

**Behind barriers: Patients' perceptions of hospital isolation for  
methicillin-resistant *Staphylococcus aureus* (MRSA)**

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Submitted in partial fulfilment of the requirements of the award of  
Master of Advanced Practice (Infection Control and Prevention) with Honours

June 2008

## ABSTRACT

This study explored the experiences of hospitalised patients in methicillin resistant *Staphylococcus aureus* (MRSA) isolation in New Zealand and the meaning that those patients made of those experiences. The research question of this study was ‘What is the lived experience of patients in MRSA isolation?’

An interpretive phenomenological approach was undertaken for this research, informed by the philosophical hermeneutic tenets of Heidegger (1927/1962). Audio-taped, semi-structured interviews were used to collect data from a purposive sample of ten adults who were in MRSA isolation in various wards in a large acute care hospital in central North Island New Zealand. Using thematic methods based on the writings of van Manen (1997), the transcribed texts were then analysed to reveal deep, rich and thick understandings of the experience of MRSA isolation.

Three salient themes emerged from the data. The first—‘being MRSA positive’—summarises the meaning of having an identity of being MRSA positive. This theme is described under four sub-themes of ‘stigma’, ‘emotional effects’, ‘knowledge’, and ‘coping strategies’. The second theme—‘being with others’—is concerned with the effect that being in isolation for MRSA has on interpersonal relations. This theme is further explored under the sub-themes of, ‘socialising’, ‘concern for others’ and ‘staff relations’. ‘Living within four walls’ is the third theme and reveals the significance that the physical environment of the MRSA isolation room has on the experience of MRSA isolation. Within the discussion of these themes, excerpts from the interviews are provided to illuminate the meanings and interpretations made. These themes and sub-themes demonstrate that for the participants, being in MRSA isolation erects

barriers to different aspects of their care in hospital. Thus the overall lived experience of being in MRSA isolation is revealed as ‘behind barriers’ for the participants in this study.

Recommendations are made for nursing practice, which include: respecting the individuality of the patient in MRSA isolation and recognising their unique needs despite uniform MRSA procedures and policies; providing isolated patients with opportunities to have some independence and control over their care; avoiding professional behaviour that may enhance feelings of stigmatisation; implementing infection control measures accurately and consistently; promoting good hand hygiene practice to patients and their visitors; being observant for negative psychological effects of isolation such as anxiety and depression; actively seeking ways to mitigate loneliness in the isolated patient; and ensuring resources permitting that the isolated patient is cared for in a room with a view, an ensuite bathroom and other facilities that will reduce feelings of confinement.

Recommendations for education include: ensuring nursing and other ward staff have adequate training in infection control principles, including hand hygiene and Standard and Additional Precautions; increasing specific MRSA knowledge of staff caring for MRSA isolated patients; and providing education for patients and families that meets their needs for timely, accurate and appropriate information about MRSA.

Further research is suggested, in particular investigating the cultural aspects of being in MRSA isolation and exploring the nurses’ perception of caring for a patient in MRSA isolation.

Furthermore the findings add substantial knowledge to nurses' understanding about what it means to be a patient in MRSA isolation, which have the potential to inform evidence-based practice in this area of nursing.

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## ACKNOWLEDGEMENTS

First I would like to acknowledge the support and encouragement I have received from my family, friends and colleagues. You have all contributed in many different ways and without your help and belief in my abilities, I would not have been able to complete this dissertation.

Special thanks are extended to the people who agreed to participate in this research and who voluntarily shared their experiences and stories that formed the basis of this research.

I also acknowledge financial support from the Waikato District Health Board; the NZNO Nursing, Education and Research Foundation; and the NZNO National Division of Infection Control Nurses.

Finally I would like to thank my supervisors Mr Ramon Shaban and Professor Wendy Moyle and for their encouragement, expert advice and guidance throughout this long journey.

## DEFINITION OF TERMS

The following definitions are provided to ensure uniformity and understanding of these terms throughout the study.

- Additional Precautions:* Precautions required when Standard Precautions might not be sufficient to prevent transmission of infection. These are used for patients known or suspected to be infected or colonised by highly transmissible pathogens that can be transmitted by airborne, droplet or contact transmission (Australian Government Department of Health and Ageing, 2004, p. 505).
- Cohorting of patients:* Grouping of patients with MRSA separately from patients without MRSA. Patients may be placed in single rooms within one area, in a multi-bedded room or in a small ward. In certain settings where it may not be possible to have patients with MRSA separated from those without MRSA (for example, intensive care units), then physical separation within the room should occur (New Zealand Ministry of Health (NZ MOH), 2002, p. 43).
- Colonisation:* The presence of an organism in or on a host that does not cause a specific immune response or infection (NZ MOH, p. 48).
- Isolation:* The separation and confinement of individuals known or suspected (via signs, symptoms or laboratory criteria) to be

infected with a contagious disease to prevent them from transmitting disease to others (Barbera et al., 2001, p. 2712).

- MRSA:* Methicillin-resistant *Staphylococcus aureus*
- MRSA colonisation:* MRSA isolated from skin or wounds without clinical signs and symptoms of infection.
- MRSA infection:* An active infection of MRSA with clinical signs and symptoms of infection usually treated with antibiotics.
- Quarantine:* The compulsory physical separation, including restriction of movement, of populations or groups of healthy people who have been potentially exposed to a contagious disease (Barbera et al., 2001, p. 2712).
- Source isolation:* The placement of a patient in a room or area away from other patients with care provided using Standard and Additional Precautions.

## ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is entirely my own work. This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

Signature: .....

Date: .....

Ruth Barratt

## CHAPTER ONE – INTRODUCTION

### Background

MRSA or methicillin resistant *Staphylococcus aureus*, describes the resistance of the common bacterium *Staphylococcus aureus* to the oxacillin group of antibiotics. The bacterium primarily lives on the skin and can either colonise (asymptomatic skin carriage) or infect both healthy and ill individuals. It is responsible for community-acquired skin and soft tissue infections, as well as potentially serious health-care acquired infections (HAI) in hospitalised patients (French, 2006). Prevalence of community MRSA is increasing globally with reported rates between 0.5% and 6% (Muto et al., 2003). The rate of hospital-acquired MRSA varies around the world. For example, in Holland they report an incidence rate of less than 1% (Kluytmans-Vandenbergh, Kluytmans, & Voss, 2005) while other European countries and much of the USA report a prevalence between 25% to 50% (Graham, Lin, & Larson, 2006; Muto et al., 2003). In Australia, MRSA accounts for up to 25% of all health-care acquired *Staphylococcus aureus* blood stream infections (Collignon, Wilkinson, Gilbert, Grayson, & Whitby, 2006). In New Zealand, the incidence of MRSA has increased from 100 cases per 100,000 of population in 2002 to 191 per 100,000 of the population in 2007 for both MRSA infection and asymptomatic colonisation (Institute of Environmental Science and Research Limited, 2008).

MRSA is now the leading antimicrobial-resistant organism of concern to clinicians worldwide (Eggertson, 2007; MacKenzie et al., 2005) and its control within the health-care environment is an important function of the infection control team (Humphreys, 2007; Scheckler et al., 1998). Recommended prevention and control measures for MRSA transmission in the hospital setting incorporate good hand hygiene practice of health-care

workers (HCWs), the application of Standard and Additional Precautions, the use of isolation rooms and judicious antimicrobial prescribing (Australian Government Department of Health and Ageing, 2004; New Zealand Ministry of Health, 2002). Standard Precautions are those precautions used by HCWs when caring for all patients regardless of their diagnosis and are designed to prevent transmission of infection via blood and body fluids and a contaminated environment. The most important of these measures is good hand hygiene practice but Standard Precautions also include the use of gloves, gowns and facial protection when coming into contact with bodily fluids. Additional Precautions comprise three other categories of measures that are used in addition to Standard Precautions to prevent transmission of infection via the airborne, droplet and contact routes (Coia et al., 2006). Additional Precautions are summarised in Table 1.

**Table 1: Summary of Additional Precautions**

<b>Type of Precautions</b>	<b>Transmission</b>	<b>Personal Protective Equipment</b>	<b>Isolation</b>	<b>Indication</b>
Airborne Precautions	Small airborne respiratory particles	N95 particulate respirator	Negative air pressure isolation room	Infectious Pulmonary TB Measles Chickenpox
Droplet Precautions	Larger respiratory droplets (e.g. from coughing or sneezing)	Surgical mask	Single room or cohorted with others with same diagnosis	Influenza Meningococcal disease
Contact Precautions	Direct or indirect contact with the patient or the environment – primarily via the hands of HCWs	Gloves, aprons/gowns	Risk assessment may indicate single room or cohorting	Scabies Gastroenteritis MRSA

Finally, isolation is primarily an infection control measure whereby patients known or suspected to be infected or colonised with an infectious disease or epidemiologically important micro-organisms are separated and confined in the ward, so that cross-infection is minimised (Siegel et al., 2007). This practice of separating and isolating infectious patients has been used intermittently since the plague epidemics in Europe in the 1300s to contain and control the spread of infectious diseases both in public health and health-care facilities (Gensini, Yacoub & Conti, 2004).

Patients who are diagnosed as being MRSA positive are commonly nursed in isolation with Contact Precautions in place. Either single rooms are used or these patients are cohorted with others in multi-bed rooms, depending on the facilities available. HCWs wear personal protective equipment (PPE)—including a surgical mask—on entering the room, and either dedicated equipment is used for the MRSA patient or equipment is disinfected after use. There are usually restrictions to the patient leaving their room so that they have limited interaction with others. All these measures are designed to prevent the spread of MRSA.

### **Research problem**

Evidence supporting the use of Contact Precautions and isolation in controlling MRSA is well reported (Bissett, 2005; Farr, 2004; van Gemert-Pijnen, Hendrix, van der Palen, & Schellens, 2005); however, the use of Contact Precautions and isolation is not without its drawbacks and raises humanitarian and ethical considerations. It has been reported that patients in isolation for infection control purposes may receive less than optimal care such as exposure to medical error, adverse events, longer hospitalisation and increased morbidity (Saint, Higgins, Nallamotheu, & Chenoweth, 2003; Stelfox, Bates, & Redelmeier, 2003). Anxiety, depression, stress and other psychological effects have also been reported (Denton,

1986; Meehan, Vermeer, & Windsor, 2000; Newton, Constable & Senior, 2001; Wagenvoort, Gelissen, & Timpert, 1997). As a result, some researchers have questioned the necessity for isolation of MRSA patients in specific environments such as rehabilitation wards (Cepeda et al., 2005; Gastmeier, Schwab, Geffers, & Ruden, 2004; Peel, Stolarek, & Elder, 1997; Pike & McLean, 2002). These studies suggest that the negative effects of isolation—such as delays in recovery owing to restrictive access to rehabilitation services—outweigh the risks of transmission of the organism in these specific clinical areas. Recent guidelines for MRSA recognise that these effects may occur and suggest that stringent infection control practices do not compromise the patient’s medical and psychological interests (Australian Government Department of Health and Ageing, 2004; Coia et al., 2006); however, this is an area of care that has attracted little research attention to date.

The cultural needs of isolated patients are also important (Muto et al., 2003). The New Zealand MRSA guidelines make reference to “culturally appropriate information and support” (New Zealand Ministry of Health, 2002, p. 15). The majority of patients admitted to New Zealand hospitals are of Maori or Pacific Island ethnic groups (National Health Committee, 1998). Furthermore, Maori and Pacific Islanders comprises approximately half of patients accessing dialysis services (Collins & Metcalf, 2003), with dialysis treatment being a significant risk factor for acquiring MRSA (Hadley, Karchmer, Russell, McBride, & Freedman, 2007). Within these cultures, socialisation among the *whanau* (extended family) and their own and other *iwi* (tribes) is extremely important. Isolating and restricting the social interaction of a Maori patient with other patients is likely to have negative consequences (Durie, 1998).



HCWs have a professional duty of care to all patients to minimise the spread of MRSA. Equally they have a duty of care to the individual patient to address not only their physical needs but also any psycho-social problems arising from their MRSA isolation. Patients are key informants in the understanding of MRSA isolation and therefore many of the potential effects of isolation need to be addressed from the perspective of patients who are in isolation. To date there is limited research that examines the experience of isolation with respect to MRSA, particularly in the New Zealand context. Much of the existing research in this area has adopted a positivist perspective, with few studies undertaken using a qualitative approach. Qualitative research methods provide insight from the perspective of patients that are richer and thicker, thus enabling different experiences to be described and providing information for individualistic care.

The purpose of this study is to explore the experience of MRSA isolation from the patient's perspective within the New Zealand context.

### **Context**

In line with the chosen methodological approach, this study recognises the importance of context. The existing literature suggests patients in MRSA isolation in the northern hemisphere perceive their experience in a variety of ways. In recent years there has been an increase in the number of patients isolated for MRSA colonisation or infection in New Zealand hospitals (Institute of Environmental Science and Research Limited, 2008); therefore, it is timely to investigate this phenomenon in a local setting. The context in which the study has been undertaken is that of being a MRSA isolated patient in a ward in a large acute care tertiary hospital in New Zealand. The meaning of MRSA isolation for the patient will arise from their interaction with the world as they live it in this context. Local infection

control policies and procedures, the physical environment, and the culture of the ward and hospital staff towards MRSA will all affect the patient's interpretation of MRSA isolation. In addition, the patient's experience will be influenced by the knowledge, understanding, beliefs and culture that they bring with them.

### **Significance and justification for the research**

This study aims to elicit information that will inform nursing care of the patient in MRSA isolation. The findings will be beneficial to clinical hospital staff in their day-to-day activities and to infection control practitioners responsible for MRSA-related policies and procedures.

The research will add to the limited literature relating to the experiences of patients in MRSA isolation as perceived by the patients themselves. The existing literature has traditionally focused on contexts in the northern hemisphere, especially the UK where rates of MRSA are much higher than in New Zealand. Nursing patients in isolation who are positive for MRSA, however, has become a common occurrence in larger New Zealand hospitals, particularly on the North Island (Institute of Environmental Science and Research Limited, 2008).

Under a clinical governance framework (Standards New Zealand, 2000), infection control practitioners must ensure that through their policies and procedures patients receive safe, high-quality care from all involved during their hospital stay and that patients are the main focus of any care provided. MRSA policies and procedures for the care of patients in isolation should include strategies to deal with any negative effects of isolation that a patient may experience.

## **Outline of the dissertation**

The research seeks to explore the lived experience of patients in MRSA isolation in New Zealand. To gain a greater understanding of this phenomenon, qualitative research methods were chosen as the most appropriate, as they are concerned with human experiences. Specifically, an interpretive phenomenological approach was used informed by the hermeneutic philosophical ideas of Heidegger (1927/1962). This approach allows for an exploration of the phenomenon from the patient's perspective and an understanding of the meaning that patients make of their isolation experience. This meaning was interpreted through the reflection on the narratives of the participants, which were transcribed from audiotape into text. Van Manen's (1997) thematic analysis methods were used as a framework for the analysis of the data.

The dissertation is organised into six chapters. This chapter has introduced the study topic and the background to it. The research problem and the context within which it has been undertaken have been explained. The research question and aims have been stated and the chosen methodology justified.

Chapter Two situates the topic within the current literature. It provides an overview of the evolution of isolation procedures as well as a discussion on the experiences and effects of isolation from the patient's perspective. It illustrates the limitations of the existing literature and the importance of this research in examining the lived experience of MRSA isolation.

Chapter Three explains the theoretical framework and methodology used in this study. It includes a discussion on the philosophical tenets that underpin the methods used.

Chapter Four presents the main findings from the research including an overview of the characteristics of the participants. The three main themes to emerge from the data analysis are discussed and a description of the essence of the phenomenon of being in MRSA isolation provided.

The final chapter includes a summary of the findings and a discussion of the themes in relation to the current literature. Recommendations for nursing practice and education along with suggestions for further research are stated. Limitations of the study are acknowledged.

## **Conclusions**

This chapter has provided an overview of the study and a rationale for the chosen methodological approach. The research problem has been discussed and a description of the context in which the research has been undertaken included. The significance and justification for the research has been articulated, as well as an outline of the dissertation structure.

The dissertation now turns to the existing literature. An overview of the evolution of the practice of isolation as well as a discussion about the experiences and effects of isolation from the patient's perspective are outlined next. Furthermore, the limitations of the existing literature and the importance of this research in examining the lived experience of MRSA isolation are explored.

## CHAPTER TWO – LITERATURE REVIEW

### Introduction

This chapter examines the current literature on the experience of patients in isolation. First, the history and evolution of isolation as a strategy to control infection is presented. An overview of isolation guidelines and current MRSA isolation practices is described.

Literature relating to the effects of isolation on patients and their perceptions of the isolation experience is then examined. A critical review of the literature in support of the qualitative methods used for this study is also made.

A computerised literature search of the Medline, CINAHL, PsycInfo and the Cochrane Library databases was undertaken for English language sources of information published between 1990 and 2007. Keywords and terms used included: MRSA, isolation, source isolation, experience, perceptions, phenomenology, psychological effects and patients. Material sourced related to different types of patient isolation, not all of which were associated with infection control—for example, the isolation of the patient in intensive care and seclusion for the mentally ill. The majority of relevant material related to patients in source isolation. The results revealed a paucity of primary research studies specific to the experience of patients in MRSA isolation. Where the findings have been informative and provided insight into the intent of this research, studies have been included that have explored the meaning of isolation from the patient's perspective peripheral to MRSA isolation.

Relevant nursing texts and evidence-based guidelines were also reviewed to identify written guidance for nurses and other clinical staff on the psychological and physical care of patients in MRSA isolation.

## **Isolation for the control of infection**

### *An historical perspective*

Contemporary theories of infection have often influenced the management of people with infectious diseases and the control of epidemics. In ancient times, the belief in black magic was used to ward off the evil of sickness (Ayliffe & English, 2003). One of the oldest ‘scientific’ theories of the spread of epidemics was that of corrupted air that could arise from rotting corpses, organic matters or marshes – the so-called ‘putrid miasmas’ (Ayliffe & English, p. 2). In the Middle Ages, it was the ravages of leprosy and the plague that led to the recognition that contagion was a factor in the spread of these diseases and that infection was a cause of diseases. Thus it was the leper colonies of biblical times that first led to reported accounts of isolating infectious people and their contacts (Ayliffe & English, 2003; Bissett, 2005). During the European plague outbreaks of the 13<sup>th</sup> century, travellers and voyagers arriving at Mediterranean ports from epidemic-diseased places were subjected to forty days isolation before they were allowed to mix with the inhabitants of that town (Barbera et al., 2001). This early use of isolation was called quarantine and arose from the Italian word *quarante*, which means forty – a reference to the forty days of isolation (Gensini et al., 2004).

In as early as the 1700s the spread of infectious disease was being considered in relation to the design of some European hospitals (Wilson, 2006). Although the idea of contagion as a mode of transmission was not yet widely accepted, there was recognition of the importance of good hygiene, ventilation and space for the health of patients and staff. These principles were incorporated into new hospitals in Copenhagen and Vienna. In the Hotel Dieu in Paris, a separate ward for used for smallpox cases (Ayliffe & English, 2003).

By the mid 1800s, the long-held concept of the putrid miasmas was being challenged by higher order scientific ideas for the cause of disease. These included Louis Pasteur's discovery that most infectious diseases are caused by organisms, known as the "germ theory of disease", (Ayliffe & English, 2003, p. 96). As the modes of transmission of infection became better understood, the principles of isolation developed. Isolation wards and infectious diseases hospitals emerged in the early 1900s in both Europe and the Americas (Gammon, 1999a; Garner, 1996). In Australasia, isolation was also adopted as a strategy to control infection with infectious patients nursed in a designated part of a hospital or a purpose-built building (Madsen, 2000). In New Zealand, a sanatorium was built in 1906 near Wellington to house the increasing number of tuberculosis patients (Barber & Towers, 1976). This was followed a few years later by the building of 'The Fever Hospital', another infectious diseases hospital to accommodate the epidemics of scarlet fever, whooping cough and diphtheria. In the Waikato, the hospital at Hamilton had a separate fever ward to house other contagious diseases such as typhoid, influenza and dengue (Wright-St Clair, 1987).

Gradually over the next few decades, infectious patients began to be nursed in 'isolation' within multi-bed wards in general hospitals using nursing procedures collectively known as 'barrier-nursing' (Gammon, 1999a; Madsen, 2000). Staff wore separate gowns, washed their hands with antiseptic solution after cares and disinfected equipment after patient use. Eventually by the late 1960s, the decline in tuberculosis and other infectious diseases in the developed world resulted in the closure or conversion of many isolation hospitals (Garner, 1996; Madsen, 2000).

Today, isolation is implemented when a person has an infection or infectious disease that requires them to be segregated from others to prevent cross-infection to other patients, staff and visitors. This is widely referred to as ‘source isolation’ (Gammon, 1999a).

The word quarantine is still used and refers mainly to a public health measure to control infectious disease outbreaks such as the influenza pandemics of the 20th century. Gostin, Bayer and Fairchild (2003, p. 3231) describe quarantine as “the restriction of the activities of healthy persons exposed to a communicable disease”. In Australia and New Zealand, central government has legislative responsibility for the quarantine of humans (Australian Government Department of Health and Ageing, 2004; Gray, Brunton & Barnett, 2006). A recent example of the use of quarantine was its implementation in Canada and South East Asian countries to control the global outbreak of the highly transmissible infectious disease Severe Acute Respiratory Syndrome (SARS) (Gostin et al., 2003).

### ***Isolation guidelines***

The organisation of infection control and the appointment of specialised infection control teams arose from the pandemics of staphylococcal infections in hospitals in developed countries following the Second World War (Ayliffe & English, 2003). Infection control specialists were responsible for the first isolation guidelines, which were published in the USA and the UK in 1970 and 1978 respectively (Bagshawe, Blowers & Lidwell, 1978; Gammon, 1999a). These guidelines used categories of isolation based primarily on routes of transmission and focused on patient-to-patient transmission. Over the subsequent years, the guidelines have evolved in response to changes in infectious diseases and organisms of significance for infection control. For example in 1985 the risk of HIV transmission to personnel prompted the Center for Disease Control (CDC) in Atlanta, Georgia to introduce



the concept of universal blood and body fluid precautions (Garner, 1996). ‘Universal Precautions’ and ‘Body Substance Isolation’ emphasised applying blood and body fluid precautions universally to all persons irrespective of their presumed infection status and isolating patients with certain diseases spread through the airborne route in single rooms with restrictions for entry. The precautions were primarily designed to prevent occupational infection in HCWs.

In 1996, the CDC isolation guidelines were revised and tailored to reduce the risk of spread of pathogens from patient to patient, or from HCW to patient (Garner, 1996). A two-tier system of precautions was introduced that incorporated Standard Precautions and Transmission-Based Precautions (Additional Precautions). The former recognised that all blood and body fluids were potential carriers of blood-borne infections and other pathogens and the latter were designed to reduce the risk of airborne, droplet, and contact transmission in hospitals. Standard and Additional Precautions are the basis of most infection control policies promoted by infection prevention and control teams in Australasia and the developed world (Australian Government Department of Health and Ageing, 2004; International Federation of Infection Control, 2007; Public Health Agency of Canada, 1999). Additional Precautions incorporate the use of personal protective clothing and equipment for staff and may include the allocation of a single room and the restriction of movement for the patient (source isolation). MRSA is an example of an epidemiologically important bacterium that requires Standard and Additional Precautions (Coia et al., 2006).

Protective isolation is another type of isolation used in health care (Siegel et al., 2007). Previously referred to as ‘reverse barrier-nursing’, this type of isolation is used frequently in the care of adults and children with diseases that subject them to periods of

immunosuppression such as haematological malignancies, cystic fibrosis and some auto-immune diseases (Larson & Nirenberg, 2004). These patients are at risk of serious infections and may be cared for in a single room to minimise their exposure to other patients or visitors with common infectious diseases such as viral respiratory illnesses. In common with source isolation procedures, protective isolation may also include restricted visiting and the use of masks gowns or gloves by staff and visitors who enter the patient's room (Campbell, 1999).

Some of the published infection control isolation guidelines include consideration for the adverse effects of isolation on patients. The CDC guidelines advise that “the use of forced solitude deprives the patient of normal social relationships and may be psychologically harmful, especially to children” (Garner, 1996, p. 61). The Australian infection control guidelines warn that “unnecessarily restrictive isolation procedures or screening programs may be unethical if they infringe individual rights and freedom. For example, the routine screening of patients for nasal carriage of methicillin-sensitive *Staphylococcus aureus* and the confinement of positive patients...” (Australian Government Department of Health and Ageing, 2004, p. 10.3); however, this must be weighed against the risk of spread of serious and epidemiologically important micro-organisms. A UK review of hospital isolation and infection control-related precautions recommended that where isolation is being considered for a patient, disadvantages including psychological effects and other adverse effects must be weighed against the benefits (UK Hospital Isolation Precautions Working Group, 2001).

### ***MRSA isolation practice***

MRSA is a common bacterium (*Staphylococcus aureus*) that may cause serious illness but is resistant to one or more common antibiotics. The limited treatment options available for infections caused by this organism may result in sicker patients, longer hospital stays and

additional health-care costs. Preventing and controlling the increase and spread of MRSA is therefore important and justifies specific guidelines. Owing to the worldwide increase in MRSA and other antibiotic-resistant organisms, there are now national and international specific infection control guidelines available for the management of patients colonised or infected with these organisms (Kluytmans-Vandenbergh, Kluytmans & Vos, 2005; Muto et al., 2003; New Zealand Ministry of Health, 2002; Nicolle, 2001). The transmission of MRSA can occur through contact with infected or colonised patients and their environment; therefore, recommended strategies to prevent the spread of MRSA typically require the use of Standard and Additional Precautions for MRSA positive patients. In New Zealand, both colonised and infected patients are nursed in source isolation with the use of gloves, masks and gowns (New Zealand Ministry of Health, 2002). Patients are usually isolated on their own in a single room but may be cohorted with other MRSA positive patients in a multi-bedded room or in a small ward. Typically in Waikato Hospital there will be up to six inpatients a day in MRSA isolation.

The increase in the use of Additional Precautions and isolation to control MRSA and other antibiotic resistant organisms has led to the recognition of the negative effects of these measures by some experts. Coia et al., (2006, p. S26) recommend that although Additional Precautions—including source isolation—are used for MRSA, “the patient’s medical and psychological welfare should not be compromised by unnecessarily restrictive infection control practices”. In the recent review of the CDC isolation guidelines, Siegel et al. (2007) discuss the findings of some studies demonstrating adverse effects of isolation and Contact Precautions. In an international consensus conference of infection control issues relating to antimicrobial resistance, the following recommendation was made: “[A]ssess the impact of physical barriers on the psychological, cultural, and care needs of the patient...seek

interventions to minimise the negative impacts without increasing the risk of transmission.”

(Global Consensus Conference, 1999, p. 506)

### **The experience of isolation**

A review of the literature has shown that a diversity of experiences is perceived by the patient in source isolation. In addition, some published research on the psychological effects and experience of persons in quarantine during the SARS epidemic or in mental health seclusion may offer insight into the experience of source isolation. SARS is unusual in that both quarantine and isolation measures were used to control this pandemic

For the purpose of this study, the literature has been grouped into several broad themes for discussion. The diversity of literature sources reviewed inevitably results in an overlap of findings between the groups. The main themes discussed are: the psychological effects of isolation, social isolation, communication, quality of care and the physical environment.

### ***Psychological effects of isolation***

In this section of the review I will discuss stress, anxiety and depression as specific psychological effects of isolation. In some of the literature reviewed, the authors have used the term ‘psychological effects of isolation’ to describe a collective range of negative emotions as perceived by patients. These emotions include loneliness, anger, neglect, abandonment, boredom and stigmatisation. Some of these emotions are discussed more fully in the following sections.

Early experiments subjecting humans to absolute isolation conditions provide scientific evidence for the psychological and physiological effects of isolation. Empirical research in

the 1950s showed that healthy subjects undergoing long periods of isolation experienced abnormal perceptions and sensations (Lilly, 1956; Solomon et al., 1957; as cited in Kennedy & Hamilton, 1997). In an early discussion paper on the psychological and physiological effects of isolation, Denton (1986) presented evidence of adverse effects from both experimental and experiential isolation, concluding that the overall response of a patient in isolation is one of stress. Since then, the psychological effects of source isolation have been investigated by a number of researchers using mainly quantitative methods.

Gammon (1998) used a quasi-experimental research design and psychological tests to measure the stressful effects of hospitalisation and compared the results of patients isolated to those who were not. He found that isolated patients demonstrated higher feelings of anxiety and depression, while their self esteem and sense of control was lower. Gammon argued that while hospitalisation resulted in many negative feelings for patients, isolation had an even greater detrimental effect on their coping.

Psychological measurement tools such as The Hospital Anxiety and Depression Scale (HADS) and the Beck Depression Inventory (BDI) have been used by other researchers to measure and analyse a variety of psychological consequences of source isolation (Davies & Rees, 2000; Kennedy & Hamilton, 1997; Tarzi, Kennedy, Stone & Evans, 2001; Ward, 2000). In a cross-sectional control study on a geriatric rehabilitation ward, isolated patients were significantly ( $P < 0.01$ ) more likely to be depressed and anxious than others (Tarzi et al., 2001). In another small study, the depression levels of a sample of 21 patients in source isolation as measured by the HADS tool were found to be significantly higher than in a comparable patient population (Davies & Rees, 2000). Furthermore, both quarantined and isolated persons during the SARS crisis in Canada demonstrated high levels of stress and

depression (Cheng, Wong, Tsang & Wong, 2004; Chua et al., 2004) as measured using quantitative means. Conversely, Kennedy and Hamilton (1997) found that the isolation of MRSA patients with a spinal cord injury did not result in a significant increase in anxiety and depression when a variety of standardised psychological tests were applied. The authors suggest that these patients often have a moderately high level of depression owing to their injury, which may be more significant to them than their isolation experience. Thus the findings of this study may be limited by this specialised population. These empiric studies involving the utilisation of reliable and validated measurement tools provide an important measure of the level of psychological effects of isolation.

Qualitative methods have also determined that patients in source isolation undergo depression, anxiety and stress (Bennett, 1983; Knowles, 1993). In these studies, the trustworthiness of the findings is supported by a rigorous data analysis process, and the use of 'thick' descriptive passages. Using the narrative accounts of two isolated patients, Bennett (1983) concluded that people admitted to hospital experience stress and that source isolation increases the level of this stress. Knowles (1993) explored the experience of eight patients in source isolation for a variety of infection control reasons through in-depth interviews with both the patients and their nurses. Interviews with staff about their patient's perceptions of isolation helped to validate the study findings. It was identified that nurses avoided going into the isolation room of a depressed patient because they felt inadequate to deal with their psychological needs, thus exacerbating the patient's depressive condition. Knowles (1993) identified further research was required to explore the needs of nurses when caring for a patient in isolation who is depressed. More recently, the knowledge deficit of nursing staff during the SARS epidemic in Hong Kong prompted researchers to examine the content of nurse education (Thompson, Lopez, Lee & Twinn, 2004). The authors concluded that the

psychological state of patients and family members was important in clinical practice and merited inclusion in nursing training programs. In his autobiographical account of experiencing TB isolation, Mayho (1999) clearly describes significant psychological consequences of his experience including anxiety and stress. Mayho suggests that nurses can improve the patient's stay in isolation with understanding and hindsight into these psychological effects.

The recent SARS epidemic provides further evidence of fear and anxiety as psychological effects of isolation and quarantine. Informal observations by a core team of HCWs formed the basis of a narrative descriptive study on the psychological effects of isolation and quarantine in Toronto in the early weeks of the SARS crisis (Maunder et al., 2003). Patients who were isolated reported fear and anxiety. Fear was a significant effect of being isolated with SARS in Hong Kong (Tiwari et al., 2003). In this qualitative study, 12 patients in SARS isolation (including four HCWs) described the fear they had for themselves, their family and their carers during semi-structured interviews. Similar findings were elicited by Mok, Chung, Chung and Wong (2005) who used in-depth interviews to explore the perceptions of nurses isolated with SARS infection in Hong Kong. SARS was a novel infectious disease that brought with it a lack of knowledge, uncertainty and a high morbidity and mortality rate. This resulted in a significant level of fear and ignorance among both staff and patients, which may have contributed to the psychological effects of depression, anxiety and stress as described in these studies (Chua et al., 2004).

Patients use different methods to cope with the psychological effects of isolation. Having some control over their isolation experience appears to be a means of coping with the situation for some patients in source isolation (Gammon, 1998; Knowles, 1993). Gammon's

quasi-experimental study used a post test only control group design to assess four psychological concepts of coping ability in patients in source isolation including their sense of control over their health. Results demonstrated that patients who were isolated had significantly lower feelings of sense of control than other hospitalised patients. In a qualitative study of the perceptions of patients in MRSA isolation, patients did not perceive themselves as having control over the course of their infection and isolation stay (Newton et al., 2001), which the authors attributed to a lack of understanding of their illness. Rees, Davies, Birchall and Price (2000) explored the patient's sense of control of their infection in relation to the importance they placed on their care. The results of this audit of 24 patients in source isolation established that the depression of the patient was inversely related to how they perceived the importance of clinical procedures and staff roles. Denton (1986) suggests that some patients cope with the stress of isolation by regressing back to unsociable behaviour. Mayho (1999) corroborates this when he describes his abusive and violent outbursts to nurses as an attempt to control his environment when in isolation for tuberculosis.

Similar coping strategies were reported in research into patients without infection but who were isolated within a mental health facility. Regaining some control of their care and having trust in the staff were found to be coping mechanisms for patients in seclusion (Hoekstra, Lendemeijer & Jansen, 2004; Holmes, Kennedy & Perron, 2004; Meehan et al., 2000). In a study using a phenomenological research design, six mentally ill patients were interviewed about their perceptions of being placed in seclusion (Holmes et al., 2004). Content analysis of their descriptions elicited three themes central to their experience, of which one was how they coped. Anger and defiant behaviour was described by several of the participants as attempts to gain some control over their situation.



Campbell (1999) used grounded theory methodology to explore the feelings of oncology patients being nursed in protective isolation. A theoretical framework was developed from the findings that identified 'coping with the experience' as a key category of that experience. For this group of patients, coping with isolation was made easier by their perceptions of isolation treatment as something they had to go through with as part of their therapy. For these cancer patients, the 'protection' from infection that the physical isolation gave was more important to them than the feelings of being shut in. Patients in protective isolation also have a certain amount of control and choice over their situation, as they are significantly involved in the decision to be isolated. As such, they usually have some prior knowledge of the event and awareness of the benefits (Davies & Rees, 2000; Knowles, 1993; Mayho, 1999). This gives them time to develop coping strategies that can be used to reduce the negative effects of isolation (Campbell, 1999; Gammon, 1999b; Lewis, Gammon & Hosein, 1999; Rees et al., 2000).

For some patients, the regular ward practices may help reduce the psychological effects of isolation. Cassidy (2006) used a hermeneutic phenomenological study to explore the experiences of student nurses caring for patients in source isolation. Findings suggest that ward routines may help to reduce stress and anxiety in isolation. Conversely, some patients found that their single room gave them more freedom from ward routines and thus more control over their own actions without having to consider others (Knowles, 1993; Oldman, 1998).

### *Social isolation*

Patients often prefer the company of others while in hospital (Jolley, 2005); therefore, the social restrictions placed on patients in source isolation—including reduced contact with other patients, fewer visitors and less interaction with staff—may contribute to feelings of loneliness, abandonment and isolation (Adams, 2000; Bennett, 1983; Knowles, 1993; Madeo, 2001; Oldman, 1998; Ward, 2000). Where researchers have explored the meaning of isolation for non-infectious patients, similar themes have emerged (Campbell, 1999; Cava, Fay, Beanlands, McCay & Wignall, 2005; Holmes, et al., 2004; Meehan et al., 2000; Stajduhar et al., 2000).

The majority of findings relating to feelings of social isolation have been elicited from qualitative enquiry. In one study, loneliness and stigma were two of the themes to emerge from the analysis of interviews with five patients in MRSA isolation (Oldman, 1998). Madeo (2001) used a phenomenological study design to explore the lived experience of seven patients in MRSA isolation. Four main categories emerged from the data analysis including perceptions of their room as a prison or hotel and feelings of stigma. Although patients liked having a single room for its quiet and privacy at night, they missed the company of other patients during the day. The value of visitors and social interaction for reducing some of the psychological effects of isolation is a predominant theme in many other studies, both for source and protective isolation (Campbell, 1999; Collins, Upright & Aleksich, 1989; Duff, 2002; Stajduhar et al., 2000; Ward 2000). The day-to-day experience of seven patients in protective isolation who were undergoing bone marrow transplant treatment was explored using a phenomenological approach (Gaskill, Henderson & Fraser, 1997). One of the major themes to emerge from the analysis of the data related to contact with family and staff. In another phenomenological study involving six participants in seclusion, Holmes et al. (2004)

elicited similar findings where patients described the loneliness and lack of contact with others in their narratives.

Interaction with family may also be complicated by fear of passing on infection, thereby exacerbating the social isolation of patients (Criddle & Potter, 2006). Similarly, some patients attributed less contact with others as fear of contagion on the part of staff or visitors (Knowles, 1993; Ward, 2000). Stajduhar et al. (2000) used an interpretive methodology to describe the experiences of patients in isolation following treatment with Iodine-131 therapy for thyroid cancer. The feeling of profound isolation of these patients was one of the most frequent issues to arise during the interviews. Patients described how nurses would be afraid to enter the room, even going as far as sliding the lunch tray in on the floor rather than bringing it in.

For some patients, stigma was a significant part of their isolation experience. As noted previously, Madeo (2001) identified stigma as a common experience of MRSA patients. In his study, patients equated having MRSA as being unclean and the isolation sign on the door as being a symbol of that. Often the word 'leper' has been used by patients in relation to this feeling of stigmatisation (Criddle & Potter, 2006; Newton et al., 2001). The phrase 'microbial leper' has been used to describe the feelings of cystic fibrosis patients isolated for being colonised or infected with *Burkholderia cepacia* (Duff, 2002). This influence of history on our perceptions of isolation today became apparent during the SARS epidemic. The stigmatisation that quarantine brought was a common theme in studies that examined the experience from the patient's perspective (Lee, Chan, Chau, Kwok & Kleinman, 2005; Twu et al., 2003). Furthermore, there are reports of the influence of isolation on staff. For example, HCWs who were quarantined in Canada reported they experienced stigma, fear and

frustration (Robertson, Hershenfield, Grace & Stewart, 2004). Stigma was particularly noticeable in South East Asian countries and extended to Asian patients in Canada and other Western countries who reported stigmatisation and racist reactions in the community, probably because the outbreak was thought to have originated in China (Maunder et al., 2003; Person et al. 2004).

The social isolation and stigma associated with isolation may be aggravated by the use of masks, gowns and gloves. Although many patients in source isolation understood the necessity for this PPE, its use increased their fear and sense of stigma (Bennett, 1983; Knowles, 1993). One patient in MRSA isolation described feeling “unclean” or “dirty” when staff wore aprons and touched them (Madeo, 2001, p. 37). For other patients, the use of PPE gave significant meaning to their understanding of source isolation (Newton et al., 2001). In his autobiographical description of being an isolated tuberculosis patient, Mayho (1999) described how the use of masks prevented him from seeing the true features of the staff and consequently he never saw a smile during his stay. Adams (2000) also recognised that patients in tuberculosis isolation would find the experience particularly difficult as a consequence of not seeing the nurses’ faces because of them wearing masks. Conversely, Collins et al. (1989) found that the use of masks and other protective equipment by staff and visitors did not elicit negative emotions for cancer patients in protective isolation. The small sample size in the Collins study may account for the difference in findings. It could be argued that patients in protective isolation may be more accepting of masks, gloves and gowns as they can rationalise that these measures are there to protect them from infections. This concept is reversed with source isolation where the PPE is there to protect other patients or the staff member.

Despite experiencing social isolation and loneliness, some patients preferred the single room for its privacy (Knowles, 1993; Madeo, 2001; Newton et al., 2001; Rees et al., 2000). This privacy afforded them a quieter environment in which to sleep, space to themselves for reflection, less embarrassment when receiving intimate cares, and more freedom to organise their daily routines. In a recent study, the privacy of a single room was valued by 49% of hospitalised patients (Jolley, 2005). Spinal cord injury patients isolated for MRSA reported that the single room helped their relationships (Kennedy & Hamilton, 1997) while others have found that it gave them freedom from the responsibilities of being around others (Campbell, 1999).

### ***Communication and information provision***

Improving communication between the patient and the HCW can improve the isolation experience. Barriers to communication include the lack of information provision, the use of PPE and the level of knowledge and understanding of reasons for isolation, both in the patient and staff.

Many studies have identified a deficit of information and knowledge about the reasons for isolation as significant factors in the experience of isolation for patients (Barnett, 1992; Criddle & Potter, 2006; Hamour, O'Bichere, Peters & McDonald, 2003; Madeo, 2001; Newton et al., 2001; Rees et al., 2000; Ward, 2000). Some researchers have sought to quantify the level of knowledge and understanding of MRSA by patients using medical audit and questionnaires. One study found that 75% of MRSA patients had received no information when they were admitted to hospital and over half felt that there was not enough available information on MRSA (Duncan & Dealey, 2007). On the other hand, Gill, Kumar, Todd and Wisikin (2006) found that a high number (94%) of patients/visitors surveyed had heard of

MRSA, compared to 44% in a previous study by Hamour and colleagues (2003). All of these studies were undertaken in the UK and the findings may not be transferable to the New Zealand population where MRSA isolation in hospital is less common.

In other research that has used qualitative approaches, patients have identified that information provision and improved communication may reduce anxiety and other negative emotions associated with isolation (Gammon, 1999b; Ward, 2000). Criddle and Potter (2006) sought to investigate the understanding of patients colonised with MRSA and used an interpretive phenomenological approach to explore the significance of being colonised from the patient's perception. They identified four generic themes of this phenomenon including information provision, patient understanding and information needs. In another study using similar methodology, Madeo (2001) suggested that the information given to patients about their MRSA fails to meet all their needs. Conversely, Oldman (1998) describes the five MRSA participants she interviewed as being well informed about the reasons for their isolation.

The use of masks, gowns and gloves can also be a barrier to communication (Bennett, 1983; Mayho, 1999). In a large Canadian survey of hospital staff who had worked during the SARS outbreak, 47% reported difficulty with communication as a result of having to wear masks (Nickell et al. 2004). In another qualitative study, gloves and aprons prevented effective communication (Knowles, 1993).

### ***The physical environment***

The perceptions of patients in source isolation are often influenced by their physical surroundings and environment (Bennett, 1983, Kennedy & Hamilton, 1997; Stajduhar et al.,

2000, Ward, 2000). Spinal cord injury patients isolated for MRSA suggested more space for physiotherapy equipment is needed so that their rehabilitation was not affected. Similarly, the recovery of MRSA patients undergoing rehabilitation in elderly wards may be hampered by the physical constraints of the isolation room (Peel et al., 1997; Pike & McLean, 2002). The lack of physical space in the environment held special meaning for one patient interviewed about their experience of MRSA isolation (Knowles, 1993). For this patient, the ability to walk around the ward was a significant achievement in recovery from a life-threatening illness; therefore, when he was isolated with an MRSA infection he related his restricted physical space to a significant setback to his progress.

Boredom is a common experience of patients in an isolation environment and may be relieved by improving sensory stimuli. Ward (2000) interviewed patients on an isolation unit who had negative feelings of their isolation experience with the aim of eliciting ideas to make the experience more positive. The participants identified the isolation facilities as contributing to their sensory deprivation, thus exacerbating feelings of depression and anxiety. They suggested having more activities available and windows to see what is going on outside of their room. A phenomenological research design was used to underpin the methodology for two studies exploring the patients' perceptions of seclusion (Holmes, et al., 2004; Meehan et al., 2000). For these patients, their boredom and the monotonous surroundings contributed to their negative experience of seclusion. Mayho (1999) found that bringing in personal items from home and a computer helped to occupy his time. Having items within the room that promotes independence, such as a small refrigerator or tea and coffee making facilities, may improve the isolation experience for some patients (Mayho; 1999; Stajduhar et al., 2000). Television, radio and library facilities are also suggested as ways to relieve the boredom and monotony of the day in isolation (Rees et al., 2000; Ward,

2000). Having access to a telephone in the room to speak to friends, visitors or staff was identified as significantly helpful by many patients in source isolation (Oldman, 1998; Rees et al., 2000; Stajduhar et al. 2000; Ward, 2000).

Having ‘a view of the world’ was a sentiment shared by isolated patients (Kennedy & Hamilton, 1997; Knowles, 1993; Oldman, 1998). In Oldman’s study, MRSA isolated patients suggested that the provision of a window on to the ward would help relieve the loneliness of isolation. In the same study, one patient who was moved into an isolation room with a window on to the ward was unaffected by loneliness. Campbell (1999) found that cancer patients interviewed all appreciated having a natural view outside to the harbour or the trees. For these patients, the geographical location of their room was significant as those patients whose room was situated so that they could hear what was going on in the ward felt less lonely, a perception also described by other isolated patients (Bennett, 1983; Ward, 2000).

The physical environment was often seen as a barrier to communication with staff and, therefore, the provision of a call bell was important to these patients (Bennett; 1983; Kennedy & Hamilton; 1997; Oldman, 1998). In one qualitative study, the use of the call bell was a significant part of the isolation experience for some patients who found it distressing to call out to staff when the call bell was not working (Knowles, 1993); however, patients were also reluctant to use the call bell at times in case they appeared to be demanding on the time of the nursing staff (Knowles, 1993; Mayho, 1999).

### ***Quality of care***

Researchers have examined the quality of care received by patients in source isolation. In this era of patient safety and quality care, there is an expectation by the public and governmental



direction that systems are in place in hospitals to minimise adverse events (Ministry of Health, 2000). Placing patients in isolation may expose them to less medical care or access to associated treatment, a higher risk of medical error and dissatisfaction with the quality of their care (Hamour et al., 2003; Kennedy & Hamilton, 1997; Myatt & Langley, 2003; Pike & Mclean, 2002; Rees et al., 2000).

In a prospective cohort study, Saint and colleagues observed that isolated patients were less likely to be examined by medical staff on ward rounds (Saint et al., 2003). This may be due to the increased time required to don PPE and has been attributed in part to a lesser quality of care as perceived by patients in isolation (Knowles, 1993; Saint et al., 2003). In a review of the literature, Kluytmans and van den Broek (2005) determined that although the quality of care was significantly affected by being in MRSA isolation, this did not correlate with a higher morbidity or mortality rate. A quality improvement focus was used to frame a recent study on medical care received by patients in isolation (Stelfox et al., 2003). A retrospective documentation review was employed to examine the safety of isolated patients using quality outcome measures. They found that compared with controls, patients in source isolation experienced more preventable adverse events, and expressed greater dissatisfaction with their care. In this study, patient satisfaction data was limited to an analysis of patient complaint documents. Edwards and Titchen (2003) argue that although most inquiry into patient satisfaction to date has used quantitative methods these are inappropriate and that phenomenological methods are more suitable in yielding insight and details of quality care issues as perceived by the patient.

Phenomenological research designs have explored the patient's perception of the quality of care they received in isolation. Student nurses acknowledged that patients in isolation may

not always receive the same amount of contact (Cassidy, 2006). Patients have felt ‘neglected’ by staff while in isolation describing their experience as “being put in a kennel and left” (Criddle & Potter, 2006, p. 26). Some patients perceived the application of infection control procedures as a measure of quality of care while others were confused and frustrated by the differences among staff in how they applied these precautions (Criddle & Potter, 2006; Knowles, 1993).

### **Summary**

In this chapter, literature relating to the experience of patients in isolation has been examined for information that will inform this study. The sources reviewed represent both the quantitative and qualitative paradigms of research and have been undertaken by different healthcare professions and disciplines. The literature shows that the experience of isolation is variable and multi-factorial.

The practice of isolating persons for the control of infectious disease has evolved over the last 100 years. Yet the stigmatisation and fear of infectious disease from previous times remains an important influence on the perceptions of isolation today. This is evident from the descriptions by patients in source isolation in which the word ‘leper’ is frequently used.

Today, the most common reason for isolating a patient in an Australasian hospital is source isolation for antimicrobial resistant organisms such as MRSA. Guidelines specific to the management of patients with MRSA focus on the use of PPE and isolation and although strong evidence exists for the use of isolation in controlling the spread of MRSA, the quality of care and psychological well being of patients in source isolation may be compromised.

Empirical evidence from the literature demonstrates that isolation often results in negative psychological effects including anxiety, stress and depression. Although not all patients in isolation have a negative experience or undergo adverse psychological effects (Campbell, 1999; Knowles, 1993; Newton et al., 2001), the overall picture is that patients experience isolation in a negative way (Lewis et al., 1999).

Qualitative research methods have been used to further knowledge of what isolation means to the patient and how they make sense of it. The purpose of much of this research has been to improve nursing practice. Patients in source isolation have described a variety of feelings and emotions—both negative and positive—some of which are common to patients in seclusion, protective isolation, and quarantine. These include loneliness, boredom, stigmatisation, confinement, depression, frustration, neglect, privacy and quietness.

Both descriptive and interpretive methods have been used to explore the phenomenon of isolation from the patient's perspective, their lived experience of isolation. Many of the researchers used in-depth interviewing methods which allowed access to the patient's own words and interpretation of their situation. Although the findings of these studies have been unique to the research sample, thematic analysis has generated a number of categories and themes that can help inform this study.

Most authors discussed their findings in relation to informing improved patient care and several suggested ways of doing this—for example, by improving communication and knowledge to patients, and ensuring an optimal physical environment. A good policy for MRSA must place the patient as the central focus and encompass the principles of holistic care (Makoni, 2002). In his paper, Denton (1986, p. 91) calls for a “patient-centred, rather

than organism-centred care plan” so that these effects may be lessened. MacKenzie and Edwards (1997) suggest that when care planning is being undertaken, nurses must take time to listen to MRSA patients and ‘hear’ what they are actually saying. Within this body of literature, it appears that those studies that used qualitative research designs elicited meaningful data about the patient’s experience of isolation that could be used to inform nursing care. Quantitative research has provided grounding for the existence of the problems associated with source isolation but has not elicited detail and rich description of those problems from the patient’s perception. In order to address the patient’s needs, a qualitative approach is more suitable.

The body of literature on MRSA isolation has been undertaken primarily in the UK where rates of MRSA are high compared to Australasia. With the increase in MRSA and other antibiotic-resistant organisms requiring isolation in New Zealand, it is timely to explore the perceptions of patients in MRSA isolation within a New Zealand hospital. The outcomes of such research will help to shape infection control policies and procedures to meet the care needs of this population.

The next chapter will discuss the methodology proposed for the study. This provides the philosophical and theoretical foundations of the research design, research question, data collection, analysis and interpretation.

## CHAPTER THREE – METHODOLOGY

### Introduction

In the previous chapter, a review of the literature presented a framework for the problem under investigation and provided direction towards the study design. This chapter describes the theoretical framework chosen for this study and the philosophical underpinnings of the particular methodological approach used. Koch (1999) defines the term methodology as “the philosophical/theoretical framework and the assumptions that underpin that framework” (p. 21). Methodology is primarily determined by the research question but also importantly the research question may be determined by specific philosophical beliefs on the nature of reality (Annells, 1999).

The aim of this study is to explore the lived experience of MRSA isolation from the perspective of the person who has MRSA and is in hospital isolation, and to interpret this phenomenon so that the findings may inform nursing care. This enquiry lends itself to the naturalistic paradigm in which reality is considered to be multiple constructions of the experiences of participants bound by the subjective context in which they occur (Polit & Beck, 2004). As the study is exploratory in nature, an interpretive phenomenological approach has been used to inform this inquiry. Phenomenological inquiry is concerned with interpreting experience in the context of a person’s life-world. In particular, the ontological hermeneutic philosophy of Martin Heidegger (1889–1979) and the writings of van Manen (1997) have been used to inform the methodology and subsequent interpretation of findings from the study. Research methods that are consistent with the researcher’s own views should be the basis of any enquiry (Koch, 1995) and this chapter illustrates how the philosophical assumptions of Heidegger are consistent with my own ideas.

This chapter comprises five sections. The first section situates the chosen methodology within the naturalistic paradigm of inquiry and provides an argument for using this particular approach. Section two defines and discusses phenomenology as it relates to nursing research and this study in particular; it also describes some of the main philosophical underpinnings of phenomenology as proposed by Husserl and Heidegger and presents a rationale for adopting Heidegger's hermeneutic phenomenological approach to address the research question. Section three describes the methods used to collect and analyse the data. In sections four and five, ethical considerations and questions of rigour are addressed.

## **Paradigm of inquiry**

### ***Qualitative research***

Naturalistic inquiry deals with the complexity of human experience and lends itself to qualitative research methods (Polit & Beck, 2004). Qualitative research is essentially an inductive approach in which theory emerges from investigation (Hoskins & Mariano, 2004). Qualitative methods are used when the aim is to describe, understand and explain a specific phenomenon (Barbour, 2000). Adopting a qualitative research framework is suitable in this study for a number of reasons.

First, the research is primarily an exploratory study seeking to investigate a topic on which there has been little previous research, particularly the context in which it is set. Qualitative research methods allow for an understanding of the human experience in its complexity and contextual situation (Madjar, 2002)—a hallmark of qualitative methods is the importance that is placed on the context impacting on the phenomenon under study (Barbour, 2000). In this study it is the patient's culture, MRSA history and acute hospital setting of New Zealand that

are important to how the phenomenon is experienced. The individual person in isolation for MRSA brings with them their own culture, background and prior understandings so that each will experience the phenomenon in the context of their own life. An understanding of the contextual nature of nursing can influence clinical practice through consideration of the individual patient and how their illness or experience is meaningful to them (Madjar, 2002; Rowe & McAllister, 2002).

Second, qualitative research methods are useful for gaining an insider's view of a human experience—understanding a phenomenon from the patient's point of view (Morse & Field, 1996). The in-depth information yielded can help clarify the many complexities and dimensions of a complicated phenomenon such as the experience of MRSA isolation. The rich description generated from qualitative enquiry enables readers to have an empathic understanding of the world of the participants (Lawlor, 1998). By focusing on the meanings that patients attach to the events that disrupt their lives and their experiences of being ill, a deeper insight into human nature may be gained (Maggs-Rapport, 2000).

### ***Interpretivism***

Within nursing research, various qualitative research methodologies are used, including the interpretive, critical and postmodern traditions. An interpretive approach is fitting for this study, as the nature of the research question seeks to explore, understand and interpret the MRSA isolation phenomena from the patient's experience. Interpretive research methods are increasingly used by nurses to understand the lived experiences of both patients and nurses (Taylor, 1994). This type of methodology sits well within the present climate of nursing where the patient is the focus of service delivery and quality of care. Nursing as a health discipline uses different kinds of knowledge than other health groups – both knowledge

drawn from practice and used to inform practice (Lawler, 1998). The interpretation of a phenomenon can provide meaning and understanding of a situation that can increase the capacity to help patients or enhance the practitioner's own experience and ways of dealing with the situation. Accordingly, an interpretive research process demands the researcher also to be reflective in their practice and find meaning that is relevant to them (Koch, 2006). Reflection is the key to making sense of human experience (Roberts & Taylor, 2002). In this study, a reflection of my own experience and prior knowledge of MRSA isolation will help me interpret the findings and find meaning of the phenomenon.

### **The strategy of inquiry**

#### ***Phenomenology***

Phenomenology is one such interpretive research approach that values the subjectivity of the experience and is designed to provide answers on how people make sense of their experience (Sjostrom & Dahlgren, 2002). It is the humanistic feature of phenomenological research methods that appeals to nurses who are interested in patients' experiences, particularly in relation to the nursing aspects of caring and empathy (Corben, 1999). Benner and Wrubel (1989) suggests that understanding the meaning that an illness has for the patient or the patient's life is a form of healing in itself – an aspect of the wider 'caring' role of nurses. Phenomenology enables nurses to understand the experiences of patients better and, therefore, allows us to act more effectively when dealing with them (Madjar & Walton, 1999)

As a qualitative research methodology, phenomenology is one of the most commonly reported in the nursing literature (Drauker, 1999; Lawler, 1998). One of its attractions is the important role it has in evidence-based nursing practice. Phenomenological research provides a means of exploring human experiences that require an understanding from the individual



patient's perspective in their own life context (Madjar, 2002). Patients are, therefore, also able to provide 'evidence' for best nursing care. This evidence may not always be measurable but should still be studied and understood. Phenomenology provides a useful methodology for nursing research into phenomena that cannot be easily quantified, controlled or compared (O'Brien, 2003, p. 194) but still has the potential for change in practice. Kearney (2001) suggests that qualitative evidence for practice can be used conceptually by nurses who can apply these new insights and understandings of patient experiences cognitively to increase their theoretical understanding of the situation and ultimately an improved approach to care.

The research question in this study explores the meaning and experience of a phenomenon (MRSA isolation) that demands distinctive caring skills from the nurse, yet is unique to each patient. The use of an interpretive approach in the research design will enable the complexity of everyday human lived experiences to be more fully understood than if a purely descriptive approach is used. Interpretation through exploration and reflection on the experience of isolation for MRSA as the patient describes it reveals the meaning that the patient attributes to this phenomenon and generates an understanding of this. The findings may then be used as the basis for practical theory and to inform, support or challenge policy and action (Barbour, 2000).

### ***Philosophical underpinnings***

Phenomenology has been described as "a philosophy, an approach, and a method" (Oiler, 1981 in Koch, 1995, p. 829). It is a qualitative methodology that seeks to expose the meaning and essence of given phenomena focusing on experience as it is lived (Higginbottom, 2004). Phenomenology has its roots in early Greek philosophical concepts and the term is derived

from two Greek words: *phainomenon* meaning ‘appearance’, and *logos* meaning ‘reason’ (Barnett, 2005; Corben, 1999).

Husserl (1859–1938), a German philosopher, is generally acknowledged as the 20<sup>th</sup> century founder of phenomenology (Beech, 1999; Crotty, 1996, Koch, 1995). Husserl’s phenomenology was essentially the study of phenomena as they appear through the consciousness. He saw human beings as subjects in a world of objects and used the word phenomenology to describe the study of consciousness of those objects (O’Brien, 2003). In order to begin to build our knowledge of reality, we must start with an awareness of our consciousness. Fundamental to this approach was the recognition that experience is the meaning of all knowledge. Husserl’s philosophy is epistemological in nature, as he is concerned about asking questions on knowledge gained through conscious awareness.

It was the grounding of knowledge with reality that led Husserl to look at reality itself and go “back to the things themselves” (Crotty, 1996, p. 30). This directing of the mind is a dominant notion of Husserl’s phenomenology and is called intentionality (Koch, 1995). Husserl’s concept of the *life-world* or *world of lived experience* constitutes what is taken for granted and is described as the “ultimate structures of the consciousness (essences)” (Koch, 1995, p. 828). Van Manen (1997, p. 53) explains this life-world as “both the source and the object of phenomenological research”. By isolating and studying these essences, we can describe the human life-world. Thus descriptive psychology was another hallmark of Husserl’s inquiry methods. A third notion central to Husserl’s work is that of *bracketing*. This describes the action on behalf of the researcher where all their preconceptions, experiences, emotions and prejudices of the phenomenon are left aside or ‘bracketed’. In this way, the data generated from the participants will not be contaminated (Koch, 1999). Merriman (2002, p.7)

suggests that this temporary suspension of beliefs will heighten the consciousness of the researcher enabling them to “intuit or see the essence of the phenomenon”. This researcher objectivity and bracketing positions Husserlian phenomenology within the positivist research paradigm (Annells, 1999; Crotty, 1996)

### ***Hermeneutic phenomenology***

Martin Heidegger (1889–1976) was a student of Husserl whose philosophical ideas gave rise to hermeneutics, an interpretive phenomenological approach (Baker, Norton, Young & Ward, 1998; Polit & Beck, 2004). It was Heidegger’s move away from the epistemological stance of Husserl to one of answering ontological questions that gave rise to hermeneutic phenomenology. The word hermeneutics is derived from the Greek verb ‘to interpret’, historically a method used to interpret religious biblical texts (Crotty, 1996). This phenomenological approach not only describes but attempts to understand and interpret the experience of phenomena. Heidegger differed from Husserl in that he chose *Being* or *understanding* over consciousness as the basis for everyday existence of humans. Heidegger used the German word *Dasein* to describe this mode of being belonging to a person and suggested several structures of existence that added a contextual dimension to the way people live in their worlds. Key philosophical concepts within a hermeneutic phenomenological approach are *prejudgements/preconceptions*, *dialogue*, a *hermeneutic circle* and the *fusion of horizons* (Koch, 2006).

According to Heidegger, each encounter is an interpretation based on our background understanding. Heidegger believed in the *historicality* of this understanding—in other words, human understanding is always there before any interpretation of the experience takes place. The history of culture, experience and prior knowledge will determine how the experience is

lived. For those researchers following the Heidegger hermeneutic tradition, tradition and culture will be explored in their understanding of the phenomenon (Crotty, 1997). This philosophical approach lends itself to research about ontological questions of experience and meaning in the practical everyday world of people. The research question in this study aims to find out and interpret what it means to be a patient in MRSA isolation in a New Zealand acute care hospital. As this is an ontological question the ontological perspective of Heidegger's ideas is a fitting approach to take.

This approach also recognises the prejudices of the researcher and acknowledges them as an active participant in the research process. Heidegger diverged from Husserl's philosophy in his beliefs about bracketing. It was Heidegger's belief that it is inevitable that a researcher will bring to the study certain background preconceptions and meanings that will influence the understanding and interpretation of the data. As a nurse for many years, and in particular an experienced infection control nurse, I have brought certain pre-understandings to this study that are difficult—if not impossible—to set aside or bracket. Furthermore, any attempt to bracket my knowledge and experience of MRSA isolation would not be true to my beliefs and could affect the authenticity of the study. Beech (1999) discusses the intentionality of phenomenological research and its relationship to bracketing. He argues that the intention to research a topic is a direction and purpose that cannot be bracketed away. A total suspension of my beliefs may be difficult and there is a risk that I may not recognise when I am using my own presuppositions to influence the data, again influencing authenticity. Similarly, participants would find it difficult to bracket previous experiences (such as prior hospitalisation or illness) that might influence their meaning of the MRSA isolation phenomenon.

Heidegger also describes *Dasein* as being in the hermeneutic circle of a familiar and understood world where understanding has developed from historical, personal and cultural preconceptions. The hermeneutic circle is a metaphor for understanding, referring to the development of understanding between the researcher and participants throughout the research process. This circle is forever changing through the use of language.

Heidegger valued language in his hermeneutic philosophy and describes language, thinking and being as one (Heidegger, 1977, cited in van Manen, 1997, p.38). Heidegger writes, “Language is the house of being. In its home man dwells” (Heidegger 1947/1977 in Darbyshire, 1994, p.860). Within the New Zealand culture, language has its own special significance. In particular, the Maori language is protected as a national *taonga* or treasure. A common phrase used to describe the importance of language is *Ko te reo, te hā, te mauri o te Māoritanga—Language is the very life-breath of being*. In the course of my research, I was aware of respecting the spoken word when undertaking the interviews, especially with those participants who identified as Maori. Language has also been significant in previous studies in this field. Certain historical words and phrases such as ‘leper’ have meaning to those in isolation and may contribute to their interpretation of the experience (Criddle & Potter, 2006).

Gadamer, who was a follower of Heidegger, used the term fusion of horizons as another metaphor for understanding. Understanding of the phenomenon occurs when “the horizon of the researcher intersects with the horizon of the participants” (Walters, 1995, p. 1000)—the researcher is seen as participating actively in the interpretation process of the research.

An important focus for Heidegger was the study of the “practical situatedness of human experience, of understanding the necessary conditions of people being in their worlds” (O’Brien, 2003, p. 194). Benner and Wrubel (1989, p. 80) discusses the importance of the role of the ‘situation’ for patients as they make meaning of their illness through their own involvement in the situation. This notion is particularly applicable to patients in MRSA isolation who are frequently not ill with their MRSA but rather colonised without symptoms. For these patients, their ‘situation’ is not well defined as they have no obvious signs of having MRSA. Accordingly, they may find it difficult to ‘situate’ themselves within the MRSA isolation context and make meaning of their experience.

One of Heidegger’s structures of Being is its capacity for relationships with others (O’Brien, 2003; Taylor, 1994). The phenomenological concept of concern is explored in this study as the very act of isolating a person for MRSA may challenge and restrict their ability to make interpersonal relationships.

### **Methods of inquiry**

The previous section discussed the methodology used for this study and its suitability for the research question. The hermeneutic phenomenological approach chosen is based on the ideas of Heidegger. The methods used to reach an understanding of the phenomenon of being in MRSA isolation must also align with these underlying philosophical beliefs; however, Heidegger did not describe a method of interpretation (Draper, 1995). Lawler (1998) suggests that many researchers using a hermeneutic phenomenology have difficulty with the transition from philosophy and methodology to design and selection of data collection methods. In keeping with Heideggerian concepts, I have used the analysis of talk as the basis of my research design, using semi-structured interviews with the participants to acquire data.

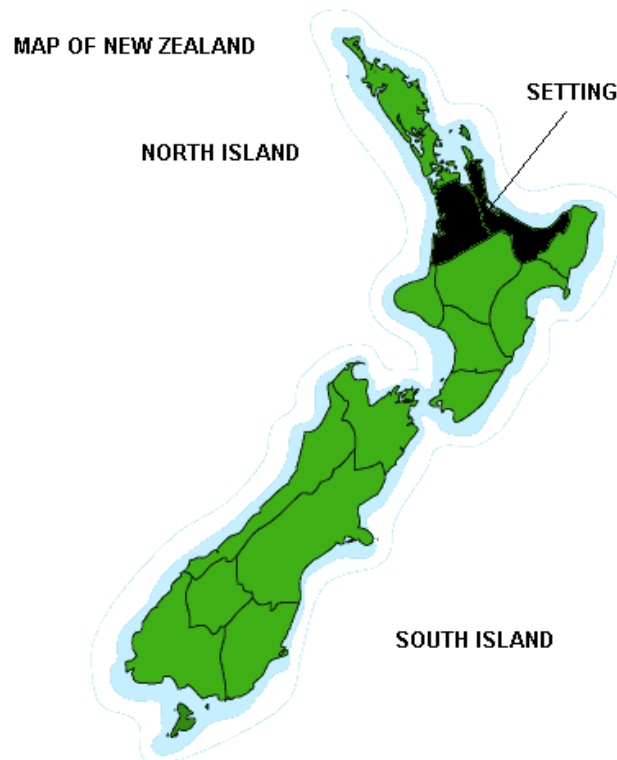
Through the analysis of discourse, I intend to interpret the essence of the lived experience of MRSA isolation. Language is a fundamental notion of Heidegger's 'Being' and is described by Lafont as: "[T]he world is always intersubjectively shared because it is *linguistically articulated*. It is by virtue of sharing a natural language that Dasein can share the *same* world with other." (Lafont, 2005, p. 273)

The following section describes the process by which participants were selected, the data collection methods and the analysis of the data.

### ***Setting***

The research was undertaken in a large public hospital in the central North Island of New Zealand. The hospital is one of the largest acute care facilities in New Zealand with approximately 800 beds servicing a population of about 350,000. It is also a regional referral centre providing tertiary-level care in a number of clinical specialities for about 800,000 people (see Figure 1). Overall, the hospital facilities are dated, with most wards having multi-bed rooms and a few single rooms. Patient acuity and occupancy levels are usually high. There is a dedicated infection control team that oversees infection control policies and procedures including the management of patients in MRSA isolation.

**Figure 1: Map showing the region of New Zealand for location of the research setting**



This hospital setting was appropriate as I worked there and knew the setting intimately. A prior knowledge of the setting allows the researcher to determine the feasibility of the study design for that setting (Morse & Field, 1996). I made a conscious decision to interview participants while in hospital in isolation rather than after discharge as I wished to gain an understanding of the phenomenon as they were experiencing it at the time. Access to the setting was initially sought from the hospital manager as part of the ethics approval process for the locality. I then made contact with potential gatekeepers at ward/clinical unit level through an information mail out and face-to-face conversation. In qualitative research, the term *gatekeeper* is often attributed to those people who have the power to withhold or grant access to the setting (Higginbottom, 2004). In this research study, the Clinical Nurse Manager



(CNM) was regarded as the principal gatekeeper at ward level providing access to the participants. I also informed the clinical directors and nurse specialists on the wards.

The location also presented the greatest opportunity for recruiting suitable participants because of its size and patient acuity. Each week there are on average five patients in isolation for MRSA in this particular hospital. The hospital does not have a dedicated isolation unit but patients who are identified as requiring MRSA isolation are placed in single rooms within the ward or unit where they have been admitted. Signage on the door indicates their isolation status. Patients are only moved out of their ward if there is a lack of rooms suitable for isolation on that ward. One of the participants attended the renal dialysis unit three times a week for treatment and was cared for in an isolation bay of two beds within the dialysis unit. This participant was interviewed in a private room away from the treatment area following her dialysis. With the above exception, all participants in this study were in isolation in single rooms and were interviewed while inpatients in their hospital rooms.

### *Sample*

The participants for this study comprised a purposive sample of ten patients in the hospital who were in MRSA isolation. Qualitative research methods often use small sample sizes with an emphasis on the depth of information rather than the breadth of data (Hoskins & Mariano, 2004). The aim is to obtain in-depth, information-rich data that can help explore in detail a phenomenon, group or person rather than trying to generalise to larger populations (Tuckett, 2004). The sample size is usually determined by the information needed and when data saturation is achieved; therefore, sampling continues until no new information is obtained and redundancy occurs (Polit & Beck, 2004). Previous researchers using similar methods to

investigate the experience of MRSA isolation have used sample sizes of between 5 and 19 (Newton et al., 2001; Oldman, 1998; Ward, 2000)

In this study, purposive sampling was used to identify participants who could provide rich information that would illuminate the research question. Patients with a knowledge and experience of being in MRSA isolation were selected for interview.

The following inclusion criteria were used; participants:

- were 18 years of age or older
- were able to give informed consent
- had been in MRSA isolation for at least three days
- were able and willing to give an authentic and rich account of their experience.

Potential participants who met the inclusion criteria were identified through a daily listing of inpatients with MRSA. This is an established electronically generated report for the infection control team in the hospital. As a member of that team, I had professional access to this report. On reviewing the list and selecting suitable patients, I visited the ward of a potential participant and approached the CNM. The CNM was able to advise on the suitability of a potential participant in relation to their health and cognitive ability to undertake an in-depth interview. Suitable patients were visited by the CNM and a brief explanation of the study and participant's role was outlined. The CNM left the participant information sheet with the patient and asked the patient to inform the CNM if they wished to participate in the study. The CNM informed me of potential participants who had expressed an interest in participating and I then visited these patients to discuss the study and seek informed consent.

Over the data collection period, a total of 14 patients were approached and invited to participate in the study and 10 were subsequently interviewed. The reasons for non-participation by four patients were early discharge, they felt too unwell to participate and believed that they had nothing to offer the study. In practice, a large number of the patients in isolation for MRSA did not meet the inclusion criteria as either they were deemed to be cognitively impaired and therefore unable to provide informed consent, or their hospital stay in isolation was less than three days.

Maximum variation sampling was used in line with the purpose of the study by providing variety in the differing experiences of the phenomenon under investigation (Holloway & Wheeler, 2002). Variation within the sample was achieved by selecting both older and younger persons, those with previous MRSA isolation experience and individuals who identify with Maori and non-Maori cultures. Using this sampling technique, any common themes, core experiences or shared views emerging across this variation will have particular interest and value.

The selection of a heterogeneous sample was based on my own practical knowledge, the published literature and the evidence from the study itself as it progressed. Data analysis occurred concurrently with data collection so that interviews continued until I was confident that data saturation had been achieved and there were no new themes emerging from the interviews. Time constraints within this study meant that I was, however, unable to recruit more than two participants who identified as Maori. As a result, the data collected on the cultural issues associated with isolation for MRSA is limited.

### *Data collection*

The qualitative paradigm lends itself to methods that gather individual and variable data, often using in-depth interviews, observation or narrative methods. In this study, the primary method of data collection was a semi-structured in-depth interview with each participant. In addition, I took field notes during the interviews. This method is congruent with the underlying philosophical approach chosen for the study as it allows for access to the participants' subjective experiences and a comprehensive exploration and interpretation of these experiences (Cormack, 2000). In hermeneutic phenomenological research, the interview can be a means for exploring and gathering narrative material on a human phenomenon in which concealed meanings can be interpreted by the researcher to develop a deeper understanding of the phenomenon (Clarke & Ipohfen, 2006). Within hermeneutic enquiry, the researcher actively contributes to the interpretation process and meanings emerge as the researcher and participants engage in dialogue. The face-to-face interview used in this study allowed for that dialogue to be achieved.

There is a close association between language and human experience – experiences can be recalled and reflected on using language. Van Manen (1997, p. 38) states that “lived experience is soaked through with language”. A qualitative interview design is flexible and iterative; thus the collection of the narrative data suits the adaptability and responsiveness of the human instrument (Babbie, 2006; Polit & Beck, 2004)

A qualitative interview is an interaction between the interviewer and informant in which a general line of inquiry is pursued but without using a predetermined set of worded questions in a particular order (Babbie, 2006). In essence, it is more like a conversation between the interviewer and informant in which the informant does most of the talking and specific

relevant topics raised by them are pursued by the interviewer (Minichiello et al., 1999; Sjostrom & Dahlgren, 2002). The purpose of the interview is to enable the participant to portray a clear, detail-rich picture of their lived experience including the context that helped frame that experience.

As the sole researcher in this study, I was the primary tool for data collection and undertook all of the interviews myself. I was aware that the participants would identify me as an infection control nurse specialist, both from the information about the study that they received and in a few cases from previous clinical contact. As such, I was mindful that the participants may want to use the interview to talk about their MRSA status and clinical details. This may be an important contextual part of the MRSA experience for them and, therefore, in keeping with the underlying philosophical tenants of the study and my own beliefs I did not attempt to bracket my pre-understandings of MRSA isolation but used my experiences to interpret the dialogue and elicit rich descriptive data; however, as far as possible during the interviews, I put aside my infection control nurse role and undertook the role of an objective interviewer. At the start of the interviews I explained my two roles to participants and that during the interviews I would be identifying as a nurse researcher to the participants. I also explained that I would be happy to discuss any clinical issues of MRSA with them at the end of the interview if they wished. During the interviews, some of the participants asked for an explanation of some aspect of their MRSA experience and, in general, I deferred my response until after the interview had finished. I found this part of the data collection difficult as the opportunity for clarification and reassurance had to be passed and explanation deferred until a less opportune time. On several occasions, my infection control nurse specialist role took over and I gave an explanation at that time. Borbasi (1994)

identified a similar conflict between her nurse and researcher roles when undertaking research in the field exploring the life-world of clinical nurse specialists.

The interviews lasted between 20 to 30 minutes. I was aware that frail or older participants might tire easily if interviews lasted a long time and, based on previous research in this field, I had anticipated and planned for interviews to be around this length of time. This amount of time was found to be adequate for most participants to talk about their experience of MRSA isolation and what this means for them. Undertaking research in the field presented some practical difficulties. In the busy clinical areas it was not always easy to find a suitable time for privacy when participants were not due to receive medical care or visitors. I negotiated a suitable time with participants prior to interview and ensured that this was also going to be acceptable by the CNM. I was always punctual for interviews yet included flexibility in my time to allow for delays in starting the interviews.

Prior to the start of the interview, participants were given the opportunity to ask questions about the study before signing the consent form agreeing to take part. I arranged the seating according to participants' wishes and put the audiotape recorder in a visually unobtrusive place if possible. All interviews were recorded on audiotape and this process was reiterated to participants. As examined previously, the spoken word has significance for Maori people and it was important to discuss permission to audiotape the interviews of Maori participants with them in relation to this aspect of their culture. I used the opportunity of this preliminary preparation time to establish rapport with the informant by chatting informally with them. Developing a relationship of trust and rapport with participants is an important part of qualitative interviews as it can influence what and how much is disclosed (Clarke, 2006).

The in-depth interviews took a semi-structured approach as they were designed to generate subjective, richly descriptive responses from informants. Participants had the freedom to explain their experience in their own words and I tried to keep a conversational tone during the interview. A conversational approach is suitable for answering the sort of research question posed in this study (Minichiello et al., 1999). I started the interview by asking each participant to describe the experience of being in MRSA isolation. This type of descriptive questioning is often used to start qualitative interviews as it enables informants to place their own interpretation on the experience in the process of describing it (Minichiello et al., 1999); however, questions were posed when it was necessary to keep the focus on the main themes of the topic or elicit greater detailed information from an informant's response. A list of questions and issues to be explored was used as an interview guide to keep the interview focused on the research question.

With some informants, I found it difficult to elicit rich descriptive data as they did not readily engage in conversational dialogue. Reasons for this may include the informant not understanding the question or being unsure of the type of comment or details that I was looking for. In a few cases, I was aided by the CNM who directed me to patients who were 'chatty' or had already made comment about their isolation experience to the staff. As a novice researcher in qualitative methods, I brought to this study a certain naivety and lack of practical expertise. This may also have resulted in researcher bias influencing the questions asked or the interpretation of the comments in earlier interviews (Corben, 1999). On listening to the earlier audiotapes of the interviews, I recognised some of these issues and actively sought to improve with subsequent interviews.

### *Data analysis*

Data analysis was undertaken using a process adapted from the methodological structure described by van Manen (1997) incorporating key philosophical concepts of hermeneutic phenomenology. Van Manen describes four fundamental existential themes that pervade the life-worlds of all human beings that I used as a guide for reflection and interpretation of the data (p. 101). Our life-world is our world of lived experience and the essential themes of *corporeality*, *temporality*, *spaciality* and *relationality* are basic structures of the experience of all the participants, regardless of their background. For example, within this study *spaciality* or ‘lived space’ manifested itself as the felt space of the confines of the MRSA isolation environment and the emotions and feelings that this space rendered for the participants.

The aim of hermeneutic phenomenological enquiry is to extract and understand the meaning of a lived experience through reflection on that experience; therefore, the researcher is required to become involved with the experience of the phenomenon as described by participants by reflecting on the experience in a thoughtful and questioning manner. Reflecting on the experience of MRSA isolation involved a thematic analysis process whereby the structures of the experiences were understood. Initially, each interview was individually analysed for meaningful words, phrases and sentences and a brief summary was made of each one. Common meanings that were linked were then grouped into themes. These themes were developed over time through reflection and re-reading the text. Further analysis and interpretation continued until the essence of experiencing MRSA isolation was elicited. Within this interpretative process, the researcher must move between significant parts of the text and the whole of the text, depicted as entering the hermeneutic circle (van Manen, 1997). Crotty (1996) explains the hermeneutic circle as “to understand the whole through grasping its parts, and comprehend the meaning of parts through divining the whole” (p. 92). By



immersing myself in the text and through a process of interpretation and understanding, I was able to elicit a meaning of the phenomenon. My interpretations of the text and the meanings that I uncovered were influenced by my pre-understandings and background as an experienced infection control nurse. The meaning derived from the analysis of the data was, therefore, the blending of my sphere of understanding with the interpretations of the experience as made by the participants, an understanding made through a fusion of horizons (Koch, 1999).

Analysis commenced with the first interview. A qualitative interview is flexible and iterative so that the analysis of information gathered from previous conversation can be used to influence the content of the next (Merriam, 2002). In keeping with these methods, I analysed the data from each interview prior to undertaking the next one. Thus any new interpretation of the experience of MRSA isolation revealed in one interview could be explored in subsequent dialogue. An example from this study was that one of the participants talked about the meaning of the isolation signage on the door of her room. She was not able to see the sign but was aware of it from comments by friends and family. The significance of signage for isolation was consequently examined in other interviews.

Data was transcribed verbatim from the audio tapes by a medical typist. I was fortunate to obtain a grant towards this cost as I would not have been able to undertake this task myself in the timeframe allocated; however, I did listen to the audiotaped interviews and revised the transcriptions when necessary to include any corrections, significant pauses and field notes. I found that listening to the dialogue helped in my interpretation of the meaning of the experience as I was able to pick up the pauses, silences and general tone of voice of the participants.

### **Ethical considerations**

It is necessary to seek and obtain ethics approval from relevant bodies prior to commencing any fieldwork so that ethical principles are abided by when undertaking research on humans. These principles are standards of conduct and moral judgement that the researcher must consider and include the principle of beneficence (or non-maleficence), respect for human dignity, and the principle of justice (Roberts & Taylor, 2002).

I was aware and abided by these principles throughout the study. I sought and obtained ethical approval from Griffith's University's Human Research Ethics Committee and the regional New Zealand Health and Disability Ethics Committee. I also obtained the required approval for my research from the participating hospital's Maori Health Kaumatua Kaunihera Ethics Sub-committee. Discussions with this committee were very informative in relation to the cultural considerations for my interviews with Maori participants. In his discussion on research involving Maori participants, Bishop (2005) suggests that traditional research processes have resulted in a misrepresentation of Maori experiences that has denied the authentic Maori voice being heard. Subsequently meanings of the lived experiences of Maori have been determined by researchers using an outsider's perspective. As a consequence, Maori now have concerns relating to benefits, representation, legitimacy and accountability of research that is situated within a western cultural framework. I was mindful of these concerns when considering the ethical implications of my study and sought guidance from the Kaumatua Kaunihera Ethics Sub-committee.

Although I intended that the outcome of my research would benefit patients, I also adhered to the *principle of beneficence* by considering the potential for harm to participants, specifically

any physical, emotional or social harm arising out of the interview process. In the first instance, I went through the CNM to ensure that potential participants were physically and psychologically well enough to participate. During two of the interviews, I noted that the participants were becoming tired and although both were keen to take part in my study I tried to keep our conversation as focused as possible in order to keep the interview as short as possible. I was also aware that a participant might find the interview upsetting if their experience of MRSA isolation was particularly distressing for them and made provision for formal counselling to be available in this eventuality. None of the participants showed any signs of emotional distress so this was not required. To avoid any social harm arising out of interference with the participant's family relationships, I assured participants that they could have a family member present during the interview. This is an important ethical consideration in Maori culture where the *whanau* (family) play an integral part in the care of a patient. During one of the interviews with a Maori participant, his teenage granddaughter was present in the room although she did not enter into any dialogue.

Under the *principle of respect for human dignity*, participants had the right to determine their own actions through a rigorous and robust informed consent process. Initially, the study was introduced by a third person (the CNM) to ensure the patient would not feeling pressured into participating. An information sheet written in plain language was given to them to read at their leisure (see Appendix 1). If the patient indicated to the CNM a willingness to participate, I visited them and went through all the information again including the consent form (see Appendix 2).

The *principle of justice* was upheld by treating the participants fairly and with respect throughout the research process. In addition to the cultural considerations previously

discussed, participants were given contact numbers for access to research information and were offered a copy of the report when it was finished. Anonymity is an important aspect of this principle and this was achieved through the use of non-identifying codes instead of participants' names and the secure storage of all tapes and transcripts as per the Ethics Committee requirements. Any identifying data in the quotations used was removed prior to being used within this dissertation.

### **Rigour and trustworthiness**

In qualitative research, the rigour and trustworthiness of the study is addressed differently from issues of validity and reliability as found in quantitative approaches. There is much discussion and debate in the literature concerning appropriate criteria for evaluating rigour in qualitative research (Koch, 2006; Rolfe, 2006). Despite no clear consensus on this issue, the quality of research is frequently measured using the concepts of dependability, credibility, transferability and confirmability (Burns & Grove, 2003; Koch, 2006). Throughout my study, I have endeavoured to ensure that my data is trustworthy and authentic by undertaking the research process in a truthful, thorough manner while remaining true to the research question. I have attempted to conduct the research in a manner that allows me to engage in and be influenced by the viewpoints of the participants so that our social, historical and ideological horizons are fused in making the data.

Self awareness of the researcher is in keeping with a hermeneutic approach (Koch, 2006) and is critical to the credibility of a study. In order to make plain how I am situated within the study, the following paragraph describes my own role in the research. I also kept a reflective journal of the journey of my experience during the research study. These methods help increase the confirmability of the findings.

O'Brien (2003) suggests that the researcher brings "an attitude of care" to the study (p.197). As a nurse of more than twenty five years and an experienced infection control nurse of ten years, I identified an aspect of patient care that I believed could be improved and that required further study. In my infection control nurse specialist role, I am responsible for ensuring adherence to isolation policies but I have been acutely aware at times that some patients may suffer psychologically from being placed in isolation. These observations and assumptions are made on the basis of my visits to patients to explain their MRSA status, conversations with clinical staff, informal observation on wards and previous research reports I have read as part of my job. At times, I have had to struggle with the ethical dilemma of how to provide a safe environment for other patients in the ward while maintaining a duty of care to the individual MRSA patient. Thus, my interest in the research question is itself part of the interpretive process of understanding as it brings with it a preliminary perception of the issue. As stated previously, Heidegger refuted Husserl's notion of bracketing and suggested that the hermeneutic circle of background, co-constitution and pre-understanding ensures the interpreter (researcher) participates in making the data. I have previously discussed the influences of my pre-understandings in the interview process.

In phenomenological research, credibility or truth value is frequently demonstrated by verification of the possible meaning within the data by participants and others (Corben, 1999). This involves returning the data to participants for checking (member validation). In this study, transcripts were not returned to the participants as in most cases this was not practical because of their discharge from hospital or the participant had since died; however, I did share some of my findings and interpretations with a group of my peers in an education meeting. The subsequent discussion revealed that several infection control nurses had

observed or experienced similar stories and their interpretations helped to corroborate the credibility of my findings. In addition, in the findings chapter I have used rich descriptive vocabulary to portray the multiple realities and perspectives of the participants.

The discussion with my peers also suggested that there was some transferability of the findings within the New Zealand acute healthcare context as they were able to relate closely to the descriptions from their own experience; however, as qualitative research emphasises the uniqueness of the human situation, it is expected that there will be variation in the experiences of participants and, therefore, the data may not be able to be generalised to other similar settings (Corben, 1999). The applicability of qualitative research findings to other settings is another issue of rigour commonly debated in the literature (Sjostrom & Dahlgren, 2002).

The dependability of this study is demonstrated through my description of events, influences on my research and any actions taken. The reader can audit the research process by following my trail of information on the decisions I have made regarding my choice of research methodology, methods of data collection and analysis and interpretation of data (Koch 2006; Sandelowski, 1986).

## **Conclusion**

In this chapter, the methodology used to underpin the study has been discussed. I have presented firm arguments as to why a hermeneutic phenomenological approach based on the philosophical assumptions of Heidegger is relevant for the research question. Appropriate methods for analysing and interpreting the data using the writings of van Manen (1997) have

been described. Finally, issues of rigour and ethical considerations have been addressed. The following chapter presents the main findings of the study.

## CHAPTER FOUR – FINDINGS

### Introduction

Using hermeneutic phenomenological enquiry methods, this research set out to find meaning and understanding from the participants' perspective of the experience of being in isolation for MRSA within the context of an acute care hospital in New Zealand. This chapter presents the main findings that emerged from the study.

Throughout the study, I found that the philosophical ideas of Heidegger and van Manen (1997) provided an appropriate framework for my interpretation of the data. As the themes emerged, the importance of these notions to the lived experience of the participants became clear. One of the most noticeable examples was Heidegger's notion of *forestructure of understanding* (Lafont, 2005). This notion relates to the pre-understandings that the participants brought with them, and how their background and prior experience helped to situate their interpretation of being in MRSA isolation. Table 2 illustrates the diversity in the background of the participants as shown in the variation in their age, previous isolation history and underlying clinical diagnosis. Heidegger distinguishes three elements of this notion of pre-understandings: (a) *fore-having*, which refers to having a practical familiarity with things; (b) *fore-sight*, which refers to a particular perspective on things or point of view; and (c) *fore-conception*, which refers to an expectation on what to anticipate in situations (Baker et al., 1998). For example, those participants who had prior experience of being in MRSA isolation brought with them a different fore-having or know-how of the experience than those who were placed for the first time in to isolation during this admission.

Throughout this chapter, there are clear examples of where the participant's forestructure of



understanding has influenced the meaning they have placed on their MRSA isolation experience.

The findings also reinforce the significance of van Manen's (1997) four life-world existentials—*corporeality, temporality, spaciality and relationality*—as discussed in chapter three. Reference is made to each of these existentials within the themes discussed in this chapter.

The chapter is divided into two sections. The first section presents an overview of the participants in relation to their demographic and MRSA details. These personal characteristics reveal a diversity and variety in background, culture, and health-care-related circumstances. To protect the anonymity of the participants, pseudonyms have been used.

The second section of this chapter discusses the three major themes that emerged from thematic analysis of the data. These themes reflect the way the participants understood and interpreted their experience of being isolated for MRSA. Although the themes are considered individually, the meanings and interpretations within are often interrelated with each other. Each theme is explored under a number of related sub-themes.

### **Participants**

Purposive sampling resulted in a variety of participants with respect to their demographics, culture, clinical diagnosis, history of previous isolation for MRSA, current length of time in isolation and type of hospital ward in which they were being nursed. This information is summarised in Table 2. Nine of the participants were nursed in single room isolation and the

tenth was cohorted with another MRSA patient in a two-bed room in the outpatient dialysis unit three times a week.

**Table 2: Participant demographic data and MRSA history**

Participant	Gender/ Age	Reason for Admission	Type of Ward	MRSA – Infection/ Colonisation	Isolation History	
					Previous	Current
<i>A (Anne)</i>	F / 74	Cellulitis	Orthopaedic	Infection	Yes	14 days
<i>B (Barbara)</i>	F / 69	Cellulitis	Surgical	Infection	Yes	17 days
<i>C (Charles)</i>	M / 78	Non-healing leg ulcer	Vascular surgery	Colonisation	Yes	3 days
<i>D (Diane)</i>	F / 46	Malignancy	Oncology	Colonisation	No	5 days
<i>E (Eileen)</i>	F / 66	Renal failure	Outpatient dialysis unit	Colonisation	Yes	3x a week
<i>F (Fred)</i>	M / 78	Bowel investigations	Medical	Colonisation	No	7 days
<i>G (George)</i>	M / 49	35% burns	Plastics	Colonisation	No	6 days
<i>H (Harry)</i> <i>(Maori)</i>	M / 49	Cellulitis, anal abscess	Medical	Infection	Yes	3 days
<i>I (Ivan)</i> <i>(Maori)</i>	M / 54	Bacteraemia, leukaemia	Haematology	Infection	Yes	7 days
<i>J (Joan)</i>	F / 72	CVA	Rehabilitation	Colonisation	No	21 days

## Themes

The experience of being in isolation for MRSA is multi-factorial and complex, impacting on different aspects of day-to-day living within the hospital environment. Van Manen (1997) proposes that the phenomenon be interpreted through reflection on the structures of this experience, by determining the themes of this phenomenological meaning. In this study,

thematic analysis and interpretation of the data revealed three key themes of the lived experience of being in MRSA isolation. These themes were separated into sub-themes that provide a means of describing and illuminating the participants' meaning of their experience (O'Brien, 2003). The themes and sub-themes are summarised in Table 3.

**Table 3: Themes and sub-themes of the lived experience of being in MRSA isolation**

Themes	Sub-themes
Being MRSA positive	<ul style="list-style-type: none"> <li>• Stigma</li> <li>• Emotional effects</li> <li>• Knowledge</li> <li>• Coping</li> </ul>
Being with others	<ul style="list-style-type: none"> <li>• Socialising</li> <li>• Concern for others</li> <li>• Staff relations</li> </ul>
Living within four walls	<ul style="list-style-type: none"> <li>• Imprisonment</li> <li>• A room with a view</li> <li>• Passing the time</li> </ul>

### ***Being MRSA positive***

This theme is fundamental to the lived experience of MRSA isolation as it encapsulates the meaning of having an identity of being MRSA positive. Being MRSA positive in the medical sense is when the patient has been found to be colonised or infected with the bacterium MRSA. This information typically results in the implementation of a number of policy-based practices and procedures, including isolating the patient with appropriate precautions in place. Identifying tags may be used in the patient's records to alert HCWs to their MRSA positive status and the requirement to use specific policies. While the words 'MRSA positive' is a convenient label for staff, being conscious of this status was deeply significant for the participants in this study in how they made meaning of their isolation experience. The theme 'being MRSA positive' touches the fundamental existential of corporeality or lived body –

the phenomenological idea that we are always bodily in the world (van Manen, 1997). The lived phenomenal body incorporates a consciousness that is the means of being in the world and through which a person can cope with experiences outside of their understanding (Madjar & Walton, 1999). For the participants in this study, their bodily consciousness of being MRSA positive meant being aware of their physical body having MRSA and dealing with that knowledge using psychological and practical means. Being MRSA positive brought with it a sense of stigma and a variety of emotions. An important factor in their understanding of being MRSA positive and the coping mechanisms used was the participants' knowledge and comprehension of MRSA.

### *Stigma*

Within the current theme, one of the significant facets of being MRSA positive was the sense of stigma that this status brought with it. Perceptions of stigmatisation touched on many aspects of the participants' experience of MRSA isolation some of these are explored in later themes and sub-themes. This perception affected their self respect as well as their relationships with others. Participants felt infectious or contagious and four of them used the word 'leper' to describe their feelings. The common use of this historical word in the study is a good example of Heidegger's hermeneutic notion of the world – that it is a world subjectively shared with others because of a common language. Four participants used this word to describe their feelings of being in MRSA positive, even though they each had their own unique subjective experience.

For many participants, the isolation precautions contributed to their feelings of stigma. The use of gowns, masks and gloves worn by staff caring for them gave rise to feelings of being contaminated and infectious. Anne was concerned about staff wearing gowns as she believed

it drew attention to them entering her room. As her room was near the entrance of the ward, her perceptions were that people passing her room would notice the staff wearing gowns and would be looking into her room and wondering what was wrong with her. Harry said that wearing PPE made him feel like a high-risk patient:

*It feels like that you are contaminated... To see them dressed in protective gear, you feel downgraded. (Harry)*

In addition to the PPE, the isolation sign on the outside of the room further stigmatised some patients who felt that it indicated to others on the ward that they were infectious

The behaviour of HCWs at times also made the participants feel contagious. For example, Diane found it distressing that she was initially informed about her MRSA status when she had visitors present.

*And because she didn't just tell me when I was by myself I felt that my visitors might think that I was contaminated. (Diane)*

Charles describes situations where the doctors have not wanted to shake his hand in greeting on the ward round and Eileen talked about several occasions when she felt stigmatised by staff through her interactions with them. In one instance, the consultant marked a point on her arm with the nurse's pen and then proceeded to advise the nurse not to use her pen as it was contaminated. In another, Eileen bought a wrapped sandwich for lunch and it was placed on her locker. After about an hour, she asked that it be placed in the fridge but was told that this would be putting the other patients at risk of acquiring MRSA. Other examples where interpersonal relationships have contributed to feelings of stigma are discussed under the next theme.

*Emotional effects*

This second sub-theme explores the emotional effects of MRSA isolation as described by the participants. All participants were in isolation in a single room except Eileen who attended dialysis outpatients and who was cohorted in a two-bed room. All were nursed with MRSA-specific Contact Precautions and had restrictions placed on their movements outside of their room. These are significant events in any hospital stay and, therefore, contributed to the participants' awareness of being MRSA positive. Their consciousness of this identity gave rise to a variety of predominantly negative feelings.

Anxiety and fear about being MRSA positive were common sentiments expressed by participants in this study. Although anxiety arising from a hospital stay is well reported (Gammon, 1998), these concerns appeared to be over and above the apprehension the participants were already feeling from their underlying illness and hospitalisation. Some participants had prior experience of being MRSA positive, but they still expressed concerns and anxiety associated with the experience. For others, a diagnosis of MRSA was made while they were in hospital—either as a result of investigations for signs and symptoms of infection or as a consequence of skin swabs used in infection control measures. These participants were often moved with little warning from being nursed in a multi-bed room to a single room. This was a frightening and alarming experience, which they described using words and phrases such as 'scary' and 'a shock' to describe their feelings. The following stories illustrate the additional anxiety some of the participants felt on receiving the news that they were MRSA positive.

Ivan had been in hospital numerous times for his present illness and found out about his MRSA status in another hospital just prior to his transfer back to the study site. He was

admitted into an isolation room but the information was still new to him. He described his reactions to finding out about his MRSA:

*I was actually quite shocked when I first found out about it...Well, I didn't know what it was, the bug, even though the doctor explained it a bit. And then they said that they would keep me in isolation because of the bug.*

*...Well when I first heard about it I thought, oh no, not something else, you know. I have had enough to put up with. (Ivan)*

Diane was also already dealing with a serious illness and described her fear on receiving news of being MRSA positive and being put into isolation:

*Okay.. well initially when I was told that I was going into isolation, um, that experience was a bit scary. The nurse came round and sort of said, "Ah, you've got this bug and you have got to go into isolation so we are going to be," ...and said some stuff and I didn't really understand what she was talking about.*

*I mean I did think though that, oh gosh, here's another thing...my god, have I not got enough already. (Diane)*

For some participants, their anxiety was related to concerns about the clinical consequences of being MRSA positive. George was undergoing treatment including skin grafts for serious burns. He had been having some medical problems with some of his wounds not healing well and when he found out about his MRSA this was particularly worrying for him. George attributed all his clinical problems to the MRSA and was very concerned about his progress, describing the MRSA as a significant set back to his recovery:

*Of course I knew something was wrong with me but I didn't know what it was...and basically it was this bug that was eating away at me and causing me a lot of flesh damage on the skin surface...and it was getting into newly healed burn areas and actually causing wound sites back in those areas. So when I discovered that was what it was it was a shock.*

*So I was a bit worried and I didn't know what it was going to do to me. (George)*

Participants generally understood that MRSA is an antibiotic-resistant bacterium with limited treatment options and several participants expressed concern about the effectiveness of their antibiotics. Anne, who had been in isolation for three weeks, was worried about lack of progress with her treatment for an MRSA cellulitis. Similarly, Ivan who had been quite ill with a blood stream infection caused by MRSA was anxious that he receive effective antibiotics so that he would get better.

*And they just said they can fix it, there are ways of fixing it, antibiotics and all of that. When I was in X, they gave me lots of antibiotics but it wasn't working...actually all I want is for them to fix me up. (Ivan)*

Not all participants had symptomatic infection with MRSA and for those participants who were colonised with the bacterium without any obvious clinical signs and symptoms, being MRSA positive was difficult to comprehend. Colonisation versus infection is a difficult concept to grasp even for a healthcare worker. Without being able to see their MRSA or its effects, the participants were unable to differentiate between their underlying illness and their MRSA colonisation. As a result of this anxiety, they incorrectly attributed diverse clinical symptoms to the MRSA or blamed the MRSA for lack of improvement in their condition. During her narrative, Eileen described her concerns about ongoing colonisation and the need for isolation and precautions on each admission. The following excerpt illustrates her anxiety and quest to understand her situation:

*I don't know that I have got it; I don't know how to know. The only thing I read, I don't know whether it was your pamphlet or somewhere else, that skin problems could resolve from MRSA. I have cracks at the corners of my mouth that I have been putting ointment on for years, and I have just recently changed to a different ointment and its not getting any better, and I just wondered if that was perhaps...It was just speculation on my account. (Eileen)*

In this study, feelings of anxiety and concern about the notion of being MRSA positive were not expressed by all participants. Older participants or those with previous experience of



MRSA appeared to be more accepting of their status. These participants brought with them a fore-structure of understanding that helped them cope with the knowledge of being MRSA positive. For example, Barbara—who had remained MRSA positive for over three years, lived in a long-term care facility and had been admitted into MRSA isolation in hospital numerous times—did not seem to be worried about it. Age can bring with it a pragmatic way of interpreting our life world. Fred, who was 78 years old, seemed to accept his MRSA status and isolation without any concerns. He denied being worried about it with the following explanation:

*Not really because there is nothing I can really do about it anyway. (Fred)*

A similar matter-of-fact attitude was also displayed by Charles, who was also 78 years of age, and recognised that he was nearing the end of his life. His understanding was that MRSA was here to stay and he did not appear to be concerned about the clinical implications of having MRSA:

*I tell you my view might be totally different to say yours because I'm nearly up to 80 years old, I am beyond the use by date, you hear people "I don't want to die"—to me it comes to all of us, and so at my age, as I've said I am passed the use by date. So it doesn't worry me. (Charles)*

The pre-understandings shown in these findings illustrate van Manen's life-world existential of temporality (van Manen, 1997). This notion proposes that the meaning of a phenomenon is intrinsically associated with a previous life and a future life. Previous life experiences helped shape the meaning of being MRSA positive for these older participants. In keeping with this notion, participants also had concerns about being MRSA positive in the future. Some were worried about the implications of having MRSA after they left hospital, about passing it on to their family at home, or getting another infection or illness with MRSA. For example, George was concerned that if he recovered from his MRSA this admission it might come back and

cause infection problems later on. For others, such as Eileen and Anne, their anxiety was to do with having to be isolated on future hospitalised admissions.

*Well, what worries me is that I've had MRSA...do I have to be isolated every time I come into hospital because I have it? (Anne)*

In addition to anxiety and concern, being MRSA positive for some participants gave rise to feelings of anger and frustration. George felt let down by the health-care system and angry that he had acquired his MRSA while in hospital. This is understandable, as in many cases MRSA is acquired in hospital as a result of inadequate infection control practices by HCWs (Coia et al., 2006; Makoni, 2002).

*I am thinking well maybe if there was so much care taken initially, maybe I wouldn't have MRSA because after all I did pick it up here and I feel a little bit hard done by because of that and it has increased my stay in hospital and made my battle a little bit harder and all. (George)*

Harry also talked about being angry with the emergency staff when he was admitted for not noticing his MRSA status in his file. From prior knowledge, he knew that MRSA could be passed on easily if someone has an open wound and he was angry with the staff that no-one had picked up that he was MRSA positive. Joan expressed anger and disappointment with her former rest home where she lived, as their refusal to take her back because of her MRSA status seemed to her that they were blaming her for being MRSA positive. Similarly, other participants experienced frustration and anger when their MRSA status meant they did not receive certain health-care services. In Eileen's case, chiropody was refused when the chiropodist found out that she was MRSA positive. This was potentially serious for Eileen as her underlying illness increased the risk of foot-related problems. George also experienced frustration with his rehabilitation when he was initially denied access to the physiotherapy gym because he was MRSA positive.

The findings explored within this sub-theme of emotional effects show that while a few participants denied having concerns about being MRSA positive, many participants experienced fear, anger, frustration and guilt. The findings indicate that these negative emotions were often influenced in part by the participants' understanding of MRSA and the information they received. The following sub-theme explores the contribution of knowledge to the feelings of being MRSA positive.

### *Knowledge*

The third sub-theme is about the participants' knowledge of MRSA and relates to information provision and understanding. Their experience and interpretation of being MRSA positive was determined in part by their understanding of MRSA, which in turn was shaped by the knowledge they held. The participants in this study brought prior knowledge with them as well as receiving information while in hospital. Through our conversations the participants showed a desire to understand their MRSA situation and valued any information provided that enhanced their knowledge.

One of the immediate aspects of being MRSA positive is the day-to-day living in isolation and the procedures associated with that such as the use of Standard and Contact Precautions. Through their narratives, the participants demonstrated an understanding of these procedures and the importance of them. For some, their personal past and pre-understandings contributed to this knowledge, which helped shape the meaning they made of their isolation experience. Several participants brought with them the familiarity of previous isolation for MRSA and knew what to expect regarding the practical aspects of being isolated for MRSA. Harry was very aware of isolation requirements for MRSA from previous hospitalisations and, as such,

alerted staff to his MRSA status when he was admitted acutely through the emergency department (ED) and not put into isolation initially. As he said:

*I don't know what the protocol is, but I know that MRSA is isolation. (Harry)*

Others participants had picked up practical knowledge from observations during their current isolation period and were able to discuss the correct infection control procedures for staff to use on entering and exiting an isolation room. Several participants described discrepancies in the practices of HCWs especially when it came to wearing PPE. Barbara, who had the longest history of MRSA among the participants, talked about the staff in the home where she lived only having to wear gowns and masks for toileting and showering and commented that the doctors in the hospital sometimes wore masks and sometimes didn't. Despite this knowledge, not all participants understood the rationale for PPE and why it was used to prevent the transmission of MRSA. For example, Diane questioned the relevance of wearing a plastic apron when the nurses' arms were exposed. Most participants were aware of the importance of hand-washing in preventing the spread of MRSA as illustrated by Barbara's comment regarding her carers in the home:

*Nine out of ten have got gloves on anyhow, but sometimes if they don't they will always wash their hands before they go. I have noticed that. (Barbara)*

In fact, Barbara had even taught her family (including her grandchildren) the importance of washing their hands on leaving her isolation room, a practice that Harry and Eileen also insisted on for their visitors.

In addition to their observations about the practical aspects of being in isolation for MRSA, participants also acquired knowledge from other sources. Several had received information on MRSA prior to being admitted from external health providers, media reports and

television. For example, Charles—who had been diagnosed with MRSA during a prior admission—had since been receiving regular community nursing visits and described how he had obtained an understanding of MRSA from explanations received from the district nurses. Newspapers and television often sensationalise MRSA issues, which can lead to an inaccurate impression of the reality of having MRSA. Acquiring prior knowledge of MRSA from the media may have resulted in an increase in anxiety and concern for participants. In this study, four participants talked about the information they had received through the media in a negative way. Eileen referred to a newspaper report as “scare mongering stuff” while Charles expressed this opinion:

*And like everything if the press shut up and said nothing then we would be a lot better off. (Charles)*

For participants in this study, accurate information was important as it helped alleviate their anxiety about MRSA through a better understanding of it. Participants received information from ward nurses, medical staff, infection control specialists and other HCWs. The participants used verbal and/or written sources of knowledge to make sense of their MRSA experience and, from their narratives, it was clear that they had differing experiences as to the helpfulness of the information. Diane, for example, found the MRSA brochure useful as she liked having written material to refer to. While some participants benefitted from the explanations that they had received from nursing and medical staff, several participants talked about the usefulness of the infection control nurse visits they had received. Comments from the participants suggest that not all HCWs were able to provide the information on MRSA that the participants required. For example, Eileen’s perception of receiving information was less than positive:

*I ask lots of questions, maybe that’s why the nurses wanted to stay away...I don’t recall being given a leaflet, you have given me one, but initially I didn’t see one...*

*When I see the inconsistencies in the procedures, I realised that they [nurses] probably don't have enough information or the confidence [to explain]. (Eileen)*

These findings demonstrate a range of knowledge and understanding among participants about MRSA and isolation. The data suggests that although the participants valued the information on MRSA that was provided, not all their needs were met.

### *Coping*

A fourth sub-theme of being MRSA positive to emerge from the findings was how participants coped with this awareness. For many participants, being MRSA positive added another element to the stress of being in hospital. Both practical and psychological methods of handling this knowledge were employed. Some of the practical coping strategies used to manage their isolation experience, such as ways to pass the time and the value of visitors, are discussed under later themes.

As discussed in the previous sub-theme, acquiring knowledge and understanding about their MRSA helped some participants accept their MRSA status and cope with it. In George's case, his MRSA isolation experience was significantly influenced by his understanding of MRSA. He frequently asked for explanation on various aspects of it as this helped him cope with both his illness and isolation. The following excerpt illustrates how important his understanding was to how he coped with being MRSA positive.

*Well it eased that anxiety that I had to start with. I was really quite concerned and quite upset after I had been talked to by some nurses and some hospital staff, and asking questions about it, I felt better after that, that it wasn't such a threat.*

*I have had several visits from different members of staff... I have been given a leaflet on MRSA... people have taken time to explain to me what they know about it and what they think... it helped me enormously. (George)*

Interestingly, for several participants being MRSA positive was philosophically accepted as a fact of life and in this way they found a way of coping with their isolation. Charles's and Fred's interpretation of being MRSA has already been discussed. Barbara and Ivan coped with their isolation experience with a similar outlook on life:

*Well it didn't bother me right from the beginning for some reason. I just accept it, and there's not much you can do about that...it's what you make of it cause you could sit here and go down in the doldrums and say to yourself, "I wish I wasn't here," you know, but hey you are here. (Barbara)*

*Oh well, I said, if it's got to be, it's got to be... This is something you got to put up with I suppose. (Ivan)*

The findings also suggest routine and familiarity are used as coping mechanisms for being MRSA positive. For example, several participants preferred the familiarity of the same bathroom facilities allocated to them. On her regular outpatient dialysis visits, Eileen was glad to always have the same bed space and on any inpatient admissions she preferred to be isolated in the same ward, which was familiar to her:

*I like being in the isolation rooms in the ward that I know, occasionally there hasn't been a room available and I have been shoved off elsewhere... and I didn't know any of the staff, didn't know where the toilet was... But it was definitely less comfortable feeling being out of my comfort zone... In Ward X, I am familiar with the nurses and they mostly know me and it's a much better situation. (Eileen)*

This sub-theme describes some of the methods used by participants to cope with being MRSA positive including understanding their MRSA and having the a routine.

The findings described under the four sub-themes demonstrate how 'being MRSA positive' was significant for the participants in their experience of being isolated for MRSA. Rich data has been used to describe the four elements of this theme: the participants' feelings of stigma;

the negative emotional effects of anxiety, anger and guilt; their knowledge; and their coping mechanisms.

### ***Being with others***

In addition to 'being MRSA positive' the theme of 'being with others' was revealed in this study as an important factor in what MRSA isolation meant for the participants. Practically all the participants experienced adverse effects of MRSA isolation on interpersonal relationships and socialising with others. Being in MRSA isolation affected relations with family and friends, staff members, outside agencies and other participants. Within Heidegger's concept of Being or *Dasein*, he describes four a-priori structures of existence, of which one is *Dasein's* capacity for relationships with others (Lafont, 2005; O'Brien, 2003). Van Manen also includes this concept as one of his life-world existentials, which he terms *relationality* (van Manen, 1997). The findings in this study illustrate the importance of relationships with others in the lived experience of this particular phenomenon and are divided into three sub-themes: *socialising*, *concern for others* and *staff relations*.

### ***Socialising***

This sub-theme describes the way that socialising with family, friends and other patients contributed to the participants' experience. Being in MRSA isolation brings with it restrictions on mobilising outside of the room and restrictions on other patients entering that room. Opportunities to socialise with others are therefore reduced, and patients in MRSA isolation must rely on family and friends to come and visit them. Although most participants valued their family or friends visiting, some of them also missed the day-to-day social interaction with other patients. Joan described herself as "a talker" and really missed chatting to people. She noted that for her, not being able to mix with people was restrictive. Despite



being on their own, most participants did not describe themselves as being lonely. The exception was Anne, who frequently referred to the fact that she missed having the company of other patients, despite regular visits from her daughter. The following excerpt summarises her anxiety:

*But I truly don't like being in a room like this, I like being with people...I do like the company...just someone else in the room. (Anne)*

Having family and friends around was one way in which the participants coped with being in MRSA isolation as they felt less isolated when they were in the company of people they knew and it also helped to pass the time. For some participants, their visitors also helped to reduce their feelings of stigma as non-clinical staff were not required to wear PPE, which made these person-to-person interactions more natural. Conversely, there were also many examples described where the family or friends of participants had concerns about visiting them for fear of picking up an infectious illness, often despite reassurance given to the contrary. This not only contributed to their stigmatisation but also left the participants feeling hurt and abandoned. Several participants admitted to not informing their friends of their MRSA status in case they wouldn't want to come near them or visit. Joan was particularly hurt and upset by the fact that her friends decided it was not safe to visit her in isolation because of her MRSA status and describes her feelings in this excerpt:

*My friend's not coming...that might be something we can sort out, I am not making a big deal of it at this stage...not just one friend, several. They have probably all talked and we used to meet every Saturday morning for coffee, a group of us...You go through a very hurtful stage, but I don't want to lose my friends. (Joan)*

Harry had three sisters present with him when his MRSA was originally explained to him but at least one of them refused to visit him after he went into isolation as he describes:

*They won't even come in the room...they are afraid of catching something. They don't want to understand, they just don't want to catch anything. They have heard it's a super bug, they don't want to catch it. (Harry)*

*Whanau* and social interaction with others and are important aspects of Maori culture. Two participants in this study who identified as Maori—Harry and Ivan—reported having experienced issues in this area. Ivan found that being unable to visit other patients in the hospital was culturally restrictive, but accepted this restriction as necessary to safeguard others.

Having access to a telephone to speak to friends and family was one way in which participants maintained social relations with others, and many made use of their mobile telephones; however, Joan did not have a telephone in her isolation room, which meant she could not keep in touch with her friends who had refused to come and see her.

#### *Concern for others*

The prime reason for isolating a patient with MRSA is to prevent the spread of the antibiotic resistant bacterium to other patients. One of the most significant findings to emerge from this study was the participants' concern for other patients. Nine out of ten were worried that their MRSA might be passed on to other patients in the ward. This concern for others reflects Heidegger's tenet of *Dasein's* capacity for relationships where others are of concern (O'Brien, 2003). Van Manen (1997, p. 101) describes this existential of relationality as "the lived relation we maintain with others in the interpersonal space that we share with them." Within the context of a hospital ward, the participants were sharing their lived world with other patients and could identify a relationship with them even if they had never met. Thus, many participants believed it was better to be isolated if this meant that their MRSA was not

transmitted to others. This excerpt from Charles sums up the general feeling of concern for others that the participants felt:

*Yeah, well to me, its only common sense that if you have got something that you can pass on, which can cause say half a dozen more to get sick, its only common sense you know, to be on your own till its cured. (Charles)*

For Ivan and Harry, isolation impacted on their Maori cultural need to socialise with others on the ward. Durie (1998) proposes a model of health and wellbeing that accords with contemporary Maori thinking and incorporates the component *Taha Whanau* (extended family). *Taha whanau* recognises that within illness there is a capacity to belong, to care and to share, and that the individual is part of a wider social system. Despite these cultural considerations, both Ivan and Harry believed that it was better to be isolated than risk passing on their MRSA to others. In fact, Harry felt so strongly about this he made sure the emergency staff was aware of his prior MRSA status when he was admitted; his concern for others is illustrated in this excerpt:

*And I asked them if they were aware that I was diagnosed and treated here for MRSA... I was reluctant to give them that information...my reluctance is for them to do their job, but my concern for others was far more in favour of supporting those who would contract it. (Harry)*

Some participants were also worried about passing on their MRSA to their family or friends and, in general, portrayed a poor understanding of the risk of transmission to their family and friends. Consequently, some participants rejected physical contact such as a hug or kiss with their visitors for fear of passing on their MRSA, as illustrated by this excerpt from Diane's story:

*I needed to know, I wanted to reassure myself that my friends and family were okay, you know that they wouldn't be getting anything from me...especially like, when they come in they want to give me a kiss or a hug...and I wouldn't let them. I would say "No, no you can't touch me cause I might be contaminated or contagious"...and I*

*wasn't sure how much of that they could do. But some of them just ignored that anyway and said "oh bugger that – you're not." (Diane)*

A common sentiment expressed by the participants was that they felt the PPE should be worn to protect others. They were worried when they observed inconsistencies in the PPE procedures that their MRSA would be passed on to others.

### *Staff relations*

This second sub-theme explores those situations where relationships with health-care personnel formed part of the lived experience of being in MRSA isolation. In some cases, the stories that emerged about the impact of the participants' MRSA status and isolation on their interactions with health-care providers revealed that the quality of their care was compromised. It was also evident from the stories that a lack of knowledge and understanding from HCWs about how MRSA is transmitted resulted in many of the adverse events occurring.

Participants commonly reported the use of PPE by HCWs as a barrier to normal staff relations. A few participants perceived that the requirement to wear PPE resulted in HCWs coming into their rooms less frequently because of the extra time it took to put on the equipment. This was particularly noticed by participants who had been in a single room prior to isolation precautions being put in place and were therefore able to make comparisons.

Eileen recalled a previous admission when she was in isolation for MRSA and the doctors chose not to enter her isolation room during the ward round:

*Yes...sometimes the doctors would come and open the door a crack and talk to me through the crack in the door, rather than having to put on the apron, and mask and gloves...And sometimes they would stand outside the door and talk about me and I could hear it even before they came in...I would have preferred them to have come in and had their discussion. (Eileen)*

PPE also proved to be a barrier to care for Anne when the hospital hairdresser refused to cut her hair. Anne had been in hospital for a while and was looking forward to getting her hair cut. The hairdresser had been arranged by the CNM but when she arrived on the ward the hairdresser said she could not cut hair wearing gloves. This may have been a genuine explanation or it may have been that she was concerned about going into an isolation room. Whatever the reason, the result was that Anne had to go out of the hospital to get her hair cut.

There was also a perception voiced by a few participants that some HCWs were afraid of picking up MRSA through physical contact. As noted before, Charles noticed that a normal greeting such as shaking hands was avoided by some of the doctors when they did the ward round, and George reported that he didn't get his morning cups of tea from the catering assistant during the first few days of isolation. These examples demonstrate the concern that some HCWs have about picking up MRSA and a deficit in understanding the routes of transmission of MRSA. It is ironic that in this study, the participants understood the significance of hand-washing in preventing the spread of MRSA but in these instances the HCWs were unable to rationalise this to their situation.

Joan's story is one of the most poignant examples of how her MRSA status interfered with a normal staff relationship. When Joan went out to her former nursing home for a pre-discharge assessment, her occupational therapists went with her and were wearing aprons and gloves. As they all approached the front door of the building, they were met by two members of nursing home staff who held out their arms to bar them from entering. There was then a heated discussion about Joan being allowed to enter. In the end, she and her therapists had to

get back into the car and return to the hospital. This breakdown in a normal human interaction was very upsetting for Joan as it made her feel degraded and unwanted.

The theme 'being with others' as described under the sub-theme headings of 'socialising', 'concern for others' and 'staff relations' reveals the importance of having inter-human relations for all the participants in this study. In the absence of socialisation with other patients, family and friends are important. The participants maintained a relationship with other patients on the ward through their concern that they did not 'catch' their MRSA. Furthermore, their interaction with HCWs was also affected by their MRSA status. The third theme, 'living within four walls', builds on this by exploring the physical environment of the participants in MRSA isolation.

### *Living within four walls*

The final theme that emerged from the data related to the physical environment of the isolation room and the meaning it gave to the experience of isolation for the participants. In this study, all but one of the participants had been nursed in isolation in a single room. Diane, who was isolated in a two-bed room in the dialysis unit three times a week, also had previous inpatient experience of single room isolation for MRSA. Thus, the life world of all participants mainly existed within the confines of their own room and their MRSA experience was influenced by their physical surroundings. Hospital itself is an unfamiliar place to our normal surroundings and, on top of that, the participants had to accustom themselves to living within an isolation room.

This relates well with the concept of lived space or spatiality as described by van Manen (1997). For the participants, their isolation room was the space that they felt and, as such, it

affected how they felt. For some participants, their room made them feel imprisoned and closed in. For others, home was where they put their head down and they accepted their isolation room as their temporary home. Their experience of living within these four walls was influenced by how they perceived their confinement, the facilities themselves and how they passed their time.

### *Imprisonment*

The first sub-theme relates to the participants' confinement to their isolation room. As discussed in chapter two, isolating patients with MRSA is an internationally accepted effective infection control method to prevent the transmission of this antimicrobial resistant organism to others. Unlike public health measures used to prevent transmission of tuberculosis and SARS, neither Medical Officers of Health nor any other health professionals in New Zealand have legal powers to enforce isolation for MRSA. Thus, patients in isolation for MRSA are there voluntarily. Although most participants understood the reasons for their isolation, they viewed it as a confinement and were conscious of restrictions placed on their movements outside of that room. Anne described being "closed up in one room" and "shut away", while George talked about being "stuck in your little room and kept away from people." Harry described the loss of his freedom to choose to go anywhere as a cultural implication of his confinement. Sometimes these feelings of imprisonment were made worse by the attitudes of some staff. Eileen vividly recalled the reaction of the nursing staff one day when she attempted to get some exercise in the corridor of the ward:

*One day I put my, what I call my 'booly bike' [mobility aid] just through the door and I immediately heard a bellow "X is escaping." So I backed inside and I thought I won't do that in the day time. (Eileen)*

Joan also learned the hard way when she walked down to the ward office to use the telephone one evening:

*One staff member had a bit of a piece of me one night; I didn't know I was doing anything wrong. I walked down to the office to get the phone, and there was a chair there and I sat down in the chair and I was just giving the lady the message and I could see this staff member being anxious and she said you have no right being out here. I said I only have the phone, and she said some other things, and one of the other staff said to her, you are being unfair. (Joan)*

Participants also expressed frustration that being restricted to their room limited their independence in daily activities. Having to ask for a drink or to be taken to the shower if they did not have an ensuite bathroom affected the small amount of control they had over their life in hospital. George found it particularly frustrating that he relied on others for tasks outside of his room:

*It's the other things that it affects. You know, not being able to go into the server to make a cup of coffee or to get some juice from the fridge—that type of thing—when you want to. That has been a bit of a set back. You have got to wait for the nurse to do those sorts of jobs in her own time and of course in this hospital they are extremely busy. (George)*

Having some background noise such as a radio playing also helped to alleviate the feeling of isolation from others.

#### *A room with a view*

This second sub-theme examines the impact of the physical environment on the experience of MRSA isolation. With only a small living space, the physical attributes of the isolation room and its environs became important. Where the room was located on the ward, the outlook from its windows, if the room had an ensuite bathroom and whether the door was left open all contributed to how the participants experienced living within their own four walls.



One of the findings in this study was that with the exception of two participants, the rest preferred having a single room. Many of them were used to being on their own at home or just preferred their own company much of the time. Bringing this past life experience with them helped them cope with the experience of being on their own in hospital for a lot of the time. Having their own room gave them privacy, peace and quiet and time to think. It also meant that they did not have to consider other patients in their daily routines. For example, George liked to have the window open because he got hot with all his dressings on and commented that this was sometimes difficult in a multi-bed room. On the other hand, some participants felt less isolated and alone if they were able to have a door open and hear and see other people in the corridor.

In addition to the telephone and visitors, one of the ways that participants kept in touch with the outside world was to look out of the window. Consequently, for most participants having a view outside was very important to them and almost a requirement of having a single room. Having a single room was okay as long as it had a good outlook because it made them feel less isolated and helped them pass the time. Some participants in particular felt better when they were able to see the sun. Having natural light in a living or working environment is recognised as being beneficial for us. Ivan referred to the benefits of seeing the sun on three different occasions during his narrative. Charles's comments reflect the sentiments of several participants:

*I was originally in a room like this, if you looked out the window, six inches away was a blank wall... And that was boring. Very boring... If you have got something to look at and the sun is shining, that is 100% great... If you have got a view it does not do any one any harm on their own. (Charles)*

### *Passing the time*

This third sub-theme is important as the passing of time for participants also contributed to their overall lived experience in MRSA isolation. The restrictions of living within four walls meant that participants had to find ways within their room of passing the time. In this study, only a couple of participants described being bored and others expressly commented that they did not get bored. Reading, crocheting, knitting, doing crosswords and puzzles, listening to the radio and watching television were popular pastimes. One participant also commented on the benefit of having the occupational therapist come and provide divisional therapy. As discussed previously, some participants found having visitors helped to pass the time while others watched what was going on outside from the window or in the ward corridor.

The third theme of 'living within four walls' describes the emotions felt by the participants on being restricted to their isolation room and the significance that the physical attributes of the room had on the way they coped with their confinement. This theme also explores the various strategies that participants used to pass the time within those confines.

### **Behind barriers – The essence of the phenomenon**

Three main themes emerged from the data, which have been discussed individually; however, as previously stated, these themes were interrelated and each one influenced the meaning that was attributed to the others. Together, the three major themes, the sub-themes and the individual interview data make up the whole of the findings. These findings form the hermeneutic circle of understanding in which the parts and the whole of our understanding are inseparable (Crotty, 1996). Understanding is a reflexive process of moving back and forth between the parts and the whole of the experience (Baker et al., 1998) and through reflection and interpretation I have been able to reach an understanding of the essence of the

phenomenon, the core experience of being in MRSA isolation. Participants in this study, interpreted their world in isolation through sharing this world with others, having a concern for others and bringing their prior knowledge and understanding to that experience. Their interpretation and understanding identified a number of barriers in their lived experience of being in MRSA isolation: barriers to identity, barriers to relationships, barriers to care, and the physical barriers of their environment. For these participants, the core lived experience of being in isolation was primarily one of being ‘behind barriers’. From a Heideggerian perspective, this fundamental essence of the phenomenon is their mode of being in the world—being ‘behind barriers’ describes their essential Being or *Dasein*.

### **Summary**

Thematic data analysis of the findings elicited three main themes relating to the lived experience of being in MRSA isolation. The first theme explored the meaning of being MRSA positive for the participants. For these patients, having this identity or status brought with it a number of emotions and feelings, primarily negative ones. A number of coping strategies were employed including the use of information and knowledge that they brought with them or acquired while in isolation. The second theme revealed that MRSA isolation resulted in disruption to normal human relationships. The participants were unable to form interpersonal relationships with other patients on the ward and their interactions with staff and family and visitors was affected. The third theme focused on the practical and emotional consequences of being physically isolated within one room and how the participants managed this restrictive environment. These themes revealed the meanings that the participants made of their MRSA isolation experience and the presentation of them and their associated sub-themes has made these meanings explicit to the reader. Together they form the essence of the phenomenon of being in MRSA isolation, being ‘behind barriers’.

In the following chapter, a summary of the overall findings of this study is presented. The findings are explored in relation to relevant literature and their significance in contributing to the body of knowledge on this topic is discussed.

## CHAPTER FIVE – DISCUSSION AND CONCLUSIONS

### **Introduction**

The purpose of this research was to explore the patient's perception of being in MRSA isolation and to use the meaning made of that experience to extend our knowledge and understanding of this phenomenon. Using a phenomenological hermeneutic approach, the study investigated the lived experience of ten patients in MRSA isolation for three or more days in a large acute care hospital in New Zealand. The study also incorporates my own experience and knowledge as an infection control nurse along with an exploration of associated literature and historical influences.

In this final chapter, I will discuss the findings of this study. The emergent themes of 'being MRSA positive', 'being with others' and 'living within four walls' as elements of the essential phenomenon of 'behind barriers' will be discussed in relation to the substantive infection control literature. Implications for nursing practice and recommendations for further education and research are made and the limitations of the study are discussed.

### **Themes**

#### ***Being MRSA positive***

For many participants in this study, their experience of being isolated for MRSA brought with it an awareness of being a patient labelled as MRSA positive. This consciousness of being identified as a person who is MRSA positive and the need to be isolated from society impacted significantly on the meaning they made of their MRSA isolation experience. For the participants, their awareness of their MRSA status resulted in feelings of stigma and other negative emotions, and affected the way they coped with their isolation experience. Their

perception of being MRSA positive was also influenced by their knowledge and understanding of MRSA. Other experiences that contributed to this identity included participants' relationships with others and their physical environment, which are discussed under later theme headings. Although none of the previous research studies discussed in chapter two reported that patients in MRSA isolation perceived themselves as being labelled MRSA positive, there are many examples in the associated literature in which participants have reported feeling stigmatised or treated differently by being MRSA positive. Participants in this study described their perception of being viewed by HCWs as an MRSA positive patient rather than as a person first whose situation was compromised by MRSA. A number of researchers indicated that HCWs may regard a patient in source isolation differently from others (Cassidy, 2006; Gammon, 1998; Gill et al., 2006; Knowles, 1993; Madeo, 2001; Oldman, 1998). In these studies, nursing and medical staff admitted to spending less time with patients in MRSA and source isolation and expressed concerns about acquiring MRSA from them. HCWs have also reported being inadequately prepared to implement isolation precautions (Prieto & Clark, 1999; Lines, 2006) that may increase their concerns about acquiring MRSA. Several participants in the current study described behaviour such as not shaking their hand or conducting the ward round outside their room, which suggested some staff may have had negative feelings about caring for a patient in MRSA isolation. This prejudice within the area of isolation nursing has been previously reported (Cassidy, 2006; Sadala, 1999). An adequate knowledge of MRSA transmission may alleviate unnecessary fears felt by HCWs of personal danger and ensure that MRSA positive patients receive appropriate and individualised care (Erlen & Jones, 1999; Makoni, 2002).

As previously acknowledged, feelings of stigma were commonly experienced by participants in this study and were significant to their awareness of being MRSA positive. This concurs

with the findings of a number of previous studies that found that participants in isolation felt stigmatised, shunned and inferior (Bennett, 1983; Knowles, 1993; Newton et al., 2001; Oldman, 1998). Participants in both this study and others (Bennett, 1983; Criddle & Potter, 2006; Madeo, 2001) used words such as ‘leper’, ‘unclean’ or ‘contaminated’ to describe their feelings, a reference to the long-disappeared isolation colonies of infectious disease that were used in the 19<sup>th</sup> century. This finding substantiates the ongoing stigma that isolation still holds for many people today. For some participants, their stigmatisation was made worse by the use of PPE, a finding that concurs with other studies (Knowles, 1993; Madeo, 2001). Having an isolation sign on the outside of their room was another contributing factor to their feelings of being MRSA positive. Madeo (2001) argues that the isolation sign outside of the patient’s room and/or in their patient record is the most obvious example of a patient’s diagnosis and therefore challenges the ethical code of the patient’s right to confidentiality. The dilemma for staff is to maintain confidentiality for the patient while exercising a duty of care to other patients, staff and visitors by preventing them from being exposed to MRSA infection (Gammon, 1999; Knowles, 1993). In this study, Diane would have benefitted from seeing the isolation sign before it was put up on the door as she could not visualise ‘the big sign on the door’ as described to her by visitors. This could be undertaken without any consequences of the spread of infection.

Being MRSA positive was also apparent in the psychological effects of being in MRSA isolation—in particular, the participants’ feelings of anxiety, concern, anger and frustration. These negative emotional consequences of source isolation are well reported in the literature and reflect the significant effect that isolation has on a patient’s mental wellbeing (Gammon, 1999a). It is well recognised that hospitalised patients may suffer from anxiety and stress (Duff, 2002; Shuldham, Cunningham, Hiscock & Luscombe, 1995; Tarzi et al., 2001). In this

study, participants described their anxiety and concerns relating to their MRSA experience as additional to their worries about being in hospital. This concurs with previous reports in which source isolation and being MRSA positive have been shown to increase the patient's anxiety and stress (Gammon, 1998; Wagenvoort et al., 1997). Gammon (1998) describes several adverse consequences of anxiety in patients in hospital including an altered perception of their illness and experience, a greater emotional demand on the patient, and secondary unrelated illnesses such as hypertension and suppression of the immune system. These significant anxiety and stress-related outcomes show how important it is that nurses are particularly aware of the stressors for patients in source isolation.

In this study, anxiety was often related to the participant's perception of the impact of their MRSA on their underlying illness and clinical progress. Several participants reported anxiety and concern about having MRSA and how it was affecting their recovery from illness. For some participants, this anxiety was related to a lack of understanding about the implications of being colonised with MRSA. Other studies have found that patients are commonly worried about the clinical effects of their MRSA (Criddle & Potter, 2006; Donaldson, Jalaludi & Chan, 2007). In published research that looked at patient satisfaction as an outcome of source isolation nursing, higher anxiety and depression scores were related to the patient having less confidence that their infection would be cleared up and that the MRSA was prolonging their illness (Rees et al., 2000). Participants also reported anxiety and concerns about the implications of having MRSA after discharge. This finding concurs with my own experience as an infection control nurse as I am often asked to speak to a patient in MRSA isolation who is worried about going home with MRSA. Other research studies confirm that MRSA positive patients are often anxious about being MRSA positive after they leave the hospital (Criddle & Potter, 2006; Newton et al., 2001). This anxiety is often founded on a poor



understanding and knowledge of MRSA. Reassuring and correct information on MRSA and how it relates to the individual patient by clinical staff can help reduce this anxiety (Criddle & Potter, 2006).

Depression has been significantly reported by both qualitative and quantitative researchers as a negative psychological effect of source isolation (Catalano et al., 2003; Davies & Rees, 2000; Kennedy & Hamilton, 1997; Tarzi et al., 2001). Denton (1986) advises that HCWs be observant for signs that their patient in MRSA isolation may be depressed. In my experience as an infection control nurse, I have been asked on occasions by both nursing and medical staff to reassess the isolation requirements of a patient in MRSA isolation as the HCW believed the patient was depressed as a result of their confinement. On one occasion during this study, a nurse caring for one of the participants indicated to me that she thought the patient had become depressed as a result of her MRSA isolation; however, during our conversations, none of the participants discussed depression or indicated that they felt depressed feelings. As the interviewer, I was not aware that the mood of any of the participants was suggestive of a flat affect indicative of a depressed mood; however, the signs and symptoms of reactive or clinical depression may not have been apparent to me during the 30-minute interview. Davies & Rees (2000) conclude from their study on the psychological effects of isolation that ward staff may not recognise mood disturbance such as depression or may lack confidence in dealing with it. They suggest that depression can respond positively to pharmacology while the underlying distress of isolation can be eased with emotional support from staff, thus improving the health outcomes of patients in isolation.

In addition to anxiety and concern, several participants in this study described feeling angry and frustrated. Such emotions are supported in other research literature on the patient's

experience of MRSA and source isolation and may be a consequence of their underlying anxiety and stress (Donaldson et al., 2007; Hamour et al., 2003; Hartmann, 2006; Kennedy & Hamilton, 1997). An example of this was given by George, who described how he was angry that he had a hospital acquired MRSA and blamed this on the cleanliness of the facilities and equipment. Such concerns are apparent in the media. For example, in the UK where MRSA transmission in hospitals is a major problem, debate and discussion has revolved around the cleanliness of the hospitals. Several studies undertaken in the UK have also found that patients have expressed their anger at acquiring MRSA while in hospital and they frequently attributed this to poor hygiene standards (Gill et al., 2006; Hamour et al., 2003; Newton et al., 2001; Oldman, 1998; Rees et al., 2000). Isolation may also result in anger and frustration being directed at staff (Denton, 1986; Pike & Mclean, 2002). This is a finding confirmed in this study, where several participants reported being angry and frustrated with being MRSA positive and the effect it had on their daily lives. Such emotions are often used as a strategy by patients to cope with their isolation (Denton, 1986; Mayho, 1999). In a personal account of TB isolation, Mayho (1999) describes moments when he was abusive and even violent towards staff, explaining that these were attempts to control his own environment.

The findings of this study suggest that patient age and their length of time in isolation are not necessarily antecedents of negative emotional effects. In this study, the older participants described less anxiety and concern about being in MRSA isolation than some of the younger participants. Charles and Fred, the two oldest participants at 78 years of age, described not being worried about their MRSA status as it was a part of life that they had to accept and get on with. Similar sentiments were expressed by Barbara, who had over two years experience of being MRSA positive. This suggests that older age may bring with it greater life skills in dealing with negative experiences or a familiarity with hospital life in general. These findings

do not concur with research by Tarzi et al. (2001), which found that older people in MRSA isolation had higher levels of anxiety and depression than those older MRSA negative patients who were not isolated. The setting for the study by Tarzi et al. was a rehabilitation ward and thus a longer stay in isolation, such as on a rehabilitative ward, may increase the psychological effects for an older adult population (Kennedy & Hamilton, 1997; Peel et al., 1997; Pike & McLean, 2002). This is in keeping with findings from this study, where Joan's anxiety about being MRSA positive increased over time during her isolation for MRSA in the rehabilitation ward. Previous research that explored the relationship between the length of time in source isolation and the onset of negative effects found that only one week in isolation was long enough to result in an increase in anxiety and depression (Catalano et al., 2003; Tarzi et al., 2001). The participants in this study who demonstrated negative psychological effects varied in the length of time of they spent in MRSA isolation. In a study by Donaldson et al. (2007) that explored the psychological influence of MRSA on patients with orthopaedic infections, younger people with MRSA had higher levels of worry about their MRSA infection and its consequences. In this study, George, Harry and Diane—the youngest participants who were all in their 40s—described significant anxiety and concerns about being MRSA positive and in isolation. These findings suggest that HCWs should be attentive for signs of negative emotional effects of isolation for MRSA in all ages and isolation periods and particularly attune to the needs of older patients in MRSA isolation in rehabilitation wards who may be more prone to anxiety.

These findings of anxiety, anger and frustration suggest the need for staff to recognise the negative emotions associated with being MRSA positive so that they can understand the behaviour of their patients in isolation better (Denton, 1986; Mayho, 1999). Knowles (1993) identified that nurses are not always equipped with the necessary skills to deal with the

psychological needs of the patient in isolation. This finding is supported by Davis and Rees (2000), who propose that mental health skills training is required to assist staff to monitor mood disturbance in isolation. Duff (2002) suggests that nursing staff have a critical role to play in assessing the mood state of isolated patients so that they can provide ways to improve the experience. Improving their negative experience may lead to a better recovery for the patient as positive perceptions of an experience is related to a better health outcome (Davis & Rees, 2000; Mondloch, Cole & Frank, 2001).

The third sub-theme of being MRSA positive discussed the significance of the participants' knowledge and understanding of MRSA. Some participants brought with them prior knowledge of being MRSA positive in hospital, which helped reduce their anxiety and concerns. Other researchers have shown that the negative effects of isolation may be reduced for patients if they have a prior understanding of MRSA and the reasons for isolation procedures (Duncan & Dealey, 2007; Lewis et al., 1999). In other research on patients' perceptions of MRSA, newspapers, the internet and television were the prime source of MRSA information for them and their relatives, over and above that provided by HCWs (Duncan & Dealey, 2007; Gill et al., 2006; Hamour et al., 2003; Madeo, 2001); however, information may not always be objective or accurate as it can incorporate bias or opinion from the source that can then influence the way the patient perceives their experience. Media coverage is often sensationalised and may lead to unnecessary fear and anxiety (Criddle & Potter, 2006; Rees et al., 2000). This concurs with the findings in this study, which gave examples of how media information impacted negatively on the understanding and knowledge base of some participants. A lack of information or incorrect information can be a significant contributing factor to the negative experiences of patients in MRSA isolation (Hamour et al., 2003; Madeo, 2001; Ward, 2000). Criddle and Potter's phenomenological

study (2006) identified that anxiety, uncertainty and confusion over MRSA and its effects often arose from a lack of information or misinformation. As in this study, the finding was particularly significant for those patients who were colonised with MRSA and did not have an active infection. As noted previously, providing patients in isolation with adequate and accurate information may help reduce their stress and anxiety (Gammon, 1999b). Criddle and Potter (2006) also found that the manner in which information was provided impacted on the experience of being MRSA positive and advocated for sensitivity in timing and the need to reiterate explanations to some patients. This is reflected in Diane's experience when she was told about her MRSA status in front of friends, which constrained her willingness to ask for more explanation at the time.

This study concurs with others in that when participants were given both verbal and written information on MRSA it helped them identify with their situation and, therefore, cope with it better (Rees et al., 2000; Ward, 2000). Information provision must be individually tailored so as to allow for variation in adult learning styles. Some of the participants in this study found that the information provided by the ward staff was inadequate for them to fully understand their MRSA experience, a finding reflected in other studies (Cassidy, 2006; Criddle & Potter, 2006; Madeo, 2001). Eileen questioned whether some nurses had enough comprehension about MRSA to explain it to her and others described the benefit of having an infection control expert speak to them about their MRSA isolation. As an infection control nurse, I am often asked by nurses to provide a more in depth explanation to participants about their MRSA and isolation requirement. Inadequate infection control knowledge by HCWs is well-documented in the literature (Lines, 2006; Sax et al., 2005), as was suggested in this study by the descriptions by participants on the variations in the way HCWs applied Standard and Contact Precautions. They observed variation in procedures, which led them to believe that

standard practices were not being followed by HCWs. They also noted differences in practice between medical and nursing staff. These inconsistencies in practices left the participants feeling, confused, worried and distrustful of their efficacy, a finding reinforced by other studies (Criddle & Potter, 2006; Newton et al., 2001). Observational studies of HCWs caring for patients in isolation have also reported that there are inconsistencies in the use of gloves, gowns and masks (Evans et al., 2003; Kirkland & Weinstein, 1999). In their discussion, Newton et al. (2001) suggest that patients who observe inconsistencies in infection control isolation procedures may not perceive MRSA to be serious and, therefore, may not adhere to basic infection control procedures themselves such as hand hygiene. Good hand hygiene practices by patients, including hand-washing or the use of an alcohol-based gel or rub, are advocated as another method to prevent the spread of hospital infections (McGuckin et al., 2001). In this study, several participants demonstrated an understanding of the importance of hand hygiene, even becoming role models for their family and friends.

Within the literature, nurses are seen as important sources of information on MRSA and isolation and this function is clearly described as part of their role (Criddle & Potter, 2006; Ward, 2000). The findings from this study suggest that some nurses at ward level lack the level of knowledge of MRSA required to be able to fully inform patients in MRSA isolation. Findings from a qualitative study by Lines (2006) suggest that senior nurses recognise their role in educating others about MRSA but lack the relevant knowledge to do so. Several authors have called for an increase in infection control educational resources and training for nurses so that they are able to provide accurate information to patients in isolation (Cassidy, 2006; Gill et al., 2006; Makoni, 2002; Myatt & Langley, 2003; Tufnell, 1988; Sax et al., 2005).

The final sub-theme discussed was how the participants coped with being MRSA positive. Some of the coping strategies used by the participants have already been discussed, for example, venting their anger and frustration on staff, having an understanding of MRSA and taking a philosophical approach to life in isolation. Isolation may lead to a feeling of loss of control for the patient (Pike & McLean, 2002) and another way that participants coped with being isolated for MRSA was to re-establish some control over their day-to-day activities. Several studies have recommended that patients in isolation have access to amenities that help them to control their own needs in this restrictive environment such as tea- or coffee-making facilities, an ensuite bathroom, or their own pictures and posters (Gammon, 1999a; Stajduhar et al., 2000; Ward, 2000). In this study, George described a loss of independence and control over his own simple daily living tasks such as making a cup of coffee; however, George also described having more control over his environment without the comfort of other patients in the room to consider when he wanted to open the windows. This is in keeping with other studies that have reported that patients felt a greater sense of control when in isolation as their independence and freedom was increased (Knowles, 1993; 1998). Other participants associated their loss of independence as 'being a burden' to staff, suggesting feelings of low self-esteem. Gammon (1998) proposes that there is an association between low self-esteem in patients in isolation, feelings of being in control and their ability to cope with their experience; therefore, improving the patient's control over their lives in isolation may help to reduce the psychological effects of depression and anxiety.

Several participants described routines and familiarity as things that helped their MRSA isolation experience. This finding concurs with that of Campbell (1999), who found that oncology patients in protective isolation often coped better with their isolation if they had a routine to the day. Introducing routines and helping patients in isolation and their relatives

establish some control (for example, via routines) over their care may help them cope with their isolation experience (Bennett, 1983; Oldman, 1998; Rees et al., 2000).

The theme 'being MRSA positive' reveals the importance of recognising the patient in MRSA isolation as an individual. Despite uniform policies and procedures for the care of a patient in MRSA, each person will have their own individual care requirements and emotional needs. This study has shown that each of the participants had their own unique experience interpreted through their culture and background. Each participant demonstrated differences in the psychological effects they experienced, their levels of knowledge and comprehension of MRSA and emotional strategies they used to cope with isolation. The second theme relates to the first as 'being MRSA positive' created barriers to their usual interpersonal relations.

### ***Being with others***

Humans are social beings, and research demonstrates that social isolation has negative emotional outcomes, including non-compliant behaviour, confusion, anxiety, loneliness, boredom and frustration (Denton, 1986; Gammon, 1999a; Payne & Walker, 1996 cited in Campbell, 1999). The experience of MRSA isolation for the participants in this study was significantly related to the nature of their interpersonal relationships with others and their capacity for socialisation. Their interactions with family, friends, other patients, staff members and other members of the public were all affected by being MRSA positive and being in MRSA isolation. Most participants in this study described not being lonely, attributing this to living on their own, being used to their own company, or valuing the solitude and privacy from other patients, although they wished for the company of others at times. Other studies have reported that while some patients in isolation report being lonely,



others value the privacy and peace and quiet (Bennett, 1983; Knowles, 1993; Madeo, 2001; Newton et al., 2001; Oldman, 1998).

In this study, the participants found that their MRSA isolation impacted positively and negatively on their relationships with family and friends. On the one hand, their visits and support provided a distraction from the monotony of their room and a way of coping with their situation. On the other hand, many participants were concerned about passing on their MRSA to family and friends. These findings concur with other research into source isolation (Bennett, 1983; Campbell, 1999; Chua et al., 2004; Criddle & Potter, 2006; Donaldson et al., 2007; Madeo, 2001; Oldman, 1998; Ward, 2000). Diane was unsure if her family or friends would pick up her MRSA if they hugged or kissed her. Criddle and Potter (2006) report a similar scenario in which a couple refrained from kissing for weeks after discharge because they didn't know if it was safe. Visitors themselves are often afraid of visiting for fear of catching an infectious disease, a finding supported by other studies (Bennett, 1983; Criddle & Potter, 2006; Ward, 2000). In most cases, this perception is unwarranted and arises from a lack of knowledge about the transmission of MRSA. Providing MRSA information for family and visitors and advice about post-discharge precautions may reduce some of these concerns (Criddle & Potter, 2006; Gill et al., 2006). The findings in this study confirm other research that found that visitors are important in reducing the negative effects of MRSA isolation (Bennett, 1983; Madeo, 2001; Ward, 2000)

Socialisation with other patients is normally a valuable part of hospitalisation that is denied to those in isolation (Ward, 2000). Despite not having social contact with other patients, a unique finding to emerge from this research was the participants' strong concern that their MRSA was not transmitted to others. Concern for others in the literature is demonstrated by

the patients' understanding of the reasons for isolation procedures and a desire to protect family and friends from infection (Criddle & Potter, 2007; Newton et al. 2001); however, there is little research or evidence that suggests those in isolation have an immediate concern for the welfare of other patients in the ward. In this study, the desire to protect other patients from acquiring their MRSA was more important to participants than not being able to socialise with them. This was particularly relevant for those participants who identified as Maori where socialisation within the extended family unit is an important aspect of Maori culture (Durie, 1998).

Another sub-theme of 'being with others' that emerged from the findings related to the participants' relationship with staff. Participants in this study reported perceptions of stigmatisation by HCWs both in how they were greeted and in how care was delivered. In keeping with other research, the use of PPE was perceived on occasions to be a barrier to a normal patient/staff relationship (Bennett, 1983; Evans et al., 2003; Knowles, 1993; Oldman, 1998). Both Mayho (1999) and Adams (2000) note that wearing a mask can impede communication and depersonalise the patient/nurse encounter; however, this was not a finding expressed by the participants in this study. In my professional experience, the use of surgical masks for patients in MRSA isolation may sometimes be in excess of recommendations. It is important that while staff must adhere to MRSA procedures, they should be mindful of the effect of wearing a mask on communication with the patient.

In general, the frequency of attention and visits by HCWs was perceived by participants in this study to be what they would expect if not in isolation. Evans et al. (2003) found that patients in source isolation had similar positive recollections relating to the frequency of physician visits and care delivery. In contrast, Eileen commented that the doctors sometimes

discussed her case outside her door rather than coming in, and George suggested that the catering assistant did not bring him cups of tea in the first few days of his isolation. These instances correspond with observational studies of staff behaviour, which found that isolated patients were visited fewer times than non-isolated patients by medical and nursing staff (Evans et al., 2003; Kirkland & Weinstein, 1999; Saint et al., 2003; Stelfox et al., 2003). Studies that explored the experiences of nurses in caring for patients in isolation also found that these patients were sometimes seen less often (Cassidy, 2006; Oldman, 1998). These findings suggest that in contrast to their own observations, patients in isolation may not receive the same level of care in the ward as those not in source isolation.

The participants' relations with staff were also affected through being denied certain treatments and services. Most instances described such as declined chiropody treatment or in-hospital hairdresser services arose as a result of a poor understanding of the nature of MRSA transmission. These examples, coupled with fewer HCW visits as discussed previously, may indicate a reduced quality of care was provided. In recent years, the quality of care provided to patients in source isolation has received some attention, raising ethical debate about the continuing use of isolation procedures (Evans et al., 2003; Pike & Mclean, 2002; Tarzi et al., 2001). One way to ensure that the patient in isolation receives the optimum level of care is to incorporate specific instructions relating to their MRSA procedures in their care plan. As revealed in this study and from experience, it is also useful to liaise with allied health workers and other external care providers to ensure that these patients do not miss out on important services.

A significant finding in much of the associated literature was the importance of effective communication between those in MRSA isolation and HCWs in reducing the negative effects

of MRSA isolation. Other studies report patients to be distressed by difficulties in making contact with staff as a result of less staff visits and the restrictions on them leaving their room (Kennedy & Hamilton, 1997; Newton et al., 2001; Rees et al., 2000; Stajduhar et al., 2000; Ward, 2000). This was not a finding in this study as most participants reported that they were able to communicate well with staff despite their isolation.

This second emergent theme, 'being with others', illustrates the impact of MRSA isolation on social relationships. The restrictions imposed by the physical barriers of their room meant that participants were unable to socialise with other patients although they demonstrated a concern that other patients would not acquire their MRSA. Subsequently, participants relied on family and friends as well as staff to communicate and socialise with. At times, these relationships were also affected by being in MRSA isolation as family and friends chose not to visit or HCWs treated them differently.

### *Living within four walls*

This is an important theme in the lived-experience of MRSA isolation. The physical environment in which the participants experienced their MRSA isolation played an important part in shaping their perceptions. Many of these issues have also been identified in other studies that have explored the perceptions of patients in isolation. The chapter has already discussed the importance of providing facilities that promote independence such as a kettle or small refrigerator.

The first thing to note is that a positive outcome of being in MRSA isolation for the participants in this study was that they nearly all preferred having a single room for reasons of privacy, clinical considerations, and peace and quiet. This finding concurs with other

studies and reflects a general preference for hospital patients to have their own room (Jolley, 2005); however, both the participants in this study and other patients in isolation reported a number of negative aspects of being nursed in isolation in a single room, which are discussed below (Criddle & Potter, 2006; Hartmann, 2006; Madeo, 2001; Newton et al., 2001).

One of the reported negative feelings of being isolated was that of imprisonment. The geographical location of the room—for example at the end of the ward—along with restrictions on movement outside of the room can add to this perception. Having a window to the outside was particularly beneficial. Participants who had a view from their room found that this helped them cope with the isolation in a number of ways. Looking out of the window was a way of passing the time that made them feel connected to the outside world and less shut in. A common finding in the literature is that patients in isolation who are provided with a room with a window may suffer less from feelings of confinement (Bennett, 1983; Campbell, 1999; Kennedy & Hamilton, 1997; Oldman, 1998; Ward, 2000). Several participants particularly enjoyed seeing the sun. The adverse psychological effects of sensory deprivation in hospitals are well reported in the literature (Davies & Rees, 2000; Denton, 1986; Bennett, 1983). This sensory deprivation can also include noise. In this and other studies, some participants liked to have a background noise such as a radio or be able to hear the day-to-day sounds of ward life (Campbell, 1999).

From the experiences of the participants, it is clear that in the absence of social interaction with other patients and limited access outside of their rooms, patients in isolation require some type of diversion to pass the time. A common finding in other studies is that patients in isolation are frequently bored (Knowles, 1993; Rees et al., 2000; Ward, 2000). In this study, this did not appear to be the case although one participant said he would have been bored if

the World Cup Rugby had not been on the television. All the participants described their own method of passing the time, and many of these strategies—such as the television, books and radio—are recommended by other researchers as a means to prevent monotony and boredom in patients in isolation (Rees et al., 2000; Ward 2000).

This final theme describes the importance of the physical environment for patients in MRSA isolation. Although many participants liked the privacy and quiet of a single room, they were still aware of being restricted to that room. Feelings of confinement were mitigated by having a view outside, being able to see the sun, seeing and hearing noise in the rest of the ward and having the means to pass the time so as to not get bored.

### **Recommendations**

The findings from this study provide insight to the lived experience of patients in MRSA isolation. An awareness of the perceptions of patients in isolation can make a valuable contribution to the evidence that informs the nursing care of these individuals. Although not generalisable to all contexts in which MRSA patients are isolated, the findings have implications for nursing practice and education. Advancing the clinical practice and education of nurses caring for patients in MRSA isolation will ultimately improve the experience of isolation for patients by breaking down those barriers that are the fundamental essence of the experience for them. In addition, a number of suggestions for further research are made.

### ***Implications for practice***

Phenomenological methods chosen for this research were suitable in that the findings from this study demonstrated that patients in MRSA isolation are unique in their perceptions of the

experience. This identifies a fundamental implication for practice at the outset. Nurses must recognise that patients will not all be having the same experience of MRSA isolation. In this study, all the participants identified that being in isolation for MRSA presented barriers to their physical, emotional and social needs; however, the perception of these barriers varied considerably, with some participants finding the experience of MRSA isolation more distressing than others.

As shown in this chapter, one of the key findings to emerge was participants' reactions when they identified themselves as being MRSA positive. For some, this identity contributed to a negative experience through feelings of stigma, fear, anxiety, and anger. Erlen and Jones (1999) advise against unconsciously applying labels to patients because it can encourage stereotyping and subsequent lack of individualised care. Nurses can help to remove this psychological label by respecting the uniqueness of the patient and involving the patient in planning their care. Denton (1986, p. 88) advises that we "isolate the organism, not the patient". Thus, despite standard policies and procedures for looking after a patient with MRSA, nurses must seek out the individual within that patient and include their unique needs and preferences within their ongoing care (Makoni, 2002). In this study, the problems relating to George's access to the physiotherapy gym for his rehabilitation were resolved after consultation with the infection control nurse specialist. This concurs with my own experience where, based on an individual risk assessment, organisational MRSA policies can be tailored to the specific needs of the patient. Involving isolated patients in decisions relating to their care can also give them a feeling of some control over their lives in isolation.

There are a number of ways in which HCWs can reduce the stigmatisation of patients in isolation. In the first instance, they must make sure that their own actions and behaviour do

not contribute to the patients' feelings of being infectious—for example, avoiding entering the room of an MRSA positive patient. Having an understanding of the implications of the mode of transmission of MRSA may help alleviate fears for themselves of becoming MRSA positive. Another area of practice that can be addressed is the quality of the implementation of Standard and Contact Precautions for MRSA. Good hand hygiene practice and the consistent correct use of PPE will give the patient confidence in the health care that they are receiving and help mitigate feelings of stigma by normalising these procedures. Regular audits of compliance with the use of Standard and Contact Precautions as well as having good role models at ward level are ways to improve the standard of infection control practice. The choice of signage on the door should be sensitive and ensure confidentiality of diagnosis is maintained. Showing the sign to the patient and explaining its importance and that of PPE may help alleviate some of their feelings of stigma.

Another way that nurses can help mitigate anxiety and concern related to being MRSA positive is to ensure patients and family are provided with information about the disease. Accurate information can reduce the barriers of ignorance and misunderstanding. Both verbal explanation and written material should be provided in a sensitive and cultural manner. Nurses should also take time to reiterate this information and answer any questions that the patient may have. Keeping the patient informed of their MRSA status and ongoing clinical progress will help reduce the worries that they may have. If the nurse is unable to explain any aspect of MRSA and isolation, they should engage the infection control specialists.

One of the adverse outcomes of isolation is its negative effect on interpersonal relationships. If MRSA patients are not permitted to socialise with other patients on the ward, then visiting by friends and family should be encouraged as much as the patient would like. This may



mean visiting outside of regular ward visiting hours. Educating visitors about the importance of hand hygiene when visiting will help minimise the risk of them transmitting the MRSA back into the community. It is also important that the patient in isolation has access to a telephone to keep in contact with family and friends. This may mean equipping isolation rooms with a dedicated phone. The feasibility of leaving the door of the room open should be explored as this enables the patient in isolation to see and hear others passing to and fro in the ward, thus maintaining some degree of social contact and minimising sensory depression. Nursing staff should also be aware of how many visitors that their patient in isolation receives. Where there are few visitors, this should be noted in the care plan so that other social interaction possibilities can be explored, for example, visits by volunteer organisations.

This study demonstrated that people have a natural concern for the welfare of others, specifically in that participants were anxious that their MRSA was not transmitted to other patients. As contact is the primary mode of transmission of MRSA, HCWs can lessen these concerns by demonstrating appropriate hand hygiene practice and Contact Precautions. In this study, Barbara had observed the importance of hand hygiene through her experience of being MRSA positive and, as a consequence, made sure her visitors washed their hands before exiting her room. Staff should encourage and facilitate patients to participate in this infection control measure themselves as a means of preventing the spread of infection.

The isolation room should be chosen with care and, resources permitting, patients should be accommodated in rooms with ideal facilities should their stay be longer than anticipated. The room should have a window so that the patient can look outside, preferably one that enables them to see and feel the sun. As much as possible, use single rooms with ensuite facilities so that the patient does not need to use designated facilities in the ward or rely on staff taking

them to the bathroom. A television or radio is recommended to help pass the time or reading material if preferred by the patient. Other facilities that will improve the patient's stay in isolation are a tea- or coffee-making facility.

### ***Implications for education***

This study identifies that the knowledge and understanding of MRSA and infection control principles in HCWs may be insufficient to provide safe patient care or meet the information needs of patients in MRSA isolation. Participants in this study reported inconsistent infection control practices by HCWs and although they received verbal and written information on MRSA, ward staff were unable to provide further explanation that would have helped allay some of their anxieties. Infection control personnel may be able to provide some specialist training and educational resources, but general training and orientation programs for all HCWs should include an infection control component. In order that patient care and safety is not compromised by lack of knowledge, infection control education should provide an understanding of the clinical sciences such as microbiology, as well as the importance of hand hygiene and Standard and Additional Precautions. In addition, in areas where MRSA and other antimicrobial organisms are prevalent and the use of isolation is recommended, specific attention should be made to understanding the experience from the patient's perspective so that their unique physical, social and psychological needs are met.

As indicated previously patient information is an important part of the care of a person in MRSA isolation. From the findings of this study, providing patients with knowledge on relevant topics such as MRSA colonisation versus infection, the clinical implications of having MRSA and what to expect after discharge home are important aspects of patient education.

### ***Suggested further research***

This study did not address specifically the cultural factors relevant to the experience of MRSA isolation. This topic would merit further research as an understanding of the experience of isolation from a cultural perspective would extend our understanding of this area and provide opportunity for improvements to care. Another area for further research would be to explore the nurses' perception of caring for a patient in MRSA isolation. The literature review for this study revealed little existing work. Examining this knowledge may help bridge the gap between the patients' and nurses' understandings of MRSA isolation.

### **Limitations of the study**

This research has achieved its goal of helping to understand the meaning that patients attribute to their experience of being in MRSA isolation. There are, however, a number of limitations to the findings.

In keeping with a phenomenological approach, the findings of this study are highly subjective and cannot be generalised to all patients who experience MRSA isolation. Furthermore, by the very nature of the research methodology the experiences of the participants are context bound. The research was undertaken within a large acute care hospital in the central part of the North Island of New Zealand and the findings may be limited to that context. Patients in MRSA isolation in other parts of the world may have different experiences resulting from alternative infection control policies, differing cultural perceptions and other contextual diversity. Even within New Zealand, patients in other hospitals may not have the same experiences, particularly on the South Island where MRSA is much less prevalent.

There was an expectation that as this study was conducted in New Zealand and a large number of potential participants would be from a Maori background that the study would enable an understanding of the cultural aspects of the experience of MRSA isolation—especially the Maori culture. The constraints of the dissertation timetable, however, meant that I had only a defined period of time to recruit participants. Within that time, few opportunities arose for recruiting patients in MRSA isolation who identified as Maori and who met the inclusion criteria. Only two patients who identified as Maori were ultimately interviewed. Consequently, the data on cultural issues relating to MRSA isolation is limited.

As discussed earlier, interpretive phenomenological methods advocate that the data is returned to participants for checking, something that was not done in this study for a number of reasons. Some readers may see this as a challenge to the validity of the findings.

## **Conclusion**

This research study found that for patients in MRSA isolation, their experience was primarily a negative one. The central finding ‘behind barriers’ shows that for these patients, their MRSA isolation imposes barriers to their own identity, barriers to normal interpersonal relationships and care delivery and physical restrictions on movement. Nurses and other HCWs must look for ways to improve the experience of patients’ in MRSA isolation and the findings from this study adds to the body of knowledge of the patient’s perspective of being in MRSA isolation. These findings will assist infection control specialists, educators and researchers in planning and delivery of evidence-based holistic care.

For the participants in this study, the core lived experience of being in isolation was primarily one of being 'behind barriers'. The thematic analysis has revealed barriers to identity, barriers to relationships, barriers to care and the physical barriers of their environment.

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## APPENDIX 1 – PARTICIPANT INFORMATION SHEET



Waikato District Health Board  
**HEALTH WAIKATO** DIVISION

### PARTICIPANT INFORMATION SHEET

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### Patients' Perceptions of Hospital Isolation for Methicillin Resistant *Staphylococcus Aureus* (MRSA)

You are invited to take part in a research study. Before you decide whether you would like to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with your family and/or friends, if you wish. Ask us if there is anything that is not clear or if you would like more information. Thank you for reading this.

### **What is the reason for the study?**

Methicillin-resistant *Staphylococcus Aureus* (MRSA) is a type of bacteria that is resistant to certain antibiotics. It is a variety of the common bacteria *Staphylococcus aureus* that can live harmlessly in the nose or on the skin of many people. Most people do not even realise they are carrying the germ, or only experience minor problems such as skin infections or boils. MRSA can cause problems when it gets the opportunity to enter the body. This is more likely to happen in people who are already unwell and therefore extra precautions are taken in a hospital to prevent the spread of MRSA to those who are unwell.

Patients in hospital who have an infection with MRSA or are found to be colonised (carriers) with MRSA are placed in an isolation room. Clinical staff that provide hands on care for MRSA patients must follow special procedures such as wearing gloves, aprons/gowns and occasionally masks. The MRSA patient is restricted from visiting other patients or sitting in the shared lounge areas.

There are both benefits and draw backs to being in an isolation room. Previous studies have found that patients have described both positive and negative aspects of their care while in MRSA isolation. It is important that patients receive the best care possible while in hospital. Understanding the experience of isolation from the patient's perspective can help those providing the care to all

### **What are the aims of the study?**

1. To describe the experience of MRSA isolation from the patient's perspective
2. To collect and analyse information that can be used to review policies and procedures for nursing patients in MRSA isolation
3. To collect and analyse information that can be used to ensure the patient receives optimal care while in MRSA isolation.

This study is being undertaken to fulfil the requirements of Ruth Barratt's Master of Advanced Practice (Infection Control) (Hons.).

### **How are participants selected for the study?**

The clinical manager will provide this information form to potential participants who will then inform the manager of their agreement to speak with the Student Investigator. The student will then approach individual patients who have expressed an interest in being involved in the study and who are currently in MRSA isolation within Waikato Hospital. Approximately 10 to 12 patients will be involved in the study. The length of the study will be approximately 12 months.

### **What will happen during the study?**

If you choose to take part in the study, the Student Investigator will visit you in your room at a convenient time to interview you about your experience of being in isolation. The investigator will encourage you to describe your experience and what it means to you. You are welcome to have a friend, family or whanau support person with you during the

interview. However the focus of the interview will be on how YOU feel about the isolation as a patient.

The interview is expected to last about 20-30 minutes and your answers will be recorded on an audiotape. Your description will be transcribed to paper soon after the interview and the tapes will be erased after the transcription has been checked. The investigator may choose to interview you a second time if any clarification about an issue discussed is felt to be necessary

### **Do I have to take part?**

It is up to you to decide whether or not to take part in this project. If you do decide to take part you will be given an Informed Consent Form to sign. If you give consent to take part you are still free to withdraw at any time and without giving a reason. You may stop the interview at any time. Your participation or non participation will not affect the standard of care you receive or any future involvement with the hospital or Griffith University.

### **What are the possible side effects, risks and discomforts of taking part?**

There are no anticipated risks or discomforts of taking part in this study. However, if you feel at anytime that you would like to seek counsel on any issue please inform the researcher. If you disclose any information which is outside of the research question that indicates that your care is compromised this information will be provided to the clinical manager so that appropriate action can be taken.

### **What are the possible benefits of taking part?**

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this study will help us to treat future patients in MRSA isolation so that they receive the best care for them and others.

### **What are the costs of participating?**

Taking part in this research study will not cost you anything. However, you will also not receive payment for taking part.

### **If I need an interpreter, can one be provided?**

An interpreter can be provided and there is a multilingual section on the consent form where you can request one.

### **Will the information collected be confidential?**

The information collected during the study will be stored in a computer but your name will not be. Only the Student Investigator will know that the information is related to you, No material which could personally identify you will be used in any reports or publications arising from this study.



The information will be kept in a secure place for 5 years as required by the national Ethics Committee.

### **Who has approved this study?**

This study has received ethical approval from The New Zealand Ministry of Health Northern Y Regional Ethics Committee and the Griffith University Human Research Ethics Committee.

### **How can I obtain the results of the study?**

There may be a delay between the time of interview and publication of the results. Please inform the Student Investigator if you wish to be sent a summary of the results of the study.

### **Who should I contact if I need more information?**

If you have questions about the study please contact:

Student Investigator: Ruth Barratt Tel: 07 839 8899 ext 8154  
or any of the supervisors named on this form.

If you have any queries or concerns about your rights as a participant in this study you may wish to contact a Health and Disability Services Consumer Advocate:

- Northland to Franklin 0800 555 050
- Mid and Lower North Island 0800 42 36 38 (4 ADNET)
- South Island except Christchurch 0800 377 766
- Christchurch 03 377 7501

Griffith University conducts research in accordance with the *National Statement on Ethical Conduct in Research Involving Humans*. If you have any concerns or complaints about the ethical conduct of the research project you should contact the Manager, Research Ethics on +61 7 3735 5585 or [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au)

The conduct of this research involves the collection, access and / or use of your identified personal information. The information collected is confidential and will not be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the University's Privacy Plan at [www.griffith.edu.au/ua/aa/vc/pp](http://www.griffith.edu.au/ua/aa/vc/pp) or telephone: +61.7.3875 5585.

**Thank you for reading this information sheet. Please keep this copy so that you have the contact telephone numbers.**

## APPENDIX 2 – PARTICIPANT CONSENT FORM



### Patients' Perceptions of Hospital Isolation for Methicillin Resistant *Staphylococcus Aureus* (MRSA)

#### PARTICIPANT CONSENT FORM

#### Research Team

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#### REQUEST FOR INTERPRETER

English	I wish to have an interpreter.	Yes	No
Maori	E hiahia ana ahau ki tetahi kaiwhakamaori/kaiwhaka pakeha korero.	Ae	Kao
Cook Island	Ka inangaro au i tetahi tangata uri reo.	Ae	Kare
Fijian	Au gadreva me dua e vakadewa vosa vei au	Io	Sega
Niuean	Fia manako au ke fakaaoga e taha tagata fakahokohoko kupu.	E	Nakai
Samoan	Ou te mana'o ia i ai se fa'amatala upu.	Ioe	Leai
Tokelaun	Ko au e fofou ki he tino ke fakaliliu te gagana Peletania ki na gagana o na motu o te Pahefika	Ioe	Leai

Tongan	Oku ou fiema'u ha fakatonulea.	Io	Ikai
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By signing below, I confirm I have read and understood the information sheet dated 1<sup>st</sup> March 2007 for volunteers taking part in the study designed to describe the experience of MRSA isolation. In particular I have noted that:

- I understand that my involvement in this research will include an interview with the student researcher for approximately 20-30 minutes;
- I have had the opportunity to discuss this study and I have had any questions answered to my satisfaction;
- I have had the opportunity to use whanau support or a friend to help me ask questions and understand the study;
- I understand the risks involved;
- I understand that there will be no direct benefit to me from my participation in this research;
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time and this will in no way affect my continuing health care;
- I understand that my participation in this study is confidential and that no material which could identify me will be used in any reports on this study;
- I understand that if I have any additional questions I can contact the research team;
- I understand that I am free to withdraw at any time, without comment or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 373 55585 (or [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au)) if I have any concerns about the ethical conduct of the project; and
- I understand that I will receive a copy of this signed Written Informed Consent Form;
- I agree to participate in the project.

\_\_\_\_\_  
Signature of Patient

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Patient

I have explained the nature and purpose of the study to the Patient named above.

\_\_\_\_\_  
Signature of Student Investigator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Student Investigator

## APPENDIX 3 – DESCRIPTION AND EXAMPLE OF THEMATIC ANALYSIS OF TRANSCRIBED INTERVIEW

The steps taken in my thematic analysis are illustrated using an example from the transcripts.

**Step 1:** Each transcript was read then compared to the audio taped recording to identify any transcription errors or significant parts of the interview not transcribed e.g. sighs, silences etc. This information was inserted into the text. The lines of the interview text were numbered for ease of reference.

**Steps 2&3:** I identified key statements and phrases in each transcript that I interpreted as being significant to the experience of the participant. These were highlighted within the text (see example below).

Okay... well initially when I was told that I was going into isolation, um that experience was a bit scary because I had some visitors... And the nurse came round and sort of said “ah you’ve got this bug and you have got to go into isolation so we are going to be”...and said some stuff and I didn’t really understand what she was talking about<sup>J1</sup>. And because she didn’t just tell me when I was by my self I felt a little bit... I don’t know umm how did I feel. I felt that my visitors might think that I was contaminated. (Diane)

This data was then organised into categories or themes of common feelings & perceptions. For example, phrases and words that related to a perceived stigma were grouped together. Within this grouping of ‘stigma’ there were sub groups such as family or visitor reactions, feelings of being infectious or other contributing factors. Within the margins of the texts I identified the theme and subgroup of the theme. In the example above I have tagged a phrase ‘J1’ because this comment pertained to Category J which was about understanding and information provision and fell into subgroup 1 which I categorised as poor understanding.

**Step 4:** I then reviewed all the themes and sub-themes in the transcribed data to try and identify an essential structure of the phenomenon in each of the dialogues.

**Step 5:** The different texts were compared to find similarities and differences so that an overriding theme and essence of the phenomenon was elicited. This essential structure is then compared with the transcripts to make sure it fits with the data.