

Behind barriers: patients' perceptions of source isolation for Methicillin-resistant *Staphylococcus aureus* (MRSA)

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KEY WORDS

MRSA, isolation, qualitative research, acute care

ABSTRACT

Objective

To explore the lived experience of patients in MRSA isolation in an acute care hospital in New Zealand.

Design

Interpretive phenomenology.

Setting

Acute care hospital in New Zealand.

Participants

A purposive sample of ten adult patients with MRSA infection and under isolation precautions for more than three days.

Results

The majority of participants found some positive aspect of being accommodated in a single room; however, the overall experience of MRSA isolation was viewed as a negative one. 'Being MRSA positive', 'Being with others'; and 'Living within four walls' were the major themes associated with participants' experience. The central characterisation of their experience, 'Behind barriers', suggested that for these patients MRSA isolation imposes barriers to the expression of own identity and normal interpersonal relationships, and impacts on the delivery of quality care.

Conclusion

Source isolation for MRSA influences the quality of care and in particular the opportunity for emotional support. Consideration must be given to the design of the isolation environs and staff must be equipped with adequate infection control knowledge to ameliorate and inform patients and their families of the effects of isolation.

INTRODUCTION

Preventing healthcare-associated infections is a major focus of contemporary quality and safety in healthcare. The transmission of healthcare associated infections such as Methicillin-resistant *Staphylococcus aureus* (MRSA) is a global problem (Woodford and Livermore 2009). The complications of MRSA infection, including increased morbidity and mortality, increased healthcare costs, and prolonged hospitalisation are well documented. Consequently, efforts must be made by health professionals to limit the spread of MRSA (Humphreys 2007).

The prevention and control of MRSA requires Standard and Transmission-based Precautions, including hand hygiene, use of personal protective equipment such as gloves and gowns, surveillance, antibiotic stewardship and appropriate contact precautions (NHMRC 2010; Coia et al 2006). Patients are accommodated in single rooms or cohorted in multi-bed rooms with other MRSA-colonised patients and restrictions are placed on the access and egress. These practices are key elements of the practice of source isolation and are essential in the control and prevention of MRSA (Clock et al 2009; Bissett 2005; van Gemert-Pijnen et al 2005).

Although essential, the use of source isolation and contact precautions for MRSA infection is problematic and can have unintended consequences, particularly for the patient's psychological welfare. A range of negative psychological and physiological effects as a consequence of source isolation have been reported, including psychological stress (Denton 1986), abnormal sensations and symptoms (Kennedy and Hamilton 1997), loneliness, anger, neglect, abandonment, boredom and stigmatisation (Knowles 1993, Rees et al 2000, Ward 2000). Recently, Coia and colleagues have argued that although transmission-based precautions (including source isolation) are necessary for preventing the transmission of MRSA, "the patient's medical and psychological welfare should not be compromised by unnecessarily restrictive infection control practices" (2006 p.S26).

HCWs have a professional 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. To date there is limited research that examines the experience of isolation with respect to MRSA.

Study Aim

This study explored the lived experience of MRSA isolation in hospitalised patients in an acute care setting of a large New Zealand hospital, and the meaning those patients made of those experiences.

Methodology

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 and Field 1996). Phenomenological inquiry is concerned with interpreting experience in the context of a person's life-world. The study adopted an interpretive phenomenological approach, informed by the philosophical hermeneutic tenets of Heidegger (1927/1962) Human research ethics approvals were obtained from Griffith University and the participating hospital.

Participants and Setting

A purposive sample of ten adults (see table 1) under isolation and contact precautions for MRSA infection for three days or more from various wards in a large acute care hospital in the North Island of New Zealand were recruited to the study. Clinical nurse managers identified and recruited potential participants

Data Collection

Data were collected using individual, semi-structured interviews that were on average 30 minutes long. A funneling interview technique (Grbich 1999) was used such that the interviews began by asking each participant to describe the experience of being in MRSA isolation. Narrower questions were used to guide the interview to keep the focus on the main themes of the topic, or to elicit more information from the participant as required. An example of this type question used was, 'what were your feelings when staff wore gowns and gloves to provide care?' The audio-taped interviews were transcribed verbatim and verified by participants.

Table 1: Participants demographic information.

Participant	Gender / Age	Reason for Admission	Type of Ward	Isolation History	
				Previous	Current
(Anne)	F / 74	Cellulitis	Orthopedic surgery	Yes	14 days
(Barbara)	F / 69	Cellulitis	General surgery	Yes	17 days
(Charles)	M / 78	Non-healing leg ulcer	Vascular surgery	Yes	3 days
(Diane)	F / 46	Malignancy	Oncology	No	5 days
(Eileen)	F / 66	Renal failure	Outpatient dialysis unit	Yes	3 x a week
(Fred)	M / 78	Bowel investigations	Medical	No	7 days
(George)	M / 49	35% burns	Plastic surgery	No	6 days
(Harry)	M / 49	Cellulitis, anal abscess	Medical	Yes	3 days
(Ivan)	M / 54	Septicemia, leukemia	Hematology	Yes	7 days
(Joan)	F / 72	CVA	Rehabilitation	No	21 days

Data Analysis

Data analysis was guided by the approach suggested by van Manen (1997). 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. Themes were checked with members for credibility and trustworthiness.

Findings

For the participants in this study, the experience of MRSA isolation was associated with barriers to their care in hospital, termed being 'Behind Barriers', which comprised three key themes. These themes - 'Being MRSA positive', 'Being with Others', and 'Living within four walls' and their related subthemes are illustrated in table 2.

Table 2: Themes and sub-themes of the lived experience of being in MRSA isolation.

Themes	Sub-themes
Being MRSA positive	Stigma Emotional effects Knowledge
Being with others	Socialising Concern for others Staff relations
Living within four walls	Imprisonment A room with a view

Theme 1: Being MRSA positive

Participants in this study had a strong identity of 'Being MRSA positive', which encapsulates important issues relating to stigma.

Stigma

A prominent feature of the identity 'Being MRSA positive' was stigmatisation. For some stigmatisation was caused by specific isolation practices, such as the use of gowns and gloves worn by staff caring for them. As Harry described:

"It feels like that you are contaminated... To see them dressed in protective gear, you feel downgraded."

Such practices led to the participants feeling infectious or contagious, and several used the word 'leper' when describing themselves. Inter-connected with this stigmatisation were the emotional effects of the isolation practice.

Emotional effects

Participants associated being in isolation because they were MRSA positive with a variety of emotions including fear, anger, frustration and guilt.

"...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)

"I am thinking if there was 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." (George)

However, some participants, namely those who were older and with a previous experience with MRSA, were more accepting of their situation, bringing with them a fore-structure of understanding that helped them cope with being MRSA positive.

*"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)*

Some participants expressed concerns about being MRSA positive and what that meant for the future.

"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)

These experiences reflect the connection between the emotional effects of being MRSA positive and the participants' knowledge and understanding of MRSA.

Knowledge

Participants expressed a desire to understand their MRSA situation and valued accurate information that enhanced their knowledge, thus helping them to cope with their situation. George benefited from the explanations for his MRSA situation:

"Well it eased that anxiety that I had to start with"

Fundamental to the participants' experience of Being MRSA positive was their knowledge and understanding of infection control precautions. For them, the knowledge they possessed was obtained, either through previous hospitalisation or from their contemporary experience. Contributing to the patients' worry and apprehension were the discrepancies they reported in the knowledge and practices of health care professionals.

".. 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)

Thus, for the participants in this study, 'Being MRSA Positive' was influenced by, and had consequences for relationships they had with their healthcare workers, family and friends.

Theme 2: Being with others

The second key theme related to how source isolation influenced the participants' ability to socialise, the concern they had for others and their relationships with staff.

Socialising

For some participants, the restriction in access and egress that is required of MRSA isolation greatly reduced or modified opportunities for socialising and interacting with other patients.

"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)

Although it reduced their opportunity to socialise, source isolation afforded patients privacy and solace, which many participants were used to and valued. For these participants, having a single room helped them to cope as it gave them their own space. Essential to maintaining this solace was however, their ability to communicate with others. Access to a telephone helped participants to maintain contact with the outside world. Visits from friends and family helped them to feel less isolated and helped to pass the time. The importance of this contact with others was demonstrated when participants' family and friends would not visit for fear of catching MRSA, leading to feelings of hurt and abandonment. Harry described the actions of his sisters after they were told about his MRSA:

"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."

Harry's remarks exemplified concerns expressed by some participants about how their socializing with others may lead to the spread of infection and the concerns they held for others.

Concern for others

Most participants believed that their isolation for MRSA was necessary to protect others. For example, Charles remarked that:

"... 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, ... to be on your own till its cured."

Accordingly, participants believed that the personal protective equipment (PPE) should be worn to protect others. They experienced concern about spreading MRSA to other patients, family, and friends,

particularly when they observed inconsistencies in the use of PPE. Some participants declined or rejected physical contact, such as a hug or kiss because they feared spreading MRSA. Diane described her uncertainty of how to greet her friends:

“...when they come in they want to give me a kiss or a hug... 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.”

MRSA isolation also influenced participants’ relationships with staff.

Staff relations

For some participants MRSA isolation adversely affected their relationships with health professionals. For example, Charles noticed that some doctors avoided shaking his hand when they greeted him. In addition, participants commonly reported that the use of PPE created a barrier to interaction with health professionals. As Eileen described:

“...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... I would have preferred them to have come in and had their discussion.”

Participants viewed this influence of MRSA on the social practices of health professionals negatively. They also reported the quality of care they received to be compromised because of their isolation. Anne was refused a hair cut from the visiting hairdresser, and George was not offered a mid-morning hot drink. Eileen reported being denied an important chiropody treatment because of her MRSA status.

These events added to the emotional burden of the experience of source isolation, which was compounded by their physical surroundings.

Theme 3: Living within four walls

For the participants in this study, the physical environment was a key feature of their experience of isolation. The life world of participants mainly existed within the confines of their own room, and their MRSA experience was influenced by their perceptions of

confinement and the physical attributes of their room.

Imprisonment

Although most participants understood the reasons for their isolation, they viewed it as a confinement and were conscious of the restrictions placed on their access and egress. 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”. Participants also expressed frustration that being restricted to their room limited their independence. Having to ask for a drink or to be taken to the shower affected what little control they felt they had over their life in hospital.

A room with a view

With only a small living space, the physical attributes of the isolation room and its environs became important. Some participants felt less isolated if they were able to have a door open, hear and see other people in the corridor, or have background noise such as a radio. 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; thus having a view outside was important as it made participants feel less isolated. Some participants, in particular, felt better when they were able to see the sun. Charles commented that:

“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 anyone any harm on their own.”

DISCUSSION

There is a general understanding in the literature that colonisation or infection with MRSA is a negative experience. The findings of this study are generally consistent with others who credit anxiety, anger, frustration and fear as psychological consequences of MRSA isolation (Catalano 2003; Tarzi et al 2001; Kennedy and Hamilton 1997).

This study reveals the importance of recognising the patient in MRSA isolation as an individual, and minimising feelings of stigmatisation they may experience. Despite uniform policies and procedures

for the care of a patient in MRSA isolation, each person's care requirements and emotional needs must be recognised and opportunities provided to give emotional support.

The social isolation and stigma associated with isolation may be aggravated by the use of personal protective equipment. Although participants understood the importance for PPE, they still found that its use increased their fear and sense of stigma, a finding that concurs with other research (Criddle and Potter 2006; Robertson et al 2004; Madeo 2001; Newton et al 2001; Knowles 1993).

A number of researchers indicated that healthcare professionals may regard a patient in source isolation differently from others (Cassidy 2006; Gill et al 2006; Madeo 2001; Gammon 1998; Oldman 1998; Knowles 1993). In these studies, nursing and medical staff admitted to spending less time with patients in MRSA source isolation and expressed concerns about acquiring MRSA from them. 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 (Pike and Mclean 2002; Rees et al 2000; Stajduhar et al 2000; Kennedy and Hamilton 1997). An adequate knowledge of MRSA transmission may alleviate unnecessary fears felt by healthcare professionals of personal danger and ensure that MRSA positive patients receive appropriate and individualised care (Makoni 2002; Erlen and Jones 1999).

A lack of 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). The findings in this study reveal that patients have different levels of knowledge and comprehension of MRSA but value information as a means of coping with their experience.

Source isolation for MRSA impacts on the quality of relationships. The study findings confirm the importance of visitors in reducing the negative effects of MRSA isolation (Madeo 2001; Ward 2000; Bennett 1983). Providing MRSA information for family and visitors may reduce their ill-informed fear of becoming

infected and improve the socialisation (Criddle and Potter 2006; Gill et al 2006). Ensuring patients have access to a telephone as a means of communication with the outside world may help ameliorate feelings of confinement, a finding also common to other research (Rees et al 2000; Stajduhar et al 2000; Ward 2000; Oldman 1998).

Although many participants enjoyed the experience of privacy and quietness of a single room, the restriction of their access and egress influenced their experience of care. Having a view outside, being able to see the sun, hearing noise, and having the means to pass the time reduced boredom and mitigated feelings of confinement. Research literature confirms that patients in isolation who are provided with a room with a window may experience less feelings of confinement (Ward 2000; Campbell 1999; Kennedy and Hamilton 1997; Oldman 1998; Bennett 1983). Therefore, the design of healthcare facilities should give due consideration to the inclusion of windows wherever possible.

If staff recognise the negative emotions associated with being MRSA positive, they can better understand the behaviours of patients in isolation (Mayho 1999; Denton 1986) and provide ways to improve the experience such as reading activities, television and listening to the radio (Duff 2002). Providing patients in isolation with opportunities of independence and a sense of control over their care may help them cope and make the experience more positive, a finding reported in other research (Newton et al 2001; Gammon 1998; Knowles 1993).

CONCLUSION

Although the majority of participants found some positive aspect of being accommodated in a single room, the overall experience of MRSA isolation was negative. The central characterisation of their experience, 'Behind barriers', indicates that for these patients MRSA isolation imposes barriers to the expression of own identity and normal interpersonal relationships, as well as the delivery of quality care. In particular being in source isolation impacts on the provision of emotional care. Nurses and other

healthcare professionals must look for ways to improve the experience of patients' in MRSA isolation and in particular to the perception of stigmatisation as a result of being in MRSA isolation.

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