

In their shoes: What factors do restricted weight-bearing patients believe affect their recovery in their health journey in the rural setting?

Research report

Study Investigators

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| Principal Investigator: | Mrs Ellen McMaster ¹ Ph. 0497477390 Email: ellen.mcmaster@health.nsw.gov.au |
| Investigator: | Luke Murray ¹ |
| Associate Investigator (C): | Prof. Megan Smith ² |
| Associate Investigator (D): | David Schmidt ³ |

1. Murrumbidgee Local Health District, Morgan Street, Wagga Wagga, NSW, 2650.

2: Charles Sturt University, Elizabeth Mitchell Drive, Thurgoona, NSW, 2640.

3: Health Education & Training Institute, Rural Research Capacity Building Program

ABSTRACT

Objective: The purpose of this study was to understand the patient experience of the health system whilst undergoing a period of restricted weight-bearing in the rural context.

Methods: This qualitative study used Descriptive Phenomenology methodology to explore the patient experience in a rural health service in New South Wales in 2019. Semi-structured interviews were conducted with 6 purposively selected participants with a musculoskeletal injury (lower limb fracture) that had required a long period of restriction on weight-bearing through the limb. A set of images were used as interview prompts and interpretive thematic analysis was completed.

Results: The mean age of 6 participants was 82 years (range 66-94). Four participants were female. Thematic analysis identified four key themes: **belonging, access, resilience, and empowerment**. Participants connection to their home and support networks was highly important for well-being and practical day-to-day occupation to assist with recovery of function. Access to a multi-disciplinary team to receive optimal care according to hip fracture guidelines was not always achieved in rural areas. In the pre-COVID period, digital technology was being used to connect to loved ones and to improve access to health services in some rural locations but was not consistent. Effective communication and supporting patient's understanding of the situation, health systems and care decisions has the potential to greatly reduce distress and improve a patients' experience post a period of inpatient restricted weight-bearing.

Conclusion: This study found that there are opportunities to improve care coordination and consistent access to allied health services at key milestones of care in the rural context. An evidence-based care pathway for restricted weight-bearing patients could potentially ensure improved access to better healthcare pathways. Such a care pathway will need to be customised to the rural context and include the use of virtual services, coordination with social and community networks, and interdisciplinary models of care to enhance those in use.

INTRODUCTION

Hip fracture guidelines (1) recommend management to promote early mobilisation with early weight-bearing through the limb. Patients with complex fractures may require management that includes an extended period of non-weight bearing (NWB) followed by an incremental increase in loading to enable adequate bone healing for safe loading. Function can be impaired significantly during this period of weight-bearing restriction with some patient groups (2). For purposes of this paper this patient group will be labelled restricted weight-bearing (RWB).

During this healing phase, patients are often unable to walk and function in their usual manner (3) and may require a higher than usual level of assistance for daily function. This often requires an extended period of hospitalisation as patients may be unsafe in their home environment, even with maximal services and support. Hip fracture guidelines (1, 4) recommend a standard of care appropriate for the phases of recovery (5). White et al (6) described the challenges faced by such patients in a large metropolitan hospital and developed a care pathway for this patient group (6). Optimal evidence-based health care includes input from the multi-disciplinary team (7, 8) including medical, nursing and allied health services, specifically physiotherapy, occupational therapy, and as required dietetics, social work and psychology disciplines in the allied health professions (7-9). Access to such allied health services in rural areas differs to metropolitan areas (10). The experience of a patient in a rural environment may therefore differ to that of a patient in a large metropolitan hospital (3). There is a paucity of data in the literature that describes the patient experience for this cohort in the rural setting. It was the aim of this study to explore the patient experience in the rural setting.

The ageing population, higher incidence of comorbidities and chronic disease that include osteoporosis, together with falls statistics and associated injury risk suggests this patient group is likely to continue to be a significant population requiring care into the future (11). Burden of disease and chronic illness in rural sector is high (9, 12). Prevention of falls and management of chronic disease are priority targets of NSW Health (2019) due to the burden of disease on the patient, families, and the healthcare system. Immobilisation and reduced activity contribute to further deconditioning, loss of strength and poorer control of co-morbidities such as mental health conditions, diabetes, heart disease, and falls risk (6, 9). There is a risk of other complications such as cardiovascular complications, pressure injuries and further falls (1 {White, 2015, Don't restrict my ability: Improving care and communication for restricted weight bearing patients., 6). Experiencing a sudden and new disability that may be the catalyst to further long-term health issues or entry into residential care is confronting and can impact physical, emotional and psychosocial health (13), (14). Timely and appropriate care can prevent complications, reduce the length of stay in hospital, facilitate return to an optimum level of function as early as possible, and ultimately minimise costs and health risks (15-18).

Inclusive, culturally safe and culturally responsive healthcare is an ethical responsibility of the health system (19). In 2017 in an international study that included Australian data in a systematic review, indigenous persons were found to have a three-fold greater risk of osteoporotic fractures than non-indigenous persons. Aboriginal Torres Strait Islander persons are likely to be well represented in this patient group.

Part of the patient journey includes care navigation and education relating to their care and recovery. Research indicated that none of the education and advice given to patients during a 2-week acute hospital admission was retained by the patient (20 {Adams, 2016, Service Level Decision-making in Rural Physiotherapy: Development of Conceptual Models) Ongoing support, knowledge and skill building is necessary throughout the episode of care. Access to tailored multidisciplinary care is recommended best-practice to maintain well-being, minimise distress, to empower the patient to self-manage as able, to prevent further decline, and to return to baseline level of independence as the injury heals. Multi-disciplinary care should include physical, psychological, functional, social and spiritual support over the relatively long period of hospitalisation (6, 18, 21).

A long stay in hospital represents a significant cost to the patient and the health system. The literature also indicated a high rate of mortality for frail aged fracture patients requiring extended stays in hospital. An eighty percent mortality rate within two years of a frail fracture was reported by Friedman (2014). The cost of hospital care in 2019 was \$1,432.07 per day for the maintenance phase of care (Harmelink, 2019). Besides the significant costs to the patient and the health system. A longer hospital stay means fewer hospital beds for other patients and a lack of hospital facilities. Early functional return to a level that enables the patient to manage at home with additional services can potentially minimise this cascading effect and save lives and valuable health dollars. This paper looks at current rural health systems through the patient-experience lens.

AIM

The aim of this study was to understand the patient experience in the public hospital system following a lower limb fracture that required a restriction on weight-bearing, therefore function and an extended period of hospitalisation in the rural setting. This understanding may inform future service development decisions.

METHOD

A qualitative project using descriptive phenomenology methodology was conducted in Murrumbidgee Local Health District. Ethics approval was obtained in July 2018 from the Greater Western HREC 2018/ETH00262.

A descriptive phenomenology methodology was chosen because the aim of the study was to gain a deep understanding of the lived experience of participants. Six individuals with a musculoskeletal injury (lower limb fracture) that had required a long period of restriction on weight-bearing through the limb, and extended hospital admission, and who were able to share insight of their journey were invited to participate. This purposive sample group was sourced via a database search using a medical coding search. A medical record audit for specific selection criteria ensured participants were able to communicate with the researcher, had a length of stay greater than 4 weeks, achieved discharge home and had some portion of their care delivered in a smaller rural hospital.

Inclusion and exclusion criteria were applied in an audit of coded health data to identify potential participants (see Table 1).

| Inclusion Criteria | Exclusion Criteria |
|--|---|
| People who sustained a lower limb fracture requiring restricted weight-bearing period greater than 4 weeks prior to rehabilitation or discharge. | Occasion of event occurred greater than 2 years ago |
| Discharge destination to home or low-level care facility | Aphasia or severe speech deficit as a comorbidity |
| This orthopaedic injury is the primary cause of admission. | Expected palliation at time of diagnosis |
| The admission includes acute to sub-acute transfers within the same LHD for the one injury. | Participant unwell at time of research data collection phase |
| Culturally and linguistically diverse people with the above criteria. | Function at 3 weeks post injury that enables discharge home |
| Informed Consent provided and the form signed prior to commencement of the interviews. | Cognitive impairment or other condition affecting their ability to understand or communicate. |
| | Deceased persons |
| | Person transferring to outside the LHD during the recovery period |
| | Persons no longer living in MLHD |
| | A person who speaks English as a second language and no interpreter is available for the interview. |
| | A person who has not given informed consent. |

Semi-structured interviews were conducted at a location in the participants' rural community after written consent had been obtained. A collection of images of possible scenarios or aspects of care known to be encountered during such a hospital admission were used as interview prompts. Selection of the images was based on the ANZ Hip fracture guidelines care principles. Half of the images were of engaged activity and care you would expect to experience if receiving evidence-based care. Half the images were of objects or passive care activity (Figure 1). Images were collected from images approved for use through the NSW Health media team or were purchased from a web-based image library. A consumer representative confirmed the relevance of selection of images. During the interviews the images were given to the patient as a pile in random order. This was done towards the end of each semi-structured interview when the main topics the participants raised had been explored. Participants were asked to sort the images into two groups of images. One set that were relevant to their health journey and a set that was not. The patient experience relating to the scenarios was then discussed further as part of the semi-structured interview if not already covered in-depth. The primary researcher conducted all the interviews for consistency.

Figure 1: Example of images used as conversation prompts late in the interview process.



Voice recorded data was transcribed verbatim and data was de-identified and coded to protect privacy and process the qualitative data set. Coding method was informed by Braun & Clarke, (2006). Thematic analysis was performed by the primary researcher using the cut and paste method (22). Coding, then themes were corroborated with the research team to ensure rigour (Braun & Clarke, 2006).

RESULTS

Thirty-seven potential participants were identified using Data Centre Infrastructure Management (DCIM) codes (23), of which 10 met the eligibility criteria. Potential participants were contacted as per the approved Research Protocol. Six participants consented to participate and were interviewed.

The mean age of the 6 participants was 82 years (range 66-94). Four participants were female. Geographic dispersal of participants was across the local health district. Thematic saturation was achieved. To protect privacy, town names were de-identified and participants referred to by a participant number.

Analysis of the patient experience interviews revealed access, belonging, resilience and empowerment as key themes around a major central concept of independence. (See Figure 2).

Key Themes

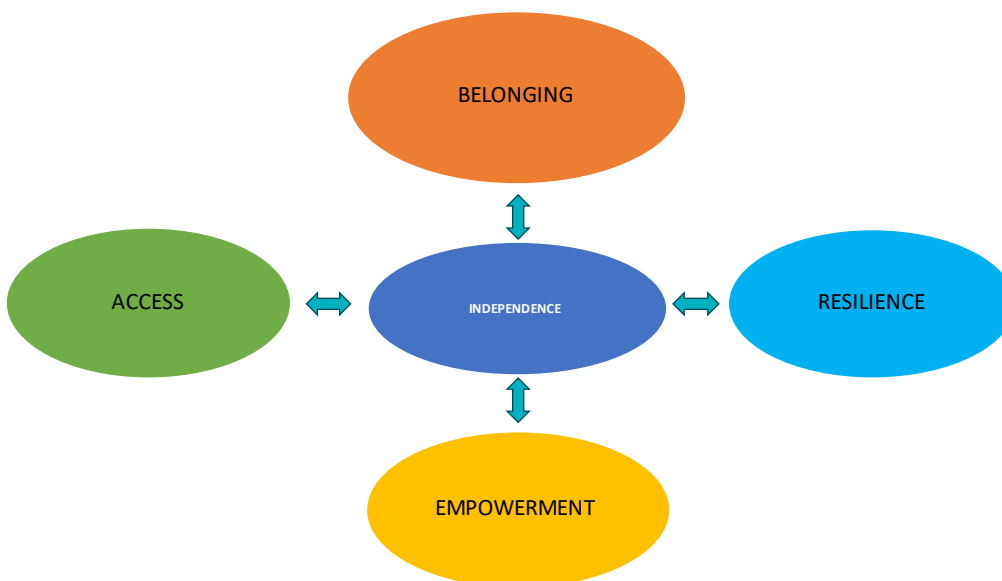


Figure 2: Themes that participants believed affected their health journey in the rural setting.

Belonging

Participants discourse indicated they did not belong in hospital. They were disconnected from their place, their people and their identity when their situation required them to be in hospital. Each person was highly motivated to return to their place of belonging once their medical and health needs were addressed. Distress was evident in the early phase of care when the implications of their injury were realised and the impact it would have on their preferred ways of being and doing. Maintaining connection with loved ones and familiar people was highly important as a support network but also the link with their place of belonging and all things familiar and comfortable.

Once some acceptance and understanding of their new circumstances was achieved, being respected as a person, supported and involved in care decisions assisted with the comfort levels and sense of belonging in the new environment. This included being able to share their story, to see their friends, maintain some of their usual activities, to feel supported and respected spiritually, culturally, as well as their addressing physical needs (See Table 2).

Being part of the community broadened support networks, improved familiarity, and confidence. Connection to family and friends empowered participants to receive additional supports such as setting up the iPad to connect with family. Social connection and trusted networks also supported participants to overcome adversity, thereby contributing to their resilience, a theme discussed below.

Social networks, particularly family and friends were key sources of relief from distress as participants found ways to continue to be engaged with family networks. One participant had no immediate family and relied on the broader rural community and distant relatives for support and friends from the local community to visit occasionally and talk about familiar and meaningful topics that satisfied the need to connect with the place of belonging. Separation from social networks was also a source of emotional and financial distress as was expressed by Participant N.

Table 2: Participant quotes and relevance to theme- Belonging.

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|---|---|
| Loss of independence | <p><i>"I would hate to have to go through that again. You lose your independence".</i></p> <p>(Participant E).</p> |
| Away from Home and loved ones | <p><i>"Because no matter how strong a person you are, you do get a little under the weather when you're isolated from what you normally do. Yeah, that was good. My family is extremely important to me."</i></p> <p>(Participant S).</p> |
| Away from Local town/place | <p><i>"The awful thing for me was when they sent me to Town C" "When we bought a house here [in Town B]. It was because we were near everything...And my husband had to pay somebody to take him down to visit me...."</i></p> <p>(Participant N).</p> |
| Busy Health professionals | <p><i>"...I didn't feel that anybody came and said what the doctor had said or anything. I think if the sisters, if there was a bit more staff at Hospital B and the sisters – I am not blaming them, they were run off their feet – if the sister had come back and said" "Now is there anything you would like to ask about what the doctor said?". That would have helped, I think.</i></p> <p>(Participant J).</p> |
| Connections between health professionals and trust in the health system | <p><i>"The doctors, the nurses and the physios all seem to work separately and as I grew up and going through various hospitals after various accidents, once the doctor hit the floor the nurses attached themselves to him like a limpet. They would go with them wherever they went and that doesn't happen here."</i></p> <p>(Participant C)</p> |
| Positive new connections | <p><i>"The nurses. They came into the bedroom. All the group singing a song. Even the doctor. The doctor came in."</i> (Participant N).</p> <p><i>"Yes, especially one. Anne-Marie, she was lovely. She would let me go over there, talking and that sort of thing to pass the time".</i></p> <p>(Participant N)</p> |
| Shared experience | <p><i>"...we actually started sparring about who could use our trolleys and things...you know. We pushed each other [smiling]. Yeah. She came out of her doldrums and started being more positive. And it helped me. So we just were a good pair. [laughing] "...."</i></p> <p>(Participant S).</p> |

Genuine, engaged communication, relationships and connection was valued by participants. Participants were overwhelmingly appreciative of the care they received and relied on. They were reluctant to criticise services or ask for further explanation when they did not fully understand. For example, Participant J did not understand the doctor's explanation, but she did not want to ask the very busy nurses to spend extra time with to explain the situation better.

Family involvement in care and for regular emotional support was vital. Positive relationships developed during extended hospital admissions with staff and other patients. When relaying stories such as the birthday celebration in hospital with staff, participant N spoke with warmth and positive body language. Shared experience with new acquaintances, both staff and fellow patients, highlighted a growing level of familiarity and comfort in the hospital ward, particularly in rural sites closer to home where family and acquaintance connections were more likely to be encountered. Engaging with staff in meaningful conversation and activity as a person, not as a patient was a valued part of the experience.

Access

Access to medical, nursing and allied health services was identified as critical for recovery. The data indicated participants expect the "right care" which is access to the people that know how to help them recover from their injury, and who communicate well to help them understand what is happening and why. (See Table 3). There was more knowledge and understanding of doctor and nursing roles. Physiotherapy input was received by all participants at least once during their health journey. No other health professionals were recognised or mentioned in the data. Timing of the services was important. For example, nursing for daily care including toileting. Physiotherapy for mobility progression to work out how to get to the toilet, and at other transitions and points of progress.

Access to supports provided by family were highly important during periods of distress. Friends and familiar activities of enjoyment such as playing cards or having coffee with family members, were important factors that contributed to well-being at all stages of the health journey, particularly for occupation after the initial phase once the participants were feeling well. Data indicated patients trust the health system to provide the right care at the right time and accept the burden of travel and additional time taken to access necessary care in the rural setting.

Table 3: Participant quotes and relevance to theme - Access

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| Trust in the health system and health professionals to deliver quality health care. | <i>"Their knowledge. The people who work in these places. Their knowledge of what they have to do to try to help you."</i> Participant E |
| Access to skilled professionals at the right time- physiotherapy | <i>"And the little physio, that same one at the hospital that got me up and it hurt. And I said: "I think we're a little bit early here." But she was a trained physio and she said: "No well just do . . . 10 steps one day and so on." And she was right. She was right."</i> (Participant C) |
| Access to right care at the right time- nursing. Observation of high workload. | <i>"Everything was good. Just the problem with the toilet, that's all. Because they were too busy, see. They were very busy; I understand that but it's not nice to wait."</i> (Participant N). |
| Nurse workload and small hospital function matched care needs. | <i>"I was quite happy in Hospital C. The patient care [transport] again took me to Town C. They were very good. They had more time. The hospital is much more laid back. The nurses and everyone had time."</i> (Participant J). |
| Importance of access to family and burden of travel for family and loved ones. | <i>"And it was a wet winter. My husband would come every day and he is three years older than me, so you know. And the creek was in flood which made it very difficult to get through".</i> (Participant J) |
| Stress and cost burden on family of long-term separation | <i>"He got sick [son]. That's why he paid somebody to take my husband to visit me in Town C. It was a bit too much for him at that time".</i> (Participant N) |
| Digital technology used to access family remotely. | <i>"It worked this one [iPad]. Because we were in contact with the family [referring to local and overseas family] all day. No problem!"</i> (Participant N) |

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| <p>Gaps and delays in access to allied health services.</p> <p>Access enhanced by telehealth and digital technology.</p> <p>Access to education and information.</p> | <p><i>"... initially for the first few days, no physio, no anything. I kind of had to figure it out for myself because the girl was away. And I wasn't a rehab person. I was in a different category. But Mr A [Allied Health Assistant] said "Oh. No!" We need something to look after her". So he took it on for a while, and then the physio team in Town A [an outreach service] spoke via Skype and sort of told me what I needed to do.... I wasn't allowed to do much yet because I was in the cast".</i></p> <p>(Participant S).</p> |
| <p>Importance of access to caring, engaged staff with or without technology.</p> | <p><i>"I don't mind about the computers crashing, but I would mind if it got to the stage where they're depending on being diverted towards that rather than the patient wouldn't you? I mean I can't explain that exactly but you've got to care and if you get into this technology, you stop caring."</i></p> <p>(Participant C).</p> |
| <p>Access to the care and information I understand and need</p> | <p><i>you can talk to someone you have been brought up with in shorthand, but when I talk to any of them..... I'll keep going with questions until I get the answer I want. Or the answer that I can understand.</i></p> <p>(Participant C)</p> |
| <p>No access to Occupational therapy at time of discharge to remote location. Importance of family to provide support required.</p> | <p><i>"So, it's just a matter of working it all out..... No, Mr S [husband] did most of that."</i></p> <p>(Participant S)</p> |

Telehealth and Allied Health Assistants are being used effectively to address gaps and delays in access to services in some rural locations. Access to an advocate with knowledge of the health system and who listened to participants and who wanted to assist with navigating the health system was recognised as beneficial. Advocates identified included a family member, a trusted nurse and an allied health assistant.

Participants consistently commented on their observation of the high demands on nursing staff in the ward situation, particularly at large hospitals. Participants were sensitive to the differences between staffing workload in large and small hospital environments and communicated that this impacted on their access to care. Participants also communicated that they did not like to ask for help when there were other patients who they thought needed the nurse's help more than they did. Perceived demand on staff, and perceived comparative state of wellness caused participants to not

seek help for the extra activities such as set up to do exercises, or to go outside to enjoy some sunshine.

When the allied health staff were not available in some locations, patients relied on nursing staff and in some cases, family members or friends. At the time of discharge, there was a strong reliance on self and family to provide necessary supports. This did not always go well with some participants flippantly reporting falls at the time of their discharge from hospital.

Spirituality and faith were important to some participants and not mentioned by others as important factors contributing to their health journey. Respect for individual's beliefs and access to the right people to support spiritual and cultural needs is evident in the data.

Participants observed busy health professionals and the way they communicate with each other and use digital technology. Participant N conveyed a sense of disconnection between staff doing rounds without any observed communication with the nursing team on the hospital ward. Concerns about the amount of attention staff need to divert to the computer instead of providing patient care was also observed to be a threat to accessing the care that is needed in the hospital setting.

Resilience

Through participants discourse, there was a theme of resilience that was evidenced by participants' competence in their usual roles such as carer or farmer, from their words and actions demonstrating determination and self-reliance. (See Table 4). The ability to cope with adversity had been honed by many years of living in rural Australia, coping with loss and ill family members. There was an acceptance of the pain during recovery, an expectation of the inconvenience of having to travel to see specialist doctors, and a familiarity with the need to work hard to achieve goals.

Individual factors such as the level of knowledge, past experience participants had with the health system, and faith were recognised as important factors that contributed to their ability to cope.

Participants were innovative problem-solvers as demonstrated by Participant S continuing to care for her disabled partner in their remote location in the mountains from hospital. There was stoicism that was apparent with some participants distress due to being in a situation in which they needed to ask for help.

Once participants had come to terms with the need for a long hospital stay, there was a calm acceptance of circumstances, an ownership of responsibility for their injury and recovery, and a commitment to try to do as much as they could themselves. Participants drew strength from their support networks such as family, friends, and community. During their health journey some

participants drew strength from faith and others from keeping occupied and engaged with activities and socialisation that they were able to access such as a weekly card game with friends. Each individual was different.

Table 4: Participant quotes and relevance to theme- Resilience

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| High tolerance due to high levels of adversity | <i>"I think rural people can put up with things."</i> (Participant C). |
| Usual workload as a carer is difficult. Acceptance of pain. | <i>"We used to go out for a cup of coffee in town, come back. It was like a holiday, I tell you now. Apart from the pain, but it was a holiday."</i> (Participant N) |
| Innovative, support from community, technology and self-reliance. | <i>"I had the mobile phone and he [partner with disability] ...when he was in he would ring me and just see if I was okay. And it was more like he was checking I was okay."</i> (Participant S) |
| Contributing factors for resilience: faith, partner, family. | <i>"And without my faith, life really wouldn't be worth it. So that's important. So that's probably the highest thing on my list. It's very important. Hmmm. And then comes family. Hubby. Then family..."</i> (Participant S). |
| Determination, stoicism, positive attitude. | <i>"That's what you need to do; Maybe later you can still get weepy about it. But, at the time, it just had to be" "And I'm not going to a nursing home. Not yet. "</i> |
| Appreciation success and the reward for hard work. | <i>"A new life. After staying a while this week, it's like for me that I have a new life now."</i> (Participant N) |
| Participant observation of other patients' acceptance of passive patient role. Insight and experience of the hospital system. | <i>"It always surprises me that people don't question. They go into hospital and expect the nursing staff and doctors to take over."</i> (Participant C) |

Life events occurred during admission such as partner being diagnosed with cancer or a family wedding. These events impacted the participants significantly. Participants also identified and the ability to call on past experiences to be able to cope. Being engaged in their care, building the right amount of knowledge and communication strategies with staff, and knowing what to do to be able to work towards their goal of independence contributed to participants resilience.

Empowerment

All participants valued having a sense of control over some of their situation and being empowered to gradually recover their independence. Despite being limited functionally participants reflected on the things they were able to do to remain engaged and in control. Some aspects of this required some support which was provided by available staff, family and friends such as set up the table for activities with friends, supply iPad and mobile data (See Table 5). Communication and actions that engaged the patient as a partner or leader and empowered them to be involved in care decisions was an important factor that impacted the health journey. Participant N's experience highlighted the distress of a situation that disempowered her and disadvantaged her because of system processes that she did not understand initially.

Participant N also highlighted how it is difficult to understand complex or new information when one is acutely unwell. There is the opportunity to recognise the way systems are used and to consider the timing of communicating this. Participant N had two separate 6 week stays from two injuries. Her complete understanding and acceptance the second time indicated that knowledge and understanding systems and confidence in the ability to cope, empowered the participant to accept the same situation with no distress.

There was individual variability with the need to be engaged. Some participants responded passively or seemed less driven and happy to sit and wait to get better for six weeks as demonstrated by Participant E when asked about activity and practice when the physiotherapist was not present [in the context of a weekly outreach service]. Some situations require different approaches and effort to empower patients to be actively engaged in their care. In this study, the more passive participants were motivated to achieve discharge home, but their approach and needs were different. Those participants assumed a "sick role" because they were in hospital.

Table 5: Participant quotes and relevance to theme- Empowerment

| DISEMPOWERMENT | |
|--|---|
| Sick role and low motivation and poor preparation for discharge home | <i>"No, I didn't do that unless she was there..I was in bed for a long time, just in a nightie. And they used to get me out to sit in a chair occasionally. No, that didn't happen until the last day that I actually got dressed."</i> |
| Culture of disablement, assumptions and ageism | <i>"I mean they look at me as an old person, which is fair enough. The fact that I don't feel or act like an 80 year old but they expect me to, I think."</i> (Participant C) |

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| Distress from lack of knowledge and understanding – care far from home. | <p><i>“But they send me to Town C with no warning.the people were there to carry me up.Five minutes... I had to call my son to bring me something, quick, quick, quick. And then, that’s it....because there was no room here.And then the lady in charge came in and she explained to me. “....We need the bed”. I understand. Took off. That’s it.... No, I didn’t understand straight away. It was very hard for me</i></p> <p>(Participant N)</p> |
| EMPOWERMENT | |
| Insight and receiving the care needed reduced distress. | <p><i>“But it doesn’t matter. The people there were number one. That’s good, they share. That’s good. When you’re sick you don’t understand.”</i></p> <p>(Participant N)</p> |
| Communication throughout the journey needed. Knowledge reduced distress. | <p><i>“The second time they didn’t have to explain it to me because I knew everything.”</i></p> <p>(Participant N).</p> |
| Empowered to be as active and independent as possible once medically well – build self-efficacy. | <p><i>“In the beginning, yes [used continence aids]. In the beginning I had to, but once I started walking and look after myself, I showered myself, everything I did myself”</i></p> <p>(Participant N).</p> |
| Empowered to continue usual activities and social groups. Also contributed to resilience. | <p><i>“I played bridge in hospital which means that I had to have a room where I could set up a bridge table and do all of that and they helped with that. That was terrific. And, I had our regular fours come into the hospital to play cards”</i></p> <p>(Participant C).</p> |
| Goal setting, engagement and empowerment | <p><i>“I knew the date on my record. That day I had to go home.”</i></p> <p>(Participant N)</p> |
| Pastoral care – empowerment and choices | <p><i>“She was like a chaplain. She came to see me every day.I don’t think that was a great help but it was very pleasant. A very pleasant girl. I didn’t need religious help....[but it’s] very important for some people.”</i></p> <p>(Participant J).</p> |
| Access to information and occupation using digital technology – self reliance | <p><i>“I’ve got an iPad and I’d read a lot of books on that.”</i></p> <p>(Participant C)</p> |

Engagement and positive communications that empowered participants to have more confidence in the hospital setting were readily recalled and the most important staff were the ones that engaged with the participant as a person. Several mentioned a special nurse, health support staff member or allied health assistant that they enjoyed talking to. Participants also recalled times when they were lonely and had minimal contact or did not understand what was going on around them. Participants relied on the doctor to provide medical advice but on the nurses to be the communication link between the patient and the doctor, and to explain it in terms they understand. Participants valued being informed about their care to empower them to be involved in decisions about their care.

Regaining mobility empowered participants to regain independence incrementally. It was important to some participants to be empowered to do be as independent as possible. Other participants were more passive and accepting of the “sick role” in hospital.

Technology empowered the participants as a source of information, by providing access to family and friends, and in some cases by receiving appropriate advice and information through access to health professionals via telehealth.

Participants reported that as a patient, having a specific goal and time frame motivated them to work hard. One participant reported a family wedding created a functional goal and the estimated discharge date was a powerful motivator for others.

Participants’ self-perception of ageing and fear of permanent loss of independence or death affected their attitudes and experience. Staff attitudes also had an impact on some participants’ thoughts and feelings that may have potentially impacted self-esteem and the belief in self to achieve goals and potentially health outcomes.

Key elements of the health journey were the similar for each participant. Each aspect of the care pathway needs to be customised to the individual and their context within the health system and their community.

DISCUSSION

Factors that the restricted weight-bearing patient group believed affected their health journey to recovery from fracture in the rural setting were 1) belonging to social networks and place for motivation, identity and; 2) timely access to the quality healthcare as close to home as possible that met their need to restore independence across the health journey; 3) Resilience that enabled adaptation, innovation and the ability to cope with adversity. Subthemes included intrinsic factors such as personality, beliefs, attitudes, knowledge and skills, and 4) empowerment to be an active participant in their to independence and best possible health outcomes.

Delivery of quality healthcare that is patient-centred is a primary aim of the New South Wales health systems (24). Optimal management for hip fracture is for early fixation and return to function (1). The patient group in this study was a subset of hip and lower limb fracture patients who required hospital admission to manage their injury. As described in the literature (25) and as indicated by the large portion of potential participants in this population who were not eligible to participate due to co-morbidities or failure to achieve discharge to the home setting, this sample is representative of a much larger patient population.

Patient reported experience measures are one of the tools used to measure progress and shape the health system (26). These tools provide a snapshot of one phase of a patients' health journey. This study explored the patient experience more deeply to scope needs of this patient group in the current health systems.

Foremost, participants expected quality health care that aided them to restore their independence. Secondly, they wanted access to the supports that ensured basic human needs were met when they were incapacitated. An example was receiving assistance to reach the toilet in time to use the toilet. This is consistent with patient experience literature (27-29). Participants expected high quality care, empathy and valued communication that empowered them to be engaged in their care, engaged with their environment and connected to their social networks. Participants were aware when this was not provided. This is consistent with literature relating to patient experience and belonging (14, 30, 31).

Patients generally trust the health system and the health professionals employed within it to provide the care they need as close to their home as possible. The need to maintain connection to social networks and familiar place is consistent with literature (31-34). It is worth noting that geography and the way the hospital system is managed to optimise patient flow did impact participants significantly in the rural context. The different categories of health journeys described by participants during their admission are described in Appendix A. The focus of this paper is on the patient experience across time and phases of recovery, not the actual journey from place to place.

The set of images as interview prompts supported themes previously raised in the early phase of the semi-structured interviews. Images enabled participants to talk about aspects they felt uncomfortable expressing such as the experiences around toileting. Topics that may be culturally unacceptable to discuss with a stranger were easier to discuss in more detail with these prompts for some of the participants. The images also enabled a conversation about feelings experienced during an event that took place in the recent past. An example was the image of a man sitting alone in bed with a sad expression on his face. One participant selected that image and explained the person in the image was lonely and that they could relate to that. Quotes in text did not convey the power of that

message. The participant could relate to that image and it triggered memories of feelings from a different period and enabled the participant to express emotions, thereby enriching the understanding of patient experience.

Loss of independence and the motivation to regain it and return home to their place of belonging, was the most important driver for participants in this study. It is the central reason for the long hospital admission and is the context of the health journey from which the patient experience occurred.

Within the four themes identified there were three categories: patient factors, workforce factors and system factors that impacted the patient experience of the health journey.

Patient factors included the traits and attributes the person they brought to this particular journey. Their personality, communication-style, cognitive capacity, health literacy, their cultural beliefs and psycho-social status. Also one needs to consider each persons' wants, likes and dislikes, expectations, attitudes, previous experience, pre-admission health status and social situation (35).

Factors that related to the patient included their choice to live rurally, their choices relating to their usual residence, their coping strategies, and their usual mechanisms of support. The complexity of patients and variability in needs and wants, paired with the sudden, severe yet temporary impairment of mobility, and complex health and psycho-social factors were a challenge to each individual and posed a care coordination challenge within the rural health systems. Participants demonstrated resilience (31, 36). They communicated the desire or need to be empowered to restore their independence. They needed access to the right care and they needed social networks to support them during their hospital admission (37).

Workforce factors impacted the patients' health journey. Rural workforce challenges of recruitment and retention of staff (35) and the high reliance on contingent workers are widely demonstrated in the literature (38, 39). The impact on patient care was observed in this study. Staff also bring their personal traits and situations to the nurse-patient relationship. Personalities, training, experience, knowledge, beliefs as well as workload and other stressors can impact interactions with each patient. Governance, policy and models of care can also influence staff interactions (40). High variability and rate of change increases risk of error or overlooking of lower priority care tasks within each profession (27, 40, 41).

From the patient perspective, observed high workload on nurses impacted patient decisions to ask for help for anything but the highest priority tasks often. Quality care and taking time for personal conversation was valued. Not all patients receive formal rehabilitation, a recommended intervention in the literature (1), (6). However, all participants did achieve return to independent function at home.

Aspects of care that were inconsistent or absent were: formal Psychological or mental health well-being support, social work-type supports, access to services via telehealth, and pastoral care. All participants reported receiving physiotherapy input at some stage during their recovery. This input was not consistent or timely in some cases. Gaps in services were apparent from patient data. Nurses were identified as the main care providers in the small rural hospital settings. Interdisciplinary practice is common in rural areas to deliver patient-centred care (42, 43). Family or friends when available and able provided additional support.

Participants who lived in very remote locations experienced a higher level of difficulty with the transition home from hospital due to the need to navigate the transition with family members with no training or expertise required to set up equipment or navigate steps for the first time. Falls and readmission due to injury were reported. Participants interpreted the fall as their incompetence. It is possible the problem lay with the lack of access to appropriate or adequate allied health services such as occupational therapy. Participants with previous experience in the health system understood systems and were well set up at home and were more comfortable with the hospital experience and the transition home. Those who had had less interaction with hospital were more anxious and upset about care decisions. There is an opportunity to improve communication, especially for people who have had no recent hospital admissions.

There is an opportunity to improve care coordination and planned individualised care based on resources, patient need and patient choices. Such standardisation in rural health systems may ensure more equitable and timely access to key components of care as recommended in the Fracture management guidelines (1) and the work by White et al (6, 44).

System factors also impacted the health journey. Models of care delivery may vary. This was demonstrated in this study. Resourcing, service priorities, governance and policy may all impact the way care is provided and delivered. Availability of the multidisciplinary team, high turnover of staff, referral pathways and uptake of digital technologies are some of the system variables that may impact staff and the way they interact with patients. Understanding how the system works was associated with reduced patient distress. There is an opportunity to improve understanding of basic systems function to support the patient journey. An advocate to assist with care coordination was also shown to improve patient experience. There is an opportunity to ensure every patient remaining in hospital for a period of restricted weightbearing for fracture management receives the tailored support and information they need to optimise their health outcomes.

The use of technology was observed to have an impact on the patient experience of healthcare. It was used to access services in some locations, but not all. Technology was also used by patients to

connect to family when the hospital admission interrupted usual social connection. It should be noted that data was collected prior to the Global COVID 19 pandemic during which time there has been a rapid uptake of digital technology and adaptation of service delivery models. Recent literature on patient experience and service delivery models using digital technology during COVID has explored applications that have now been implemented broadly (31-45). Improved access using digital technologies is a reality. Integrating the use of technology within existing health systems also requires coordination according to patient need and human resources (39).

Patients with a lower limb fracture that require a period of restricted weight bearing in a hospital in any rural location in the health district, need, expect and deserve high quality, evidence-based patient-centred healthcare, and want it delivered as close to home as possible. At the time of data collection there was inconsistent access to allied health services and inconsistent use of telehealth to improve access to services. Effective communication that supports patients to be well-informed when they are ready to receive information and that empowers them to be active partners involved in care decisions, has the potential to greatly reduce distress and improve patient experience within the health system. A care pathway that includes care coordination and is customised to the individuals needs and context is recommended to ensure consistent access to the required services and supports for restricted weight-bearing patients.

Limitations

Small sample size was a limitation of this paper. However, as a scoping project to assess the need for a care pathway for the restricted weight-bearing patient group in the rural setting, the objective was achieved.

Major bushfires, then COVID -19 pandemic interrupted finalisation of this paper due to rural workforce redeployment from research to clinical roles, a risk of clinician researcher roles in the thin rural workforce. Data was collected in 2019. A massive change in the way society views and manages isolation factors has occurred. However, demographics, rural workforce factors, patient wants, needs and variability, and the “business-as-usual” function of the health system remains constant. This patient group was not the focus of the health system adaptations during the pandemic. The pandemic highlighted the experience of patient isolation and separation from social networks due to infection control (ref). Digital technology applications have been widely adopted into practice which potentially may impact consistency of access to health services in a positive way for this patient group. A care pathway for consistency of service access for this patient group remains valid. (46).

In the purposive sampling recruitment, no Aboriginal or Torres Strait Islander persons or Culturally and Linguistically Diverse persons met the inclusion criteria for this study. It is possible that the

experience of these patient groups may have additional aspects of care to consider. This is a limitation of this study.

Conclusion

This study has found quality care provided by the health system and connection to social networks was the most important factor in recovery recognised by participants. A care pathway for restricted weight-bearing patients, such as that described in the literature, is recommended in the rural context to ensure consistent access to the right care at the right time in a rapidly changing health system. Such a care pathway needs to be customised to the rural context and individuals' needs, wishes and circumstances. To overcome the challenges of access to some rural health services, models of care using digital health technology are acceptable for some healthcare activities. Coordination of care should include family, and in some cases broader social and community networks. Engaging with patients as partners using effective communication and positive relationships to empower them to be effective co-managers of their care during this type of health journey critical. There are opportunities to recognise the value and contribution of interdisciplinary care in the rural context, and to support staff and patients to continue to achieve the best outcomes using such models that already do support delivery of the right care, at the right time as close to home as possible.

What is already known:

- Comprehensive care is challenging with increased transfers of care.
- Rural allied health recruitment and retention challenges pose access challenges.
- Telehealth mode of delivery reliable, valid, effective and acceptable.
- Poor retention of knowledge by patients.
- Self-efficacy improves patient outcomes.

What this paper adds:

- Opportunity for a care pathway for patients with lower limb fracture who require extended hospital admission is evident in rural health systems to ensure consistent, timely progression and optimal patient outcomes.
- Effective communication and empowerment of patients in this group as co-managers of their care decisions has the potential to greatly reduce distress and improve a patients' experience with the health system.
- The model described by White et al (2016) is applicable in rural setting with some modifications relating to service access, resourcing and use of digitally enhanced healthcare.
- Social networks and connection to family and community is critical in rural locations to support patient psycho-social well-being and recovery where access to services may be sub-optimal.
- Interdisciplinary care to support patient well-being and restoration of independence is effective in some rural locations.

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APPENDICES

Appendix 1

Two types of health journey were identified in the data that differ significantly in the way that communication and psychosocial networks are utilized to support the patient in the rural setting (see Appendix 1).

Health Journey Type A and B described in this Data.

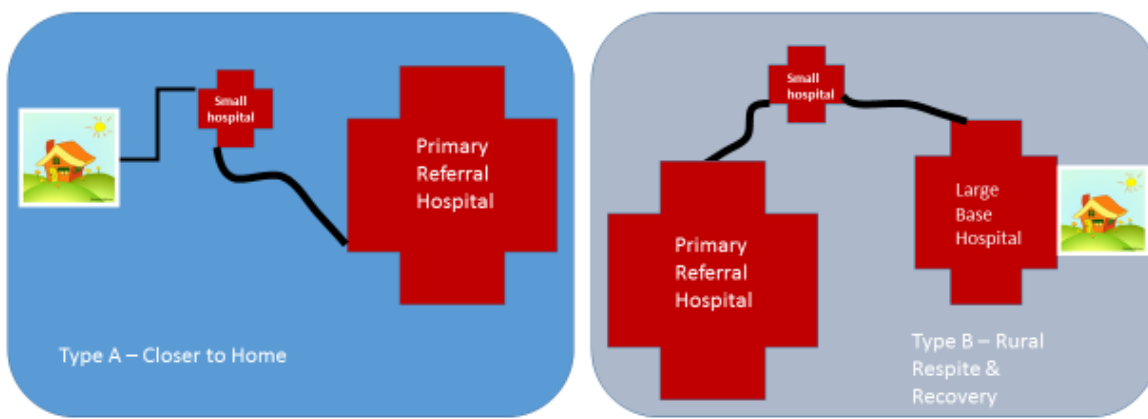


Image 3: Health journey types described by participants.

Rural facilities were used for caring for the patient “Closer to Home” (Type A) where the patients’ home is near the rural hospital. The patients’ home may be in close or distant proximity to the rural hospital. Type B labelled the “Rural Respite and Recovery” health journey was the situation where the patient lived in the urban centre where the large Base Hospital was located but was relocated to a smaller regional hospital for the restricted weight-bearing or “recovery” period. This model enables patient flow in the oversubscribed large acute hospital when patient care needs can be met at a smaller sub-acute facility once the patient is stabilised.