an integral aspect of ensuring proper and safe evacuation of mental health patients. The second type of contact is where paramedics and ambulance officers are stationed in communities. These circumstances are usually confined to larger remote communities and transport patients to hospitals which can admit mental health patients.

Depending on work location, paramedics and ambulance officers were identified as a valuable resource in delivering mental healthcare. Through their training and certification, paramedics and ambulance officers have advanced knowledge and prescription rights, including medications for mental health patients:

I have a level of authority granted ... that is actually compared to the nurses quite wide open. I'm trained in a number of protocols and guidelines that I can instigate myself. [T23, p19]

Accordingly, their mental healthcare expertise is greater than those of the remote nurses, they have greater authority to use medications and have more experience in handling acute mental health presentations:

It amazes me that these nurses are after hours caring, they're in charge of this facility, and yet their hands are tied at times because when it comes to things like pharmacology, there's very little—even when they've done their RIPEN training that they can do off their own bat. They've got to talk to the medical officer.

I think—and especially some of the more senior and confident ones, there's no difference between me and them. I can sedate someone because I can deem that it's safer to do that. (T23, p. 19)

When they do deliver a mental health patient to an emergency department, paramedics and ambulance officers are often informally consulted by remote nurses concerning the best immediate future management of a mental health patient. The paramedics and ambulance officers also stated that when remote nurse staff numbers are low, they will stay for a while to ensure that mental health patient's presentation does not deteriorate,

So a lot of the time, and particularly if ... someone who's distressed, potentially maybe some self-harm or suicidal thoughts, we'd [paramedic] be quite concerned with that. We'd be handing over and maybe staying around to help and assist. (T23, p. 9–10)

While contact between paramedics and ambulance officers is episodic and irregular, there is a high level of mutual professional recognition of the benefit both professions can bring to the delivery of mental healthcare, especially concerning mental

health crisis presentations. This results in a mutual respect and, when necessary, a close working relationship.

### **7.2.7 Aboriginal and Torres Strait Islander Health Workers (ATSIHW)**

Aboriginal and Torres Strait Islander Health Workers (ATSIHW) are Aboriginal and Torres Strait Islander peoples who have a certificate or diploma in Aboriginal and Torres Strait Islander Primary Healthcare, and work in the health sector (NATSIHWA). They undertake a variety of health tasks as members of the healthcare team and are usually based in the primary healthcare centre. There are currently 391 registered ATSIHWs in Australia (AHPRA, 2015). This study was unable to ascertain how many work in remote communities who are not registered with AHPRA.

ATSIHWs prefer the term ‘social and emotional wellbeing’ over ‘mental health’, as mental health is one aspect of the holistic health of the individual (Social Health Reference Group, 2004). ATSIHWs assist with delivering Western bio-social mental healthcare to Indigenous and non-Indigenous patients, but they are also able to assist with Indigenous mental health patients who require more traditional and culturally appropriate care and support. Many ATSIHWs are born in the remote community in which they work and hence, have a depth of knowledge and ‘inter-connectedness’ within the community, which remote nurses do not:

There’s consistent health service employees on the ground. The ATSIHW’s ...  
[are] the crux in what brought the whole thing and the community together, because they had that knowledge. [T13, p. 15]

They also usually have extended family in the community. This knowledge and relationship to the community places them in a unique and valued position in relation to

assisting remote nurses to deliver mental healthcare, particularly for Indigenous mental health patients. In a mental health crisis presentation or managing a suicidal mental health patient (particularly after hours) being able to locate family members or ‘tap into local knowledge’ is vital. Hence, remote nurses rely on ATSIHWs for such critical assistance.

As one very experienced participant remote nurse said:

Because they [ATSIHWs] live in their community, they know their whole family, they grew up with their ... their relations; their extended family. So they know ... when somebody is unwell. [T26, p. 5]

The health workers in the local communities are your [health professionals’] eyes and ears. [T26, p. 6]

Aboriginal health workers ... absolutely vital. [T13, p. 15]

ATSIHWs within the healthcare arena are situated close to the word ‘tensions’, as their role varies enormously, usually as a result of the attitude and power of other clinicians, especially remote nurses. Some ATSIHWs feel marginalised and not appreciated for their knowledge, as they are not remote nurses undertaking nursing duties. These feelings can sometimes lead to tensions between the two groups. Obviously, when this occurs, it hinders remote nurses in delivering mental healthcare:

Q. Are there occasions where you’ve seen the nurses kind of marginalise the Aboriginal health workers?

A. Yeah, yes ... yeah, I’ve seen that happen. [T26, p. 7]

### **7.2.8 Nurse practitioners**

The last group in the health actors’ arena is that of nurse practitioners. These practitioners clearly qualify for inclusion in this arena due to their advanced (mental

health) scope of practice. The reason for their diagrammatic separateness and ‘dashed’ borders in the social world/arenas map is that they are in an embryonic stage of positioning themselves as a defined and accepted group in the arena. They are few in number and have not been present for an extended period of time compared to other groups in the health actors’ arena.

The present scope of practice of mental health nurse practitioners is clearly of benefit to the groups not only within the healthcare arena but also within the health service arena as they bring wider benefits to all within the same. As nurse practitioners are in the embryonic stage of establishing their existence and role(s) within the health service arena, a great deal of their benefits are expectations, but the present indicators legitimise them as positive. As a state-wide mental health administrator stated:

We haven’t got many in the area that I work in, but I’m an advocate for the nurse practitioners coming our way ... they deliver very effective care, so as opportunities do arise, I would advocate strongly for mental health nurse practitioners. [T19, p. 11]

Those anticipated benefits for administrators include cost-efficiencies and economies of scale of service provision, as wages and salaries for GPs and psychiatrists (employment positions that are very difficult to recruit and retain) are significantly more . Further, it is anticipated that nurse practitioners will be a stable workforce in the remote field, and hence mitigate associated hidden costs and dislocations from burnout and ‘churn’ of staff turnover. For facilitators such as RFDS, nurse practitioners will provide additional and greater degree of specialist input into mental health decision making, such as when evacuations or emergency examination orders (EEOs) are being considered. A greater

breath of service delivery is envisaged, as they are additional personnel in the field providing service to ‘Others’, such as clients and family members.

Administrators such as district mental health managers, district mental health Directors of Nursing and state-wide mental health managers are particularly keen to establish more mental health nurse practitioner’s roles. They believe that it is inevitable. As a state-wide mental health manager stated:

The future of the delivery of mental health services—the immediate future or foreseeable future—certainly would have nurse practitioner roles embedded within it ... and we’re looking to extend that further, yes. (T18, p. 14)

Another state-wide mental health manager said:

We haven’t got many ... but I’m an advocate for the nurse practitioners, simply because psychiatrists are so few ... Nurse practitioners are well and truly equipped ... So I’m a really strong supporter of nurse practitioners ... they deliver very effective care, so as opportunities do arise, I would advocate strongly for mental health nurse practitioners. (T19, p. 11)

### **7.3 The Actors’ Arena**

Another group of actors in the health actors’ arena (and partially in the health actor arena, though not health trained or mental health clinicians) are the police, who are vital to remote nurses delivering mental healthcare. This study found that police are highly influential and very important to remote general nurses delivering mental healthcare.

#### **7.3.1 Police**

Police officers occupy a unique position in the health actors’ arena and actors’ arena. They reside in more communities and in larger numbers than any other group in the

healthcare arena except for remote nurses (Allen Consulting Group. (2010). Their major assistance was well articulated by a remote nurse participant:

A police officer is usually [the remote nurses] first choice after—they get them [mental health patients] medicated and then they have somebody [Police Officers] there to help keep them safe. [T17, p. 11]

Police often transport and present mental health patients to primary healthcare centres. The reasons for this are many, varied and beyond the scope of this study. The most obvious reason is due to the nature of their duties and the function of their role, which brings them into contact with mental health patients in the community:

If we [police] believe that somebody needs to be detained under the Mental Health Act then obviously we ... present that person to the clinic and ... remote nurses. [T21, p. 6]

Mental health community members displaying mental health behaviours or presenting as a danger to themselves or others results in police officers routinely conveying them for assessment and mental healthcare:

We don't have either the resources or the time or the training, really ... so we will hand them [mental health patients] over to the [remote nurses]. [T25, p. 7]

As an experienced remote police officer stated, such presentations are in accordance with police department policies and procedures:

So we [police officers] have to present them [mental health patients] ... from our perspective, there is a lot of arse covering that needs to take place as far as policy goes. (T21, p. 17)



Permanency of police officer numbers, combined with relative small populations in remote communities, combined with previous interactions, facilitates police knowing who the mental health patients are residing in the community:

But we're [Police] generally aware of the types of people [mental health patients] that they're [remote nurses] dealing with and specific people in community. (T21, p. 7)

A second conjuncture between remote nurses and police officers in the delivery of mental healthcare, arises from remote nurse requests for police assistance/protection. The requests for assistance are again many and varied, but primarily revolve around issues of safety. Two remote police officer participants stated:

It's usually due to security reasons, if the nurses feel—obviously have concerns for their own personal safety or the safety of others, then they'll get us involved. [T21, p. 6]

If they're aware of a problem, we'll go out with them. We'll attend jobs with them. [T25, p. 6]

Police officer assistance may be requested when a mental health patient is violent or aggressive and remote nurses have not been able to de-escalate the situation, or sedative medication has not resolved the behaviours:

We're [police officers] obliged to stay there for the duration of the [mental health] consultation, basically. [T21, p. 8]

Requests for assistance in these situations are frequently a result of presentations at night and after hours, when the remote nurse individually responds to a 'call out'. Another regular activity involving issues of safety is when a remote nurse needs to attend a mental

health patient's residential address to provide care. As one remote nurse participant said concerning attending the home a 'known' violent mental health patient:

So as a team we [remote nurses] decided that we wouldn't see him [mental health patient] alone. The police were happy to accompany us if we had to see him after hours. We discussed it with them [police officers] as well. [T20, p. 14]

A police officer added:

They would then call us [police officers] and obviously depending upon what the injuries are ... is treated at the actual nurses' private accommodation or is taken to the clinic. [T25, p. 4]

Hence there may be a multitude of reasons for police needing to attend after hours, including a history of violence and aggression, or a history of non-compliance, lack of insight into the necessity for treatment or where the mental health patient is not well known to the remote nurses. Giving depot medication pursuant to an Involuntary Treatment Order could be a frequent example. As a remote police officer participant stated:

If it's somebody who they [remote nurses] know is poorly then yes, they will attend ... We [police officers] sometimes then get a call saying, 'Look, I'm not too comfortable with this [attending a residence at night alone]. So-and-so with mental health issues has gone off. Can you attend?' Yes, we will go. [T25, p. 10]

The final reason for contact between police officers and remote nurses in the delivery of mental healthcare relates to the detained mental health patient. Across each jurisdiction in Australia, pursuant to the various Mental Health Acts, a mental health patient under certain circumstances can be detained against their will, and may be forcibly admitted to a designated inner regional or metropolitan located mental health facility.

Once a detention order is made, there may be some delay, due to logistics, resources and distances, before the mental health patient can be evacuated to the designated mental health facility. In the meantime, the detained mental health patient must be confined, often against their will, in a safe environment such as a primary healthcare centre:

They [remote nurses] require our assistance then yes, we will stay until such time as that individual [detained mental health patient] is removed [evacuated]. [T25, p. 14]

If a detained mental health patient is violent, aggressive, a flight risk or risk of harm to themselves or others, then often a request by remote nurses is made for police assistance. This is especially necessary on occasions where a drug or alcohol is affecting the mental health patient and requires the nurse's attendance throughout the night:

We've [police officers] had incidents where a juvenile had psychiatric issues, ... and we literally had to sit on him all night until the Royal Flying Doctors could come up the following morning. In the clinic. We had family members outside but ... we couldn't leave the nursing staff there so it was a combined effort. [T25, p8]

The uncertainty, complexity and unpredictability of mental health patients necessarily means that in remote locations police officers and remote nurses have a mutually reliant and close professional relationship. Both work at the relationship, as it is in both groups mutual interest. Through working 'together', each group's contribution reduces the totality of work and stress associated with delivering remote mental healthcare:

I don't think I've come across really any times where a nurse [remote nurse] has actually perhaps looked at it too casually [mental health patient's presentation],

thinking that it's all just, say, an overreaction. But no, I think we're all on the same page. [T21, p. 9]

We [remote nurses] worked very closely with the police. They were very supportive of us, and I never once had a situation where I felt like I couldn't ring them just to come down and ... give us some support. [T20, p. 16]

We will—we're here to help and here to help each other. If we can make life as easy for each care profession, because at times we are, we will—all well and good. [T25, p. 17]

Both groups reciprocate describing each other in terms of 'close' and in a mutually praiseworthy manner:

I think all the [remote] nurses here do a tremendous job with the resources that they have. I think they handle all their clients [mental health patients] extremely well for the area. [T21, p. 8]

We've [police officers] got quite a close working relationship with the nurses. [T25, p. 6]

Both groups also described levels of insight into the issues and challenges each other contends with, in delivering in delivering their respective services:

We've expressed our concerns previously about ... nurses going to jobs on their own. There is no way we as police ... will go to a job on our own. ... so if they [remote nurses] do have a job overnight, it's generally one nurse that will basically care for that [mental health patient] client overnight until they're flown out the following morning ... So when you consider fatigue levels, the fact that they've been working during the day and then—I know it's a bit like us. [T21, p. 9]

This insight partly arises from the close working relationships and partnerships the two groups have, the amount of time that they spend working with and observing each other, and partly because both groups encounter similar issues:

Mental health is ... tricky [in] that no two jobs are ever the same, even if they have the same diagnosis, just with different personalities and whatnot. [T21, p. 12]

There are also concerns such as a lack of personal infrastructure and resources:

You can generally read each other, you can feel the vibe. You know what hours they've done because you've seen a lot of them [remote nurses] during the week, because you've been busy as well. [T21, p. 19]

## **7.4 Other Groups Within the Healthcare System Arena**

This study identified three groups within the actors' arena: administrators, facilitators and others. These groups are not constituted of healthcare (or even mental health) trained staff, or of those that have clinical contact with mental health patients. These personnel are still relevant, as their placement in the healthcare system arena is crucial for remote general nurses to function.

### **7.4.1 Administrators**

Administrators encompass those organisational service providers who provide administrative or managerial assistance to the remote nurses in the health actors' arena. In this study, participants in this group were limited to state-wide mental health managers, district mental health managers and area mental health Directors of Nursing. This decision was based on a pragmatic approach of obtaining relevant data from those individuals who are involved in systems, policies and resource allocation directly related to remote nurses delivering mental healthcare.

The researcher decided that any individual within this group who was more senior, too removed from remote mental healthcare delivery, or only indirectly familiar with the network supporting remote nurses, would be excluded from the study. An obvious example being a human resource manager situated in a regional or urban setting, involved in payroll issues of wages for remote nurses. This weak tie or tenuous relationship between them adds nothing material to the case under inquiry; to examine these relationships or ties adds no weight to this study's findings.

Administrators are aware of, and able to identify systemic needs to deliver remote mental healthcare:

How efficiently, effectively and safely can we deliver that care, establish that system to enable that patient care is provided effectively and in a timely way. [T19, p. 7]

In particular, administrators identified as issues the various difficulties experienced by remote nursing staff, such as recruitment and retention, vast distances involved with providing mental healthcare services with limited resources, difficulties associated with providing mental health upskilling courses and training and logistical challenges in evacuating mental health patients, particularly by air and security issues. All four participants from this group spoke anecdotally based on their own experiences:

The key challenges for remote mental healthcare is ensuring there's ready access to resources ... to establish effective systems ... how efficiently, effectively and safely can we deliver that care ... in a timely way. Wrapped up in all of that is education and training. It needs to be sustainable, consistent, standardised and easy to access. [T19, p. 7]

Administrators postulated that into the foreseeable future resources would continue to be limited. The consensus is that there is little room to manoeuvre to address the issues as they could only respond to ‘up-stream’ decisions which are made out of reach of their influence. Hence, as an example, while being acutely aware of the shortfalls in not having permanent remote staff, and an overreliance on agency and temporary staff, they were unable to change this without significant investments at a governmental and profession level:

It’s very difficult to recruit into these types of positions ... It’s a constant battle to work within the budget you are given. [T27, p. 2]

Despite identifying issues which mirror those of the remote nurses when delivering mental healthcare they uniformly praised and acknowledged the level and quality of mental healthcare provided:

My experience [mental health nurse graduated 1977] is that often they [remote nurses] ... do a pretty good job, but they don’t acknowledge their own practice because they’re so concerned about the fact that they’ve never been trained. It’s a case of building capacity ... with reassurance, that their practice is sound and is of a standard that meets the needs of the patient. [T19, p. 13]

Technology was mentioned as a cost-efficient means of addressing issues and barriers arising from distance, staffing levels and travel. In particular, video-conferencing was identified as the anticipated technological next ‘step’ in cost efficiencies associated with delivering remote mental healthcare:

There has been a number of evaluations over the years of videoconferencing and their services generally, and they were always very highly valued. [T18, p. 7]

While their experiences to date, was various degrees of ‘roll out’, they were enthusiastic about the future due to technological advancements to date. Their preliminary experiences were confirmatory of their faith in the future:

People who are in remote communities will have greater access, will have to travel less ... for appointments, et cetera, and ... [a] more efficient mechanism, by way of giving and administering medication, et cetera. When we’ve got people on screen ... it can be done by videoconferencing. [T19, p. 9]

Best thing is obviously using mediums such as videoconferencing. I think that’s quite an effective way ... of bringing in the expertise ... It’s a virtual multidisciplinary team ... a virtual model of care using videoconferencing is the way to go. [T19, p. 8]

#### **7.4.2 Facilitators**

Facilitators are those individuals and/or collectives within this group that function as support, either direct or indirect, for remote nurses in delivering mental healthcare, other than those in management and administration.

In this study, there was only one identified group of facilitators, the RFDS. The vision of the RFDS was originally Reverend John Flynn’s, who initially worked in remote Australia establishing hostels and bush hospitals for pastoralists, miners, road workers, railway men and other settlers. In 1928, his dream became a reality when the Australian Inland Mission Aerial Medical Service in Cloncurry, Queensland (later to be renamed the RFDS) took its first air flight to deliver remote healthcare.

Since then, the RFDS has grown to become the national remote (and rural) provider of healthcare and health retrievals by air. The RFDS provides a number of healthcare



services through FIFO-GP and nurse-led clinics, mobile dental services and patient transfers.

The RFDS's activities fall into three areas for remote mental healthcare. First, the RFDS provides some limited direct mental healthcare to remote regions, such as the remote Queensland Social and Emotional Wellbeing program, Mental Health in New South Wales program and, Mental Health Outreach program in remote South Australia and Northern Territory.

Second, there are remote 'tele-health' consultation services. These are telephone calls to an RFDS base, from individuals or health workers (remote nurses), situated in remote areas, who require medical assistance or telephone advice from a RFDS medical officer (including being part of the joint decision making process concerning the aero-evacuation of mental health patients). As a remoted psychiatrist stated:

Theoretically they should speak to the out of hours, to the consultant on call in the remote team in the area ... but they may speak to the RFDS doctor, particularly if there's a medical reason. [T11, p. 9]

Third, are the RFDS emergency aero-evacuations throughout remote Australia for people who are seriously mentally ill and require urgent specialist mental health attention. In 2014–2015, the RFDS provided 4,336 general emergency evacuations utilising a fleet of 63 fully instrumented aircraft, from 25 airbases across Australia.

Table 7.1

*Royal Flying Doctor Service Emergency Evacuations, 2013–2014 (Source: RFDS Annual Report, 2014)*

For the year ended 30 June 2014	Daily Average	Year
Service Area km <sup>2</sup> 7,150,000		
Number of aircraft	N/A	63
Distance flown (total) (km)	72,358	26,410,611
Average flown per RFDS aircraft (km)	1,148.53	72,357.39
Number of landings (total)	206	75,314

### 7.4.3 Others

Family members or significant persons known to mental health patients are a significant resource for remote nurses delivering mental healthcare. A participant psychiatrist reinforced this point in answering the question: What are the skills required by remote nurses in handling mental health crisis?

[In] a remote setting, [not] so much the fancy clinical skills but just your ability to know who's the important person in the family. If it's an Indigenous remote setting, who's the important person? Who's the uncle to get down to calm the person down, because they're the only one they'll listen to? You don't need to train as a psychiatrist or a psych nurse to know that stuff. [T24, p. 6]

Another resource is community members and volunteers. Again, these groups take on ever increasing importance as numbers of fellow remote nurses decreases. Hence, in times of crisis, the remote nurse needs to access and marshall these human resources to make up the deficiency of not having colleagues nearby:

[In] very, very remote clinics that have one nurse ... no police anywhere nearby... no ambulances and it might take a day for the RFDS to get in there and they're [remote nurses] alone ... [if] they know everybody in the community and there are plenty of community members that'll help out and help contain them [mental health patients]. [T24, p. 7]

As a nurse participant described the evacuation of an aggressive and violent mental health patient at night, situated in a two person primary healthcare centre, located 200 kilometres from the closest hospital:

It depends who would have been available ... We could have ... taken him [mental health patient] with one nurse, and got one of the members of the community who was sober at the time to drive the car. [T3, p. 7]

## **7.5 The Non-Human Arena**

In the following section, the non-human arena is discussed. The non-human arena consists of three types of influences on remote nurses: historical, political and professional, and three types of resources: physical, social and abstract objects (see Figure 6.8). Within the resources group there is one important influence, namely geography.

### **7.5.1 Influences in the non-human arena**

The first group of influences consists of historical, political and professional factors. This study does not separate these three within this group. There are two reasons for presenting these 'influences' conjointly. First, the three are inextricably linked, and it would be artificial to attempt to examine and discuss each in isolation; it would distort or dilute their combined influence. Second, the study's aim was to recognise, but not to focus

on these particular influences. Accordingly, there is little in the data that addresses these influences, and few findings concerning this area of the social world.

The most relevant political and professional organisation for remote nurses (and to a lesser extent delivering mental healthcare) is the CRANA Plus. CRANA Plus was established in 1982 when 130 remote area nurses from remote regions across Australia met in Alice Springs. It commenced as a ‘grassroots’ membership-based organisation driven by a small group of passionate remote area nurses. The impetus for its creation was an absence of representation and understanding of remote nurses and their practice:

Back in those early ‘80s ... things that inspired it. Like, a lot of [remote] nurses were out on their own, pretty isolated with not a lot of really good professional support or understanding of what the requirements of their role was. [T13, p. 5]

CRANA Plus has grown to a membership base of 1,300 individual members and 20 corporate members, and is the *only* voluntary and specifically dedicated organisation representing remote nurses in Australia. CRANA Plus dedicates itself to the promotion of issues facing remote service delivery, advocates for people living, working and travelling in remote areas and politically promotes the role of remote nurses. As a participant stated:

We advocate on behalf of the health context of remote practice ... [en]sure that the context is understood by policymakers of all different levels of government; that it is quite different to rural ... the functions that are done, the challenges, the barriers, all of those sorts of things. We ... make sure that ... the context of practice is not forgotten in policy. [T10, p. 4]

With reference to CRANA Plus’s 2014–2015 Annual Report, they are involved in a wide range of professional bodies, with their six managers sitting on 28 committees

between them, including the National Rural Health Alliance, Australian Commission Safety and Quality and the Nursing and Midwifery Stakeholder Reference Group (Commonwealth Department of Health).

Another dedicated rural and remote nurse organisation was formed in 1992, called the Association for Australian Rural Nurses (AARN). Its focus was not lobbying policymakers, but to be a more practice-based representational body for the rural and remote nurses themselves. This organisation was subsumed into the Australian College of Nursing as a Special Interest Group and is no longer an independently functioning entity.

There are three organisations that represent broadly the nursing profession. While not specifically targeted at remote nurses, they nevertheless are relevant. The first is the ACN, which is the second largest representational body for nurses in Australia with 7,643 members. One stated ‘Aim’ is that the Australian College of Nursing is committed to ensuring that the expertise and experiences of nurses are represented in policy development throughout the Australian health system.

The college has submitted and represented nurses (and midwives) before various Government Departments (e.g., Department of Health, Senate Inquiry hearings, Productivity Commissions hearings and ANMAC), for a total of 69 occasions from December 2013 until March 2015. On some occasions they have dealt with matters which included remote nurses as part of the nursing profession, such as Health Workforce Australia, Nursing Workforce Retention and Productivity consultation, Federal Budget Submission 2014–2015 (which made a recommendation for more funding for rural and remote nursing incentives) but, noteworthy for this study, none specifically related to remote nurses or remote mental healthcare issues (ACN website). Further, the college has

not published any ‘Position Statements’ nor established any ‘Special Interest Groups’ related to remote nurses or related to the delivery of remote mental healthcare. This is an example of ‘silences’ and ‘absences’ in the situation being investigated (Clarke, 2005).

The largest organisation of political influence is the nurses’ trade union, the Australian Nursing and Midwifery Federation (ANMF), with a membership base of 240,000 nurses, midwives and Assistants in Nursing (AINs). Like the Australian College of Nursing, it too makes submissions and advocates to the same or similarly constituted bodies on behalf of nurses, including remote nurses. Ninety-six submissions have been made between January 2011 and May 2015 (ANMF, 2016). None specifically addresses remote nurses as an identifiable group, nor addresses issues specifically related to remote mental healthcare delivery.

The ANMF has established a ‘national professional team’ (NPT) to establish the recognition and advancement of the essential role of nurses and midwives in the provision of health. The team represents the interests of ANMF members across a wide range of issues that affect or influence the nursing profession and undertakes, national projects, national submissions, presents papers at national conferences, makes submissions to Commonwealth Senate and House of Representatives inquiries and participates in national forums, committees, roundtables, meetings, working groups and alliances. The NPT lists 25 ‘targeted’ health priorities, of which only two involve ‘rural and remote health’ and ‘mental health’, with no cross-referencing.

The ANMF has 42 policies, one of which is ‘mental health nursing care’ which does not mention or discuss remoteness or delivery of care by remote nurses. There is no reference to remote nurses or mental healthcare in any of the other 41 policies. There are

31 Position Statements, four Guidelines, four Joint Position Statements and one Information Sheet, none of which mention or address remote nurses and the delivery of mental healthcare, thereby highlighting unexpected ‘silences’ and ‘absences’ in the situation or case (Clarke, 2005).

The Coalition of National Nursing Organisations (CoNNO) is made up of 53 national nursing organisations in an alliance to work collectively to advance the nursing profession, and to improve healthcare. Its charter is to represent the national interests of nurses in all sectors of the health profession, and is comprised of specialist national nursing organisations. Two of the organisations are relevant, CRANA Plus (remote nursing) and Australian College of Mental Health Nurses (mental health but not remote nurses *per se*). This reinforces the relevance and primacy of CRANA Plus being the political body specifically for remote nurses delivering mental healthcare.

The second cluster in the non-human arena is geographical and temporal–spatial elements. Two features were reported in this study concerning geography: location (degree of remoteness) and weather.

Location is important as it determines the level of remoteness, and in turn the level of health services (Humphreys & Wakerman, 2008). For example, if two remote communities are 10 km apart they are in essence, less remote or isolated than a community 200 km apart. The first two communities are able to travel less distance and in less time, which facilitates the ease of sharing resources to deliver mental healthcare, for example, in summoning an ambulance or police from one community to another, or the evacuation of a mental health patient out of the community. Hence, remoteness alone is not the issue, as

all the communities are remote; what matters is the degree of isolation. As demonstrated by one nurse participant describing the handling of a mental health patient at night:

We treated people in the community, or they were taken to the nearest hospital, which was ... 200 kilometres away. [T3, p. 6]

Distance is not the sole determining factor. It also depends on the local topography between the communities and time of day or night. For example, the distance between Horn Island and Thursday Island in the Torres Strait is 3.6 km, but if a boat is not available, or the sea becomes untravelable, then distance becomes irrelevant in evacuating a mental health patient to the Thursday Island hospital. One remote nurse participant who works on an island in the Torres Strait, in addressing the topography between island communities—in this case, sea water—referred to evacuating mental health patients using ‘the chopper’ (helicopter) [T5, p. 18]. Hence the seawater topography between the island communities determines the means of transportation, namely a helicopter (or boat) and not a motor vehicle. Thus the degree of isolation is related to whether the means of transport is available and which among alternatives is the quickest. For example, the distance from Coober Pedy to Adelaide is 845.3 kilometres. If we consider evacuating a mental health patient to Adelaide in 1899 by horse and buggy, or by motor vehicle in 1980, or by aircraft in 2015, in this sense the time taken dictates the degree of isolation, despite the distance remaining a constant.

Time of day or night is also a relevant consideration. Travelling at night in remote Australia is extremely hazardous due to nocturnal wildlife and stock, and conditions such as quality of roads and weather. As participant T5 stated:



They [mental health patients] stay overnight until the chopper comes in the morning, because it is quite dangerous. Flying out at night time. [p. 24]

Another participant stated in relation to a night time road evacuation of a mental health patient to a community 200 km away:

You [remote nurses] can't drive at night because it's too dangerous ... Then its unfenced cattle at night on the road ... Unsealed roads at night you can't see the next dust bowl and they'll flip your car. [T28, p. 7]

We don't drive at night up here because of the risk of animal strike, with big cows and roos. [T4, p. 7]

Accordingly, if a mental health patient can only be evacuated during daylight, then the hours of night time result in a degree of isolation. The difference between a daytime and nighttime mental health patient presentation requiring evacuation, in a practical sense, results in the community with the night time presentation being more 'isolated'.

Perversely, if the two presentations were to occur in the same community the degree of isolation becomes temporal, as the distance to the evacuation destination does not change.

Weather is included in the 'geographical elements' section because weather patterns can be localised. In Far North Queensland, Northern Territory (the 'Top End') and Western Australia, there are annual periods (months) referred to as the 'wet season' (November to April). During this season, the annual level of precipitation is concentrated in tropical downpours and rainstorms which deluge communities, and combined with unpredictable cyclonic activity, results in communities being inaccessible, as roads (usually unsealed) become untraversable. As one nurse participant stated:

In the wet season the roads are closed so the only way in and out is by air, and then you have to have safe enough weather to fly. [T29, p. 2]

Hence the delivery of mental healthcare by remote nurses can be responsive to the weather conditions, which determines a community's degree of isolation.

The last group in the non-human arena is resources (physical, abstract objects and social). The physical resources in the arena relate to the resources which are available to remote nurses to deliver the care such as cars, planes, medication. This study found there were two foci by participants. The first related to whether healthcare was delivered utilising a primary healthcare centre or a hospital. The former meant nurses could not admit mental patients and the later they could. Hence the nature of the infrastructure dramatically shaped the manner of caring for the mental health patient. As one nurse participant stated when managing a suicidal patient in the middle of the night:

You've got no hospital to admit them to. The only help you've got is a psychiatrist or mental health team thousands of kilometres away on the end of a line. [T1, p. 13]

In comparison, another remote nurse who worked in a community with an acute hospital of ten bed capacity stated:

[We are] fully or a well-resourced and supported environment to care for the clients. [T2, p. 7]

The second physical resource is the availability video conferencing facilities due to the increasing reliance on this technology. This has been discussed earlier in the chapter, and hence is not canvassed in this section. Again, the physical resource influences and shapes the manner of the remote nurse delivering mental healthcare. For example, with video conferencing facilities, assessments and interviews can be undertaken in 'real time',

with access to psychiatrists and mental health team members, while the patient remains in the community. This cannot be undertaken when video conference facilities are not available, resulting in the patient waiting for the psychiatrist or mental health team to visit the community. As one nurse participant stated:

We use video conferencing all the time ... It's a good way to get help from a psychiatrist or mental health nurses when you need help or just doing the rounds [case conferences]. [T29, p. 2]

Abstract objects include beliefs, systems, understandings and practices (e.g., 'boundary objects'). These are discussed in the next chapter.

The last element in the 'resources group' of the non-human arena is the 'social'. This refers to social facilities and amenities available to remote nurses. They need not be created by human design but can be natural facilities or resources that endear the social to occur. The nurse located in the middle of desert will not be able to go fishing, while the nurse located near a range of mountains can go mountaineering, and the nurses in a community without a bowls club will not be able to socialise with others while bowling.

The relevance of this to delivering remote mental healthcare is that remote nurses are not machines. Remote nurses require a social aspect to their lives (social world) to sustain pleasure in staying in the remote area or location. If the nurse is keen on fishing, then they are unlikely to locate to a desert, and hence any demand for mental healthcare will not involve that nurse. If that position in the desert cannot be recruited to, then the mental health service is shaped or influenced by the fact that there are no fishing spots.

The second point of relevance is that social resources ensure that nurses do not suffer from burn out and ensure a work/life balance. This sustains their presence in the

remote location. Many of the nurse participants stated how they used their ‘saved up’ rostered days off, to leave the remote community to partake in enjoyable social activities:

My form of relaxation ... I can take my dog down the beach and we’ve got miles of beach where I am and I can get away from people. [T4, p. 17]

Another nurse participant who worked for a period in the Torres Strait responded:

Very much fishing, fishing, going to other islands, exploring other islands, camping on other islands. [T12, p. 32]

Finally, another nurse participant said:

Even in [location redacted] which is right next to the desert and a pretty dismal place, there were beautiful, beautiful sunsets, and some gorgeous areas not far from there—even though the rest of it was shit—but yes, it helps keep you sane—it helps keep me sane anyway. [T17, p. 31]

## 7.6 Summary

For the researcher, the findings so far have only partly examined and explained the social world of remote general nurses delivering mental healthcare. With reference to Figure 6.8, this chapter has explained the various groups and elements within the social world and justifications for their inclusion, primarily referencing the participant interview transcripts.

At this stage of the study, the researcher was still unsatisfied as to understanding and explaining how the various groups and elements related to and worked with each other to deliver remote mental healthcare. The next chapter examines the relationships, mechanisms and techniques that the groups and elements in the social world use to deliver

remote mental healthcare. This is undertaken through the analytic lens of actor-network theory.

## Chapter 8: Actor-Network Theory

### 8.1 Introduction

This chapter builds on the previous three chapters, addressing how the groups presented in the social world/arenas map coordinate and function collectively to assist remote nurses in delivering mental healthcare. This required an analysis and discussion of the elements in the non-human arena of the social world/arenas map. This had not been undertaken prior to this stage of the study. This chapter utilises actor-network theory to examine both human groups' and non-human elements' interactions in the social world.

The chapter commences by explaining and discussing the main concepts that underpin actor-network theory. After this, the chapter examines and discusses the actors in the non-human arena, in particular how, through the lens of actor-network theory, they regulate and coordinate actions between actors in the healthcare system arena. The chapter concludes with an explanation of the actor-network concepts of 'moments of translation' and 'obligatory passage points', and their relevance to remote general nurses delivering mental healthcare.

### 8.2 Actor-Network Theory

Methodologically, actor-network theory explains how aligned interests (e.g., groups in the social world) are created, formed into networks and maintained. It facilitates the mapping of 'elements (within networks) that influence, shape, or determine ... action [of remote nurses delivering mental healthcare] ... Each of these elements is in turn part of another actor-network and so forth' (e.g., actor arena, healthcare arena, remote nurse's social world; Monteiro, 2000, p. 76). Actor-network theory treats everything in the social and natural worlds as continuously generated webs of relations. It can be described as 'a

material-semiotic approach which describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors' (Law, 2007, p. 2). Actor-network theory encompasses objects, symbols, subjects, human beings, machines, 'nature', ideas, organisations, inequalities, technologies, and geographical arrangements.

Actor-network theory is descriptive and tells stories about 'how' relations are assembled (or not). It brings sensibility to the messy interactions of rationality and materiality of the world. Thus actor-network theory is 'located in many different case studies, practices and locations, done in many different ways, and draw[s] on a range of theoretical resources. This better catches the openness, uncertainty, revisability and diversity of the ... work' (Law, 2007, p. 2).

### **8.2.1 Three underlying principles**

The researcher was mindful of three underlying principles in adopting actor-network theory: generalised symmetry, agnosticism and free association (Callon, 1986a). The principle of generalised symmetry is reflected in the radical (and controversial) way in which actor-network theory defines actors (Van House, 2003). No distinction is made between human and non-human actors. In this study both were qualitatively analysed without distinction (Callon, 1986a; Law, 1986c, 1987, 1988). As a result, both human and non-human actors have the ability to make actions, and can be anyone or anything (Law, 1986a).

Agnosticism requires the researcher to remain impartial, thereby ensuring all interpretations remain unprivileged. Accordingly, the researcher systematically and persistently avoided censoring any interpretation provided by the actors (Callon, 1986a), even when presented or confronted with contrary interpretations to his own (Callon, 1986a;

Law, 1986b). He did this because censoring interpretations could potentially hinder him from obtaining an in-depth understanding of the phenomenon under investigation, namely remote nurses delivering mental healthcare.

Free association requires the abandonment of all assumed *a priori* relationships between human and non-human actors (Callon, 1986a). Rather than imposing assumed relationships upon the actors, they must be the focus of the analysis, not the point of departure (Callon, 1986a). As Law (1992) concisely stated:

It is important not to start out assuming whatever we wish to explain...we might start with interaction and assume that interaction is all that there is. Then we might ask how some kind of interactions more or less succeed in stabilizing and reproducing themselves: how it is that they overcome resistance and seem to become 'macro-social'. (p. 380)

### **8.2.2 History of actor-network theory**

Actor-network theory has been incorporated by a number of intellectual traditions; for example, Foucault's (1977) theory of power, micro-politics, semiotics and anthropology (Douglas, 1966) and the philosophy of Michel Serres. However, its most identifiable intellectual predecessor is Thomas Kuhn (1962; Bloor, 1976/1991). It is also a diaspora concept that overlaps with other intellectual traditions such as symbolic interactionism, science and technology studies.

Since the 1980s, the main protagonists of actor network theory have been Bruno Latour (1987), Michel Callon (1986a) and John Law (1992, 1999). Actor-network theory has been used in multiple variegations but usually in case studies of a particular topic. Examples include Latour's (1988) work on Pasteur and explorations in the sociology and



philosophy of technology (1988, 1991, 1992, 1994), Law's work on the TSR 2 aircraft (1988, 1991), 17th century Portuguese expansion (1986, 1987) and its engagements with the history of technology (1987, 1991), Callon's studies of the electric car (1986a, 1987) and scallops of St. Brieuc Bay (1986b; Law & Callon, 1989). As these examples show, case study is a demonstrably rigorous and yet malleable methodology with which actor-network theory fits well.

### **8.2.3 Actor-network**

*Prima facie*, actor-network theory is an oxymoron, requiring something to be both an actor and a network. This superficially seems to contradict conventional notions in social thought of agency viz. structure and content viz. context. The researcher's retort to this is that everything can be perceived as both an actor and a network; it depends on the adopted perspective. Hence, everything is an actor-network (Cressman, 2009), 'reducible neither to an actor alone nor to a network ... [a]n actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of' (Callon, 1987, p. 93).

Further, actor-network theory considers both human and non-human elements (e.g., systems, philosophies and objects) equally as actors within a network. Researchers therefore employ the same analytical and descriptive framework for each:

An actor in actor network theory (sic) is a semiotic definition—an actant—that is something that acts or to which activity is granted by another...an actant can literally be anything provided it is granted to be the source of action. (Latour, 1996, p. 373)

Accordingly, terms such as ‘heterogeneous network’ are used to reflect there being no distinction between humans and non-humans, as both technologies and humans all play equally important roles in the construction of actor-networks (Callon & Latour, 1981; Latour, 1987; Law, 1994). Hence any social world is essentially a social ordering, a product arising from the effect(s) of the associations within a heterogeneous network (Cressman, 2009). For example, technologies assist in the construction networks within social worlds and arenas. Computer networks, hardware and software, text messaging, buildings, planes, mobile phones and motor vehicles—while categorised as non-human materials or resources—are no different in their influence and networking than from that of humans; generalised symmetry (Van House, 2003).

Callon and Law (1997) argued that in addition to the human and non-human elements, there is a third element: text. Words and communication draw on an immense network and web of individuals, instruments, data, scientific experiments and knowledge, opinions and laboratory technicians. For example, a written protocol or procedure for administering a psychiatric medication, while it may have been written by a single individual, draws for its content and meaning on a vast array of peoples, knowledge(s) and organisations. Therefore, ‘texts reflect, are produced by, and help to create, a teeming world of entities’ (Callon & Law, 1997, p. 170).

Similarly, the groups within the remote nurse’s social world are not stable, solid or rigid or comprised of established boundaries. Each group is not a distinct and stable group of human and non-human objects. Rather, they are sets of relations in the form of networks (Callon & Law, 1997). Networks ‘form, their content, and their properties are not fixed. Rather their identity emerges and changes in the course of interaction ... objects for

instance people and texts are processes of transformation, compromise or negotiation' (Callon & Law, 1997, p. 171).

Thus the remote nurse group's relationships mould their variable geometry of influence or concern, which directs their actions. If the remote nurses in a community who are managing a mental health crisis presentation do not have access to a psychiatrist for advice, their influence over the situation and consequent actions in delivering mental healthcare, will be different to remote nurses who do have such access. In the former, the remote nurses are only networked with each other within their group, including local resources (the mental health presentation will have to be 'managed locally'), while in the latter situation the group of remote nurses has morphed by networking with another group namely psychiatrist(s) and psychiatric advice(s). The group of remote nurses is no longer a discrete group of remote nurses, but is now a new group consisting of remote nurses and psychiatrists. This will remain so for as long as there is a necessity for that newly formed network to retain its present format. If it were determined that the mental health patient required aero-medical evacuation, then a third group would enter the network and thereby create a newly formed network: remote nurses, psychiatrists and Royal Flying Doctor Service (and all the associated non-human actors, e.g., planes, aviation fuel, radar, airports etc.).

In the above scenario, the researcher deliberately absented from the discussion a critical group namely the mental health patient(s). They are central to the forming of any network in the remote nurse's social world of delivering mental healthcare (see Chapter 6). Obviously if nobody in the remote community has a mental illness, then a social world of remote nurses delivering mental healthcare would not exist. But if they are a group, within

the remote nurse's social world, and therefore present in the healthcare arena, the first network would be created between them and the remote nurses. The mental health patient's presentation immediately causes the remote nurses group to respond through engagement. The manner, level and type of engagement, and hence the nature of the network, again is predicated on the mental health patient's presentation. If the mental health patient simply presents for a routine psychiatric 'depot' injection, then the network is momentary in existence. If, however, the mental health patient's presentation is floridly psychotic with genuine and high risk elements of self-harm and suicide, then such a network would obviously be insufficient to deliver the appropriate mental healthcare. A new and larger network of actors would be created.

The mental health patient shapes the groups and network response(s) and vice versa. Accordingly, remote nurses do not have fixed or rigid goals, strategies or preferences but instead construct them locally in the course of interaction and negotiation with all actors, particularly the mental health patient (Friedberg, 1993). Hence the remote nurse's social world is never in a state of stability, but is ever responding to changes in circumstances bringing into play differing levels of interactions with and within networks. The remote nurse has to align his or her response to a mental health patient according to the presentation and resources available, all of which are highly unpredictable and variable; for example, available staff, type of mental health presentation and availability of other groups within the social world can all vary. This adds to the remote nurse's lack of ability to plan, predict and materialise resources. Correspondingly, this increases the complexities of issues, levels of stress and workplace pressure for remote nurses. Resultantly, remote nurses delivering mental healthcare have to adopt malleable goals, changing preferences

and identities depending on context, systems and position which shape the heterogeneous elements and groups of the network (see Chapter 9) (Callon & Law, 1997).

#### **8.2.4 Networks**

As explained previously, actor-network theory does not limit itself to human individual actors, but includes non-human, non-individual entities, actants, theories and philosophies (Latour, 1999). Arising out of the numeracy and differing types of actors which can be part of a network they are not one or two dimensional but instead consist of nodes

that have as many dimensions as they have connections ... modern societies cannot be described without recognising them as having a fibrous, thread-like, wiry, stringy, ropy, capillary character that is never captured by the notions of levels, layers, territories, spheres, categories, structure, systems. (Latour, 1999, p. 3)

The strength of the network does not come from concentration, purity and unity, but from dissemination, diffusion, heterogeneity and the careful braiding of weak relationships. Hence while some relationships will be weak or tenuous, they gain strength by being woven into stronger ties and relationships; this resembles Foucault's analysis of micro-powers (Latour, 1999).

#### **8.2.5 Commonalities of networks**

According to actor-network theory, there are some themes common to all networks, irrespective of the nature of the network. This section discusses some of those commonalities.

*Universality* is explained as follows:

Loci, contingencies or clusters are more like archipelagos on a sea ... whereas universalists have to fill in the whole surface either with order or with contingencies, [actor-network theory] that do not attempt to fill in what is in between local pocket of orders or in between the filaments relating these contingencies. (Latour, 1999, p. 4)

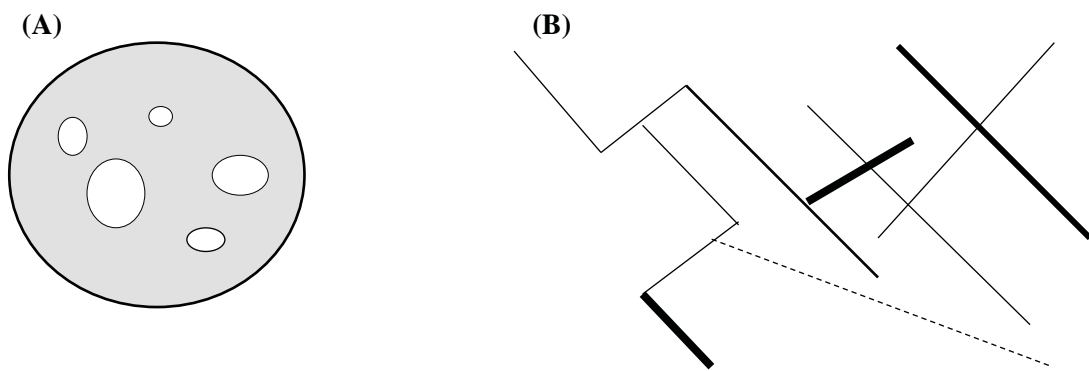


Figure 8.1. Network universality.

For remote nurses, there is nothing but networks, and accordingly, this study adopts a reductionist and relativist approach to this chapter's argument. Hence Figure 8.1.A is not a true illustration of the remote nurse's network(s). Any collective of individuals, nodes or groups in a network is not supported or connected to everyone and every other group by strong, permanent ties of equal strength. They are not 'surrounded or immersed in total connectedness' (see Figure 8.1.A). The reality is that, between actors and groups (human and non-human), there exist 'black-holes' or transient gaps and momentary unconnected spaces within the networks. If the mental health nurse does not answer the phone or the psychiatrist does not have mobile phone coverage as they are mid-flight, then there exists a

momentary unconnected space with the remote nurse; there is a gap separating the two. However, when the phone is answered or the plane lands that 'space' or 'gap' in the network disappears. These examples could be represented by the dashed line in Figure 8.1(B), which illustrates the temporary nature of the network and that there is nothing 'surrounding' them.

*Far/close:* actor-network theory erases the traditional notion of geographical distance as being conceived of as 'far' or 'proximate'. Individuals or groups while geographically close remain interminably 'distant' from one another if disconnected to a network. Conversely, individuals or groups may appear geographically distant but may be close when their connections are identified and analysed. With reference to Figure 8.2, if A represents a registered nurse in a metropolitan emergency department who cannot contact the psychiatric on-call registrar (B), in the same metropolitan hospital, then they are more distant or apart, than a remote nurse (A) who telephones and speaks to an on-call psychiatric registrar (E) many thousands of kilometres away in a regional hospital. Pursuant to actor-network theory actors A and E were able to establish a network and hence, their success makes geographical distance irrelevant. It was the use of the non-human actor which was critical: the satellite-phone technology.

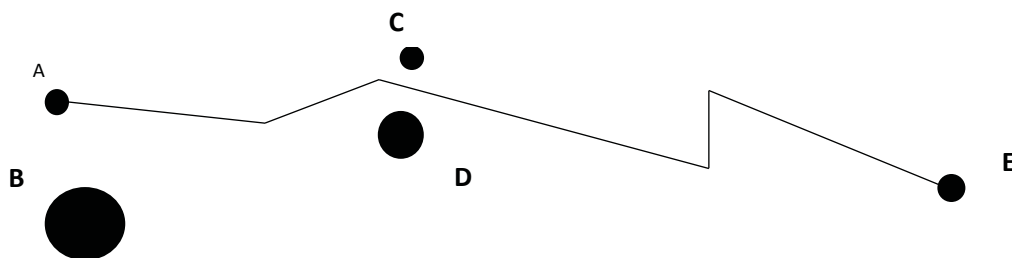


Figure 8.2. Network node connectedness.

*Small scale/large scale:* the network concept dissolves the micro/macro, dichotomy/dualism inherent in social theory. Connectability and density of connections replaces the notions of arbitrary and metaphorical scales of the individual, groups and organisations. It is replaced by the immutability of connections: ‘A network is never bigger than another one; it is simply longer or more intensely connected’ (Latour, 1999, p. 5).

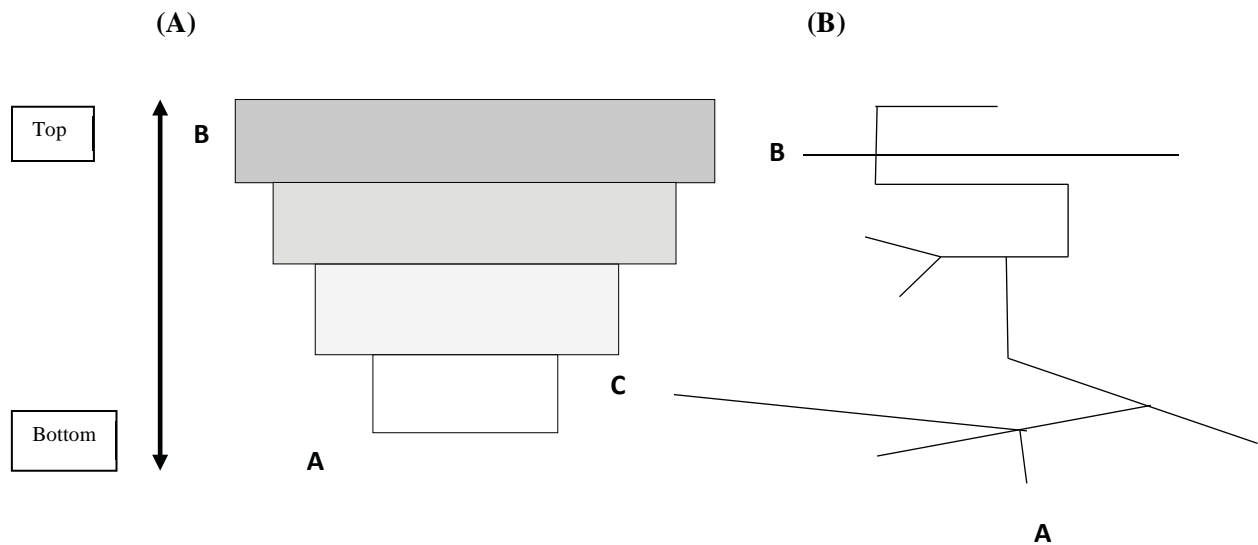


Figure 8.3. Network scalability.

Traditional social theory (see Figure 8.3.A) represents the ‘ordering’ of a social world that hierarchically represents top to bottom or bottom to top. Actor-network theory (see Figure 8.3.B) utilises a network with no a priori ordering of relationships, there is no top or bottom of the social world, no assumptions as to individuals or groups being macro or micro. Accordingly:

the scale, that is, the type, number and topography of connections is left to the actors themselves. The notion of network allows ... [for] manoeuvres between the ingredients of [a social world] its vertical space, its hierarchy, its layering, its macro



scale, its wholeness, its overarching character and how these features are achieved and which stuff they are made of. (Latour, 1999, p. 6)

Instead of comparing the individual to the group, or the agency to the structure, the researcher follows an element that becomes strategic, through its connections and how it loses its importance, when it loses connections.

*Inside/outside:* actor-network theory dispenses with a third spatial dimension.

Surfaces have an inside and an outside separated by a boundary (see Figure 8.4.A). A network is all boundary without an inside and outside (Latour, 1990). Hence the inquiry is whether or not two elements connect. Space between networks does not exist and is of no interest (see Figure 8.4.B).

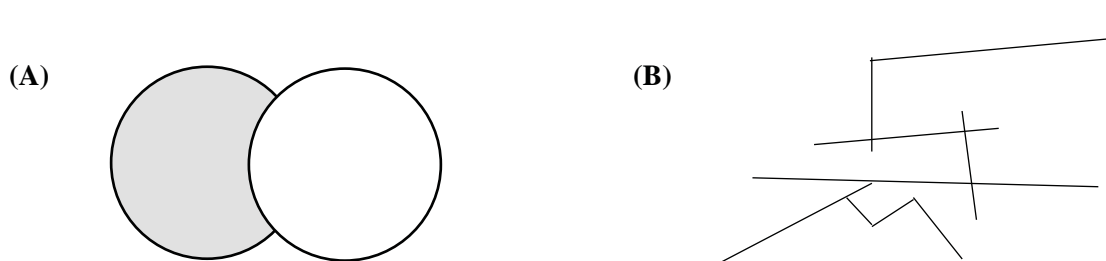


Figure 8.4. Network spatiality and boundaries.

Space is not of interest, it is the connections across and how these are made. The focus is on whether these are made by the network reforming, contracting or expanding (Latour, 1999).

### 8.2.6 Actor and actants

Actor-network theory (Callon, 1986a; Latour, 2005) offers ‘a theoretical shift in emphasis away from the centrality and primacy of human subject’ (Somerville, 1999, p. 8).

It argues that every act of establishing something is linked with the different factors influencing it, such as its surroundings, regulations, other people, and technology. Humans are not the only beings with agency or the only entities to act; all actants are actors which all have influence. Non-human actors can be anything from machines to landscaping or anything with a capability to make a difference (Giddens, 1984). Hence the laptop computer dictates the actions of the remote nurse in sending an email, just as a mobile phone dictates different actions on the nurse if wishing to make a call. In the former, the object requires booting up the computer and typing on a keyboard, whereas the latter requires dialling numbers and speaking into it. This illustrates how objects in the social world create actions.

### **8.2.7 Increasing complexity of the remote nurse's social world**

While there are multiple transitions and stages in temporal and physical spaces in the process of delivering remote mental healthcare, this section examines the complexity and multiplicity of enactments, actors and relationships. Adopting an assemblage approach (Deleuze & Guattari, 1988) to the notion of network in actor-network theory (Latour, 2005; Law, 2007) facilitates consideration of the complexity, unpredictability, contextualised processes and relations in the delivery of mental healthcare by remote nurses. It focuses attention to the many interacting and varied actors, agencies and practices through which human subjects and material objects take shape and form (Law & Hassard, 1999). The concept of assemblage denotes the 'amalgam of places, bodies, voices, skills, practices, technical devices, theories, social strategies and collective work that together constitute ... knowledge/practices' (Wright, 2005, p. 908).

To demonstrate this complexity, Table 8.1a lists some of the various human and non-human actors involved in aero-evacuating a mental health patient from a community.

Table 8.1a

*Table of Actors Who Have Input into the ‘System’*

Human actors	Mental health patients, remote nurses, director of nursing, psychiatrist, mental health nurses, paramedics, police officers, pilot, first officer pilot, aviation nurse, flight controller, mental health unit personnel, emergency department personal, consult-liaison mental health nurse, ambulance radio operator, RFDS bookings personnel, mental health unit registrar, mental health unit team leader/nurse unit manager, airport personnel, mental health patient family/friends, community leaders/members
Non-human actors	Policies, procedures, belief systems, computers, computer software, electricity, telephones, video-conferencing facilities, satellite communicability, cables, ambulance, police car, beds, wards, doors and locks, rooms, corridors, airplane, medications, roads, airports, run ways, fuel, radios, radio channels, email accounts, linen, language, confidence, trust, security, uniforms, lights, team work, goal(s), understanding, pens, paper, tables, chairs, medical equipment, time, rules, safety equipment, coordination, charts, energy, commitment, operating trolley table, personal hygiene items, radio waves, computer programmers, glass, air conditioning

If the same list is contrasted with the same social world of 100 ago, this creates a stark demonstration of the essentiality of knowing that innate objects do influence social behaviour and action—the essence of actor-network theory. Their absence of materiality produces an absence by the actors of the associated actions and behaviours; the object’s absence creates a human void of action. Table 8.1b illustrates this by crossing through those actors that were not in existence then for remote nurses delivering mental healthcare. Actors that are bracketed would have been in limited supply 100 years ago.

Table 8.1b

*Table of Actors Who Have Input into the 'System', 100 Years Ago*

Human actors	Mental health patient, remote nurses, matron, <del>psychiatrist</del> , mental health nurses, <del>ambulance officers</del> , police officers, <del>pilot</del> , <del>first officer pilot</del> , <del>aviation nurse</del> , <del>flight controller</del> , mental health unit personnel, emergency department personal, <del>mental health nurse</del> , <del>ambulance radio operator</del> , <del>RFDS bookings personnel</del> , <del>registrar</del> , mental health unit team leader/nurse unit manager, <del>airport taxing personnel</del> ...
Non-human actors	<del>Policies</del> , <del>procedures</del> , belief systems, <del>computers</del> , <del>computer software</del> , [electricity], <del>telephones</del> , <del>video conferencing facilities</del> , <del>satellite communicability</del> , <del>cables</del> , <del>ambulance</del> , <del>police car</del> , beds, [wards], doors and locks, [rooms], corridors, <del>airplane</del> , <del>medications</del> , [roads], <del>airports</del> , <del>run ways</del> , [fuel], <del>radios</del> , <del>radio channels</del> , <del>email accounts</del> , [linen], language, [confidence], trust, <del>security</del> , uniforms, [lights], [team work], goal(s), understanding, [pens], [paper], [tables], [chairs], [medical equipment], time, [rules], <del>safety equipment</del> , [coordination], charts, energy, commitment, operating trolley table, <del>personal hygiene items</del> , <del>radio waves</del> , <del>computer programmers</del> , [glass], <del>air conditioning</del> ...

A remote nurse 100 years ago delivering mental healthcare did not have computers, emails, planes, mobile phones and satellites, which today are completely enmeshed and taken for granted as part of contemporary actions (Bijker, Hughes & Pinch, 1987). Today, remote generalist nurses take these objects, actors and networks for granted as they have been embedded in the fabric of the remote nurse's social world, lexicon and modes of action. While the process of embedding may have been insidious, it nevertheless has created the most dense, complex and widest breadth (reach) of networks ever available in delivering mental healthcare. Figure 8.5 displays the exponential growth in the advancement of technology over the last 120 years. These advancements have culminated in the networks, which remote nurses are present in when delivering mental healthcare.

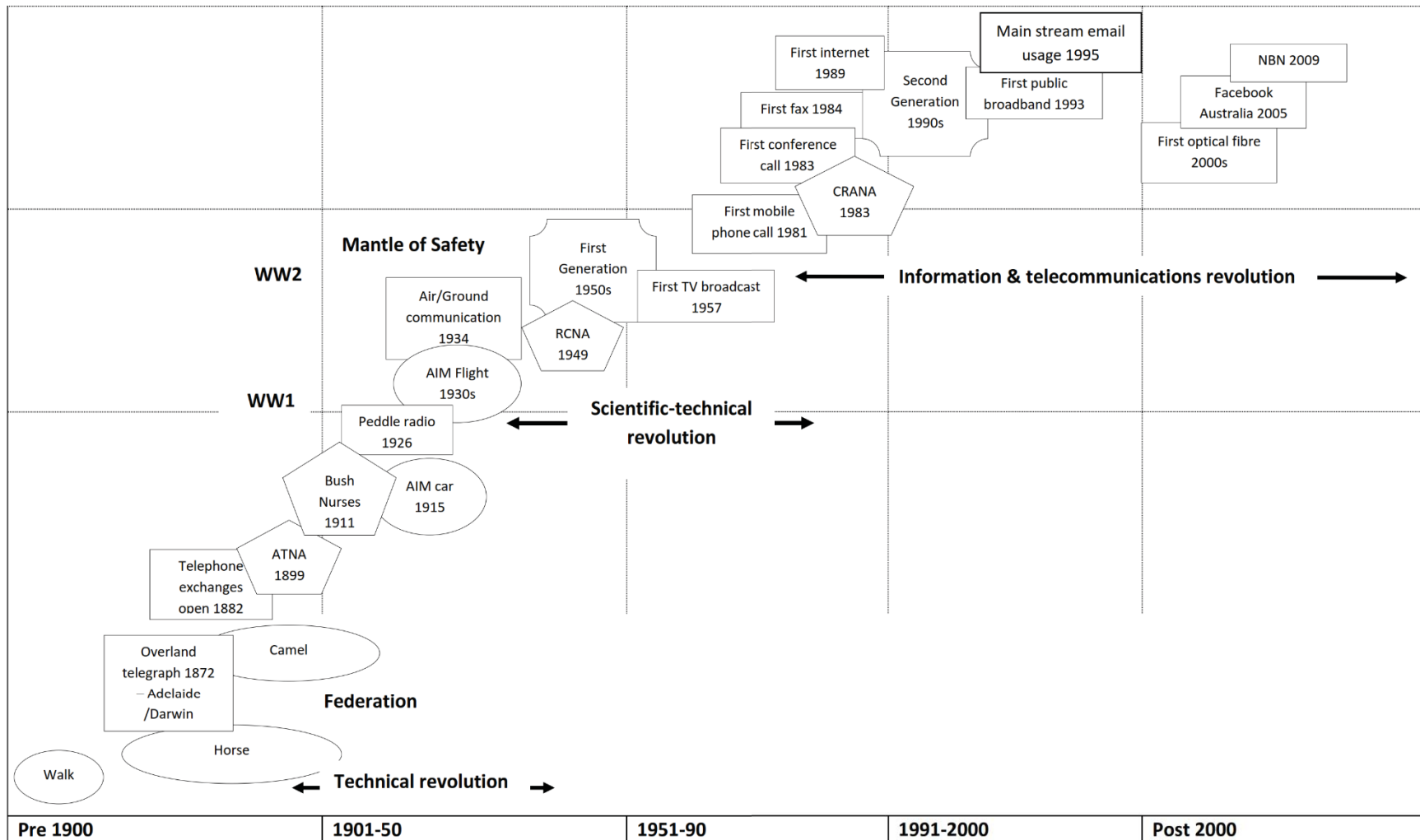


Figure 8.5 Technological advancement over time.

The technological development outlined in Figure 8.5 is not negative. Through the increased density of the remote nurse networks in delivery of mental healthcare, new structures of support have developed. The remote nurse 100 years ago did not have the ability, in a time of personal doubt, to communicate with another remote nurse for advice or guidance. Today the explosion of telecommunications means that remote nurses in such a situation have both formal (Bush Support Service, clinical supervision, employee assistance services) and informal (emails, mobile phone connectivity, Facebook) avenues available to them. Complexity of the network translates into a never before level of access to resources and support, most of which is generated and facilitated through non-human actors, further reinforcing the importance of actor-networks.

### **8.2.8 Elements in the non-human arena**

The following section explores the use of actor-network theory and the elements in the non-human arena, and how these ensure the consistency and orderliness of the various group actions in the actors' arena. The section examines how the groups in the actors' arena ensure that they are coordinated, even though they have diverse interests in relation to each other.

#### **8.2.8.1 *Policies, procedures and systems***

Networks consist of multiple occasions and multiple forms of orderings (Law, 1994; Law & Hassard, 1999). Modes of ordering are 'patterning that we (sic) can impute to social/material networks that support comparisons across them' (Law, 1994, p. 94). The network must continue ongoing performances involving heterogeneous modes of action and materialisations, all of which must align across time and space. Relational engineering (Law, 1994) takes materials as central to social ordering. The inscription of policies,

procedures and systems generates and ensures ordering actions within the network(s) and across partial, disorganised, contingent and local networks. Hence the importance of ordering (Law, 1994) as a feature embedded in policies, procedures and systems. Ordering materialisations through docile and tractable materials (policies, procedures and systems) is/are central to the networks' coordination of actions. Without it, the actions of remote nurses and other groups delivering mental healthcare would be fragmented and arbitrary (Law, 1994). At times the group's actions would be inconsistent with each other, uncoordinated and counterproductive.

Policies and procedures are not entities, but rather processes to ensure order (Law, 1992). They become 'immutable mobiles' in that they become immutable (literally—'not able to change') and mobile (literally—'able to move freely around'). Law and Singleton (2005) suggested an immutable mobile is, 'something that moves around but also holds its shape' (p. 335). Latour (1986) would consider policies and procedures as 'objects which have the properties of being *mobile* but also *immutable*, *presentable*, *readable* and *combinable* with one another' (p. 26, emphasis in original). Due to these qualities, policies and procedures combined with systems, ensures their wide distribution throughout the geographic diverseness of the actors within the social world.

Policies and procedures as immutable mobiles are tools for long-distance control and universality of action, throughout the social world. For example, mental healthcare throughout the remote nurse's social world, irrespective of geographical location, is in accordance with twenty-first century mental health belief that there is an element of neuro-chemical imbalance in an illness like severe depression, and that a 'front line' response is to administer medications to correct that imbalance. Policies, procedures and systems for

delivering mental healthcare are based on this belief. Accordingly, the immutable mobiles, based on this belief, ensures uniformity of action across the social world irrespective of group. As the groups interact based on the same belief, the immutable mobile ensures that their joint actions are coordinated. Hence one group has not rejected this belief, stopped medications and substituted acupuncture to treat severe depression. If this were to occur then the two groups' actions would not be coordinated.

Immutable mobiles swirl around the network(s) in various shapes and forms such as written documents, electronic data, as knowledge and shared philosophies yet maintain their relational shape, irrespective of location or situation. Immutable mobiles as 'objects' do not have to physically occupy Euclidean space (Law & Singleton, 2005).

#### ***8.2.8.2 Boundary objects: artefacts of stability, uniformity of action and shared knowledge***

As discussed above, groups within the actor arena function and interact as a collective and in a coordinated fashion. Yet each group has their own agenda, belief system, goals and constraints due to historical, political, professional and current influences. Remote generalist registered nurses acting in concert with others (e.g., GPs, MHNs, RFDS) deliver mental healthcare (both within the healthcare arena and beyond) requiring a shared understanding (Easterby-Smith & Araujo, 1999). To explore this further, the researcher adopted Star and Griesemer's (1989) notion of labelling policies, procedures, agreements, MOUs and instruction manuals as boundary objects. Boundary objects treat these documents and texts as a means of achieving collaboration 'between actors with divergent viewpoints' (e.g., the actors in the healthcare arena) (Star, 1988, p. 46) and also across and between arenas. As Star (2010) stated, boundary objects are



‘subject to interpretive flexibility’ (p. 613) and hence can accommodate divergent actor viewpoints.

This study’s boundary objects are not always objects of physicality (e.g., a physical artefact—policy and procedure manuals). Often these artefacts are created and maintained through the interactions of the various actors and groups. They represent negotiated meaning which establishes the required level and degree of cooperation between groups. When there is no co-construction of boundary objects between actors this results in forced, rather than voluntary compliance; which is of limited co-operation and sometimes disruptive.

For example, the researcher was party to negotiations and discussions concerning a Memorandum of Understanding between a District Health Service and several other government and non-government organisations to draft a policy for the aero-evacuation of violent and/or aggressive mental health patients. Negotiations centred on two divergent viewpoints. The regional psychiatrist, Health Service and MHNs wanted to ensure compliance with relevant mental health legislation, to use the least restrictive practice in caring for an aero-evacuated violent and possibly aggressive mental health patient. The focus of two of the other parties was on the issue of mid-air safety. They prioritised sedating and intubating the patient during the flight above the requirement of least restrictive practice (e.g., Mental Health Act [Queensland], 2000). All parties negotiated and problem-solved the competing emphases on the issues of safety and the mental health patient’s autonomy and rights. There was no strident view that prevailed—merely different emphases—as all parties knew that the paramount consideration was what was in the patient’s best interests in the circumstances. The negotiations resulted in a MOU (artefact)

which through co-construction, morphed into a voluntarily complied boundary object. The MOU was a boundary object due to the ‘information needs’ (Star & Griesemer, 1989) of the various groups in the healthcare arena concerning this topic. The MOU, as a boundary object, transmits through, across and between the different groups in the actor arena and the healthcare arena and results in agreement, uniformity and concurrence of supporting action for remote nurses.

Boundary objects can be ephemeral or not constructed of matter (Star, 2010). An object can be ‘something’ remote nurses’ act towards and with: ‘its materiality derives from action, not from a sense of prefabricated ‘stuff’ or “thing-ness”’ (Star, 2010, p. 603). Accordingly remote nurses in delivering mental healthcare adhere to a Western bio/socio/chemical/medicalised approach of delivering mental healthcare. No matter where they are located, remote nurses choose medications, confinement and psychiatric knowledge to deliver mental healthcare rather than witchcraft or sorcery. While the belief system has no materiality or physical presence, it is an object leading to uniform action. Conversely, physical objects may be ephemeral in their ability to bring about action and intermittently be boundary objects. An ambulance or police car parked at the station is of no consequence and devoid of action for remote nurses delivering mental healthcare. Yet upon transportation of a mental health patient, utilising these objects, they morph into boundary objects.

Drawing on the later writings of Star (in collaboration with Ruhleder) concerning boundary objects and concepts of ‘work’ and ‘infrastructure’ (Star & Ruhleder, 1996), the researcher identifies that boundary objects do have certain similar characteristics:

*Embeddedness:* boundary objects are embedded, inculcated and ‘inside of, other structures, social arrangements and technologies’ (p. 611). When delivering mental healthcare the remote nurse follows policies and procedures which dictate when and how social arrangements (e.g., action and relationships) and engagement of technologies (e.g., medications) are undertaken.

*Transparency:* Boundary objects are ‘transparent to use, in the sense that it does not have to be reinvented each time or assembled for each task, but invisibly supports those tasks’ (p. 611). For example the Psychiatric Drug Protocols and the Primary Healthcare manuals advise which, and how much medication to give for a certain presentation. It has been prescriptively ‘laid out’ for the remote nurse to follow.

*Reach or scope:* ‘this may be either spatial or temporal—[a boundary object] has reach beyond a single event or one-site practice’ (p. 611). Policies and procedures are specifically designed for consistent use, in multiple locations and events, to bring uniformity into the delivery of mental healthcare.

*Learnt as part of membership:* the learning of boundary objects ‘is a *sine qua non* of membership in a community of practice’ (Lave & Wenger, 1991; Star & Ruhleder, 1996, p. 611). New remote nurses have to prioritise learning boundary objects and acquire a familiarity of them to become full members. Part of any remote nurse’s induction requires the identification, learning and familiarisation with the policies, procedures, protocols and systems relevant to the workplace.

*Links with conventions of practice:* a boundary object ‘both shapes and is shaped by the conventions of a community of practice’ (p. 611). Policies, procedures, protocols,

MOUs are all revised and updated in line with changes in knowledge, technologies and environmental/ecological changes.

*Built on an installed base:* a boundary object ‘does not grow *de novo*; it wrestles with the inertia of the installed base and inherits strengths and limitations from that base’ (p. 611). The process of revising boundary objects necessarily involves building upon previous courses of action. Some may be adopted, strengthened or rejected.

### **8.2.8.3 Knowledge**

Policies and procedures produce reoccurring modes of action when the same or similar circumstances occur. The most influential effect generated is knowledge (Latour, 1992). Knowledge for remote generalist nurses takes many forms such as speech, understandings, and the techniques and skills of the remote nurses (Latour & Woolgar, 1979). The written format (computerised or ‘hard copy’) is the most recognisable form of knowledge within the remote nurse’s social world.

Knowledge is the collection and end product of a whole series of disparate heterogeneous ‘bits and pieces’ (Law, 1992, p. 4). So that when a remote nurse consults a procedure manual concerning what psychiatric drug to administer to a mental health patient, that knowledge resulted from chemists, laboratories, research trials, machines, experiments, articles, skills and training, universities, all of which are separate, but when situated in a particular order, materialise in directing that action of the remote nurse. This ‘heterogeneous engineering’ (Law, 1987, p. 113) is the organising of elements from the social, the technical, the conceptual, and the textual and so converted (or ‘translated’) into a heterogeneous scientific product and action (e.g., mental healthcare). The remote nurse is able to provide the correct medication in the correct dosage for the mental health

presentation. This means that even though the remote nurse may perceive a personal lack of knowledge, in fact they have an enormous network of assistance in providing mental healthcare in the instance.

When remote nurses' actions are undertaken with reference to policies and procedures, their practices become ordered, uniform and repetitive given similar circumstances. Even the most basic of tasks involves a network of multiple human actors. When the remote nurse dispenses a medication tablet to a mental health patient, they are at one level of analysis operating as an individual in the health actors' arena. The remote nurse makes the assessment and makes a series of actions pursuant to a system designed to achieve the goal. On another level of analysis, there are multiple human actors in a network of involvement that have input into the system (of administering medications correctly) to achieve the goal (of administering the medication). Table 8.2 outlines the various human actors.

Table 8.2

*Table of Actors Who Have Input into the 'System'*

Human Actors	Involvement in the System
Mental health patient	Recipient of the medication
Psychiatrist/MO	Writes up/authorises prescribing of the medication
Administrators	Created the safety manuals, policies/procedures, medication charts
Facilitators	Various personnel who pack and transport the medication to the remote location; other various personnel who order and purchase the medications from the suppliers
Others	AHPRA, who regulate the conduct of the registered nurses in dispensing medications (create relevant standards and codes); Legislators who empower remote nurses dispensing the medication through legislation

With reference to Table 8.2, the more complex the task, the denser the network of human actors involved. When non-human actors are added to this analysis the networks become much greater in number and infinitely more complex and dense. Hence the medication tablet example is no longer an identified object (tablet) but an object with all the associated physical and non-physical elements, which brought about its creation and existence in the remote community at that time.

Most nurse participants in the study spoke in terms of an actor, an object or organisation. They did not refer to the networks situated behind or through each other. This is reflective of remote nurses and study participants only seeing or thinking of a network as a single block (Latour, 1992). An example could be remote nurses referring to sending mental health patients off to hospital, without actually considering and explaining what benefit or treatment the mental health patient would receive. The taken for and single block assumption, in the reference to a hospital, is that the mental health patient will receive treatment and their mental health status will improve. There is no consideration of the complex network which is involved, any breakdown of which may not result in an improvement.

Actor-network theory parlance refers to such simplificatory effects as punctualisations. Latour (1992) posited that the more widely performed an action the stronger its acceptance as a knowledge claim; the more often they are punctualised. This results from heterogeneous engineering; routines, the very basis of systems, become taken for granted.

### **8.2.9 ‘Black boxes’ and ‘punctualisation’**

In this section, the researcher discusses the concepts of *black boxes* and *punctualisation* in more detail. The concepts are discussed each with reference to psychiatric medications, and then in relation to technology, as applied in the remote nurse’s social world of delivering mental healthcare.

#### **8.2.9.1 *Black boxes***

To use the term ‘black box’ is to describe a technical object (Pinch & Bijker, 1984) that is constructed and consists of multiple complexities that operate as the object is designed to do (e.g., car, computer). Because it works as it should, the complex sociotechnical relationships that constitute it are rendered invisible, or ‘black-boxed’ (Callon, 1986b). A black box makes something, anything, appear simple and uncomplicated to the observer, which therefore makes myopic the techniques, materials, thought processes and behaviours; the necessary inputs for its creation. Punctualisation refers to the process by which complex actor-networks are black boxed and linked with other networks to create larger actor-networks, ‘the process of punctualization thus converts an entire network into a single point or node in another network’ (Callon, 1986b, p. 153).

#### **8.2.9.2 *Psychiatric medication***

An enormous part of delivering mental healthcare is administering psychiatric medications, and this is no different for remote general nurses. Psychiatric medications are a very important actor in the remote nurse’s social world and are part of the non-human arena (physical resource). The advent of second-generation psychiatric medications has increased their breath of applicability and usage in mental health. Before the first

generation of psychiatric medications mental healthcare was labour intensive and mostly required full time confinement for the seriously mentally ill.

As previously discussed (p. 15), knowledge is embodied in a variety of material forms (Latour & Woolgar, 1979). Knowledge according to actor-network theory is the end product of heterogeneous 'bits' and 'pieces' juxtaposed into a patterned network which overcomes their resistance. Hence psychiatric medications are bits and pieces from the social, technical, conceptual and textual which are combined, and 'translated' into a heterogeneous product.

Remote nurses know that a sedative medication is appropriate and of great assistance in managing an aggressive and violent mental health presentation. What is invisible to them is that the sedative medication table or injection is a scientific object of knowledge (Chapter 7). The required level of heterogeneous engineering to create the psychiatric medication, with its benefit to the remote nurse, is a black box (Callon, 1986). Remote nurses do not observe that the medication is a point of punctualisation in their network of support (Callon, 1986). They only 'see' or consider the effect (Chapter 7).

For an actor-network theorist, the removal of the medication prevents the remote nurse from being a nurse sedating a violent and aggressive mental health patient. They become a different nurse or 'body' (individual). Hence from an actor-network perspective, a remote nurse is not just a body that has knowledge, skills and values, but an agent who inhabits a set of elements (including a body) that expands out into the network of materials, somatic and otherwise, that encapsulates, permeates or imbues their body.

This is not to suggest that the remote nurse does not have an 'inner life' (Goffman, 1968), but consistent with symbolic interactionism (Star, 1990, 1992), social agents



(remote nurses) are never located in their bodies alone. Hence remote general nurses, when delivering mental healthcare are thinking, acting, writing and nursing (all the attributes normally ascribed to human beings or nurses) from, and through ‘networks that pass through and ramify, both within and beyond the body’ (Law, 1992a, p. 3). Hence the remote nurse is not an isolated and a remote individual, but always part of a network. Medications, from an actor-network perspective, are a quintessential example of this.

### ***8.2.9.3 Technology at large in the remote nurse’s social world***

Another black box concerning remote nurses is their taken for granted reliance on various technologies which assist in the delivery of mental healthcare. As Callon and Latour (1981) stated, ‘[a] black box contains that which no longer needs to be considered, those things whose contents have become a matter of indifference’ (p. 285).

Planes, motor vehicles, computers and mobile phones are black boxes of technology which remote nurses use when delivering mental healthcare. Each consists of equally complex black boxes that depend on techniques, materials, thought processes and behaviours. When they do not operate as they should, or as expected, it is only then that the remote nurse thinks about its complexity. The annoyance or frustration of when mobile coverage is not available, or a plane is delayed for mechanical reasons, or the computer is not able to connect to the internet, are such occasions. The taken for granted stance of the remote nurse is challenged and thought is channelled into the social aspects and technical elements of the black box.

One point emerges. Technical objects are not things so much as they are processes. The relationships between the heterogeneous actors that come to stand behind technologies are never static and unchanging; they are constantly being performed. Hence to identify a

particular technology as being black boxed is also to recognise the precariousness of this temporary situation. All black boxes are 'leaky' (Callon & Latour, 1981), meaning that there will always be competing ideas and initiatives that seek to open black boxes that have been punctualised within larger actor-networks. Over time, email, current portable electronic devices and mobile phones which have emerged as platforms of communication for remote nurses delivering mental healthcare, will become redundant and obsolete. The 'leakiness' in this case becomes tangible.

The degree of a black box's leakiness, according to actor-network theory, within the remote nurse's social world, is contingent, local and variable. Some materials are more durable than others, and therefore maintain their relational patterns. Two geographically separated remote nurse's thoughts are transient and disconnected. If the same nurses perform actions pursuant to a relationship, particularly when embodied within inanimate materials such as texts, Western psychiatric, medicalised understandings and philosophies, procedures and protocols and physical structures (e.g., hospitals, medications) they are less leaky, and more durable. Consequently, a relatively stable network is one embodied in, and performed pursuant to a variety of durable materials (Law, 1992).

In the next section the researcher discusses three actor-network theory concepts, inscription, irreversibility and stabilisation. Each of these concepts are means to ensure coordination of action(s) across the arenas in the social world and also to ensure the networks remain stable having been established.

#### **8.2.10 Inscription in delivering mental healthcare**

The concept of inscription (Akrich 1992; Akrich & Latour, 1992) refers to the way technological artefacts embody patterns of use. 'Technical objects thus simultaneously

embody and measure a set of relations between heterogeneous elements' (Akrich, 1992, p. 205). The term inscription is not 'deterministic ... [in] that action is inscribed, grafted or hard-wired into an artefact' (Hanseth & Monteiro, 1998). An objectivistic stance views artefacts determining its (any) use and, conversely, a subjectivist stance views a technological artefact as a malleable interpretation. Akrich (1992) explained the concept of inscription in the following way:

Designers thus define actors with specific tastes, competencies, motives, aspirations, political prejudices, and the rest, and they assume that morality, technology, science, and economy will evolve in particular ways. *A large part of the work of innovators is that of 'inscribing' this vision.* (p. 208, emphasis added)

If a United States or European laboratory designs a third-generation psychotropic drug marketed as a 'better treatment' with less side-effects, this has ramifications in the actions and choices of the actors within the remote nurses' social world. The 'drug of choice' is that which is now preferentially adopted as 'front-line' medication, based on the current (inscribing) advice of the artefact's (medication) technological experts; pharmacists, psychiatrists, administrators; actioned through policies and procedures. The 'first-generation' (previous first choice) psychotropic medications are 'de-scribed' from a global distance, and the new 'front-line' medications of choice are substituted. The second-generation medications are archetypal of the process of inscription. Risperdal medication, for example, is administered as 'long acting': 28-day slow release injectable dosages. The remote nurse's patterns of use (actions) in delivering mental healthcare are changed through inscription. As the inscription is widely taken up by the various groups in the social world, patterns of action become widely uniform and coordinated.

### 8.2.11 Irreversibility in delivering mental healthcare

The constitutive elements of technological artefacts; the collection of standards and protocols, user expectations and experience, bureaucratic procedures and rules produce inscribed patterns of use (Hughes, 1983). It is not possible to measure the net effects to which these superimposed inscriptions succeed in shaping the pattern of use or measure the strength of their inscription. All that is known is that the greater the time and technological advancement, the greater the degree of obsolescence. No remote nurse organises the evacuation of a mental health patient to a mental health unit utilising a horse and buggy, telegraphing arrangements by Morse code. Such arrangements are undertaken using computer software to email or a smart phone to make arrangements. The essence underscoring irreversibility has been described as momentum (Hughes, 1983, 1987, 1994). Hughes (1994) described momentum as very much a self-reinforcing process gaining force as the technical system grows 'larger and more complex' (p. 108). The use of the Internet by remote nurses delivering mental healthcare is an example of this phenomena.

Callon (1986b) stated that the degree of irreversibility depends on (i) the extent to which it is subsequently impossible to go back to a point where that translation was only one among others and (ii) the extent to which it shapes and determines subsequent translations. As discussed planes, email, third generation psychiatric medications, motor vehicles and mobile phones are stock standard 'tools of trade' technologies used and taken for granted by remote nurses when delivering mental healthcare.

The degree of irreversibility of these technological networks arguably results from a process of institutionalisation. This operates both ways: 'increased degree of irreversibility is a consequence of stronger institutionalisation and, the other way around,

the construction of institutions functions as a way to align the network and make it increasingly irreversible' (Hanseth & Monteiro, 1998). All groups within the remote nurse's social world will not revert to first generation psychotropic medications, Morse code and the horse and buggy.

*Ipso facto* current structures designed by administrators, facilitators and others, aided by other groups within the remote nurse's social world, have embraced and embedded this irreversibility in a plethora of measures and techniques in delivering mental healthcare. Advancing technologies through time creates positions of there being no going back for remote nurses. Medications, mental health knowledge, transportability and communications are wedded irreversibly in the present delivery of mental healthcare.

This conceptual process of irreversibility ensures stability of the networks in the social world and the coordination of actions. Stability is derived by the uniformity of actions, and agreed norms produced by technologies and artefacts. No network actor or group in the social world is advocating or unilaterally performing lobotomies to patient's frontal lobes. Technological advancement and knowledges have produced agreed norms of action; lobotomies are not an option. Hence actions are coordinated, as no one is performing them. No actor or group can revert back to performing them, because that practice is not medically or socially justified.

#### **8.2.12 Stabilisation in delivering mental health patient**

An actor-network prospers through stabilisation because none of the constitutive entities exist without the network in its current form. It is in the interest of all actors within a particular network (a network for the delivery of mental healthcare) to stabilise the network which guarantees their own survival to a higher or lower extent. Hence, the

stability of a network depends on the ‘impossibility it creates of returning to a situation in which its [current form] was only one [of many] possible option among others’ (Callon, 1992, p. 89). Hence actor groups such as remote general nurses, psychiatrists, mental health teams, RFDS, police, ambulance officers in the actors’ arena, create stable networks based on trust and mutual respect. They do this so that each can assist in lessening the burden of delivering mental healthcare, both individually and as a collective, especially in times of difficulty.

The network involving police and remote nurses is one such example (see Chapter 5). This symbiotic relationship enables one group to assist the other when difficulties arise with mental health patients. When confronted by a violent or aggressive mental health presentation, remote nurses may summon the police who will provide protection and safety for them. This guarantees for the remote nurses a greater level of survival, as a measure of being able to perform a task, for example, delivery of mental healthcare (as opposed to questions of life and death).

Conversely when the police detain an offender in the community who exhibits bizarre or suicidal behaviours they may transport the offender to the primary healthcare centre. The remote nurses can assess and provide advice and guidance to the police. It might be that the remote nurses can facilitate medications for the reduction in symptoms or even admission to a healthcare facility. This reduces the stress and workload for the police and increases the survival of them being able to function at a higher level of policing. The offender is being cared for and they can go about their duties unburdened of the individual. There are no other realistic options in small remote communities, without this cooperative network, which produces mutual benefit and network stability.

A network involving more groups does not disrupt the same mutual desire for stability. An acutely ill mental health patient, requiring aero-evacuation to a regional hospital or mental health unit may require all, or the majority of groups within the actor arena forming (re-establishing) a network. All the groups have an aligned desire; the safe aero-evacuation of the mental health patient to a hospital or mental health unit.

Axiomatically all the groups do not want to over commit or invest unnecessary resources to achieve this goal; for example, RFDS does not want to make three flights when one would be sufficient, police detaining the mental health patient would like the transport to occur the same day as opposed to three days later so that personnel can be directed to other duties, psychiatrists/remote nurses would like the mental health patient admitted to hospital or mental health unit as this lessens the exposure to risk while the mental health patient remains in the community. The alliance and convergence of interests ensures the stability of the network to maximise efficiencies. None of the task oriented groups wants an unstable network arising from disagreements, dis-functionality, duplication and confusion (a lack of orderliness—see Figure 6.8, actors' arena).

The two examples, particularly the latter illustrate the other mechanism of stabilisation. The size and the heterogeneity of a network are related. The more the diverse elements are interrelated, the more complex yet stable a network becomes. In a heterogeneous network each group is positioned through a set of heterogeneous ties to other actors and in order to untie multiple connections they have to be each, more difficultly untied.

### **8.2.13 Establishing and maintaining networks**

In the proceeding section the discussion concerned the various elements in the non-human arena and how they regulate and coordinate action in the social world. The forthcoming section outlines and discusses, through the prism of actor-network theory, the four stage process of how remote general nurses establish and then maintain networks within the healthcare system arena, thereby enabling them to deliver mental healthcare. Further discussed is that in this process, nurses become ‘obligatory passage points’.

### **8.2.14 Moments in translation**

Translation is a process before it is a result (Callon, 1986a). According to actor-network theory, networks (within the remote nurse’s social world) are continuously evolving and transforming through processes of translation whereby entities within a network evolve into controlling others (Callon, 1986a, 1996b; Law, 1986, 1999). The process of translation (Callon, 1980, 1986a; Singleton & Michael, 1993) is a consensus-seeking process whereby heterogeneous engineers (Law, 1987, 1999) seek, mould and enrol allies for an argument or position. It is a process of re-interpretation and re-presentation as it ‘generates ordering effects such as devices, agents, institutions, or organisations’ (Law, 1992, p. 366). If the process of translation is successful, a network of aligned interests is formed. The groups are not separate, but intertwined: ‘networking heterogeneous elements and a network [are] able to redefine and transform what it is made of’ (Callon, 1987, p. 93). Hence, translation is the mechanism of progressive temporary social orders, or the transformation from one order to another through changes in the alignment of interests in a heterogeneous network (Sarker, Sarker & Sidorova, 2006). For example, a paramedic responds to a call for assistance, and on arrival the person is violent



and aggressive. They then summon the police for assistance. A translation has occurred. When the ambulance officer was first summoned the sole order consisted of one and so was the interest, namely providing care to people who need ambulance assistance. When the police officer was summoned the social order became two and the alignment of interests became, providing care to people who need ambulance assistance *safely in the circumstances*.

Callon (1986a) describes the sociology of translation as composed of four stages, namely problematisation, *interessement*, enrolment and mobilisation as illustrated in Figure 8.6. In this study the process of translation is not always a linear one-way process or progression but can have moments of overlap, being disorderly or iterative in method.

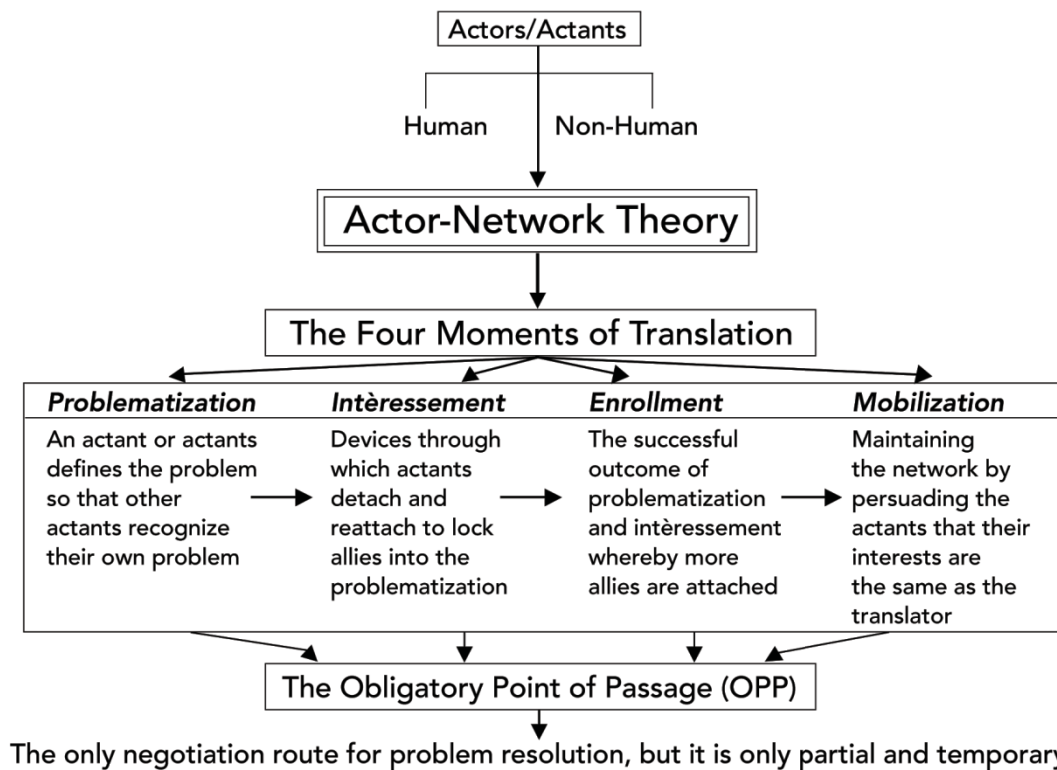


Figure 8.6. Actor-network theory, key concepts and translation moments. Adapted from Callon, 1986b, 1999; Hassard, Law & Lee, 1999; Latour, 1987; Rhodes, 2009.

#### 8.2.14.1 Problematisation

Problematisation is the process of the controlling actor (e.g., remote nurses) making themselves indispensable. Remote nurses do not do this consciously or pursuant to an agenda. Remote nurses are the controlling actor as they are overwhelmingly the only human actor in the healthcare arena who are present at the time of the mental health presentation (see Chapter 1). Problematisation involves an active means of defining and constructing the problem or issue concerning a mental health patient, couched within the controlling actor's terms of reference or interests (Tatnall & Burgess, 2002). Consequently

a problem or issue is not already constructed or ‘out there’ (Sarker et al., 2006). The issue or problem to be solved is relationally constructed, in response to the presenting circumstances and results in the necessary actors being identified (Broer, Nieboer & Bal, 2010).

An example of this could be a suicidal mental health patient presentation at night. The remote nurse would be the initial actor to attend, and usually the only actor. It is entirely within their discretion, based on their skills of assessment and experience, as to whether they will involve others actors and actants within the network. If they require police assistance (actor), they will make that decision and utilise the telephone (actant). If the question is to medically evacuate the mental health patient then the remote nurse will initiate the bringing of other dormant actors into the network (psychiatrist, mental health nurse, remote nurses), and into action. The remote nurse creates a system of alliances, associations and relationships, between actors (the other parties in the actor arena, i.e. RFDS, psychiatrists, regional hospital) that must be constructed in order to achieve specific goals—the aero-evacuation of the mental health patient. While the remote nurse may not make the final decision concerning whether the mental health patient is flown out of the community, all actors are reliant on the remote nurse for information to make such a decision. Only the remote nurse possesses the indispensable first-hand knowledge.

The term ‘problematisation’ is employed rather than ‘problem’ because it captures two advantages. First, the definition of the problem or issue emerges from a performance of negotiation and not from a perspective (Mol, 1998). Second, problematisation is not a singular event but is constructed of repeated (dynamic) practices. Hence the term ‘problematisation’ allows the researcher to follow how the different actors or groups within

the remote nurse's social world construct, define and understand the problem or issue concerning the mental health patient presentation (Broer et al., 2010).

#### **8.2.14.2 *Interessement***

The second phase is *interessement*, during which persuasion is undertaken: the controlling actor (remote general nurses) motivates and negotiates with and through the identified actors to obtain their interest and involvement in the network. Interessement is the process by which actors convene around an issue thereby strengthening the controlling actor's position. In the process dissenting voices, dissenting positions or opinions are rejected or 'silenced', often unintentionally. Interessement climaxes when the actors are locked into place. The process of interessement involves the controlling actors seeking to lock the other actors into their assigned roles, in a now predetermined course of action. It is achieved by obtaining the actor's interest and negotiating the consensual terms of their involvement.

In reality, interessement results in the controlling group imposing and stamping their agenda on the other identified actors who were defined through problematisation. This is a critical stage in the notion of obligatory passage points (see Chapter 9, next section). Manoeuvres (Latour & Woolgar, 1979) of interessement are needed in order to ensure the success of the interessement. Technology, physical devices, political force and textual content (Papadopoulos, Radnor & Merali, 2011) are all potential devices of interessement. Textual content necessarily means that only remote nurses, as a group in the social world can inform, respond and organise remote mental healthcare delivery; because they are the dominant and only group (see Chapter 1) with permanency in the health actor arena (see Figure 6.8).

### **8.2.14.3 Enrolment**

The third phase is ‘enrolment’, which is the obtained consent of all necessary actors to assume the roles defined for them during interessement. It is the recruitment of the identified actors (Callon, 1986a). In the present case, the purpose of establishing the remote general nurses’ network is to deliver remote mental healthcare. Remote nurses cannot do this alone; they do not fly planes, drive ambulances full-time or undertake policing. Remote nurses act, but not in isolation. Other actors (psychiatrists, MHNs, RFDS personnel) translate meanings, causes or effect differences. Each actor’s actions reciprocally affect and combine with the actions of other actors in the network, hence the need for enrolment.

Yet members of the network are not passive unquestioning recipients of everything or every action of the remote nurse actor. This reflects an interesting collateral result or by-product of denser and more complex networks: trust. This study found very high levels of trust between the groups. Networks are constructed by remote nurse actors to support the knowledge claim (Callon, 1986a) of the most appropriate action to deliver mental healthcare (Callon & Law, 1982). Remote nurses employ (usually unconsciously) a set of strategies to define and inter-relate the various roles that they assign other actors, as they build the network. A singular example for each actor might be that GPs are for sedative medication orders, psychiatrists for authority to aero-evacuate a mental health patient, police for protection and safety, RFDS personnel for transport and Emergency Department/Mental Health Unit personnel for admission to hospital.

The easiest and surest means to enrol another actor into the network is through convincing them that they need to join the network to achieve their goals. Controlling

actors (remote nurses) have to demonstrate that the interests of *all* (emphasis added) other actors lie in attaining the same goal(s). For example A, the controlling actor seeks to enrol B and C. If B wants to achieve a similar goal conjointly with A, for whatever reason, and C hopes to preserve their beneficial relationship with A, for whatever their reasons, then C must know and want to ‘answer’ the problematised question postulated by A, while recognising that their alliance around this question benefits each of them. Psychiatrists want to achieve the alleviation of mental health suffering, police strive for low levels of societal (community) unrest and disruption in remote communities arising from mental health issues and RFDS endeavour to be the most efficacious in the rationing of its resources when providing services (and providing a quality service). Actors will become enrolled in the network because they perceive that their interests align with others within it (i.e. helping remote nurses deliver mental healthcare). Enrolment is not automatic but occurs through negotiation and persuasion to convince them that the controlling actor’s (remote nurses) network will assist them in achieving their own goals (Latour, 1987). The primary actor can tap into each of these to seductively ensure assistance.

Enrolment is not a unilateral imposition. It entails both the capturing of the other actor’s willingness and them yielding (Callon, 1986a). For Latour (1986), power is not a possession, but an arrangement of assent:

Power is always the illusion people get when they are obeyed ... [they] discover what their power is really made of when they start to lose it ... it was [made of] the wills of all the others...power [is] a consequence and not a cause of collective action. (p. 173)

Echoing Foucault's understanding of power as a 'perpetual battle' (1975, p. 35), actor-network theorists (Latour, 1986; Law, 1991) have stressed that power (both 'power over' and 'power to') is analysed not—or not only—as a possession or capacity but rather as relational, dependent upon and limited by the ability to persuade or coerce others.

Horowitz (2012) wrote that 'Power lies in networks, and thus is contingent upon the successful—albeit often short-lived—enrolment of (at least some) others' (p. 809). Hence, power does not come from an actor somehow possessing it, but rather from being able to enrol, enlist and convince other actors to allow the initial actor to represent them (Castree, 2002; Murdoch, 1995).

#### **8.2.14.4 Mobilisation**

The final phase is 'mobilisation' (Callon, 1986a). This maintains commitment of the assembled actors to the problematised goal and ensures the continued critical and central position of the obligatory passage point. Of critical importance is maintaining legitimacy by the controlling actor (Rhodes, 2009). The crucial question here is: 'Will the masses ... follow their representatives?' (Callon, 1986a, p. 214). The remote nurse has to ensure that all of the gathered actors, continue to act as one innovated actor-network. The heterogeneous engineer (remote nurses) does this by endearing in the other actors a feeling of obligation to remain faithful to the controller's objectives (Blackburn, 2002), and even assume the right to represent those mobilised (Callon, 1986a).

The controlling actor is not always successful, and in these circumstances a process of dissidence, rather than a successful translation, occurs (Callon, 1986a). An example is a remote general nurse telephoning a psychiatrist with the belief that a mental health patient should be aero-evacuated out of a community and the psychiatrist not agreeing and not

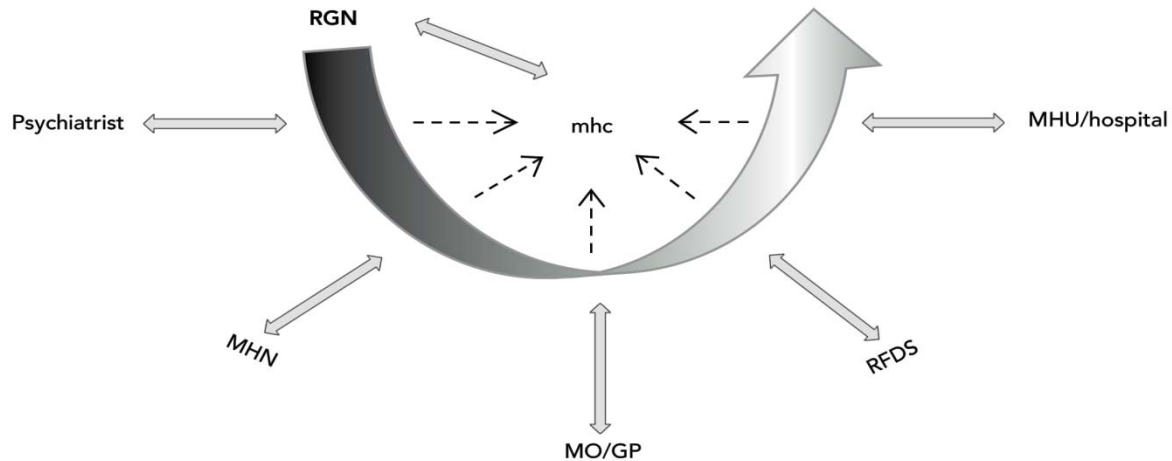
authorising the same. In this study there was an enormous level of goodwill between the actors and a strong collective commitment to deliver quality mental healthcare.

Accordingly mobilisation and maintaining the other actor's ongoing commitment, for remote nurses was not a problematic issue.

### **8.2.15 Obligatory passage point**

Obligatory passage points are a 'single locus that can shape and mobilize the local network [and] have control over all transactions between the local and the [non-local] networks' (Law & Callon, 1994, p. 31) or, 'privileged location that can see and act at a distance' (Dear & Flusty, 2002, p. 399). Remote nurses, by assuming the obligatory passage point, become the intersections of interest. The other actors in the actors' arena, in converging on a defined mental health patient or issue, have to deal with, and through the remote nurse. Remote nurses thereby become the obligatory passage point. Consequently they mediate all interactions between actors (within the established network of delivering mental healthcare) and define the program(s) of action (Callon, 1986a; Law & Callon, 1994). The obligatory passage point is created through the moments of translation, specifically during the *interressement* stage, by remote nurses as the controlling actors, making themselves (mostly unknowingly) indispensable to the network (Callon, 1986a; Law & Callon, 1994).





*Figure 8.7. Obligatory passage point. Adapted from Callon, 1986a.*

RGN: Remote generalist nurse; MHN: Mental health nurse; MO/GP: Medical officer/general medical practitioner; RFDS: Royal Flying Doctor Service; MHU: Acute mental health unit.

Through the moments of translation, the remote general nurse, as the controlling actor, has become the critical, central and indispensable actor in the actors' arena. The patient's mental health identity, or the mental health issue, is defined in the process of negotiation by the remote nurse with the other actors. It is the remote nurses who hold the information and hence it is their description of the patient or issue which makes them indispensable. All actors have to communicate with and through the remote nurse (see Figure 8.7), not only to obtain the necessary information to address the mental health

patient or issue, but also for information to decide or inform them of what assistance they can render.

If a psychiatrist, residing outside of the community of where the remote nurse is working, is telephoned for a medication phone order for sedation, then they are totally reliant on the nurse for the necessary and requisite information to decide whether to authorise the administration of the sedative or not. If they do authorise the order, then they are again reliant on the nurse, for they are the only actor who will give the injection. With reference to Figure 8.7, the psychiatrist cannot directly assist the patient; they must work with and through the remote nurse. The dominance of the remote nursing workforce causes and maintains remote general nurses as the obligatory passage point in the delivery of mental healthcare.

### **8.3 Addressing Criticisms and Challenges to Actor-Network Theory**

In this section the researcher addresses the critiques and some of actor-network theory's controversial claims. The researcher anticipated, early in the study, concerns and potential problems with using actor-network theory in this analysis. Three main criticisms are relevant for consideration in this study; the principle of generalised symmetry, the risk of adopting an objective and un-reflexive stance when using actor-network theory and the Machiavellian orientation of actor-network theory. These critiques are drawn from works by Amsterdamska (1990), Walsham (1997), Calas and Smircich (1999), Munir and Jones (2004), Whittle and Spicer (2008) and Gad and Bruun Jensen (2010).

The most controversial debate concerning actor-network theory is the principle of general symmetry. This principle posits that humans and non-humans must be equally evaluated as entities and actors of producing action. Technologies are not seen as neutral or

inert. Collins and Yearley (1992) argued that the symmetrical treatment of human and non-humans using the notion of heterogeneous engineering is intellectually and morally problematic because it removes humans from their pivotal role (Munir & Jones, 2004; Whittle & Spicer, 2008). To label an activity or object 'technical' is to define particular boundaries and associated moral orders (Rachel & Woolgar, 1995). Further the separation between human and non-human is neither natural nor inevitable but is instead the outcome of a division of labour (Bloomfield & Vurdubakis, 1994; Hetherington & Munro, 1997). Such a division challenges or reduces the unique richness of human agency and adopts an amoral and apolitical stance (Walsham, 1997).

Actor-network theory supporters suggest that the symmetrical stance seeks to overcome the over emphasis given to human agency that is favoured in sociological studies. Actor-network scholars state (a) they do not attribute intentionality and similar properties to non-humans, (b) their conception of agency does not predispose intentionality, (c) they locate agency neither in human subjects nor in non-human objects, only within heterogeneous associations of humans and non-humans. In relation to the amoral and apolitical, Latour (1991) responded: 'We are left with the accusation of immorality, apoliticism, or moral relativism ... [However] in order to make a diagnosis or a decision about the absurdity, the danger, the amorality, of the unrealism of an innovation, one must first describe the network' (p. 130). Bijker, Hughes and Pinch (1987) simply refuted the idea that actor-network theory has to take any moral stance at all.

In relation to this question the researcher did not adopt a position of extreme symmetry. However, the researcher acknowledges that in assuming a moderate symmetric stance towards humans and non-humans this facilitated a critical examination of the key

role of technology and non-human objects that support remote nurses to deliver mental healthcare. In so doing, this research is aligned to the aim proposed by Callon and Latour (1992) of using this principle as a means to develop a symmetric metalanguage to refer to humans and non-humans with an unbiased vocabulary, and to adopt it as an analytical stance, not as an ethical position (Law, 1992, p. 383). Hence for example email communication concerning the delivery of mental healthcare (e.g., advice from a psychiatrist in a regional hospital) results in *inter alia* remote nurse actions of logging on to a computer and typing on a keyboard while the same query through the technology of a phone results in different actions by the remote nurse of dialling a phone and speaking; the non-human actors—email and telephone—produce completely different actions in the human actors. This is described and noted along with the effect and influence on the actors without any reference to morality or politics.

Another critique questions actor-network theory's reflexive approach (Cordella & Shaikh, 2006; Murdoch, 2001; Whittle & Spicer, 2008). Critics (Murdoch, 2001; Whittle & Spicer, 2008) argue that actor-network researchers tend to adopt objectivity in their vocabulary which fails to reflect the descriptions and explanations of the study participants themselves. Whittle and Spicer (2008) suggested that actor-network theory as a theoretical lens is capable of (mis)leading researchers offering superior or expert views that implies study participants' explanations as naïve or wrong. The researcher was aware of this criticism early in the study and made a deliberate and conscious decision to discipline himself against losing objectivity, particularly when confronted by a participant's response which was counter to the researcher's experience working in remote locations. Whittle and Spicer (2008) highlighted that researchers may unreflectively apply the four stage model of

translation as a universal of the theory. Consequently, actor-network researchers may treat participant responses as relative while representing their own interpretations as the absolute truth. Again the researcher was aware of this early in the study and took conscious disciplined steps throughout discussing the model of translation to recognise and consider its applicability in analysing all of the data. The researcher did not engage in a deductive approach to test or refute the stages of translation as related to the study. Any inconsistencies with the model were factored into the analysis. No attempt to test or prove the theory was made.

The last criticism concerns actor-network theory's alleged Machiavellian orientation (Amsterdamska, 1990) through which actor-network theory pays most interest in understanding how things become aligned and centred (Calas & Smircich, 1999). Actor-network theory is criticised for placing an over-emphasis on control and management. This is (allegedly) illustrated by the focus of actor-network theory studies on privileged, strong actors who aim to create stronger networks, and its (supposed) blindness towards other possible ways in which networks might develop (Gad et al., 2010). Additionally, those who exercise power are very often humans portrayed as central to the network, obfuscating actor-network theory's claim that power is a function of networks rather than actors (Whittle & Spicer, 2008). In response the researcher adopted a stance of maintaining 'sensitivity to complexity' throughout the study (Gad et al., 2010, p. 59). Further, Latour (1986) distinguished a diffusion model of power from a translation model of power (Fox, 2000). The former assumes successful command from a central source, through a chain of command from a central commander; an anathema to the researcher's approach to the

study. The researcher adopted a translation model which investigates and describes the links in a network and records that at each point there is local agency:

When you simply have power—in potential—nothing happens and you are powerless; when you exert power—in actu—others are performing the action and not you ... Power is not something you may possess and hoard... Power is, on the contrary, what has to be explained by the action of the others who obey the dictator. (Latour, 1986, p. 265)

At this stage the researcher embraced a Foucauldian analysis of what power is not. It is not an individual, a group of institutions (groups within the healthcare arena or actor arena) and/or mechanisms (policies and procedures and/or systems in delivering mental health patient) which ensures the subservience of the population of a given state (remote nurses delivering mental health patient, or any other group). It is not a general system of domination exerted by one group over another (within the remote nurse's social world, or healthcare arena, e.g., psychiatrists, medical practitioners). The researcher's analysis, from the outset, assumed an overall unity of domination (within the remote nurse's social world). The location of power was not conditional and 'should not be sought in the primary existence of a single point, in a unique source of sovereignty from which secondary and descendent forms would emanate' (Foucault, 1984, p. 93); 'Power is; it should be understood . . . as the multiplicity of force relations immanent in the sphere in which they operate and which constitute their own organization' (1984, p. 92). Instead of, or central points of sovereignty, power is 'the moving substrate of force relations which, by virtue of their inequality, constantly engender states of power, but the latter are always local and unstable' (p. 93). Power is omnipresent and constantly swirling around within the remote

nurse's social world, although 'Power itself cannot be used to explain anything' (Fox, 2000, p. 861).

## **8.4 Summary**

Using actor-network theory, this chapter has examined the relationships between the groups and non-human elements in the social world/arena map. In particular, the role of the remote general nurses was outlined and examined in relation to the delivery of mental healthcare. Referring to actor-network theory, the role of the remote nurse was described as an obligatory passage point in the formation and creation of networks, involving other actors in the social world. To create the networks and involve other actors requires the remote nurses to undertake moments in translation.

Having interrogated the data by means of coding and thematic analysis, situational analysis and actor-network theory, the next chapter provides a discussion on three key areas that have been distilled from the study: remote nurses as obligatory passage points, the self-perceived levels of mental healthcare skills, abilities and confidence of remote nurses, and the unique characteristics of remote nurses.

## Chapter 9: Discussion

### 9.1 Introduction

This study investigated the question: ‘What is the social world of Australian remote generalist nurses delivering mental healthcare?’

An interpretive case study design was utilised, encompassing a single, explanatory, holistic case study methodology, combined with thematic, situational and actor-network analyses (Clarke, 2005). As a result, a social world/arenas map was developed and then analysed using actor-network theory. Actor-network theory analysis was chosen to examine and evaluate how the various groups and elements (both human and non-human) of the social world interact to assist remote nurses in the delivery of mental healthcare. In this penultimate chapter, the researcher discusses the study’s three key findings.

First, remote general nurses, through necessity, become the obligatory passage points (Callon, 1986a; Law & Callon, 1994) in the delivery of remote mental healthcare. By assuming the role of the obligatory passage point, remote nurses occupy the point or intersection of interest at which actors in the remote nurses’ social world converge on a defined issue, purpose or question (i.e. mental healthcare). It is through moments of translation (Callon, 1986a) that all other actors must pass through the obligatory passage point to form a network for the delivery of mental healthcare. Communications, negotiations and resulting mental health solutions take place through the central remote nurse. The nurse is the *only* actor with intimate and first-hand knowledge of the mental health presentation or issue. They are the ‘eyes and ears’ for all other actors in the network and social world. Through moments of translation (problematization, interessement,



enrolment, mobilisation), remote nurses assume the role of the obligatory passage point of a created network.

Second, there exists a disparity between remote nurses' self-perceptions of the quality of the mental healthcare they provide, and the perceptions of other actors in the social world of the same. Remote nurses self-report low levels of confidence, role competency and knowledge when delivering mental healthcare. Conversely, other actors in the social world have a high opinion of the skills, quality and mental health outcomes delivered by nurses working in remote Australian locations.

Third, remote nurses have unique characteristics, individually and as a collective (group). It is challenging to remain in remote environments and deliver mental healthcare. The social world is usually chaotic, disorganised, contains absences (Clarke, 2005), and can be messy, unsafe, risky and hazardous. Yet remote nurses remain tenaciously and stoically present and functional in delivering mental healthcare. They do so because they collectively possess enabling characteristics for this work: resourcefulness, resilience, responsiveness and robustness.

This chapter references the contemporary literature in discussing these three key findings. No study has been published to date examining Australian remote general nurses delivering mental healthcare. Some publications have examined and reported certain aspects of this type of care, predominately concerning rural, but also remote nurses delivering mental healthcare. Other studies have reported on wider issues involving remote nurses, which nevertheless are relevant to the case study: for example, nurses' attitudes in the rural setting (Reed & Fitzgerald, 2005), the stresses undergone by remote area nurses (Lenthall et al., 2009) and workforce issues for rural and remote areas (Hegney et al.,

2002). Most related articles refer to nurses in rural (as opposed to remote) locations (Reed & Fitzgerald, 2005; Hegney et al., 2002). The researcher has still referenced such articles, as there are many similarities between the issues facing rural and remote nurses, though distinctions were made where necessary. In the literature, only one study has utilised a social worlds analysis, but that study investigated rural nurses (Mills et al., 2007).

Accordingly, when referencing, the researcher became conscious of a gap in the literature concerning the study's aim.

## **9.2 Remote Nurses as Obligatory Passage Points**

The researcher did not encounter any study making use of the concept of the obligatory passage point (Latour, 1988; Law & Callon, 1988) in relation to remote Australian general nurses delivering mental healthcare. The concept has been used in a number of contexts (dissimilar, yet relevant, to the present case) without losing its meaning. For example, the concept has been used in relation to the establishment of a United Kingdom (UK) stem cell bank, which is the sole holder of human tissue within the UK. Mitchell and Waldby (2006) referred to this bank as the obligatory passage point for all clinicians and researchers accessing embryonic stem cells in the UK; there is no alternative. Another example is a compulsory 'Health Network' database that clinicians or health services must access and refer to when improving quality and continuity of care; the data in the network is indispensable (Purcarea, 2008). A smaller scale example is the removal of face-to-face banking in small communities, forcing the residents to use an Automatic Teller Machine (ATM) to access their accounts; since no other means of banking exists (Nicholls, 2013), the ATM has become the (non-human) obligatory passage point.

A study's level of inquiry determines the nature of the obligatory passage point. In this study, the researcher chose a meso level of analysis. Accordingly, the study examined the social world of remote general nurses delivering mental healthcare at a group level. If the scope of the study prescribed a more specific or detailed topic, such as examining practices of communication by remote nurses in a primary healthcare centre, then more refined and detailed data would be collected to justify the assertion of the existence of an obligatory passage point (and likely more than one). For example, an obligatory passage point for a remote nurse to contact a nurse practitioner might be a mobile phone; to video conference with a psychiatrist could require two obligatory passage points, video conferencing equipment or computer software (e.g., Skype). Data collection at such a level of specificity was not undertaken in this study.

Nimmo's study (2014) concerning the materialities of clinical handover in intensive care units illustrates this point. He found that clinical handovers were the obligatory passage points for the drawing together of 'multiple things of healthcare ... patient, machines, buildings and rooms, information, activities, texts, ideas, a disease, a diagnosis, an illness, staff, responsibility, a plan, a family ... the person, the exchange of information between the treating teams' (p. 6), therefore '[h]andover, can be posited as an obligatory passage point through which the linkages of a jumble of networks connect' (p. 98). The multiple things in Nimmo's study are more specific (micro-scale) than the interaction of groups in this study's social world (meso-scale).

Micro-scale analysis can also, pursuant to the same field of inquiry, lead to more than one obligatory passage point. Hence Nimmo found three; formal, informal clinical handovers and ward rounds. This study's finding, concerning obligatory passage points, is

confined to one—remote generalist nurses—resultant from a meso-level of analysis. As a matter of completeness there can be studies which are macro in focus and still involve obligatory passage points such as Kruse (2013) who examined British mining, exploration, international banks and geopolitics on the arctic Spitsbergen, situated in the European High Arctic, between 1904 and 1953.

Mager's (2009) study involved Google's (the web based search engine) algorithm. Mager examined both website providers' and users', practices and conceptualisation of online health information utilising Google. She found that both groups had very different practices and conceptualisations but they had one area of commonality; Google played a central role in their online actions. 'Google may be seen as an obligatory passage point ... [w]ebsite providers adapted their linking strategies to Google's algorithm and users primarily used the web information provided by Google' (Mager, 2009, p. 1137). The researcher's study concerns human actors (remote generalist nurses) being the obligatory passage point, not an algorithm, yet Mager's finding is relevant, in that two (or more) groups of actors can be attracted to, and use the same obligatory passage but for different reasons. For website providers, Google was best as it is a single search engine, which produced the broadest searchable reach and breadth of the internet. Conversely for web users, Google produced and generated the most search results of any other search engine on a single inquiry. There are three parallels to the present study.

Firstly the patient engages with the remote nurse (unaware they are an obligatory passage point) in the capacity of a *consumer* of goods (e.g., medications, injections) and services (e.g., counselling, nursing care) while the other actors in the healthcare arena undertake the approach as *providers* of goods and services. This is only noteworthy as both

actors approach the obligatory passage point for, and out of different reasons and yet the obligatory passage point accommodates the different reasons. Hence obligatory passage points need not be static or one dimensional. An obligatory passage point can even be fluid to accommodate changing conditions. Schwennesen and Koch's study (2012) concerned a first trimester prenatal risk assessment at an ultrasound clinic. Upon detection of a foetal abnormality, the clinic responded by consulting both the pregnant woman and her partner. The first trimester prenatal ultrasound equated to an obligatory passage point, which generated this responsive feedback and engagement. From this meeting a decision is made whether to continue the pregnancy or terminate it.

Resources are often limited in remote locations (see Chapter 2) and accordingly, partners and significant others, of mental health patients, are included and embraced as an integral aspect of delivering mental healthcare. What Schwennesen and Koch (2012) and this study demonstrate, is that there can be various people with different requirements, needs or perspective on the personal outcome of the encounter with the obligatory passage point. Patients have requirements from remote nurses different to that of family and relatives, just as pregnant women have slightly different outcomes from the meeting compared to that of a spouse. Yet both need to attend the same obligatory passage meeting to satisfy or address their respective own needs.

Schwennesen and Koch's (2012) study reiterates that the obligatory passage point's response does not have to be a 'one off' occurrence. It can be staged or staggered. The prenatal ultrasound screening scan is the first obligatory passage point and depending whether an abnormality is detected or not, the couple proceed to a second obligatory passage point of a meeting to discuss risks to the unborn and the pregnant woman's

decision. This occurs also in encounters by remote nurses with patients while delivering mental healthcare. Often there will be necessary follow-up appointments or further encounters in deciding the best mental healthcare intervention, in response to the changing condition of the patient. An example of two obligatory passage points is when certain oral second generation psychotropic medications (e.g., clozapine) are administered (first obligatory passage point), which must have follow-up blood tests to monitor for serious side-effects. Each subsequent blood test could be classified an obligatory passage point, because without them, the medication should not be administered.

Secondly Mager (2009) found that both website providers and users used the Google search engine because of the convenience it provided to the different group's requirements. In this study the usage or engagement of remote nurses by the various actors is also driven in part or full, depending on the actor, because of convenience. If you are a mental health patient in a remote community there is overwhelmingly only one institution which provides healthcare namely, the primary healthcare centre. It is therefore convenient to go there with a mental health issue rather than travel by road, boat or airplane to another remote community. Hence it is equally convenient for all actors to work through the remote nurse. The convenience emanates from the nurses being the only actor physically embedded in the remote location. It would be absurd to travel many thousands of kilometres from a metropolitan location, every time the actor (e.g., a doctor) wanted to know or request something, in relation to a patient or mental healthcare concern. It is simply not feasible, hence for example, the telephoning of remote nurses. The issue of convenience is central to the remote nurse being engaged, and assuming the obligatory passage point.

Thirdly actors use the obligatory passage point because it provides the best outcomes for their field of interest. An obligatory passage point ‘has to be broad enough to be interpreted by a diversity of actors [and] as the solution to a range of problems’ (Linderoth, 2009, p. 67). Linderoth noted this in his study of an engineering firm carefully considering mandating an automated software program into engineering teams involved in building construction. He reports that engineering teams are composed of a variety of different people and groups, all of which have different specialties, focuses, challenges and problems. Any mandated automated software program would have to not only accommodate these, but also be seen by the various users as the solution to their specific needs.

This situation exists for all actors and groups in the healthcare system arena. Actors enter and exit the arenas, a multitude of mental health presentations, issues and concerns arise, they are fluid in their clinical status, there can be periods of under-resourcing, chaos and unpredictability. Different actors have different focuses. The remote nurse as the obligatory passage point has to be, with the consensus of the actors, their best solution. This does not necessarily mean it results from careful or deliberate design. More likely, remote nurses assume the obligatory passage point from simply being present in remote locations. As it transpires all actors and groups find in the circumstances, this is the best solution.

The researcher found one published study involving nursing which used obligatory passage points as a means to describe their findings. Allen’s (2015) ethnographic study examined the work practices, knowledge construction and organising functions of acute nurses (of varying managerial status), in different departments of a large metropolitan

hospital. She reported, from an actor-network perspective, that nurses are the obligatory passage point(s) for the various hospital systems to continue functioning in an orderly manner: ‘Barely anything happens that does not pass through the hands of a nurse ... they are the network builders, system enablers and principal mediators through which the diverse elements that comprise trajectories of care [become] ordered’ (p. 136). This statement directly parallels the present study’s first finding in relation to the delivery of remote mental healthcare.

Allen’s (2015) study further reports that practices undertaken by nurses are relatively ‘invisible’, despite being vital to the quality and efficiency of the hospital. Allen then describes, using actor-network theory terminology, how nurses’ organising practices cause translational mobilisation. By this term, Allen means movement of an entity (e.g., hospital, hospital department, unit, ward) in space and time, ‘ensuring temporal articulation, and aligning the socio-material configurations that support action’ (2015, p. 136). Nurses initiate and facilitate action, resolve anomalies and contradictions, plan, respond and formulate strategies to overcome obstacles to progression:

Much of the work that nurses do is in reaction to unexpected contingencies, whether these are clinical or organisational in origin. Mobilisation is also intended to convey something of the energy entailed by organising work and its involved and continuous character. (Allen, 2015, p. 136)

Many of Allen’s findings are consistent with those of this study. From an obligatory passage point and ‘moments of translation’ in nursing perspective, there exist strong similarities between the hospital based nurses, and remote generalist nurse’s actions and behaviours.



Bloomfield (1995) examined the engagement by business organisations of management consultants in the development of information technology. He reports that management consultants in the area of information technology act as intermediaries by interposing themselves between information technology suppliers and the clients, 'in effect seeking to speak for technology' (p. 28). They position themselves as an obligatory passage point. This is similar to the position of the remote nurse who is the intermediary between the mental health patient and all the actors in the healthcare system arena. When the patient presents at a primary healthcare centre and requires assistance from a psychiatrist, the nurse does not hand a telephone to the patient and tell them to telephone the psychiatrist. The nurse makes the call, for and on behalf of the mental health patient. In so doing, they are acting as a 'go-between' or intermediary. The same position of intermediary, obligatory passage point is assumed when an actor in the health actors' arena, contacts a nurse and requests they do something involving a mental health patient.

According to Bloomfield's study (1995), in order to be viewed and respected as an intermediary between clients and technology (or suppliers of technology), and to maintain this position, management consultants 'mobilise various arguments, reports and techniques (e.g., project management or systems analysis methodologies), or specific ideas or ways of thinking and speaking about the world of organisations (e.g., excellence or total quality management), business and information technology, which help construct and reproduce the relationship between the indispensable and the dependent' (p. 29).

Remote nurses likewise have to ensure that they maintain the position of intermediary (as an obligatory passage point). They do this by utilising nursing knowledge(s), technologies and skills to assess that the patient is mentally ill and requires

healthcare assistance. Nurses utilise techniques such as nursing assessments to determine if the patient is ill, and formulate arguments that the patient requires mental healthcare. If the nurse does not perform this the patient's mental state is unknown. Accordingly, they do not assume the status of an intermediary, obligatory passage point.

Remote nurses also create ways of thinking about the patient in terms of the actor who is to be engaged. If, for example the patient is depressed and has a medication order then the nurse gives the medication and the thinking involved is relatively simple. No human actor has to be engaged and no negotiations, reports, techniques or language has to be employed. Conversely if a patient presented with severe depression and suicidal ideation, then more complicated thinking and language is required and human actors need to be engaged (e.g., GP, psychiatrist, nurse practitioner) requiring negotiations, reports, techniques and language. The two presentations require different ways of speaking and tools for engagement. Importantly in both, the remote nurse remains indispensable and the mental health patient's status remains dependent.

Obligatory passage points do not necessarily render silent, or necessarily subjugate any actor. Although indispensable, obligatory passage points are not an imposition on any actor. They are a necessity but are created through consultation, collaboration and negotiation, especially for those actors who are the consumers. This is reflected in Batt's study (2012) when she examined pharma partnerships and consulting breast cancer advocacy groups in Canada,

'Collectively, the activists' testimony built the case that patients should be consulted on matters which had to that point been the exclusive domain of professionals, a move which positioned patients' groups as obligatory passage

points for deciding what information patients needed, what research should be pursued, and how patients were treated within the healthcare system' (p. 292).

In Australia similar trends are occurring with increasing policies, legislation and advocacy ensuring that mental health patients, as consumers, are consulted and help shape practices in the delivery of mental healthcare. This is not to naively suggest that each time a remote network, involving an obligatory passage point, that the patient is consulted. The effect on remote nurses, as obligatory passage points, is more from the angle of acting and caring in accordance with societal and legislative expectations. These expectations reflect the increasing influences of mental health consumer participation.

Crosbie's study (2014) examined the way in which nurses use and interact with technological machines in a hospital's Intensive Care Unit. He reports that nurses become dependent on technology to deliver treatment regimens. Nurses create network arrangements whereby the machine and technology become obligatory passage points. 'Moreover, whatever technology the patient's condition calls for, the device operates as an obligatory passage point. It claims the attention of the nurses, and shapes the conditions of interaction' (p. 239). The indispensability is such that the critically ill patient needs the treatment deliverable through the technology, and the nurses require the technologically, to deliver that treatment.

Similarly, the profoundly mentally ill remote patient requires mental healthcare and the only group that can physically provide it, is remote nurses. In this situation remote nurses are the human equivalent to the status of technology in Crosbie's study (2014). Like the technology in Crosbie's study (2014), the remote nurse has become indispensable. Crosbie (2014) also found that the reliance on technology and how it shaped the nurse's

actions was not planned. The technological reliance had occurred insidiously and incrementally as the technology evolved, developed and was adopted. There was no plan to engineer the degree of technological reliance of nurses. Similarly for remote nurses, their indispensability as an obligatory passage point to deliver mental healthcare, has not arisen from a 'master' or specific plan. It has occurred incidental to nurses assuming the position of being the dominant health workforce in remote Australia.

Not every attempt to create an obligatory passage point succeeds. It requires a degree of negotiation, shared commitment and compromise by the various actors. The creation of an obligatory passage point is not a *fait accompli*. An example is Thunus's study (2015) of Belgium's deinstitutionalisation of psychiatric patients into the community, to be cared for by collaborative inter-organisational networks. The innovative and envisaged mental healthcare system failed to materialise. The necessary networks did not materialise because of horizontal disagreements, power struggles and jostling between actors (groups) to assume the obligatory passage point. 'Conflicts between mental health professionals, scientific experts and experiential experts were underpinned by their respective attempt to position themselves as 'obligatory passage points' (Callon, 1986a) in deciding how to reorganise the Belgian system' (p. 113), hence its ultimate failure.

An obligatory passage point can accommodate a level of flexibility and does not have to be, at the time of establishment or creation for a set, fixed or determined result. Rooke, Cloatre and Dingwall (2012) outline the history of the development of nicotine chewing gum as a substitute for smoking. At the initial stage of developing a *substitute* (for smoking), all that was known was that nicotine was the main element in perpetuating the smoking habit. Nicotine therefore was an obligatory passage point for all future research.

Chewing gum had not been envisaged or conceived as a substitution for cigarettes. What was known was that any substitute had to include and address the chemical nicotine.

Subsequently nicotine chewing gum was developed.

This level of outcome uncertainty and flexibility is a feature of delivering remote mental healthcare. At an initial mental health presentation, the remote general nurse may not know what network needs to be created. Based on their general nursing skills a nurse would know that a patient is mentally unwell, for example if they are shouting that they believe they are God or Jesus Christ. They may not know the psychiatric classification for the psychotic behaviour or what type and amount of psychiatric medication is required (i.e. the final outcome), but they do know the patient is mentally unwell, delusional and requires a mental health intervention. At this stage the final network and outcome is not known, but by being present the nurse assumes an obligatory passage point for that patient's care.

The preceding section has discussed the concept of an obligatory passage point and related it to remote nurses delivering mental healthcare. The researcher has justified this with reference to the literature. There exists a gap in the literature concerning remote nurses and the concept of using obligatory passage points when discussing the delivery of remote mental healthcare. A number of studies, in a variety of settings, have been referred to which have used the obligatory passage point. Analogous situations and parallel findings were discussed to support the first finding, of remote nurses assuming the obligatory passage point.

### 9.3 Self-Perceived Levels of Mental Healthcare Skills, Abilities and Confidence

The study's second major finding is that remote nurses' report self-perceived low levels of confidence, role competency (skills) and knowledge concerning mental healthcare. This finding is very similar to the findings of a previous study by Clark et al. (2005), but the studies were quite different. Clark et al.'s (2005) study was a quantitative study using a self-completed questionnaire, by rural nurses. This study is a qualitative case study design, involving remote (not rural) nurses and includes other relevant participants (non-clinical nurses and non-nurses). Hence this study is able to report more widely as the participants were not restricted to nurses. These other actors (study participants) in the social world, have positive opinions concerning the skills and ability of remote nurses to deliver mental healthcare.

This second major finding is not surprising considering the real and significant difficulties and challenges remote general nurses confront when delivering mental healthcare, for example, *inter alia* lack of resources, training and access to specialist mental health support. This is recognised by metropolitan emergency department nurses who 'indicated significant concern and sympathy for their rural [remote] colleagues' predicament, delivering mental healthcare in an under resourced, isolated environment, often with inadequate training' (Jelinek et al., 2011, p. 6). Further challenging the nurses' self-belief are their reported difficulties in managing acutely agitated, violent, aggressive patients (Happell & Sharrock, 2002; Reed & Fitzgerald, 2005) or suicidal patients (Bailey, 1998), requiring chemical restraint, transfer and associated logistical difficulties. While acknowledging the role of the remote general nurse delivering mental healthcare is

difficult, this section primarily focuses on the remote nurses' misguided perceived lack of abilities.

Remote general nurses do not have post graduate mental health nursing qualifications, but are exposed to mental health nursing education as part of their undergraduate nursing qualification. Whether this exposure is enough to satisfactorily equip remote general nurses is a moot point, but probably not based on the literature (Aoun & Johnson, 2002; Clinton & Hazelton, 2000; Happell, Wilson & McNamara, 2014; Wynaden, 2012; Wynaden, Orb, McGowan & Downie, 2000; Wynaden, O'Connell, McGowan & Popescu, 2000). Despite this, the remote nurses in this study (see Chapter 6) and in the literature concerning rural and remote nurses (Jelinek et al., 2011; King, Judd & Grigg, 2001; Reed & Fitzgerald, 2005) have a belief that they are not skilled to care for mental health patients.

In reality this is not true. This belief arises from misunderstanding and undervaluing their competencies. Obviously MHNs have skills and knowledge beyond or unknown to a general nurse, such as Cognitive Behaviour Therapy, Motivational Interviewing, Drug and Alcohol counselling, Risk Assessment, Mental State Examination and converse with medical staff (GPs and psychiatrists) employing appropriate and accepted psychiatric terminology. While these advanced, very necessary and important skills are valuable, they are arguably of little benefit or assistance in caring for most, or a large portion of remote mental health patients, when considering what are the reasonable (mental health) skills expected of a remote general nurse.

What is reasonable mental healthcare is grounded in a comparison with another remote nurse in the same circumstances. It is not a comparison with that of a mental health

nurse in the same circumstances. While remote general nurses undertake extended practice, mental healthcare is only one of a number, or one in a suite of specialised skills, they are required to practice, including diabetes, chronic diseases, and sexual health. Hence from the researcher's experience, for remote nurses to consciously or unconsciously measure their skill level against that of a mental health nurse, is inappropriate and devalues their own skills (Bushy, 2002). They do so based on two assumptions. Firstly, remote nurses have a generalised false perception that MHNs have unrivalled or almost magical skills to care for mental health patients. As referred to in Chapter 6, the regional psychiatrist commented on this point. While MHNs are familiar with mental health tools (e.g., mental state examination, suicide risk assessment), techniques (e.g., de-escalation, motivational interviewing, counselling) and psychiatric terminology, they do not necessarily determine a better outcome. There is very little certainty in the process of managing unwell mental health patients as they can be unreliable, impulsive and irrational. Being cared for by a mental health nurse or a remote general nurse does not change this uncertainty. It may change the manner in which the care is provided but that is still very much dependent on available resources. If a floridly psychotic patient is standing in front of the primary healthcare centre holding an axe, yelling and threatening at 3 am, no nurse, mental health qualified or not, would unlock and leave the protective fencing surrounding the nurse's quarters. Any nurse, mental health trained or not, would not approach the patient, they would follow protocol and ring the police.

The second incorrect assumption is underestimating the very good mental health skills which remote nurses actually possess. Except for very unwell, violent and aggressive mental health presentations, the necessary skills to care for, and assist most mental health



patients are within the general nurse's repertoire of nursing skills. Showing empathy, active listening, encouragement, displays of understanding and problem solving are all possessed and used by remote general nurses, when caring for mental health patients (and other types of patients). The routine day-to-day interactions with mental health patients involve skills such as administering a depot medication injection, attending to a housing crisis or undertaking a 'touching base/check-up' consultation. The general nurse skill base is well equipped for these tasks. Conversely when confronted with very ill, violent and aggressive patients, the limitation of resources dictates the limited options available, whether the nurse is mental health trained or not. If there are no facilities to admit, no ability to seclude, no ability to summon the attendance of a psychiatrist and the nurse is by themselves, then any mental health nurse skills are neutered by the adverse circumstances.

In any nursing situation the nurse-patient relationship is considered important (Forchuk & Reynolds, 2001), and in mental health nursing, the interpersonal interaction is the corner stone of practice (Cleary, Edwards & Meehan, 1999). That relationship is the essence of mental healthcare (Priebe & Gruythens, 1993), and often determines the successful mental health outcome for patients (Dziopa & Ahern, 2009; Hagerty & Patusky, 2003; Kai & Crosland, 2001; Pedersen & Karterud, 2007; Shattell, 2004). Nurses, as part of everyday practice, have this ingrained in their nursing praxis and hence, do not need specialist mental health training to build a nurse-patient relationship.

The remote nurse participants reported that they did not have adequate knowledge or skills to provide care for mental health patients. Is this belief a reaction to remote general nurse's experience with mental health patients (or lack thereof), due to the lack of adequate resources, or both? Breeze and Repper (1998) examined metropolitan nurse's

attitudes and concerns in caring for ‘difficult’ mental health patients. Nurses defined ‘difficult’ patients as those who display aggression, violence, self-harming and disruptive behaviours (Happell & Sharrock, 2002; Heslop, Elsom & Parker, 2000). Breeze and Repper (1998) found that threats, aggression and violence reduced the metropolitan nurses’ self-reported levels of competence and control. This was despite having more mental health resources available to them than remote nurses.

A dominant theme by remote nurses was that of human resources. The nurses were more likely to feel challenged when they were short staffed compared to when staffing levels were considered adequate. The nature of the remote nursing role is to constantly cope and deliver mental healthcare in the face of resource scarcity, particularly in relation to staffing. It appears from the literature that metropolitan nurses’ primary concerns, in caring for mental health patients are similar and also report low levels of confidence and competency, even though there appears to be vastly more resources and ready access to specialist mental health trained staff.

Sivakumar et al.’s (2011) national study included a discrete population of participants, namely specialist emergency nurses working in emergency departments. The following issues were identified in caring for mental health patients; knowledge/skill deficits (including risk assessments, particularly for self-harm, triaging mental health patients, drug types and doses when chemically restraining patients, communication strategies and conducting mental state examinations), environmental factors (including inappropriate environment, lack of staff, lack of space, lack of resources such as mental health beds and delays in referrals and lack of safety in the ED) and personal factors (including low perceived levels of confidence and attitudes) (Sivakumar et al., 2011). All

these issues raised by metropolitan based nurses in large hospital emergency departments, mirror the *same* issues and concerns of remote general nurses. Sivakumar et al.'s study (2011) is not isolated but is supported by other studies with very similar findings (Gerdtz, Weiland, Jelinek, Mackinlay & Hill, 2012; Happell & Platania-Phun, 2005; Jelinek et al., 2013; Kerrison & Chapman, 2007). Notably the same issues and concerns arise, irrespective of location (remote, rural, metropolitan) for remote general nurses delivering mental healthcare (Jelinek et al., 2013).

Another study of rural general nurses by Clark et al. (2005) reported 'that most [rural] nurses perceive ... low levels of role competency ... [and] adequate knowledge or skills to identify, assess and treat patients with mental illness; and a significant proportion ... felt that they could not appropriately advise patients about mental health problems' (p. 211). Of the factors that affect rural nurses' attitudes towards mental health patients, the frequency of treating patients with mental illness is significant in influencing levels of therapeutic commitment, yet did not affect perceived role competency. Those rural nurses who treat mental health patients more frequently reported higher positive levels of role support. Not surprisingly, those nurses who have specialist experience in caring for mental health patients reported significant positive levels of role competency and therapeutic commitment. This is consistent with Wynaden, O'Connell, McGowan and Popescu's (2000) study which reported that 58% of remote general nurses lacked confidence and 62% felt their relevant knowledge and skills were inadequate, in caring for mental health patients. It is innocent perfidy of their real worth and importance in caring for remote mental health patients.

Remote nurse perceptions of lacking competence and confidence, in caring for mental health patients is also reflected in metropolitan nurses. The same concerns and issues arise which are representative of those harboured by remote general nurses. Rutledge et al. (2013) found in their study that situations requiring the use of de-escalation techniques and crisis communication by acute remote general nurses (in hospital settings) are times when they felt the least competent. This is consistent with the remote nurse participants in this study who reported aggressive and violent patients as the most difficult to care for (Chapter 6).

One study (Wynaden et al., 2003) reports that the presence of a qualified mental health nurse, augmented into an emergency department, reassures staff, reduces delays, levels of aggression and violence and greatly assists generalist nurses caring for mental health patient crisis presentations. None of which can be realistically achieved in remote primary healthcare centres.

A lack of perceived ability to care for mental health patients is concerning because it can lead to anxiety which can impede skill development (Sharrock & Happell, 2006). While low levels of anxiety can be motivating for individuals to learn, high levels of anxiety can prevent individuals (e.g., remote nurses) from learning new information (e.g., mental health training) or being able to conceptualise multiple approaches in analysing a situation (e.g., a complex mental health presentation) (Peplau, 1988). Nurses with persistent low levels of confidence may become resistive to 'learning, more rigid in their views and less able to assist patients' (Sharrock & Happell, 2006, p. 13). If a self-reinforcing lack of success in caring for mental health patients develops this may further reinforce remote nurses' feelings of uncertainty.

## 9.4 The Unique Characteristics of Remote Nurses

The study's third finding is the unique characteristics, both as individuals and as a group of remote nurses, which enables them to remain in the social world. The social world can be chaotic, disorganised, contain absences, messy, unsafe, risky, hazardous and yet remote nurses continue to function in delivering mental healthcare. As Bushy (2002) states '[remote] nurses have a rich heritage of resilience, resourcefulness, adaptability and creativity' (p. 109). They are able to stay and work remotely because the characteristics which define them are resourcefulness, resilience, responsiveness, and robustness.

The importance of these characteristics in remote nurses is that it enables them to continue to deliver remote mental healthcare. This is important because remote mental healthcare is a major issue. Eley and Baker's study (2007) of rural and remote stakeholders delivering remote healthcare reported that out of 16 priorities affecting their efficacy, mental health was the second most important priority and considered to be the greatest health condition affecting people in rural and remote areas. According to Carey, Wakerman, Humphreys, Buykx and Lindeman's study (2013) mental health services were selected as one of the six primary healthcare services remote Australia residents should be able to access. With such importance placed on mental health services in remote locations, it is critical that nurses remain remotely located. As Rajkumar and Hoolahan (2004) stated '[t]he generalist primary care worker [nurse] is the key resource at the grass root level of mental healthcare in remote areas' (p. 81).

### 9.4.1 Resourcefulness

Resourcefulness is the ability to find clever and inventive ways to overcome difficulties (*Shorter Oxford Dictionary*, 2007). Remote general nurses face many

difficulties which require them to be responsive, agile and use ingenuity in the delivery of mental healthcare. 'Working as a remote area nurse demands resourcefulness unsurpassed in the city' (Verrier, 1991, p. 210). The lack of resources and degree of isolation means that remote nurses, have to frequently improvise and think creatively to develop solutions to barriers, which arise in the delivery of mental healthcare. 'It is this [remote] environment that is the breeding ground for innovative care delivery' (Mitchell, 2000, p. 13).

Despite adverse circumstances, remote nurses have the ability to devise ways and means to care for mental health patients. Due to limited resources and isolation, remote nurses are frequently working in situations with less than the ideal amount of assistance or resources to deliver optimal levels of care. Innately understanding this, remote nurses consistently demonstrate agility to conjure up means to address these deficiencies. They rise to the challenge (Hanna, 2001).

'Their [remote nurses] greatest attribute is knowing about formal and informal community resources and how to access these for client systems' (Bushy, 2002, p. 109). One example is tapping into the knowledge and experience of ATSIHWs to culturally connect with patients and their relatives. As stated by Dunbar, Hickie, Wakerman and Reddy (2007), '[I]n more remote areas ... we need ... involving specially trained Aboriginal mental health workers supported by mental health nurse' (p. 588). Aboriginal and Torres Strait Islander Health Workers know the community dynamics and cultural norms, because usually they have been born and grown up in the community. If for example a patient is suicidal and needs someone to stay with them overnight, out of concerns for their safety, an ATSIHW is able to identify a culturally appropriate person.

Another example from one of the nurse participants (T3), is where he enlisted a community member to drive the hospital ambulance (when there are no designated paramedics or ambulance officers stationed in the community), to transport the mental health patient out of the community for treatment. In both of these examples the remote nurse is undertaking the recruitment and enlistment of a third party to assist them in delivering the mental healthcare. These innovative and *resourceful* measures are examples of remote nurses adapting to the local condition of working remotely.

Such practices are perceived as simply part of working remotely; in other words, it goes with the territory or is part of their extended practice. Remote nurses ingest such practices into the collegial identification of being a remote area nurse and thereby different to other nurses, especially those who work in metropolitan areas. Mitchell (2000) refers to this difference when she said, ‘problems facing remote nurses, although thankfully dissimilar in many ways [to metropolitan nurses], remain unique. There remains little understanding in the wider nursing fraternity of the complexities of rural and remote nursing and the unique demands placed on bush nurses’ (p. 12). Hence resourcefulness is a trait that remote nurses attach to their differentness to other nurses.

This is not to suggest that remote nurses are not cognisant or aware of the lack of resources when delivering mental healthcare. Jelinek et al.’s study (2011) concerned the perceived differences in the management of mental health patients in remote and rural Australia compared to metropolitan hospital presentations. While the study involved both medical and nurse participants, the findings for each cohort were reported separately. In relation to a theme of under resources/environment, both groups noted limited access in *rural* areas for psychiatric support services, alcohol and other drug services and limited

options for referral, but only nurses commented specifically on limited resources generally, to care for mental health patients. Two nurse participants stated, ‘it all comes down to resources’ (rural nurse participant) and ‘obviously the metro are far better staffed to have greater resources than the rural do’ (rural nurse participant). Jelinek et al.’s study is consistent with the attitude of remote nurses who know and simply accept that to work remotely necessarily involves working in an environment of reduced resources.

One response to the lack of available resources is remote nurses’ extended or advanced practice roles (Bushy, 2002; Hanna, 2001; Lowe, Plummer, O’Brien & Boyd, 2012). The lack of access to trained mental health staff, including to specialist mental health advice is a reoccurring issue. Remote nurses, unlike their metropolitan counterparts, do not have ready access to summons assistance from a mental health nurse or mental health consult-liaison nurse. This necessarily means that any care has to be delivered by the remote nurse; this is the same for any type of patient presentation.

‘The nurses provide the first point of contact for a range of primary-care functions normally provided by medical practitioners and allied health professionals in urban and large regional centres. Remote area nurses act as sole providers of primary and urgent healthcare, and frequently extend their skills due to community demand and a lack of any other form of health professional support.’ (Burley & Greene, 2007, p. 3)

This results in the remote nurse having to undertake an extended practice role to meet the needs of the community (Kenny & Duckett, 2003; Wilson-Barnett, Barriball, Reynolds, Jowett & Ryrie, 2000). ‘[Remote nurses] specialty area of practice is being ‘an expert generalist’’ (Bushy, 2002, p. 109). The nurse delivers care, which if based in a



metropolitan hospital, would be referred or dealt with by another 'specialist' clinician. Some commentators prefer to use the other term 'advanced practice' (Hegney, 1997, National Rural Health Alliance, 2005) but the same notion is involved. In the absence of mental health personnel, possession of mental health nursing skills by remote general nurses is necessary to avoid poor outcomes.

One difficulty of remote nursing is that many high acuity skills, including mental health, are required infrequently (Hanna, 2001; Hegney et al., 1997). This limits both the development and maintenance of expertise, and accordingly, confidence to perform them. An answer to the degradation or erosion of skills (including mental health) for remote nurses is training, which is a problematic issue in itself (Ellis & Philip, 2010).

#### **9.4.2 Resilience**

Resilience is the capacity to recover quickly from difficulties (Shorter Dictionary, 2007) and an ability to rise above difficult situations (Criss, Pettit, Bates, Dodge & Lapp, 2002). The remote nurse's social world is one of constant difficulties and challenges. It is the ability and tenacity of remote nurses to recover from them and to continue functioning (Tusaie & Dyer, 2004) in the social world, which is a key finding of this study. At the core of resilience is the notion of supporting a nurse's strengths and functionally coping (Edward, 2005). Importantly Bonanno (2004) notes that resilience, involves maintenance of equilibrium, with no loss of normal functioning; it is not recovery.

Lazarus and Folkman (1984) define coping as 'constantly changing cognitive and behavioural efforts to manage specific internal/external demands that are appraised as exceeding the resources of the person' (p. 141). Two dimensions of coping are problem-focused coping and emotion-focused coping (LeSergent & Haney, 2005). Problem-focused

coping consists of concrete attempts made to alter the stressful event, while emotion-focused coping consists of attempts made to alter stressful feelings. LeSergent and Haney (2005) found that rural nurses used both types of coping mechanisms. Nurses who feel more stressed tend to rely on more emotion-focused coping (e.g., avoidance, seeking social support) (Moszczynski & Haney, 2002). How helpful one or both is, depends on the situation and nature of stressor (Chang et al., 2007).

The very nature of remote practice requires nurses to have the ability to quickly regain strength and remain stoic after any adverse incident. For example after a successful suicide attempt or having being assaulted by a mental health patient the nurse may question their competencies in caring for the patient or whether another course of action should have been undertaken, resulting in a better outcome. This is a natural human reaction and one which is expected of a professional nurse (i.e. reflective practice). What remote nurses demonstrate is the ability, after self-reflection, to continue to provide professional nursing care. This is consistent with a theme in Edward's (2005) study, which found resilience is enhanced when nurses have insight into their own clinical role through feedback and introspective analysis.

After a tragic event remote nurses rarely decompensate, instead remaining committed to the delivery of nursing care. There are a number of sources for this resilience. Firstly, the very nature of the role attracts a type of personality which is drawn to the adverse, harsh and challenging environment (Hegney et al., 2002). The remote landscape requires a tenacious personality (Mitchell, 2000). If the nurse is not tenacious, then they leave. Secondly, the camaraderie of fellow nurses is strong, supportive and understanding. The nurses feel a sense of being 'all in this together' and therefore supporting a fellow

nursing colleague is not forced but is motivated from this belief system. As McGee (2006) proposes, nurses care for the self through sharing experiences of vulnerability and resilience, a characteristic that remote nurse very much demonstrate. Hodges, Keeley and Grier (2005) illustrated that advocating praise and acknowledgement of the success in a nurses' achievements promotes feelings of pride which helps build resilience. Hegney et al. (2002) found that being part of a team was the equal first factor for nurses to remain working rurally [remotely]. Thirdly, there is a reciprocal feeling of not letting down their colleagues arising from working as a team; everyone has to assist each other as they are all in this together (Hegney et al., 2002). Fourthly, remote nurses have a sense of commitment to the community in which they work. Due to small populations they are usually personally aware of community members and families. Unlike in metropolitan areas where it is not possible to know many of the patients attending an Emergency Department, it is possible to know most, if not all of the patients who attend the primary healthcare centre. Hence remote nurses have a sense of emotional investment in the community and therefore want to remain professional and of continued assistance. Hegney et al. (2002) found that out of 91 factors which influence nurses remaining in rural [remote] nursing 'a sense of belonging to the community' (p. 132) ranked fifth. Lastly, there exists an element of resignation to the situation. Namely, if a remote nurse was to decompensate, it will not be helpful to the nurse and their colleagues (Hegney et al., 2002). Due to isolation what else is there to do other than carry on as mental health and other patients will continue to present at the primary healthcare centre.

While remote nurses delivering mental healthcare are resilient, it does not diminish the occupational stress they endure. Opie et al. (2010) found that nurses working in

metropolitan hospitals reported higher levels of psychological distress than nurses working remotely, although the difference was not statistically significant. Nurses working in metropolitan hospitals did however demonstrate significantly higher levels of emotional exhaustion compared to remote nurses. A reason for this study's findings is that for the five reasons outlined above, remote nurses are more resilient than those in metropolitan areas. This is again consistent with a study comparing stress levels between rural nurses and metropolitan hospital based nurses (Albion, Fogarty & Machin, 2005).

#### **9.4.3 Responsiveness**

Responsiveness is the quality of reacting quickly and positively to a situation or challenge (*Shorter Oxford Dictionary*, 2007). The complexity and variability of mental health presentations means a level of agility and responsiveness to meet the challenges of mental health presentations. Unlike a medical presentation involving a rational patient or a medical condition which is self-evident, such as laceration presentation, mental health presentations may not be so straight forward. The patient may be attending against their will, may not believe they have a mental illness or may be psychotic and unable to be reasoned with. In these situations the patient may be violent, abusive, uncontrollable, uncooperative or unpredictable. Accordingly remote nurses have to react quickly and decisively in containing the situation with the limited resources at hand.

Remote nurses' responsiveness entails being available to deliver healthcare 24 hours a day, 7 days a week (Stewart et al., 2011). '[T]heir [remote nurses] working day is not contained in working hours' (Mills et al., 2010, p. 34). While the primary healthcare centre may be closed, the nurse(s) either make themselves available, if they are a single person post or are rostered on overnight and over weekends, if there is more than one nurse

(Hegney, 1996). After hour call outs are a unique aspect of working remotely, and an integral part of being responsive to the demands for remote mental health services (Heidelbeer & Carson, 2013).

Remote nurses assuming after hours on call can experience negative consequences, particularly in single postings. Many nursing commentators advocate for the closure of these primary health centres to ensure occupational health and safety regulations are complied with (Australian Nursing Federation, 2004; McCullough et al., 2012; Yuginovich & Hinspeter, 2007). Nurses themselves feel unsafe in such postings (Yuginovich & Hinspeter, 2007). Many rural [and remote] nurses: particularly in small communities, feel they are never off duty (Sturmey & Edwards, 1991). “[O]n call” is continuous and work hours are extended according to the care needs of clients ... to be done after hours. In the remote area where work, home, and social life overlap together in one place, nurses feel that they are ‘always on duty’ (Cramer, 2006, p. 198). For some, the remote nurse’s missionary zeal makes it difficult for them to ‘draw the line’ between work and non-work, which in turn leads to workforce issues such as stress (Opie et al., 2010) fatigue and burnout (Cramer, 2006). Hence, while responsiveness in the remote nursing workforce is admirable and a virtue (and an absolutely necessary ingredient to the continuation of delivering remote healthcare, including mental health) there exists a down-side individuals. Yet remote general nurses continue to defiantly shoulder this burden.

The crux of this issue is that without remote general nurses there would be no mental healthcare. Without their self-sacrifice, in being responsive to mental presentations there would be severely limited services. To maintain the present level of delivery, the cost and sacrifice is borne by remote nurses, as the only group in the healthcare system arena

that shoulders the burden; and without due acknowledgement. As Fisher et al. (1996) observed of remote nurses '[they] are reluctant to draw attention to themselves and the state of their job conditions for fear of drawing unwanted media attention to local community problems' (p. 198).

#### **9.4.4 Robustness**

Robustness is the quality or condition of being strong, in good condition or the ability to withstand or overcome adverse conditions (*Shorter Oxford Dictionary*, 2007). Adversity is hardship or suffering associated with misfortune, trauma, distress, difficulty, or a tragic event (Luthar & Cicchetti, 2000; Rutter, 1999; Tugade & Fredrickson, 2004). 'Workplace adversity can be viewed as any negative, stressful, traumatic, or difficult situation or episode of hardship that is encountered in the occupational setting' (Jackson, Firtko & Edenborough, 2007, p. 3). None of the nurse participants stated, nor does the literature illustrate, remote nurses unwilling to caring for mental health patients on the basis of being too hard or difficult. On the contrary, remote nurses continue to place themselves in danger and expose themselves to unacceptable risks in their caring role (McCullough et al., 2012). They can only do this if they continue to withstand adverse conditions and events.

A quintessential example of remote nurse robustness relates to the level of violence they are subjected to, particularly from mental health patients (Ferns et al., 2005). Chapter six highlighted the remote nurses concern about this issue. The researcher refers to Fisher et al. (1996) who stated in relation to this topic,

'These [remote] nurses make an active decision to become part of the folklore of the 'outback'. It takes courage ... to live in an isolated region: let alone to take on

the roles and responsibilities of being the only health professional in the area. This courageous spirit might [does] result in these nurses attempting to minimise the experience of violence and abuse' (p. 191).

The under-reporting of violence towards nurses (Arnetz et al., 2015; Hegney, Plank & Parker, 2003; Roche, Diers, Duffield & Catling-Paull, 2012), including remote nurses is not new (Fisher et al., 1996; McCullough et al., 2012; Opie et al., 2010).

Hegney et al.'s (2003) study reported that remote and rural nurses are at greater risk than nurses employed in metropolitan areas of exposure to violence (AIHW, 1998, 2002; Moller, 1994; Perrone, 1999; Tolhurst, Bell & Baker, 1999). They posited that policies for the management of workplace violence are less likely to exist in remote areas. In Opie et al.'s study (2010), 349 very remote nurses stated that in the previous 12 months 79.5% had been exposed to verbal aggression, 31.6% to property damage, 28.6% to physical violence and 22.5% to sexual harassment. Not included in these figures are 'witnessing ... violent incidents that were directed towards remote area nurses' co-workers, family, friends or other members of the community' (p. 20). The study's findings were consistent with other studies (Erickson & Williams-Evans, 2000; Fisher et al., 1996; Hegney et al., 2006; Jackson et al., 2002; Taylor, 2000).

A further reason justifying the importance of robustness, is remote workplace cultures that tolerate verbal abuse, under-report violent incidents, management indifference and failure to acknowledge the risks and effects of violence, necessarily means that to survive in such an environment requires a high degree of robustness (McCullough et al., 2012). 'A culture of acceptance that verbal abuse is 'part of the job' contributes to the risk of violence in that it encourages the 'context of silence' that surrounds violence in the

remote area nursing workplace' (McCullough et al., 2012, p. 7). Violence in the workplace can also emanate from within (Mills et al., 2010). Mills, Francis and Bonner (2008) assert that horizontal violence forms 'the cultural underbelly of rural [remote] health workplaces' (p. 34). Exacerbating the issue, is remote nurses tend to down play and minimise the level and effect of being exposed to violence (Fisher et al., 1996).

The remote nurse's sometimes 'missionary zeal' to care for mental health patients, illustrates that such exposure can have a significant negative impact on their well-being (Deans, 2004). Exposure increases developing post-traumatic stress disorder symptoms (Kelly, 1999) and, susceptibility to anxiety, impaired functioning and difficulties sleeping (Fisher et al., 1995; Rippon, 2000; Robbins, Bender & Finnis, 1997). While remote (and rural) nurses maintain this *robust* exterior, Albion et al. (2005) found significant elevated levels of distress in rural [remote] nurses.

Obviously the four traits, resourcefulness, resilience, responsiveness, and robustness, vary between individual remote general nurses and groups. Much of which, relates to the resources available to deliver mental healthcare. For example it would be far harder to be resilient, by relying on colleagues after an adverse mental health event, if the nurse was working alone in a one person primary healthcare centre. Conversely, a community may have few mental health patients or may have key resources such as a resident GP, which lessens the need or degree for one or more of the traits. Variability between remote locations in relation to the four traits may also be transitory, fluid or rely on chance. A mental health crisis presentation may occur when a mental health nurse team or psychiatrist is visiting. In these situations obviously there is a lesser degree of reliance on any of the four traits or conditions.



It should not be thought that these four traits are mutually exclusive; they are interrelated. Giordano (1997) listed qualities associated with resilience including resourcefulness, level-headedness (robustness), flexibility (responsiveness), and highlighted the importance of problem-solving skills (resourcefulness). Eley, Eley, Young and Rogers-Clark (2011) found that nurses in a large non-metropolitan health district were modest risk takers, highly sensitive and sociable, hard-working, perseverant and ambitious, very realistic, resourceful and effective and tolerant, supportive and good team players.

## **9.5 Summary**

This chapter has outlined and discussed the three major findings of the study: remote nurses when delivering mental healthcare assuming, pursuant to actor-network analysis, the obligatory passage point, self-perceived levels of mental healthcare skills, abilities and confidence, and the unique characteristics of remote nurses which enable them to stay and function in the case.

The next chapter concludes the thesis. The chapter canvasses and retrospectively discusses the researcher's 'journey' through the process of undertaking the study; it also reflects on the methodological rigour of the study, its recommendations, methodological limitations and strengths, and closes with a discussion concerning the positioning and role of the researcher in relation to the study.

## **Chapter 10: Conclusion**

### **10.1 Introduction**

This final chapter commences with the researcher's reflection on his journey in undertaking the study (Section 10.2). This reflection is not a sentimental one, but a critical observation of the changes experienced by the researcher through discovering knowledge about the case and undertaking the study. Section 10.3 discusses the methodological rigour of the study and the steps the researcher undertook to ensure it. Section 10.4 outlines and discusses recommendations arising from the study in relation to four domains: research, practice, education and policy. Sections 10.5 and 10.6 identify the study's methodological limitations and strengths, before the chapter concludes by outlining the role of the researcher in relation to the study (Section 10.7).

### **10.2 Researcher's Reflection**

Only a retrospective appreciation of one's earlier naivety can clarify how much a process of research has illuminated. Viewed retrospectively, the gaps in the researcher's awareness at the outset of the study were very significant indeed. His practical knowledge of working remotely had imbued him with an illusory confidence in his knowledge of the case. At the outset, the researcher believed that direct exposure from working in the field of enquiry was the richest and most intimate experiential basis from which to make commentary and achieve understanding. This naivety at the commencement of the study instilled in the researcher a belief that the findings were already known. The study unexpectedly became a process of actualisation.

As a remote area mental health educator, the researcher had 'been there and done that'. In the course of his experience in remote Australia, he had seen, heard and witnessed

an enormous amount. The researcher had catalogues of anecdotes from the field and was comfortable working in its environment, being familiar with the issues, barriers and difficulties of delivering remote healthcare. He had a thorough understanding of the issues that confronted the general remote nurses he had taught about mental healthcare. The study, then, would be a mere re-telling and confirmation of the researcher's experiences.

In the course of undertaking the study, these preconceived thoughts were soon challenged, interrogated and re-shaped. What the process uncovered for the researcher were new and enlightening ways to understand and examine the phenomena of the enquiry. The researcher has studied logic and jurisprudence at university, and in other careers had appeared as Lead Counsel in the Supreme Courts and Junior Counsel in the High Court of Australia, all of which entailed preparing cases for trial or appeal. This work involved marshalling evidence and then analytically examining, testing and weighing it. In a previous life, he had also worked as a forensic accountant for an overseas merchant bank. This role also required the examination and analysis of financial evidence and records. All of this experience meant that at the commencement of the study, the researcher was assured of his abilities to analytically examine the phenomenon of remote general nurses delivering mental healthcare.

The research process quickly reminded this novice researcher that in life there exist 'unknown unknowns', and that these were present on this occasion. Before commencing the literature review, the researcher first needed to learn how to conduct one. This educational process was to be repeated many times for the tasks of designing the methodology, methods, data collection, data analysis, case study method, thematic analysis, situational analysis, social world/arena analysis, actor-network theory and

methodological rigour. None of these endeavours had been undertaken by the researcher previously and all had to be learnt.

More egregious was that approximately half of the aforementioned concepts were unknown to the researcher. While the researcher did not, for example, know how to properly undertake a literature search, choose a methodology or undertake data analysis, he had at least heard of these concepts. He is now able to reflect and ponder on this ignorance. Aspects of the study, such as the case study method, situational analysis, social world/arena analysis, relational analysis and actor-network theory were completely new. When these four topics were first raised in discussion with his supervisory team, on each occasion the researcher can remember thinking, ‘What are they talking about now?’

Of course, this process of being introduced to new concepts and knowledge was not confined to those concepts utilised in the study. Many other ideas were brought to the researcher’s attention for the first time. For example, initially the researcher thought that his study would be an ethnographic one, only for this design to be later rejected. The study was then proposed to be a mixed methods one, then a grounded theory study and finally a case study. Through this exploratory process, the researcher learned of concepts and subjects entirely new to him. Thus the totality of the researcher’s learning was not confined to that which is contained in the thesis.

Throughout this process of learning, it became clear in retrospect that the researcher’s initial understanding of the case had not been complete. This enlightenment encouraged the researcher to examine his pre-study knowledge through new and different lenses and paradigms. The research process has facilitated the researcher’s ability to examine his previous experiences and anecdotes from various angles and means.

With reference to the anecdote contained in Chapter 1, Section 1.1, the researcher is now able to consider this story in so many new and different ways. It is no longer taken for granted as a singular event that took place. For example, it can be viewed as taking place in the context of the remote nurse's social world; it is an example of the chaos, difficulties and hardships faced by remote nurses who stay and function in their social world of providing mental healthcare; further, it could be an illustration of the failure of the non-human arena to provide the actors (nurse, patient and deceased) with the necessary actants (resources) to be able to successfully manage the situation. Another possible view is that it is a failure in the actors' arena, where there was a lack of human actors (police) to assist. Alternatively, it is an example of a dyad network (patient, nurse) and, pursuant to actor-network theory, a failure (for whatever reason) to undertake 'translation' to bring (enrol) other actors into an expanded network. Was there a failure to follow a boundary object (policy, procedure or system) that contributed to the outcome? Having identified the nurse as the obligatory passage point, is this an example of nurses not being supported to be able to function as such? Finally, another way to view the incident is to see it as an example of the third finding of the study: that the nurse involved in the incident displayed, in the circumstances, resourcefulness and responsiveness, and would have to be resilient and robust to continue working in the field (which she did).

On reflection, the researcher's current state of knowledge, juxtaposed against his state of knowledge prior to the commencement to the study, endorses the statement, 'It's not what you think, but how you think, that matters.' Through the process of undertaking the study, the researcher's ways of thinking about the case have been transformed.

### 10.3 Methodological Rigour

Irrespective of purpose, unit of analysis or design, rigour is a central concern in case study research (Feigin, Orum & Sjoberg, 1991). Qualitative researchers utilise different, though perhaps not entirely dissimilar, methods to ensure rigour consistent with that of quantitative research. This section discusses the methodological rigour of this case study.

In describing case study ‘tactics’, Yin (2003, p. 34) adopted positivist language (e.g., construct validity, internal validity, external validity and reliability) to describe the required standards of rigorousness for case study design. As an interpretivist researcher (see Chapter 4), this approach was not adopted in this study. In contrast, the researcher adopted alternative qualitative terms related to rigour: credibility, transferability, dependability and confirmability. These terms are consistent with Stake’s (1995) approach to ensuring rigor in case studies. All of these terms are discussed in the following subsections.

#### 10.3.1 Credibility

Credibility refers to the confidence in the truth or believability of the study’s findings (Jeanfreau & Jack, 2010; Polit, Beck & Hungler, 2006; Sandelowski, 1986; Streubert-Speziale, 2007). From this perspective, the purpose of qualitative research is to describe and understand the phenomena of interest from the participants’ position (Lincoln & Guba, 1985) in a manner free of the researcher’s biases, interests or perspectives. A researcher must remain open and transparent.

Credibility in this study was demonstrated through the triangulation of data using multiple sources, follow-up by randomly contacting eight participants to undertake

member checking of developing themes and concepts, peer debriefing with experienced supervisors, discussing the research process and findings throughout the study, and the researcher's continuous commitment to reflexivity. At the commencement of the study, the researcher considered reflexivity as 'self-indulgent nonsense', relegated to trendy 'pop' intellectualism and intellectually 'lightweight' in its meaning. Consistent with the first section of this chapter concerning actualisation, the researcher's process of coming to understand the worth of such techniques mirrors the journey of actualisation described in Section 10.2.

### **10.3.2 Transferability**

Transferability refers to the degree to which the study's findings apply outside of its particular context, to have meaning or application for another group or context (Byrne, 2001; Streubert-Speziale, 2007). Accurate, explainable, thorough and rich descriptions of the research findings demonstrate and facilitate transferability by providing adequate information for evaluating the analysis of data (Ayres, Kavanaugh & Knafl, 2003).

The researcher has been mindful of the criticism that case studies relate only to small numbers of participants or cases, thereby problematising the concern of transferability. A quantitative researcher attempts to fragment and delimit phenomena into measurable categories that can then be applied to wider and similar situations (Golafshani, 2003). The researcher's response to questions of transferability is that any assessment of whether the findings are transferable is for others to determine. What the researcher has undertaken is to ensure that the presentation of findings is sufficient to facilitate in another reader the same experience, and to persuade the reader that they represent a true and authentic account of the case (Mays & Pope, 1995).

### **10.3.3 Dependability**

Dependability refers to the stability or consistency of the inquiry process as used over time, and implies that the findings are consistent and could be repeated (Lincoln & Guba, 1985). The role of the term ‘dependability’ is analogous to that of ‘reliability’ in quantitative research (Lincoln & Guba, 1985). This is consistent with Clont (1992) and Seale (1999), who endorsed the concept of dependability as mirroring the concepts of consistency and reliability in qualitative research. Unlike quantitative research, where there is the possibility of producing repeated test results that remain stable over time, the reality in qualitative research is that changes occur over time (Golafshani, 2003; Hoepfl, 1997). Accordingly, the researcher has explained and accounted for contextual fluidity in the study. For example, the researcher inserted phrases such as ‘in the circumstances’ and ‘depending on the local circumstances’ before explaining a point of note or making a statement. These qualifiers serve to take into account that there are factual, social and contextual variations embedded in each of the multiple situations in the case. These variations need to be considered before any replication of the findings can be made with confidence.

### **10.3.4 Confirmability**

Confirmability relates to the degree to which the results or findings can be confirmed and corroborated by others, or to which the research findings are supported by the data. This implies that ‘interpretations drawn are rooted in circumstances and conditions outside of the researchers’ own imagination and are coherent and logically assembled’ (Sinkovics, Penz & Ghauri, 2008, p. 699). This is important, as each researcher brings their own unique perspective to their study (Ghauri, 2004). In this case, the



researcher identified and acknowledged any bias present during the study, based on the assumption that qualitative research allows the researcher freedom to bring their own unique perspective to a study. External researchers may judge this by examining whether there is objective correlation, consistency and support across the data, the analysis of the data and the subsequent findings. To enhance confirmability, an audit trail was completed throughout the study to demonstrate objectivity in each decision made.

Table 10.1 outlines these four criteria of methodological quality, and lists the actions undertaken by the researcher during the study against each.

Table 10.1

*Researcher's Actions to Enhance Rigour*

Quality Criteria	Actions Undertaken by Researcher
Credibility	Adoption of appropriate, well recognised research methods Development of early familiarity with culture of participating organisations Triangulation via use of different methods, different types of informants and different sites Iterative questioning in data collection dialogues Negative case analysis Debriefing sessions between researcher and supervisors Use of reflective commentary Description of background, qualifications and experience of the researcher Member checks of data collected and interpretations or theories formed Thick description of phenomenon under scrutiny Examination of previous research (in this case, none) to frame findings
Transferability	Provision of background data to establish context of study and detailed description of phenomenon in question to allow comparisons to be made
Dependability	Employment of overlapping methods In-depth methodological description to allow study to be repeated
Confirmability	Triangulation to reduce effect of investigator bias Admission of researcher's beliefs and assumptions Recognition of shortcomings in study's methods and their potential effects In-depth methodological description to allow integrity of research results to be scrutinised Use of diagrams to demonstrate audit trail

## 10.4 Recommendations

In this section the recommendations arising from the study are discussed. These have been divided into four domains: research, practice, education and policy. Table 10.2 provides a summary of the recommendations.

Table 10.2

*Summary of Recommendations Across Four Domains Arising from the Study*

Category	No.	Recommended Action
Research	1	Research into how remote nurses, as obligatory passage points, can be better supported and their role made easier.
	2	Research into the experiences of remote mental health patients and significant others as consumers.
Practice	3	Develop closer ties and greater collaboration between professional associations to develop new and creative ways to support remote general nurses to deliver mental healthcare.
	4	Education and support for remote general nurses to move from a 'reactionary' service delivery model to a model of primary healthcare with greater mental healthcare emphasis on prevention, promotion and education.
Education	5	Delivery of sustained and continuing mental health upskilling and education for remote general nurses.
	6	Ensuring that mental health education and upskilling content, provided to remote general nurses, is relevant and meets the needs of the nurses.
Policy	7	Policies that inform remote nurses' practice of delivering mental healthcare within the contemporary 'stepped care' model. Combined with policy, integrating remote mental healthcare as a priority health issue into the remote Primary Health Networks.
	8	Policies designed and implemented to address and minimise the exposure of remote nurses to violence and aggression in the workplace.

**10.4.1 Further research*****10.4.1.1 Recommendation 1***

Identifying remote nurses as obligatory passage points, using the concepts of actor-network theory, is a novel research method for examining their position in delivering mental healthcare. While an intellectually interesting process, applying this theoretical framework does not *per se* facilitate betterment for the nurses themselves. It offers a new

way to examine and describe known and established phenomena, but does not result in a new understanding of how to support remote nurses.

Further research is required to capitalise on this theoretical development, to identify new and innovative ways or means to support remote nurses delivering mental healthcare. Such research would align with the National Mental Health Commission (2014) Report's Recommendation 21.11: 'Build the capacity of the primary healthcare sector to significantly and pragmatically increase service access to a greater proportion of persons with a mental health problem' (Vol. 1, p. 118). It would also align with the Commission's (2014) argument to 'Find ... alternatives for workforce concerns', 'better utilising the primary mental health workforce (e.g., nurses, allied health professionals and particularly GPs) to complement the services of psychiatrists, psychologists and mental health nurses' (Vol. 2, p. 104).

#### ***10.4.1.2 Recommendation 2***

While this study concentrated on the delivery of remote mental healthcare by general nurses, there was (by design) no enquiry into the experiences of remote mental health patients and significant others as consumers of care. The central reason for this was that the study's focus was directed towards the remote nurses and their experiences and narratives. Further studies examining the case (and social world) that are inclusive of patients and significant others would add a rich dimension by considering the perspective of the consumer, and would greatly add to the understanding of remote general nurses delivering mental healthcare. Further research would enable an examination and understanding of the case from the perspectives of those actors who consume mental health

services. Further, such research would align with the National Mental Health Commission (2014) report's argument that:

there are ... key dimensions of effective person-centred programmes and services.

The first is listening to evidence from people with a lived experience of mental illness and their carers about what helps or hinders them in maintaining or helping their recovery. (Vol. 2, p. 38)

A greater voice for patients and significant others needs to be heard concerning the case.

## **10.4.2 Practice**

### ***10.4.2.1 Recommendation 3***

Remote nurses go to work daily in the belief that they lack necessary skills and knowledge for the delivery of mental healthcare. They feel a lack of continuous training and up-skilling in mental healthcare. There exist barriers to the effective delivery of mental health training, particularly face to face. It is clear that the present situation is not addressing nurses' concerns. It also appears that, for whatever reasons, employers are not committed to changing the present situation, obliging professional nursing organisations to fill the void. Closer ties and greater collaboration are recommended between professional nursing organisations such as the ANMF, Australian College of Mental Health Nurses, ACN and CRANA Plus in order to develop new and creative ways to support and advocate on behalf of remote general nurses and their capacity to deliver mental healthcare.

Specifically, it is recommended that a national meeting of relevant professional associations concerning remote mental healthcare and remote nurses be convened to examine and explore areas of common concern and subsequent actions aimed at improving

remote healthcare delivery by remote general nurses. Professional organisations could collaborate to develop pathways specifically related to informing practices of delivering remote mental healthcare.

#### ***10.4.2.2 Recommendation 4***

Consistent with the literature, nurse participants reported that they deliver mental healthcare in remote primary healthcare clinics through responding to mental health presentations (Birks et al., 2010; Henderson, Koehne, Verrall, Gebbie & Fuller, 2014). A reactive approach to the delivery of mental healthcare results in a lack of focus in primary healthcare services and remote nurses on the determinants of health, disease prevention, early intervention and health promotion (Wakerman, 2004). The current approach of emergency care means that a greater use of tertiary facilities is required, treatment is more intrusive and the costs and resource commitments are greater.

It is recommended that policymakers and stakeholders provide adequate resources, education and encouragement for nurses to change the current workplace culture and practices of delivering primary mental healthcare with an emphasis on prevention, promotion and education. This would address the findings of the National Mental Health Commission's (2014) Report that:

it is harder for people in more remote areas to know about and access professional services, even if they want to. As a result, promotion, prevention, early diagnosis and intervention services that could address mental illness are hampered and delayed, which can result in serious crises. (Vol. 2, p. 100)

### **10.4.3 Education**

#### ***10.4.3.1 Recommendation 5***

Remote general nurses want sustained and continuing mental health upskilling and education (see Chapter 3). The literature review presented in Chapter 3 abundantly reinforces this point. Remote nurses feel and report that they are ill-equipped, unsupported and unskilled to care for mental health patients (Reed & Fitzgerald, 2005; Wynaden et al., 2000). Whether this is realistic or misguided is irrelevant; since remote nurses are consistently reporting this, it needs to be addressed. If this issue is not addressed, then nurses' levels of confidence and self-perceived competencies will continue to decline and plague remote nurses' practice. This is an unnecessary burden on the nurses and interferes with their standard of care.

The vast distances and time involved in travelling to remote locations, associated costs, difficulties of releasing staff from duties to attend training and high staff turnover are all real barriers (Busbridge & Smith, 2015) to offering educational solutions to these issues. Hence it is recommended that the use of technology be increased in delivering education and training to nurses. Hegney et al. (2007) reported that 93% of remote and very remote nurses use a computer for some aspect of their work, demonstrating that the reach of information technology and computers in the remote nurse workforce is great.

Particular emphasis must be given to two mediums of communication: (1) video-conferencing technologies, and depending on location and circumstances, the incorporation of the most appropriate electronic platform (e.g., stand-alone video conferencing, GoToMeeting, Skype, Movi); and (2) computer-based software packages. There are numerous techniques through which education could be provided. Depending on local

circumstances, the choices range from creating individualised modules or units online, to flexible learning built on an interactive computer platform. These two media need not be mutually exclusive in their application, as a combination of the two could be undertaken, again depending on local circumstances.

The thrust of this recommendation is that technology is the key to delivering continuing mental health education and training. This is aligned with the National Mental Health Commission (2014) report's Recommendation 22: to improve education and training of the health workforce in mental healthcare, and 'supporting appropriate mental health training and professional development of the generalist health workforce and using technology to provide workforce education' (Vol 2, p. 106).

#### ***10.4.3.2 Recommendation 6***

It is clear from the literature review (Chapter 3) that remote nurses desire education in certain mental health topics that is tailored and applicable to their specific needs. Those topics or content are broadly defined as those that are practical to their everyday work (Aoun & Johnson, 2002; Chang et al., 2002). Nurses do not need, nor do they want, education and training about Freudian psychotherapy and theories, Gestalt therapy or principles of transference and counter-transference during counselling. The literature search highlighted topics such as managing violent and aggressive patients, basic drug and alcohol counselling and managing suicidal patients (Ellis & Philip, 2010; Mellor et al., 2012).

This study's recommendation is that the mental health content provided to remote general nurses for education and training be relevant and meet their needs. This recommendation, combined with the first education recommendation (Recommendation 5),



ensures that both the means of delivery and the content of training programmes are packaged to suit the unique demands and challenges of remote general nursing. If these two recommendations were implemented, it would greatly bolster the confidence and sense of self-competency of remote nurses.

Further, this recommendation is in alignment with the Mental Health Commission's (2014) declaration that

workforce education needs to change, so that contemporary evidence-based practice is embedded across the mental health system to provide an effective service system. If generalist [nurses] do not have their mental health literacy and understanding improved, [patients] will turn away from services due to poor or stigmatising experiences. (Vol. 2, p. 128).

#### **10.4.4 Policy**

##### ***10.4.4.1 Recommendation 7***

On 26 November 2015, Prime Minister Malcolm Turnbull and Minister of Health Susan Ley (2015) announced that, arising from the recommendations of the review of Australia's mental health services undertaken by the National Mental Health Commission (2014), a 'stepped care' model of mental healthcare will be introduced. The model will facilitate patients receiving varying levels of primary care treatment and support, depending on their level of need: 'To successfully deliver a stepped care model it must be recognized there are individual needs and challenges that are specific to communities that do not always fit the one-size-fits-all model of service' (Ley, 2015, p. 2). Accordingly, local communities will be serviced through 31 Primary Health Networks throughout Australia. The Primary Health Networks serve as a response to the decentralisation of

healthcare services from Canberra. Their purpose is to be more attuned and aware of local health demands and requirements and to match them with the necessary local health services and resources.

The recommendation of this study is that policy be developed that accounts for remote nurses' practices of delivering mental healthcare within the 'stepped care' model. A further recommendation is to integrate remote mental healthcare as a priority health issue within the remote Primary Health Networks.

#### ***10.4.4.2 Recommendation 8***

Participants reported that a major issue and stressor in their work was workplace violence and aggression; this is consistent with reports from the literature (Hegney et al., 2003; McCullough et al., 2012; Opie et al., 2010). Violent and aggressive mental health patients are often intoxicated by alcohol or drugs, and thus can be irrational and unpredictable. The management of such patients is difficult, largely because of a lack of resources, including adequate infrastructure.

The recommendation is that policy makers and stakeholders in remote mental healthcare should implement policies and measures to ensure that remote nurses are provided with adequate resources to practice and feel safe when attending to such patients. The policies should address a number of issues, including adequate staffing levels, regular and sustained training in managing violent and aggressive patients, and infrastructure designed to maximise the safety and protection of remote nurses.

### **10.5 Limitations of the Study**

All research designs can be examined and discussed in terms of their relative strengths and limitations. This section discusses the strengths and limitations in relation to

the present study. Case study research has inherent limitations surrounding issues of reliability, validity and generalisability. While acknowledging these, the researcher has discussed and addressed these issues earlier in this chapter. Another potential limitation concerns the researcher's role as the primary instrument for data collection and analysis (Guba & Lincoln, 1981). Researcher bias has been discussed and addressed in this chapter.

A limitation of the scope of the study is that mental health patients and significant others (family and friends) were not participants. This does not affect the study's ability to answer its own aims and questions, as the decision was made early in the study not to interview this group of actors. As the only consumers in the social world, they are a potentially rich source of data and alternative perspectives. This fact justifies further research including mental health consumers within its scope.

## **10.6 Strengths of the Study**

A strength of this case study was the involvement of multiple data sources beyond the remote general nurses themselves. It included interviews with health clinicians, non-clinicians, managers and other relevant participants, as well as review of relevant documents. This approach contributes diversity to the data and ensures rich, thick descriptions and analysis of the phenomenon.

A further strength of the study is the thoroughness of the data analysis. The analysis went beyond thematic analysis: post-thematic situational analysis (Clarke, 2005) was utilised to obtain a deeper and richer analysis of the data. This resulted in the progressive creation of three situational maps: a messy map, an ordered/working map and a relational map. Utilising these three maps, the researcher interrogated the data to create the social world/arena map, consistent with Clarke's (2005) situational analysis. Actor-network

theory (Callon, 1986a; Law, 2007; Law & Callon, 1992) was then applied to analyse and explain how the actors and non-human actants within the social world and arenas assisted and coordinated remote general nurses in their delivery of remote mental healthcare. The various data analysis methods culminated in a unique, richer and thorough understanding of the substantive area of enquiry. Arising from the multiple methods of data analysis described above, the researcher consciously ensured that the data and results of each stage were convergent, in an attempt to understand the overall case.

In conclusion, research aims should drive conscious methodological choices, rather than narrow and dogmatic preconceived approaches. As May (2011) stated, ‘the goal for many proponents of case studies ... is to overcome dichotomies between generalizing and particularizing, quantitative and qualitative, deductive and inductive techniques’ (p. 226). As outlined above, ‘there are various advantages to both idiographic and nomothetic single case study analyses—notably the empirically-rich, context-specific, holistic accounts that they have to offer, and their contribution to theory-building’ (Willis, 2014). While the methods used do possess limitations, all research methods involve necessary trade-offs between their strengths and weaknesses.

## **10.7 Role of the Researcher**

Due to the subjective nature of qualitative inquiry, emic and etic perspectives are a significant issue for any researcher in situating themselves in relation to the study. Pike’s (1967) definition of the two terms is that an ‘etic viewpoint studies behaviour as from outside of a particular system’, while an ‘emic viewpoint results from studying behaviour as from inside the system’ (p. 37).

In case studies, it is the researcher who is the instrument of data gathering and analysis and who undertakes deep and prolonged engagement with the case in its context. Stake (1995) called on researchers to consider their role in data gathering and analysis. He emphasised that the researcher's role as 'interpreter' is to examine 'the nature and quality of activities and processes, portraying them in narrative description and interpretive assertion' (p. 96). In such instances, a researcher is immersed in the context of the research, where it is their responsibility to develop an understanding of the issue(s) by spending 'extended time on-site, personally in contact with activities and operations of the case, reflecting, and revising descriptions and meanings of what is going on' (Stake, 2000, p. 442). The subjectivity of the researcher's experience of nursing in remote locations and his interpretations were an inherent part of the research process. Interpretively, the researcher and the participants were inexorably linked in the study design, in both the generation of data and its analysis.

This study acknowledges that the gathering and interpreting of insiders' perspectives (i.e. remote nurses and other participants) enabled a deeper and richer understanding of the world of remote nurses caring for mental health clients than would be available from an outsider's (etic) stance. The justification of the researcher's choice was that 'an emic perspective attempts to capture participants' indigenous meanings of real-world events' (Yin, 2011, p. 11), and 'looks at things through the eyes of members of the culture being studied' (Willis, 2007, p. 100).

As a very experienced remote nurse, the researcher possessed and could draw on a detailed existing understanding and familiarity with the field. This familiarity provided the researcher with a refined understanding of the context that would be absent in an

inexperienced or non-remote nurse researchers. The researcher's familiarity with the written and spoken language of remote nurses enhanced the insider (emic) perspective of the study (Pike, 1967). With such familiarity, understanding the field and practices therein, added a further dimension of research understanding and analysis.

Although an insider due to previous experience, the researcher was very mindful to maintain the appropriate balance between the emic and etic perspectives. For example, the researcher had no direct supervisory or employment relationship with the participants in this study. This distancing between the researcher and the participants permitted what Brewer (2000) refers to as the critical gaze.

While the primary focus was an emic approach, the researcher does recognise that both perspectives are valuable in the study of social behaviour (Patton, 2002). Any variation between emic and etic perspectives is a research opportunity rather than a limitation. Agar (2011) stated that 'etic and emic ... are not separate kinds of understanding when one person makes sense of another. They are both part of any understanding' (p. 39). Accordingly, differences in perspective are in themselves fruitful, as Yin (2011) explained that 'a common theme underlying many qualitative studies is to demonstrate how participants' perspectives may diverge dramatically from those held by outsiders' (p. 13). This is starkly illustrated in Chapter 6, where the low self-perceived levels of knowledge, skills and competencies of remote generalist nurses were compared to the high levels of regard in which they were held by the other actors in the social world.

As the 'interpreter', experiences facilitated connections of understanding, identified areas of importance for closer interrogation, identified issues of divergence between the remote nurses' accounts and illuminated factors of influence (positive and negative) that

affect remote nurses caring for mental health clients. Consequently, the researcher, as the primary analytic instrument, was readily equipped to move recursively and continuously through the data until arriving at theoretical saturation (Lincoln & Guba, 1985) and ‘particularisation of the issue’ (Stake, 1995, p. 8).

Finally, the researcher employed principles of reflexivity to continuously reflect on how his actions, values and perceptions affected the research, including data collection and analysis (Gerrish & Lacey, 2010). Reflexivity assisted the researcher in ‘situating himself’ in relation to the data:

where questions can be asked that not only allow the beginning of understanding experiences in relation to the issues under study, but allows the data to be explored further to how these experiences may relate to a broader context of personal past, present and future selves. (Lambert, Jomeen & McSherry, 2010, p. 322; Savin-Baden, 2004)

## **10.8 Conclusion**

Case study research involves more than simply conducting research on a single individual or situation. This study illustrates that a case study can examine and analyse a complex situation. The research design allowed the researcher not only to answer ‘how’ and ‘why’-type questions, but also to take into consideration how the phenomenon of remote nurses delivering mental healthcare is influenced by the context within which it is situated (the social world and arenas). For the novice researcher, a case study approach was an excellent opportunity to gain tremendous insight into the case. It enabled the researcher to gather and analyse data from a variety of sources, thereby truly illuminating the case (Baxter & Jack, 2008).

This study's findings make a significant contribution to the nursing profession in Australia, and in particular remote nurses. The study has generated new knowledge and understanding of remote nurses and the delivery of mental healthcare. It is the researcher's belief that the dissemination of these findings will make a significant contribution to the health of Australia's remote population through strengthening the quality of remote nursing care.



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## Appendices



**Appendix A: Human Ethics Approval, James Cook University**

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**Appendix B: Low/Negligible Risk Human Research Ethics Application,  
James Cook University**

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**Appendix C: Study Participant Information Sheet**

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**Appendix D: Informed Consent Form**

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## **Appendix E: Example of Semi-Structured Interview Questions (in Support of James Cook University Ethics Amendment Application)**

**(In-depth semi-structured interviews approximately 45–60 minutes)**

1. How long have you worked in a remote location or in remote locations in total?
2. What has it been like for you to work in a remote location?
3. Have you ever received any mental health training, and if so, what type and when?
4. What has been your experience when caring for mental health clients?
5. Who do you seek assistance from, if anyone, when caring for a mental health client?
6. On average how often would you care for a mental health client?
7. Does caring for mental health clients affect you, and if so, in way(s)?