

# Older people's accounts of pressure ulcer prevention following fractured neck of femur

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## *Abstract*

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Pressure ulcers are both distressing to patients who sustain them and costly to the National Health Service (NHS) and the healthcare economy. Despite advances in healthcare over the last 50 years, preventing pressure ulcers remains a challenge, both in the United Kingdom (UK) and worldwide. Sustaining a hip fracture dramatically increases the risk of pressure ulcers occurring and this is compounded if the person is older. Previous research has focused on patient knowledge, participation, and involvement in pressure ulcer prevention and patient experiences of hip fractures, but these bodies of literature exist in isolation. This research aims to understand older people's experiences and participation in pressure ulcer prevention following hip fracture and explores the tension between empowerment and patient experience.

The initial research question was focused on pressure ulcer prevention however, early in the data collection phase it became apparent that participants were not interested in pressure ulcer prevention especially in the early stages of their injury. Consequently, the emerging analysis and argument took a related yet different direction to that originally planned. Semi-structured interviews were conducted with 21 older adults who were recruited from a fractured neck of femur ward, between April 2017 and December 2019. The interviews were digitally recorded and transcribed by the researcher. Data was analysed using computer-assisted analysis software NVivo12 and thematic networks were developed from the emerging themes and codes. The thematic networks included: becoming an inpatient, dependency, recovery, and patient experience of pressure ulcer prevention.

This study examines the utility of biographical disruption and its variants as the conceptual framework and lens to understand the experiences of hip fracture. The findings suggest that there is a need to reinstate the focus on care delivery, rather than engage older patients in education, and active involvement. In the initial phases of injury at a time when older patients are at the greatest risk of pressure ulceration, they are often

clinically unwell and unable to participate in prevention strategies. These findings challenge policy and guidance around the concept of patient participation and involvement, in favour of a more individualised approach to care delivery in the acute phase of recovery. The contribution this research makes is to link the two bodies of literature on patient experience of pressure ulcer prevention and hip fracture, highlight the value of biographical disruption and its variants to understand the journey to recovery and inform the individualised approach to care delivery and pressure ulcer prevention, and suggests that finite NHS resources may be better used focusing on the care delivery of pressure ulcer prevention rather than the empowerment of patients following hip fracture.

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## *Abbreviations*

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<b>A and E</b>	Accident and Emergency
<b>BMI</b>	Body Mass Index
<b>CASP</b>	Clinical Appraisal Skills Programme
<b>COPD</b>	Chronic Obstructive Pulmonary Disease
<b>CQUIN</b>	Commissioning for Quality and Innovation
<b>ED</b>	Emergency Department
<b>EPUAP</b>	European Pressure Ulcer Advisory Panel
<b>HAPU</b>	Hospital Acquired Pressure Ulcers
<b>HIV</b>	Human Immunodeficiency Virus
<b>KPIs</b>	Key Performance Indicators
<b>MeSH</b>	Medical Subject Heading
<b>MUST</b>	Malnutrition Universal Screening Tool
<b>NHS</b>	National Health Service
<b>NICE</b>	National Institute for Health and Care Excellence formally National Institute for Clinical Excellence
<b>NOF</b>	Neck of Femur
<b>PEO</b>	Population, Exposure and Outcome
<b>PROMs</b>	Patient Reported Outcome Measures
<b>SSKIN</b>	Skin, Surface, Keep Moving, Incontinence and Nutrition
<b>TVN</b>	Tissue Viability Nurse
<b>UK</b>	United Kingdom
<b>USA</b>	United States of America
<b>WHO</b>	World Health Organization

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## *Glossary*

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Adipose tissue – fat tissue below the skin

Anaemia – Reduced red blood cells causing symptoms of tiredness and breathlessness

Collagen – cells that make up skin tissue

Elastin – type of tissue in the skin that allows the skin to stretch

Ischaemia – lack of blood supply caused by an occlusion or narrowing of vessel

Necrosis – dead and non-viable tissue (skin) that is caused by lack of blood supply

Oedema – Swelling

Pathological fracture – fracture caused by underlying disease process for example cancer of the bone.

Perfusion – blood supply to tissues, specifically skin

Periprosthetic hip fracture – a fracture that occurs around a previous hip replacement

Shear – force that can cause damage to underlying layers of skin, often caused when patients slide down the bed

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## *Chapter 1 - Introduction*

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### 1.1 Chapter Overview

This dissertation explores patient experiences of pressure ulcer prevention following hip fracture. The first chapter will: examine the extent of the problem; offer a definition of a pressure ulcer; evaluate the cost of pressure ulcers to both patients and the NHS; review current prevention strategies; and explain the rationale as to why older people and specifically those who had sustained a fractured neck of femur were chosen as the focus. It discusses why pressure ulcers still occur despite advances in medical and nursing care and begins to identify gaps in the current knowledge base. The study's origins, impetus and motivations are explained together with a short reflection on how the study developed from the original idea.

At the outset, and until the end of the data collection phase, my role was as a Tissue Viability Nurse (TVN) in a district general hospital in England, a role that involved visiting and overseeing wound care across all wards within the hospital. I qualified in 1997 and have cared for patients with pressure ulcers throughout my career having a sharper focus on this aspect when I became a nurse specialist.

### 1.2 Motivation for the research

The impetus for this research study originated in 2013 at a specialist tissue viability conference. A speaker told the audience a story about one of her own experiences. She had recently visited a hospital ward where two nurses had turned and repositioned a patient. She approached the patient and said to him “I see the nurses have just been to turn you”. The patient acknowledged this and replied, “Yes, I don’t understand what that’s all about, I was quite comfortable”. The speaker then explained to him, that it was because he was at high risk of developing a pressure ulcer. The patient then asked what a pressure ulcer was, as he genuinely did not know. The speaker explained and showed

him a photograph of one and he then said, “If I’d have known that I’d have moved myself”. The lack of awareness on the part of this patient was the impetus for the study.

The study developed from the need to understand what the experiences of pressure ulcer prevention were from the patient’s perspective. The man in the story from the conference did not know what a pressure ulcer was and from clinical experience, whilst some patients have heard of pressure ulcers, it has been found that patients have limited knowledge of pressure ulcer prevention (Durrant et al., 2018). There was a curiosity to explore what patients understand about pressure ulcer prevention and their role within this. For example, do patients link being nursed on an air mattress with the prevention of a pressure ulcer, what is their experience of these mattresses and why do nurses want to check the skin? There was a desire to understand if patients with hip fractures want education and to be empowered to actively participate in prevention or need to take on a more passive role in care delivery. From this, further questions emerged, such as understanding if patients do want to be involved or participate, at what point in time they want or can be involved or participate, and to what extent.

### 1.3 The extent of the problem

Pressure ulcers present a serious problem in healthcare. They are costly, physically and psychologically, to individuals who sustain them and financially to the National Health Service (NHS) and worldwide health economies. Further detail on these aspects will be provided, but it is beneficial to begin with a definition of a pressure ulcer.

#### 1.3.1 What is a pressure ulcer?

A pressure ulcer can be defined as:

*“A localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination*

*with shear<sup>1</sup>” (European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel, 2014, p13).*

The preferred terminology used in United Kingdom (UK) healthcare settings is pressure ulcer, but these are sometimes called bedsores or pressure sores and are caused when the circulation to the skin is impaired, typically due to being confined to a bed or chair (National Institute for Health and Care Excellence, 2014; NHS Improvement, 2018a). The term pressure injury is preferred internationally. This preference was reflected by the National Pressure Ulcer Advisory Panel who changed their name in 2019 to the National Pressure Injury Advisory Panel (National Pressure Injury Advisory Panel, 2019). This change was made to reflect that some pressure ulcers do not present as open ulcers such as deep tissue injury and therefore the term injury is felt to be a more accurate description (Hommel & Santy-Tomlinson, 2018).

The tissue damage that develops following injury can cause discomfort, pain, and distress for many patients and their families. This can be an open ulcer or intact skin with discolouration and can be painful (NHS Improvement, 2018a). Pressure ulcers are not just associated with modern healthcare; Mummies of Egyptian noblemen dating back 5,000 years have been documented as having pressure ulcers (Agrawal & Chauhan, 2012). Despite advances in medicine and healthcare over recent decades, the occurrence of pressure ulcers continues to pose problems for patients and their care.

### 1.3.2 How are pressure ulcers caused?

Pressure ulcers occur when the skin and underlying tissues are damaged by sustained pressure which impairs the blood supply (Young, 2017). Pressure is exerted on the tissues between the skeleton (bony prominences) and the surface on which a person is lying or sitting. They can also be caused by the presence of a stiff medical device such as a cannula or an oxygen mask (Gefen et al., 2022; Young, 2017). The tissue becomes

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<sup>1</sup> Shear is caused when the epidermal layers of the skin adhere to the bed or chair whilst the layers of underlying skin move with the patient. This causes shearing of the underlying tissues (Hanson et al., 2010).

deformed due to the pressure and shearing forces which damage the cells at a microscopic level (Gefen et al., 2022). If this pressure is not relieved, the subsequent effect is tissue ischaemia and eventual necrosis, due to a lack of nutrients and oxygen, and the build-up of toxins that would normally be removed by the vascular system. The outcome is discolouration or an open ulcer. These are then categorised depending on the severity and depth of the damage (see Appendix 1 - Categorisation Tool).

### 1.3.3 Who gets pressure ulcers?

Anyone can be at risk of sustaining a pressure ulcer but some groups are at greater risk including older people, children, neonates, and pregnant women (National Institute for Health and Care Excellence, 2014). Multiple intrinsic and extrinsic factors can increase the likelihood of someone sustaining this type of injury. In a systematic review that looked specifically at risk factors for pressure ulceration, the most defining independent risk factors were cited as reduced mobility, poor tissue perfusion (including diabetes), and having an existing pressure ulcer; but other factors such as age, nutrition, general health, and moisture level of the skin were also identified (Coleman et al., 2013). Additional considerations include neurological impairment/sensory deficit, oedema, anaemia, incontinence, post-operative immobilisation, hospitalisation and frailty (Mervis & Phillips, 2019; Vieira et al., 2014).

Although age alone is not a risk factor, older people are at significant risk of developing a pressure ulcer compared to the general population due to the ageing process (Office for Health Improvement and Disparities, 2015). Thinning of the skin as a consequence of reduced epidermal turnover and reduction in elastin, collagen, adipose tissue, and capillaries make the skin less resistant to pressure and shear (Mervis & Phillips, 2019; Vieira et al., 2014). The presence of comorbidities also increases risk and given that older adults are more likely to have chronic medical conditions, this further exacerbates the problem (Jaul et al., 2018). Although hospitalised patients are often seriously and acutely unwell (and therefore at highest risk of pressure ulcer development) pressure ulceration is not limited to patients who are hospitalised. Pressure ulcer prevention is relevant to all settings including hospitals (Blenman & Marks-Maran, 2017). As such, anyone with

risk factors can be susceptible whether they are cared for in their own home, a nursing home or an acute setting.

#### 1.3.4 Incidence and prevalence

Within the UK a recent audit carried out in England, found the overall prevalence of pressure ulcers was 9.04% of hospitalised patients (Stephenson et al., 2021). Across the UK this constitutes 700,000 patients with 180,000 of these having newly acquired (as opposed to existing) pressure ulcers (Wood et al., 2019). However, accurate incidence and prevalence data on pressure ulcers can be difficult to obtain and figures from around the world vary. This is partly due to there being no standards of how this should be achieved (Fletcher et al., 2013). As such, the variation in the way data is collected worldwide, and between care settings, makes comparison challenging. This is demonstrated through discussion of the following studies. A study from Jordan showed a point prevalence of 12% within a general hospital setting, although the authors did acknowledge that the sample was not representative due to differences in age and frailty with only 32% of patients surveyed over the age of 60 and no patients aged over 89 years (Tubaishat et al., 2011). Conversely, a review of stroke patients in Indonesia found a prevalence of 28% which was more reflective of the population being studied as over half were aged 60 years and over (Amir et al., 2013). A nationwide study in Sweden found the prevalence to be 16.6% for hospitalised patients where again it was more representative with approximately half of the participants aged over 70 years (Gunningberg et al., 2013). Jenkins and O'Neal (2010) found a prevalence of 15.8% in their study of medical, surgical, and intensive care patients who had a mean age of 75.5 years in the United States of America. A systematic review carried out in 2020, found a worldwide prevalence of 12% with the highest incidence of pressure ulcers seen in patients on orthopaedic wards (Albatineh et al., 2020). Another systematic review and meta-analysis carried out in the same year concurred with this figure and reported a pooled worldwide prevalence of 12.8 % with 1 in 10 adults admitted to hospital being affected (Li et al., 2020). All studies cited here that have discussed prevalence and incidence of pressure ulcers used the same grading/categorisation system for pressure ulcers (European Pressure Ulcer Advisory

Panel (EPUAP), 2014) (see Appendix 1 – Categorisation Tool), but when different definitions and denominators are used, comparison can be difficult (Spronk et al., 2019).

The EPUAP was set up in 1996, to support all its member European countries to prevent and treat pressure ulcers (European Pressure Ulcer Advisory Panel, 2020). Part of this collaboration included the development of an agreed set of categories for pressure ulcer severity and a definition of pressure ulcers to aid consistency, understanding, and comparison. Yet, comparison of data is not easy even at this macro level and the inaccuracy of data collection is high (Fletcher et al., 2013). Reasons for this include, when and what data is collected, by whom, and their level of knowledge and experience. For example, due to subtleties in appearance, moisture lesions (that are caused by moisture from urine, faeces, and sweat, not pressure or shear) over the buttocks and sacral areas, are often reported as category two pressure ulcers, falsely elevating pressure ulcer rates. Therefore, ensuring inter-rater reliability between nurses assessing pressure ulcers is vital to understand the extent of the issue. In a European pilot study the authors noted the challenges of determining accurate prevalence (Vanderwee et al., 2007). Further confusion has occurred with the change in pressure ulcer terminology over time when referring to their severity. Historically, pressure ulcers were classified using the term stage, for example stage one, two, three and four, with the higher number indicating increased severity. Subsequently, the literature refers to other terms that have been used more recently such as grading and categorisation. This lack of consistency in the measurement of pressure ulcer prevalence, has the potential to exaggerate or underplay the extent of the problem.

#### 1.4 The cost of pressure ulcers

The cost of pressure ulceration is considerable. It is not only the direct financial costs of wound dressings and expensive specialist equipment such as air mattresses, but also the indirect costs of extended hospital stay, due to complications of pressure ulcers such as infection and sepsis, the increase in bed days and the costs related to morbidity. These costs are not only financial and economic but also include personal costs to

patients. There are also additional costs such as nursing time and organisational reputation to be considered.

#### 1.4.1 Economic and financial costs

Pressure ulcers are regarded as a major drain on health resources (Callaghan, 2013). The most frequently quoted figures are from Bennett et al. (2004), who estimated that the cost of a grade 1 pressure ulcer was £1064 whilst a grade 4 could cost £10,551 per patient incident. At the time of the study (2004), this was calculated to constitute 4% of the NHS budget. In the United States, medical insurance companies have ceased to pay for pressure ulcers that occur in hospitals since 2008, due to the rising costs of care, which were shown to be twice that compared to a patient without a pressure ulcer (Mervis & Phillips, 2019). More recently, compared to the aforementioned studies, the treatment of pressure ulcers was found to cost the NHS more than £3.8 million per day (Stephenson & Fletcher, 2020). This does not take into consideration the investment required for the prevention of pressure ulcers or any indirect costs associated with pressure ulcer development such as increased length of stay of 5 days on average (Wood et al., 2019). The current cost of a hospital stay per bed day in the UK is between £586.59 and £799 (Guest et al., 2020; Manoukian et al., 2021). This would equate to an additional £3995 per patient for every new pressure ulcer. Therefore, the care and management of pressure ulceration pose a considerable expense to the taxpayer.

#### 1.4.2 Individual costs

Due to their severity, pressure ulcers can lead to reduced quality of life, significant morbidity for patients, and in the worst cases sepsis and death (Pressure Ulcer Research Service User Network, 2014). This is especially the case for those over the age of 75 (National Institute for Health and Care Excellence, 2015), where mortality is increased fivefold if a patient has a pressure ulcer (Office for Health Improvement and Disparities, 2015). Other consequences of pressure ulcers include increased length of stay in

hospital (Theisen et al., 2012; Wood et al., 2019) together with the pain and suffering that they can cause to individuals and their carers. Having a pressure ulcer can also cause delays in rehabilitation and restrictions on normal activities and has also been found to directly affect patients' lives due to pain or being unable to exercise or socialise (Hopkins et al., 2006).

### 1.4.3 Patient safety

Pressure ulcers are one of the major causes of patient harm in healthcare (National Institute for Health and Care Excellence, 2015; Slawomirski et al., 2017). In the UK, pressure ulcers sit under the umbrella of harm-free care, patient safety, and quality; with pressure ulcer development generally considered as an indicator of poor quality care (Black et al., 2011). The ethos of harm-free care is very much at the forefront of healthcare systems in the modern world. Pressure ulcers are not just a problem in the UK, but worldwide. In 2002, the World Health Organization (WHO) began to discuss safety as a fundamental principle of healthcare (Øvretveit, 2003). The follow-up report (World Health Organization, 2005) was written by Sir Liam Donaldson, who at that time was the Chief Medical Officer for the UK. The WHO itself does not have the power to impose such policies on sovereign states (Buse et al., 2012). Nevertheless, with such a prominent figure part of the WHO's World Alliance for Patient Safety and the UK government, it could be argued that this was one of the factors in the drive for patient safety within the UK at that time (Browning et al., 2006). Learning from incidents has since become a routine practice in the NHS. The Commissioning for Quality, and Innovation (CQUIN) framework has been used by commissioners to incentivise/penalise NHS Trusts based on operational targets that are used to reduce the number of patient harms such as pressure ulcers and falls (NHS Commissioning Board, 2013).

Measures of improvement for pressure ulcers have been monitored through various systems including the Safety Thermometer, CQUIN, and now the Model Health System (Department of Health, 2012; NHS England, 2024). Pressure ulcers remain on the patient

safety agenda with their continued inclusion in the NHS Patient Safety Strategy (NHS England and NHS Improvement, 2021).

#### 1.4.4 Litigation

The assumption that pressure ulcers develop from poor care has also led to increasing levels of litigation (Lyder, 2005). This has also been fuelled by the media interest most notably following the Mid Staffordshire “scandal” (Holmes, 2013; Weinberg, 2013). Following the investigation by Sir Robert Francis QC (Francis, 2013), many failings were identified. In terms of pressure ulceration, these included failures to record pressure ulcers (pressure ulcers were only reported on two out of 53 occasions), failure to change dressings, and inadequate staffing levels. In the same year Berwick (National Advisory Group on the Safety of Patients in England, 2013) reported that in the majority of cases of patient harm, NHS staff were not to blame and instead, it was the systems, procedures, conditions, environment, and constraints they faced that lead to patient safety problems. Nevertheless, litigation costs for pressure ulcers are growing. In 2015 80-90% of cases were settled out of court for sums between £ 20-30,000 (White et al., 2015). Until the Covid-19 pandemic, the number of claims relating to pressure ulcers has increased year on year, and between 2013 and 2023 over £76,500,000 was paid in damages (NHS Resolution, 2023a, 2023b). In addition to the cost of litigation there is also the cost in terms of organisational reputation. It has been suggested that learning through investigations following patient harm can improve organisational reputation and improve the confidence of service users (NHS Resolution, 2022). Therefore, root cause analysis investigations have been conducted following incidents.

#### 1.5 Prevention of pressure ulcers

Considering the factors and statistics presented, the prevention of pressure ulcers is vital. In many (although not all) cases, pressure ulcers can be prevented (Downie et al., 2013). Prevention strategies include nurses carrying out regular skin checks, the use of

specialist equipment such as pressure relieving and reducing mattresses and cushions<sup>2</sup>, regular repositioning, the frequency of which is dependent on patient risk, management of incontinence and moisture, and ensuring nutritional needs are met and any deficits are addressed. These elements make up the SSKIN bundle: S-skin, S-surface, K-keep moving, I-management of incontinence, and N-nutrition (NHS Improvement, 2018b). This bundle was originally developed in 2004 in Florida (Whitlock et al., 2011). It has evolved to include assessment of risk and the giving of information and is now widely used across the UK as an effective means of ensuring patients receive the correct care to prevent pressure ulcers (McCoulough, 2016).

There are multiple facets to the development of pressure ulcers, and some are unavoidable. Due to their clinical condition, some patients will still develop pressure injuries despite prevention strategies being in place (Downie et al., 2013, 2014). Conversely, many pressure ulcers are avoidable and can be prevented and in 2012 the NHS Midlands and East 'Ambition' programme was rolled out to eliminate all avoidable grade 2, 3, and 4 pressure ulcers. Of the key messages reported from this programme, the most poignant was that 95% of pressure ulcers were avoidable. This notable figure that became a much quoted mantra, was originally stated by Hibbs, a well-respected Chief Nurse in London who hypothesised that 95% were preventable (Hibbs, 1988). This comment was not based on research evidence but has now been accepted as accurate (Downie et al., 2013). This 95%, has since been echoed by many including Black et al. (2011), McIntyre et al. (2012), NHS Scotland (2009), and the Department of Health (2009) who have stated that most pressure ulcers are preventable. However, not all pressure damage can be avoided (Callaghan, 2013). In one paper, five acute NHS Trusts showed that only 43% of grade 3 and 4 pressure ulcers were avoidable following scrutiny under the NHS-approved definition at that time of what constitutes an avoidable/unavoidable pressure ulcer (Downie et al., 2013; NHS Midlands and East, 2012). Notwithstanding the actual percentage, relevant here is the accepted notion that pressure ulcers can be prevented in many cases and therefore preventative strategies such as repositioning, the

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<sup>2</sup> These are sometimes called air mattresses or dynamic mattresses; patients with a fractured neck of femur are nursed on air mattresses initially due to their high-risk status.

use of specialist support surfaces and mattresses, and ensuring adequate nutrition remain the mainstay of reducing harm from pressure ulcers (Gillespie et al., 2020; Rich et al., 2011).

## 1.6 Older people

Compared with other age groups, older people are significant users of healthcare (Elias & Lowton, 2014; McNeil et al., 2016). Patient care activity data, shows that in the year 2022-2023, a total of 9,008,192 people over the age of 65 years were admitted to hospital in England. This accounted for almost half of all patients admitted during this time (NHS Digital, 2023). This increase in older people's use of health services compared to other age groups was shown to be due to physical functioning and cognitive decline (Cohen-Mansfield et al., 2013). In addition, it was reported that patients over the age of 65 years accounted for over 40% of all hospital admissions, with 33% of hospital beds being occupied by an older person (British Geriatrics Society, 2023). Taken together with the increased risk of pressure ulceration in this group, this informed the decision to focus this research on older people.

Age can be interpreted in several ways. This can be: chronologically (the age in years); physiologically (medically constructed age associated with the ageing body and degeneration); or sociologically (through socially constructed norms such as retirement age) (Arber, 2013). The categorisation of people is often based on their chronological age (British Medical Association, 2016). However, there are drawbacks to this. Traditionally in the UK the age of 65 years has been the gateway to old age however there is no longer one official age of retirement with incremental increases to retirement ages potentially being levelled on consecutive generations in the future (Office of National Statistics, 2019). In comparison, the WHO defines an older person as someone who has passed the median life expectancy at birth (World Health Organization, 2015). The current median life expectancy in the UK is 78.6 years for males and 82.6 years for females (Office for National Statistics, 2024a).

As people age biologically at different rates, a person aged 75 may well be healthier than a 60-year-old (NHS England, 2014a). Yet, many older people still attribute health conditions to normal ageing (the increase in the number and severity of physiological health conditions as chronological age increases) rather than the presence of disease (Elias & Lowton, 2014). Increasing older age is often seen negatively as a period of decline and whilst older age is a risk factor for pressure ulceration and hip fracture, not all older people will be affected. There exists a new ageing discourse where retirement and/or old age can provide opportunities that were not previously available due to other social obligations such as work (Jolanki, 2009). Some older adults volunteer at least once per week (16.4%) however it is acknowledged that those aged 65-69 are more likely to do so (Age UK, 2019). Being chronologically older does not automatically mean that older people are not able to continue to have fulfilling lives or that they will experience health problems.

In building on the above, when delivering healthcare or undertaking research with older people, it is also deemed necessary to make the distinction between 'young old' and 'old old', as there are differences in their health status, activity participation, and life satisfaction (Ihle et al., 2016). It is necessary to distinguish between the experiences and needs of diverse age groups especially in countries where there is a large age range of older adults. In developed countries, this distinction is made based again on chronological age at which 50% of the birth cohort is no longer alive (Ihle et al., 2016). There is a considerable variation in the definitions and several have been used to define young old, old, and oldest old (Gjonça et al., 2010). Social gerontologists divide the young old and the old old with the demarcation at the age of 75 (Wiles, 1987). Yet Gjonça et al., (2010) define people aged 65-79 as younger old, over 80 years as old, and over 85 oldest old. It has also been suggested that old (ages 75-84), old-old (85-94), and oldest-old (95+) fall within these chronologically set groups (Cohen-Mansfield et al., 2013). The relevance of this will be further discussed in Chapter 4 with reference to the sampling used and research design of the study.

## 1.7 Why fractured neck of femur?

Hip fracture is the most common type of fragility fracture among older people (National Institute for Health and Care Excellence, 2018). Approximately 70,000 to 75,000 people fracture their hip every year in the UK (National Institute for Health and Clinical Excellence, 2011a). The National Hip Fracture Database (Royal College of Physicians, 2023a) collates data for patients in England, Wales and Northern Ireland and this has shown increasing numbers of patients admitted with hip fractures each year. The only exception to this was in 2020 when there was a slight decrease on the previous year which may have been due to the Covid-19 pandemic. The most recent figures showed that 72,381 patients were admitted with a fractured neck of femur during 2023 (Royal College of Physicians, 2023a). Most hip fractures (95%) occur due to trauma (often following a fall) rather than due to underlying pathology such as malignancy (Emmerson et al., 2021). With over half of all over 65-year-olds sustaining a fall every year, many of these result in fractures (National Institute for Health and Care Excellence, 2018). The risk of falling increases with age and falls are more likely if the person has fallen previously (National Institute for Health and Care Excellence, 2013a). Falls represent the largest cause of hospital admission for older people (Blackburn et al., 2022). In the year 2020/21, this accounted for 216,1075 people admitted to hospital in England as an emergency with 67% of these being over the age of 80 years (Office for Health Improvement and Disparities, 2021). The average age for hip fracture is 84 years for men and 83 years for women (National Institute for Health and Clinical Excellence, 2011a). The majority of patients who fracture their hips are women (Griffiths et al., 2015). The increased number of women (compared to men) who sustain fractured neck of femur, can be explained by the incidence of osteoporosis in women due to the relationship between reduced levels of oestrogen post-menopause (NHS, 2022).

Mortality and morbidity following a fractured neck of femur present healthcare challenges. It has been stated and frequently cited that 10% of patients die within one month and a third within 12 months following the fracture (National Institute for Health and Clinical Excellence, 2011a). More recent data have refuted this and stated that mortality is now reduced to nearer 7% within one month, due to advances in care delivery (Downey et al., 2019). The most recent data shows the national average mortality rate to

be 6.4% following a hip fracture (Royal College of Physicians, 2023a). Morbidity is also common amongst this group for reasons previously stated including increasing age and multiple comorbidities.

Increased morbidity can lead to an increased overall length of stay following hip fracture; currently, this is on average, 20.2 days (Royal College of Physicians, 2023a). However, the length of stay is not solely due to the management of the fracture. A study in Australia found that rehabilitation and management of comorbidities accounted for an increased length of stay of 37% and 20% respectively, with pressure ulcers increasing the length of stay by 25% (Ireland et al., 2015).

The multiple risks including pressure ulceration that are associated with hip fracture led to the establishment of the National Hip Fracture Database in 2007, in response to reviewing and improving the standards of care through audit (Royal College of Physicians, 2021). All Trusts in England, Wales, and Northern Ireland are required to input their audit data into the national database. This includes key performance indicators (KPIs) for the care and management of patients who sustain a hip fracture. The KPIs have remained the same within the National Institute for Health and Care Excellence (NICE) guidelines for hip fracture, published in 2011 and updated in 2023 (National Institute for Health and Care Excellence, 2023). The KPIs include: receiving a prompt ortho-geriatrician review; being admitted to a specialist ward within 4 hours of presenting in the Emergency Department; having surgery on the day or the day following admission; and having rehabilitation and prompt mobilisation after surgery (Royal College of Physicians, 2023b). Details of the KPIs can be found in Appendix 2. To ensure standards are met and maintained and mortality and morbidity are reduced, all patients are now cared for using a specific care pathway for fractured neck of femur which encompasses these elements.

Pressure ulcers are a well-documented complication following hip fracture. Patients who have sustained a fractured neck of femur exhibit similar characteristics as other patients known to be at high risk of pressure ulceration (Donnelly et al., 2011). This therefore substantiates the understanding that hip fracture puts this group of patients at considerable risk of pressure ulceration. Any patient can develop a pressure ulcer but

the risk is increased substantially if the patient is seriously ill, elderly, or has reduced mobility as is the case when a hip fracture occurs (Hung et al., 2012; National Institute for Health and Care Excellence, 2014). Patients who sustain a fractured neck of femur are at high risk for pressure ulcers with an incidence of 18.5% (Albatineh et al., 2020). Such findings have remained constant throughout the last 30-40 years (Versluysen, 1986; Margolis et al., 2002; Baumgarten et al., 2003, 2012; Lindholm et al., 2008 ). Often patients must be medically stabilised before they are deemed medically fit to survive the surgery, with the caveat being the increased risk of pressure ulceration whilst they remain immobile. Delays in surgery of more than 24 hours following hip fracture, have also consistently been found to increase the development of pressure ulcers (Baumgarten et al., 2003; Rodriguez-Fernandez et al., 2011; Chiari et al., 2017; Sasabuchi et al., 2018). The most recent data for England, Wales, and Northern Ireland, showed that 7.7% of patients with a fractured hip sustained a pressure ulcer (Royal College of Physicians, 2023a). The number of patients sustaining a pressure ulcer following a fractured neck of femur, had been decreasing up until 2018 when the rate was 3.2% however there has since been a gradual increase (Royal College of Physicians, 2023a).

## 1.8 Why are pressure ulcers still occurring?

Despite research and advances in prevention, pressure ulcers are still happening. Controversially, it could be suggested that advances in medicine and successful treatments are partly responsible for the increasing number of pressure ulcers in some patient groups. The benefits of modern-day medicine can be challenged by iatrogenic causes, and doctor-induced illness, resulting from medical intervention (Bilton et al., 2002). Patients who would otherwise have died from injuries or illness are now living longer due to these advances (NHS England, 2014b). The consequence of this is that they are often sicker with more comorbidities and therefore the risk of pressure ulceration is far greater. In the UK, current life expectancy at birth is 78.6 years for males and 82.6 for females (Office for National Statistics, 2024b). It has long been realised that increasing age has an impact on pressure ulcer risk, and as above being older (70 years

old or above) has been identified in several studies as increasing the risk of pressure ulcer development (Chiari et al., 2017; Forni et al., 2018; Galivanche et al., 2020; Lindholm et al., 2008). So, despite medical advances in healthcare, pressure ulcers continue to cause distress to both patients and healthcare professionals who endeavour to prevent them (Dealey et al., 2015). This problem is set to increase and by 2070 it is projected that there will be 8.2 million more people aged over 65 (Office for National Statistics, 2019b). Given that there are currently just under 12 million people over 65 living in the UK (Age UK, 2019), this will take the total to beyond 20 million.

### 1.8.1 What has already been researched?

There is a plethora of research into the various aspects of pressure ulcer prevention and management. This includes wound care and wound dressings, the effectiveness of specialist equipment and prevention strategies, economic evaluations, the importance of nutrition, management of incontinence, accurate and timely assessment, compliance to prevention strategies, nurse education, knowledge, attitudes, and behaviours linked to pressure ulcer prevention and repositioning techniques. Cochrane Systematic Reviews have appraised various aspects of pressure ulcer prevention and treatment including evidence on: repositioning for prevention and treatment (Gillespie et al., 2020; Moore & Patton, 2019); the use of support surfaces (McInnes et al., 2018; Shi et al., 2021); the use of dressings (Moore & Webster, 2018; Walker et al., 2017) and pressure ulcer risk assessment tools (Moore & Patton, 2019). Much of this research has led to the development of national and international guidelines such as the National Institute for Health and Care Excellence (NICE) Pressure Ulcer Guidelines and the European Pressure Ulcer Advisory Panel (EPUAP) treatment reference guide (European Pressure Ulcer Advisory Panel & Alliance, 2019; National Institute for Health and Care Excellence, 2014). It has also resulted in changes in clinical practice and provided nurses with knowledge of how best to prevent and treat patients with pressure ulcers.

Still, pressure ulcers continue to be a huge problem, and this poses the question of what else can be done (Jaul et al., 2018). Whilst the initial review of literature, research and

practice to this point (in this chapter)...adds to the body of literature on pressure ulcers, this is not of direct value to this review as these elements do not focus on the patient experience. However, in recent years the research into patient experiences and the role of the patient have been considered. Several studies have focused on patients' experience of pressure ulcers (Gourlan et al., 2020; Hopkins et al., 2006). This has also included patient participation in pressure ulcer prevention (Deakin et al., 2020; Ledger et al., 2020; Schoeps et al., 2017). Yet only one study was found that focussed on older peoples' participation in pressure ulcer prevention within the realm of hip fractures (Hultin et al., 2019). Given the interest that other aspects (as discussed above) of pressure ulcer prevention and management have received, it could be argued that with this gap in the literature, research focusing specifically at this juncture is now worthy of attention and consideration.

### 1.8.2 Participation in care

Patient participation in health care stemmed from the move from a paternalistic approach to healthcare towards a more person-centred approach and has resulted in patients being more involved in their care decisions and care delivery. This change has been given additional impetus through the publication of government reports such as The Five Year Forward View (NHS England, 2014b) and changes in legislation under the Health and Social Care Act 2012. In 2021, the most recent Adult Inpatient Survey found that 79% of patients were involved in decisions about their care (Care Quality Commission, 2022). However, from clinical experience, it is noted that patients do not always want or have the capability to be involved or participate when they are acutely unwell. As hip fracture is a traumatic event (Segevall et al., 2019), and can result in patients being acutely unwell and dependent, this requires further investigation.

## 1.9 Patient priorities

As a Tissue Viability Nurse with the responsibility for overseeing the management of pressure ulcers following fractured neck of femur, I was keen to seek clarity on whether active patient participation may provide a suggestion of what else can be done (see section 1.8.1) in the prevention of pressure ulcers for patients with hip fracture. As discussed earlier in section 1.2, there was a need to find out if older patients did want to participate in pressure ulcer prevention following hip fracture or whether this was disadvantageous to them and their care.

At the outset, the aim of the study was to understand the patient experience of pressure ulcer prevention following a fractured neck of femur. The study started with one research question but in the process of working through the interviews and the data collection phase, it became apparent that what patients perceived to be the important aspects of their recovery following hip fracture, did not involve pressure ulcer prevention. Having the focus of the research study change direction in view of the findings was unforeseen, however, it is not exceptional. Celia Orona also experienced this in her research into Alzheimer's disease. Her original focus was to understand how caregiving relatives made the decision to institutionalise their loved ones (Orona, 1989). Nevertheless, following the pilot interviews, it became apparent that there was no decision needed about when to institutionalise a loved one when the time came. Instead, the caregivers just knew that the time had come and what they needed to do. Orona (1990) can therefore be seen to have shifted her focus from decision-making to identity loss as perceived by the respondents. A similar change of direction is reflected in the current study.

From the point of fracture and in the early stages of recovery there was so much going on for participants that pressure ulcer prevention was a very low priority for them. So, to reflect this and refocus on what was seen to be of paramount importance for participants at this time, the focus shifted during the analysis phase to explore why participants were not engaged in pressure ulcer prevention, how their overall hip fracture experience impacted their recovery and in turn how this impacted on the ability for hospital staff to deliver pressure ulcer prevention. Other aspects such as the experience of being in

hospital, and the different rates of recovery were also analysed to propose where and when pressure ulcer education could be appropriate.

In light of the focus change, being undertaken at the analysis stage, of note here is that no changes were made to the interview checklist as all respondents had been interviewed prior to this focus change being considered. Only two questions in the interview topic guide addressed the experience of fractured neck of femur, but they had much to say about this. Conversely, whilst all the other questions in the interview topic guide were focused on pressure ulcers, participants had little to say on this subject. The original literature review covered pressure ulcer prevention, but the data analysis and subsequent change of direction led to the development and inclusion of a second literature review chapter addressing the experience of hip fracture. This change of direction will be revisited in the discussion and conclusion chapters.

#### 1.10 Outline of the dissertation

This chapter has provided a succinct contextual background for the study as to why pressure ulcer prevention is a critical issue within healthcare. Chapter 1 introduced the topic and outlined the extent of the problem and the prevalence of hip fractures and pressure ulcers in the UK. The causes and factors that increase the risk of developing these injuries were discussed. It considered the physical and psychological effects on patients, the consequences of pressure ulcers, and the effect on the quality of life. It also viewed pressure ulcers from a range of perspectives including organisational reputation, litigation, and patient safety. In most cases, pressure ulcers are preventable and evidence-based prevention strategies that are used in clinical practice have been summarised. Within this chapter it is also recognised that there are two differing bodies of literature that are both valuable to further review. Finally, the rationale for focusing on older people was also considered. Justification for a focus on patient experience, combined with the recruitment of older people who have sustained hip fractures has been proffered as an area of research that may well lead to further insights of how to prevent pressure ulcers for this group of patients. In addition, this chapter has provided some initial explanation as to why the direction of the research changed, specifically to

represent the views of participants and what they perceived to be the important aspects of their recovery following hip fracture.

Chapter 2 reviews the literature on patient participation in pressure ulcer prevention and Chapter 3 details the current literature on the patients' experience of hip fracture. As signalled in the introduction, these two bodies of literature appear to exist in isolation in that there is only one paper that tenuously incorporates the two. They are therefore presented in two separate chapters. Chapter 2 focuses on patient participation and involvement in pressure ulcer prevention and looks at the strategies that are successful as well as discussing what strategies are not beneficial. The timing of education and information giving and how this is achieved in practice is also established. Chapter 3 discusses the literature on patients' experiences following hip fracture and the associated theoretical frameworks that have previously been used to explain this including biographical disruption and locus of control. Literature examining the patient's journey from the point of injury to getting to the Emergency Department, surgery, and the initial phases of recovery are also reviewed and explored.

Chapter 4 presents the methodological aspects of the study. As the literature review identified a gap in patient experience of pressure ulcer prevention following hip fracture, a qualitative methodology to understand this phenomenon is outlined. This includes the challenges of recruiting older people, details of the research site, and how the participants were selected for the study. Ethical aspects are also discussed in this chapter. The chapter outlines how and why semi-structured interviews were used to obtain relevant data, that twenty-one participants were interviewed, with the digital recordings being transcribed and analysed with the aid of computer-assisted analysis software NVivo12. From this, themes were identified from the emergent codes, and thematic networks were developed to interpret the data. Challenges that arose during the research process are also presented including a reflective section on being a practitioner-researcher.

Chapters 5, 6 and 7 present the findings of the research. Chapter 5 details the patients' perspectives of the injury, including the transition to becoming an inpatient, and the need to be dependent on others in the initial stages following the fracture. Chapter 6 focuses

on the patient's experience of recovery incorporating biographical disruption and variants as a conceptual framework and lens, and Chapter 7 explores pressure ulcer prevention in an acute care environment from the patient perspective.

Chapter 8 discusses the findings in relation to the empirical and conceptual literature and introduces the pressure ulcer paradox. Finally, Chapter 9 concludes the dissertation by discussing the contribution this study makes to knowledge and the body of literature on pressure ulcers and hip fracture. The strengths and limitations of the study are discussed before highlighting the implications of the findings on nursing practice and policy development. Recommendations are made and to conclude ideas for future research that have arisen during the study are suggested.

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## *Chapter 2 - Literature Review - Pressure Ulcers*

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### 2.1 Chapter overview

As indicated in the outline of the dissertation, the literature review has been separated into two chapters. The bodies of literature that support this research, are substantial and having two chapters allows for a clear exploration of each of these. This also aided in identifying the gap in the literature and helps to explain how this research links them. Chapter 2 outlines the initial search strategy that was used and critically discusses the evidence base on hip fracture and risk factors for pressure ulcers; knowledge, involvement, participation, and empowerment of older people in care; patient knowledge, involvement and participation in pressure ulcer prevention and patient experience of pressure ulcer prevention following hip fracture. Chapter 3 will present the literature that discusses older people's experiences following hip fracture and older people's experiences of their involvement in care.

### 2.2 Search strategy

A preliminary literature review was undertaken in 2015, and subsequent searches were undertaken in 2018, 2022 and 2024 to check for any new research published between these periods. The review aimed to identify the current literature on patient experience and participation in pressure ulcer prevention, and the patient experience of hip fracture. Searches were performed using various health-related electronic databases including CINAHL Plus, Pubmed, Medline, The Cochrane Library, TRIP, and Scopus. The Opengrey database and The National Institute for Health and Care Excellence (NICE) were also used to highlight unpublished studies and other potentially relevant publications. The search strategy was developed by reviewing, adapting, and updating the terms used. When running the preliminary searches, what worked well in terms of an effective search for one database, did not prove to be the same when using the same consistent search terms for another database. Therefore, initially, it was a case of trial and error to obtain

relevant studies whilst ensuring a manageable number of hits following the insertion of the search string into each database.

The initial searches, although comprehensive, proved unwieldy and returned thousands of hits within each database even after limits were applied. Keywords, for example, “skin”, took the searches off at tangents into dermatology, presenting papers that were not relevant. Therefore, a focused yet pragmatic approach was needed to obtain studies that were relevant to the research question and its aims and objectives but to also present a manageable number of initial hits that could then be screened. Subsequently, a Medical Subject Heading (MeSH) analysis was undertaken of key papers that had been previously identified, which provided alternative search terms. These included patient participation, pamphlets, health knowledge, attitudes and pressure ulcer prevention and control as a MeSH heading. These were then used along with other keywords identified in Table 1.

Table 1 - Population, Exposure and Outcome (PEO) Table

	Keywords	Alternative keywords	Search Strategy
<b>P</b>	Patient*	Elderly, Older people, Older adults	Patient* OR Elderly OR "Older people" OR "Older adults" NOT Paed* NOT Child* NOT Nurs*
			AND
<b>E</b>	Fractured neck of femur	Hip fracture, fractured hip, NOF	"Fractured neck of femur" OR "Fractured hip" OR "Hip fracture" OR "NOF"
			AND
<b>E</b>	"Pressure ulcer" as a MeSH term to include subheadings of prevention and control		"Pressure ulcer" MeSH OR "Pressure ulcer N3 prevention"
			AND
<b>O</b>	Experience	"Patient experience"  participat*  engag*  involv*  behaviour*  view*  empower*  "Locus of control"  Knowledge	Experience OR "Patient experience" OR particip* OR engag* OR involv* OR behaviour* OR view* OR empower* OR "Locus of control" OR Knowledge

The MeSH “pressure ulcer” was used to increase the scope of the search and find studies relating to pressure ulcers and pressure ulcer prevention. There are multiple alternative terms for pressure ulcer including decubitus ulcer and pressure sore. Although pressure sore is an outdated term within the domain of tissue viability in the UK, it is still used in international literature and therefore warranted inclusion. The use of the MeSH heading also focused the search to look specifically for pressure ulcer prevention and control rather than pressure ulcers (and any alternative terms) in general. Proximity searching was employed for the term “pressure ulcer N3 prevention”. This meant that where studies used these three words in a different order for example prevention of pressure ulcer, this would still be captured by the searches. Wildcard symbols such as \* were used to ensure the inclusion of words such as patient and patients and Boolean operators ‘AND’ and ‘OR’ were used to combine searches along with ‘NOT’. Given that the focus required was on the experiences of older people, this operator was specifically employed with child\* and nurs\* to rule out studies involving children and to also exclude the wealth of studies that look at nurses’ perceptions, knowledge, or awareness of pressure ulcer prevention. The results of the electronic database searches can be found in Table 2.

*Table 2 - Electronic database searches*

<b>Database</b>	<b>Hits</b>	<b>Timeframe (2003-2022 )</b>	<b>Language English</b>	<b>Total</b>
<b>CINAHL Plus</b>	7054	5976	5552	836
<b>Medline</b>	3270	2324	2152	580
<b>Pubmed</b>	25	24	22	22
<b>The Cochrane Library</b>	48	48	48	48
<b>Scopus</b>	135	133	127	6
<b>TRIP</b>	23	23	23	0
<b>OpenGrey</b>	14	13	13	2
<b>Total</b>	10569	8541	7937	1494

Due to the large number of hits, limits were applied within the databases to focus the search further. The use of limits provides a valid method for collating evidence in a timely manner (Xu et al., 2022). The limits used can be seen in Table 3.

*Table 3 - Limits applied within the databases*

Limits		
	Detail	Rationale
<b>Time frame</b>	Dates 2003- 2024	A key study was published in 2003 that focused on patient experience of hip fracture (Archibald, 2003) and then other studies followed. NICE, published hip fracture guidance and management documents in 2007 however there were important studies (mostly cohort studies) carried out before this that warranted inclusion. There was also a greater focus on patient involvement in NHS healthcare in 2016.
<b>Language</b>	English	The limits and scope of this study do not allow for interpreters to be used.

### 2.2.1 Inclusion and exclusion criteria

Following the searches, the titles and abstracts were screened using the inclusion and exclusion criteria in Table 2.4. Although a few studies relating to patient experience of hip fracture and participation in pressure ulcer prevention respectively were found during the search process, none met the standards set for inclusion. Only good quality, methodologically sound and robust research studies were included as the review required empirical papers and not expert opinion. Whilst it is acknowledged that the hierarchy of evidence is not necessarily a guide to study quality (Polgar & Thomas, 2020), assessment of methodological quality is necessary before any decision on inclusion is taken (Ma et al., 2020). Therefore, this resulted in conference presentations, audit or service evaluation projects, discussion papers and expert opinion papers being rejected in favour of published, peer-reviewed primary research studies.

It is worth noting here, that early research carried out on patient knowledge and participation in pressure ulcer care, focused on patients with spinal injuries. The risk of pressure ulcers is exceptionally high, remains the most common complication in this group of patients and has been extensively researched (Gourlan et al., 2020). Subsequently, a large body of literature has developed around pressure ulcer prevention and management in patients with spinal injuries. Themes highlighted in this discourse of literature include effective educational strategies along with factors that affect behaviour and knowledge (Guihan et al., 2014; Mohamad Hashim et al., 2021; Visser & Visagie, 2019). Reduced, or lack of, mobility and lack of sensation because of injury is reported as being one of the major independent risk factors for pressure ulcer development (Coleman et al., 2013). In addition, the average age for spinal injury has increased from 29 years in the 1970s to 43 years in 2018 (Kang et al., 2017). Subsequently, much of the research carried out on patients with spinal injuries and pressure ulcers focuses on younger people who may have differing perceptions, care experiences and challenges in addition to mobility issues. Hence, after a period of consideration, it was decided to discard these studies as the focus of this study is on older patients over the age of 65 years.

Table 4 - Inclusion/exclusion criteria

Inclusion	Exclusion
Studies published in English	Studies that were not published in English
Studies published since 2003	Studies published before 2003
Primary research, quantitative and qualitative studies, systematic reviews, and other types of reviews such as narrative reviews.	Expert opinion, anecdotal evidence, audit, conference papers
Studies involving older adults over 65 (as outlined in Chapter 1)	Studies involving children
Studies including patient experience, knowledge, participation	Studies that focused on nurse's rather than patient's experience, knowledge, perception, attitudes
Pressure ulcers	Ulcers having a different aetiology i.e. not due to pressure therefore specifically excluded diabetic foot ulcers, leg ulcers
Hip fracture	Studies relating to patients with spinal injuries
	Studies that focused on patient participation that was not related to hip fracture or pressure ulcers
	Studies that did not include the acute phases of recovery following hip fracture

### 2.2.2 Critical appraisal of studies

Critical appraisal of the final studies was carried out using the Critical Appraisal Skills Programme (CASP) framework. The CASP tool is the most commonly used quality appraisal tool for healthcare-related topics (Long et al., 2020). Using a framework for critical appraisal is time-consuming, however, a framework can provide structure to the process and provides a means of ensuring that all elements are considered (Holland &

Rees, 2010). Other frameworks were considered such as the tool developed by Holland and Rees (2010) and the Critiquing Framework (Caldwell et al., 2011), however, the CASP tools (of which there are several for differing methodologies) for systematic reviews, qualitative studies and cohort studies were used as they provided a more detailed framework, and useful questions on how to critique all of the different study types including systematic reviews and mixed methods studies. The following Prisma diagram shows how the studies identified were screened.

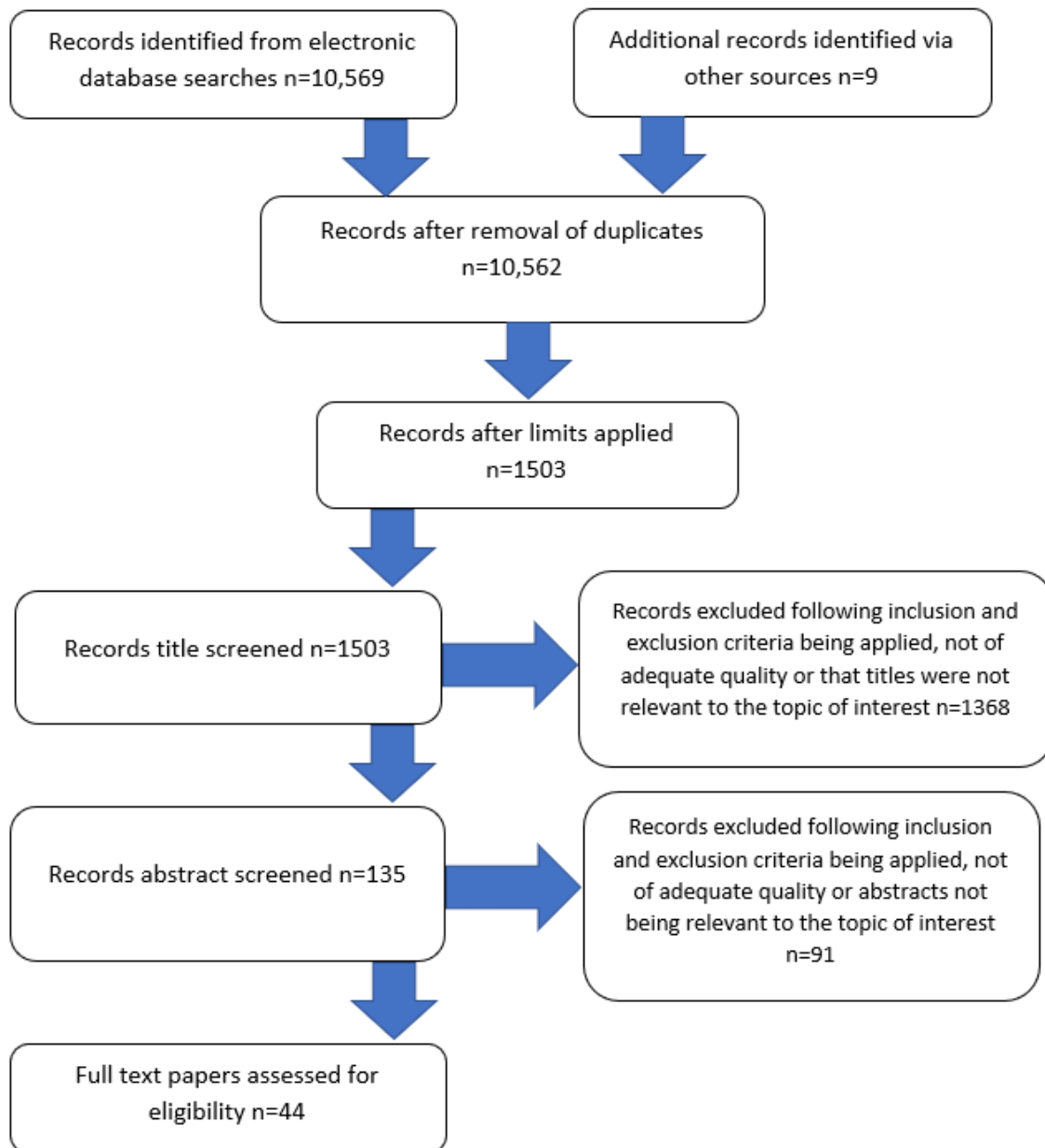


Figure 1 Prisma diagram

### 2.2.3 Results of the literature search

Following the screening process, 44 papers were left for inclusion in the final literature review. References were stored electronically using the referencing software Mendeley. Of the 44 studies, 21 were qualitative studies including the use of the Q-methodical approach, phenomenology, interpretative phenomenological analysis, thematic analysis, content analysis and narrative enquiry. Quantitative research papers totalled 17, including randomised controlled trials, numerous cohort studies and quasi-experimental studies. Three were systematic reviews, two used a mixed-method study design and one was a literature review. Research on this topic is worldwide, however, most of the studies were carried out in the United Kingdom (UK) (10), Australia (10) and Sweden (7).

After reading and analysing the studies, findings could be easily separated into four distinct themes. Identification of themes is important as the purpose of a literature review is not just to present results but to compare and contrast findings from different studies (Aveyard, 2018). The themes identified using a data extraction tool (see Appendix 3 and Appendix 4) included: hip fractures and pressure ulcers; patient knowledge, involvement, and participation in pressure ulcer prevention; older people's experiences following hip fracture; and older people's experiences of acute care. What can be seen from this literature review is that patient experience of pressure ulcer prevention following hip fracture has not been widely researched. There is a wealth of research about patients and pressure ulcer prevention and a wealth of research about hip fracture, but despite an extensive search of several health databases, only one study was found that included all these elements. However, that study focused on the use of technology to facilitate participation and the population although over 65 years of age were from an orthopaedic rehabilitation unit so it was not solely limited to patients who had sustained a fractured neck of femur (Hultin et al., 2019). Therefore, this affirms the evidence gap perceived in the research literature, provides justification for this study. The four themes will now be explored in more detail.

## 2.3 Hip fracture and risk factors for pressure ulcers

Patients who have sustained a hip fracture are at greater risk of developing a pressure ulcer (McGee et al., 2017). The studies reviewed, identified multiple variables for this. These include age, gender, comorbidities such as diabetes, dementia, haemoglobin level and presence of existing pressure ulcer, handgrip strength and the level of functional ability before the fracture occurs. Twelve papers were identified that discussed hip fracture in conjunction with pressure ulcers. The majority of these were cohort studies that looked at the risk factors both intrinsic and extrinsic for pressure ulcer development. There was also one systematic review, one quasi-experimental study and one randomised controlled trial. These studies had been conducted worldwide but were mainly situated in the United States of America (USA) and Europe. Ethical considerations were discussed in all the studies reviewed. Noting these aspects helps to demonstrate the robustness of the research design and the processes undertaken to ensure participants were treated ethically during these studies. Ethical approval was sought from Institutional Review Boards, and hospital or University ethics committees as dictated by the requirements in each country. Where participants were unable to consent due to mental capacity, consent was obtained from a legal representative or next of kin.

### 2.3.1 Intrinsic factors that affect pressure ulcer development

Findings from these cohort studies identified intrinsic and extrinsic factors that were shown to increase the risk of developing a pressure ulcer. Intrinsic factors such as age, cannot be managed or controlled but are nevertheless useful in the identification of patients who are at greater risk.

#### 2.3.1.1 Age and gender

Age was identified by four of the studies as having an impact on pressure ulcer risk (Chiari et al., 2017; Forni et al., 2018; Galivanche et al., 2020; Lindholm et al., 2008). Being older

(70 years old or above) increases the risk of pressure ulcer development. These studies set out to recruit participants over the age of 65 years who had fractured their hip. The actual age differed between studies, but the minimum age ranged from 70 years to a maximum of 81 years. Age was one of the risk factors for pressure ulceration that was identified and found to be statistically significant for patients over 71 years old (Lindholm et al., 2008). Two Italian studies also had similar findings (Chiari et al., 2017; Forni et al., 2018). Even though several intrinsic characteristics were assessed, only age more than 80 years was found to be statistically significant by Chiari et al. (2017). Subsequently, Forni et al. (2018) found the age range to be slightly increased to over 81 years. Given that increasing age is a known risk factor for pressure ulceration due to changes in ageing skin, these findings for patients with hip fractures are not surprising and in keeping with previously held knowledge (Coleman et al., 2013).

As well as increasing age, the fourth study found statistically significant gender differences, with more men than women sustaining post-operative pressure ulceration (Galivanche et al., 2020). This study included considerably more women than men however, this is likely to be due to the heightened risk and occurrence of hip fracture in females, due to reduced levels of oestrogen, changes in bone density and osteoporosis post-menopause (NHS, 2022). However, this was the only study that found gender differences and that being male, was statistically significant for increased risk of pressure ulceration following hip fracture. This conflicts with what nurses have been led to understand, through the use of the Waterlow risk assessment tool (Waterlow, 2005), one of the most commonly used tools in the UK (Wynn & Holloway, 2019). Within the tool, female patients are scored higher than male patients however more recent evidence has shown that gender cannot be used alone in assessing risk (Lichterfeld-Kottner et al., 2020).

### 2.3.1.2 Comorbidities and the patient's condition

Two studies reviewed a range of comorbidities (Galivanche et al., 2020; Lindholm et al., 2008). Smoking status, blood pressure, haemoglobin level, and body mass index (BMI)

were included in the study by Lindholm et al. (2008). Factors that were identified to be statistically significant were dehydration, moist skin (due to incontinence) and sensory perception (Lindholm et al., 2008). This study also identified the presence of diabetes and pulmonary disease as statistically significant for pressure ulcer development. Other than insulin-dependent diabetes mellitus, Galivanche et al, (2020) found additional factors that were associated with pressure ulcer development in their study. These were sepsis, high pre-operative platelet count, having an existing pressure ulcer, pneumonia, urinary tract infection, delirium and if patients were partially or functionally dependent before the injury. The second study was more recent and therefore perceivably has greater relevance to current healthcare given the increased dependency of older patients who sustain hip fractures (Galivanche et al., 2020). The sample size in the more recent study (n=8871 versus n=635) was also substantially larger. Whilst the sample size in this study did not affect the statistical analysis, the authors did acknowledge that the data collection was carried out over a single year, during which there was a low incidence of pressure ulcers potentially limiting the statistical power which was acknowledged by the authors as a limitation of the study (Galivanche et al., 2020). In addition to these studies that looked at intrinsic factors, a novel observational longitudinal cohort study carried out in Mexico reported that low handgrip strength was associated with a higher incidence of pressure ulcers in patients with hip fractures (Gonzalez et al., 2018). Although other factors were considered including nutrition and Barthel's index<sup>3</sup> pre-fracture, only hand grip strength was shown to be associated with pressure ulcer development after statistical analysis. Overall, it was reported that the patient's health did impact pressure ulcer risk with handgrip strength providing an easily measurable method of assessing patients who may be at risk.

### 2.3.2 Extrinsic factors that Impact pressure ulcer development

All the studies reviewed under this theme investigated extrinsic factors that can lead to pressure ulcer development. These can be collated into subthemes that encompass the

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<sup>3</sup> A tool used to assess the physical condition and independence of patients (Mayoral et al., 2019).

patient journey incorporating time spent in the Emergency Department (ED), surgical delays, use of a care pathway, nutritional supplementation, use of preventative strategies, and continence management.

### 2.3.2.1 Time spent in the emergency department

The duration of time spent in ED was discussed by Baumgarten et al, (2012) in their study. Baumgarten has researched extensively into this area of practice and has written several papers on hip fracture care. Skin was only assessed for pressure ulcers whilst each patient was in the hospital and no record of any which occurred after discharge were captured. Given that pressure ulcers can take time to develop and are not always visualised immediately, this could have skewed the findings and results. Pressure ulcers were identified in 96 participants (14.6%) during the study, most commonly those that were stage 2 on the sacral area of the body. When this research was carried out, staging to assess the severity of pressure ulcers was used rather than the categories that are now employed (see Appendix 1). One of the findings was that a longer emergency department stay was associated with a lower incidence of hospital-acquired pressure ulcers (HAPU). The authors argued that this was due to the sicker (and therefore higher risk) patients being admitted and transferred from the ED more quickly. What is not clear from the paper is what surface patients were nursed on within the emergency department. Hospital trolleys used in places such as the emergency and operating theatre departments have a firmer surface on which patients are nursed which may contribute more to pressure ulcer development than if the patient was nursed on a pressure redistributing mattress on a ward. Trolleys do not readily allow repositioning of patients to occur as they are too narrow, and other preventative measures were not accounted for in the study such as repositioning. This can increase the risk of pressure ulcers when compared to a specialist mattress on a bed. The organisational pressures on emergency departments and the normalisation of corridor nursing has been identified in the development of pressure ulcers (Care Quality Commission, 2019). Therefore this makes the findings of the study by Baumgarten et al. (2012) surprising. Longer ED stays are contradictory to best practice guidance in the UK and one of the six key performance

indicators for hip fracture care, which states that all hip fracture patients should be admitted to an orthopaedic ward within four hours of presentation (Royal College of Physicians, 2021). Although the length of stay in the emergency department was not one of the primary findings in the study by Baumgarten et al. (2012), it is interesting to note, given the extensive waits that some patients experience in the ED. What must be considered is that this study was carried out in the USA and therefore may not be wholly generalisable to a UK healthcare context.

#### 2.3.2.2 Surgical delay

Due to the impact of prolonged reduced mobility, the delay between admission and surgery and how this affects pressure ulcer incidence appears to be a much-researched and discussed issue (Baumgarten et al., 2003; Chiari et al., 2017; Rodriguez-Fernandez et al., 2011; Sasabuchi et al., 2018). This can be a consequence of organisational issues such as theatre and surgeon availability, or the patient's medical condition. Patients who had experienced a long interval between admission and surgery were more likely to develop a pressure ulcer than those who had been operated on quickly (Baumgarten et al., 2003). A subsequent study by the same key author (Baumgarten et al., 2012) also found delays in surgery to be a statistically significant finding. Patients with more than 24 hours between admission and surgery had a higher rate of HAPU, with a risk ratio (RR) of 1.62, and a 95% confidence interval (CI). This is an important finding because current challenges with waiting times and NHS resources could be having a direct effect on pressure ulcer rates. Surgery within 24 hours of presentation, is the gold standard and features as one of the key performance indicators for hip fracture (Royal College of Physicians, 2021). A meta-analysis also identified that early surgical intervention for hip fracture was associated with a reduced risk of complications including pressure ulcers (Klestil et al., 2018).

Nevertheless, older patients often have other comorbidities for example atrial fibrillation requiring warfarin. Such complications can increase the risk of mortality, and these patients require stabilisation of their medical condition before surgery if they are to

survive. This stabilisation is now part of guidance such as the National Institute for Health and Care Excellence on hip fracture management (National Institute for Health and Clinical Excellence, 2011a). Any comorbidities such as anticoagulation, acute chest infection, or uncontrolled heart failure must be identified and treated quickly so that surgery is not delayed (National Institute for Health and Clinical Excellence, 2011b). This therefore presents the need for a balancing act in the delivery of care, when weighting these elements, as the consequence of reducing mortality is that the risk of pressure ulcer development increases. The evidence for the timing of surgery is supported by another study carried out in Spain. Rodriguez-Fernandez et al. (2011) found similar results where patients who experienced delays were found to have a larger number of complications including pressure ulcers and increased length of stay.

These studies are now over ten years old but more recent research has demonstrated similar findings. Sasabuchi et al, (2018) compared postoperative outcomes of early (same day or next day of admission) and delayed surgery (any days thereafter) for what the authors of this study described as elderly<sup>4</sup> patients with hip fractures. Early surgery was significantly associated with a reduced risk of pressure ulcers during admission (odds ratio of 0.56 95% CI, 0.33 to 0.96, p=0.035). Conversely, Chiari et al, (2017) found no correlation between the length of time to surgery and the development of pressure ulcers but did acknowledge that the average wait was less than stated in previous studies, therefore, substantiating the value of early surgical intervention.

### 2.3.2.3 Use of care pathway

There are many care pathways used to improve the quality of care delivered including the SSKIN Bundle (see Appendix 5) and hip fracture pathways (Heyzer et al., 2022). A study by Hommel et al. (2007) compared a new clinical pathway for hip fracture with standard care. The aim of this study was to improve the quality of care and patient safety in patients with hip fractures by using this new clinical pathway. The intervention consisted

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<sup>4</sup> This term meaning old, is frequently used in the literature referring to older adults. Please refer back to section 1.6.

of the administration of oxygen in the ambulance en route to the hospital, intravenous supplementation before surgery, adequate pain relief in the ED, and instead of returning to the ED after an x-ray, patients were transported directly to an orthopaedic ward to reduce the time spent on a hard surface (trolley). This is salient given the previous discussion about patients being nursed on a hospital trolley and the lower incidence of hospital-acquired pressure ulcers associated with longer ED stays (Baumgarten et al., 2012). The pathway was shown to significantly decrease the incidence of hospital-acquired pressure ulcers in the intervention group compared with the control group. As not all patients were treated on the same ward, controlling other confounding variables was challenging and a risk to the rigour of the study. No other studies reviewed identified the use of a care pathway.

#### 2.3.2.4 Nutritional supplementation

The link between poor nutrition, skin integrity and pressure ulcer development has been well-documented (Royall, 2019; Taylor, 2017; Thomas, 2014). However nutritional supplementation given orally or via nasogastric tube has not been shown to reduce the incidence of pressure ulcers following hip fracture. Baumgarten et al, (2012) demonstrated that patients who developed a pressure ulcer post-hip fracture had a higher risk of nutritional complications at baseline than those patients who did not develop a hospital-acquired pressure ulcer.

Other research, relating to nutrition and hip fracture, discusses nutritional supplementation post-fracture. Although now 20 years old, a double-blind randomised, placebo-controlled trial was carried out in the Netherlands to investigate the effect of nutritional supplementation on the incidence of pressure ulcers in at-risk hip fracture patients (Houwing et al., 2003). Pressure ulcers were identified in 59% of participants in the placebo group and 55% in the supplementation group but this was not statistically significant. What they were able to demonstrate, however, was that the supplemented group had a later onset of pressure ulcer development compared to the control group. So, the authors concluded that nutritional supplementation may not prevent pressure

ulcers but may contribute to a delayed onset and progression of pressure ulcers. These findings must be considered with caution. The authors calculated that they would need a sample size of 350 patients per group to be included in the study to detect a significant difference in pressure ulcer incidence and given the small samples obtained (52 in the placebo group and 51 patients in the supplementation group) they felt that there was insufficient power to be able to demonstrate a causal relationship between pressure ulcer incidence and nutritional supplementation (Houwing et al., 2003).

A more recent Cochrane systematic review carried out in the UK set out to review the effects (benefits and harms) of nutritional interventions in older people recovering from hip fractures (Avenell et al., 2016). Overall, the authors concluded that although there were an adequate number of studies included in the review, the evidence was of low quality (partly due to small sample sizes and weak methodologies) but that multi-nutrient supplements started before or soon after surgery may prevent complications following a hip fracture (Avenell et al., 2016).

The gap in the literature to ascertain if there is a causal effect between nutritional supplementation and pressure ulcer incidence was also echoed by Arkley et al. (2019) who stated that there is a need for studies that specifically focus on the nutritional supplementation of hip fracture patients. A more recent study published in 2021 has accomplished this, and although it did not look primarily at pressure ulcer reduction, the nutritional status of hip fracture patients was investigated (Han et al., 2021). The Malnutrition Universal Screen Tool (MUST) was used to assess hip fracture patients. Participants who were assessed and found to be malnourished were significantly more likely to develop a pressure ulcer (5.0% versus 1.0%,  $p=0.006$ ) than well-nourished patients. Despite these findings, the use of nutritional supplementation to prevent pressure ulcers in clinical practice in the UK for patients who sustain hip fractures is not indicated routinely as not all patients are at risk of malnutrition and hence require nutritional supplementation (National Institute for Health and Care Excellence, 2014).

#### 2.3.2.5 Preventative strategies

Many of the aforementioned studies considered extrinsic factors in the development of pressure ulcers but only three included the use of preventative strategies such as pressure redistributing equipment (mattresses) or repositioning regimes (Baumgarten et al., 2012; Forni et al., 2018). The use of specialised mattresses was included in the study by Baumgarten et al, (2012) but no results were provided to indicate whether this did or did not impact the development of pressure ulcers. Two more recent studies have found conflicting results. Although both were carried out in Italy, one found that the use of an air mattress was statistically significant for preventing the development of pressure ulcers (Chiari et al., 2017) whilst the other study found no correlation between the use of a pressure-relieving mattress and pressure ulcer incidence following hip fracture (Forni et al., 2018).

In terms of repositioning and turning regimes, only one of the studies (Lindholm et al., 2008) commented on this. This is surprising given that repositioning is advocated to be one of the key preventative interventions in pressure ulcer prevention (National Institute for Health and Care Excellence, 2014); although the level of evidence to support the use of repositioning is questionable (Gillespie et al., 2012). In their updated Cochrane review that investigated the benefits of repositioning for pressure ulcer prevention, the authors found a lack of a robust foundation of evidence for effective repositioning (Gillespie et al., 2020). There was uncertainty about the effectiveness of this intervention as the studies were found to be underpowered (Gillespie et al., 2020). Yet, in the Lindholm study, a lack of turning schedule was related to pressure ulcer incidence in patients with hip fractures (Lindholm et al., 2008).

#### 2.3.2.6 Continence

Urine and faeces have a detrimental effect on the skin causing the breakdown of the tissue due to the presence of enzymes and consequential changes in acidity (pH) (Crook et al., 2014). Moist skin as a consequence of incontinence, was found to be statistically significant, having a detrimental effect and increasing the risk of pressure ulcers

(Lindholm et al., 2008). However, having a urinary catheter in situ to prevent urine from coming into contact with the skin was not found to be statistically significant (Lindholm et al., 2008). Nonetheless, the removal of the catheter was significant (Lindholm et al., 2008). Early removal of a urinary catheter and limiting the use of incontinence pads for faecal incontinence were found to have a protective effect by Chiari et al. (2017). This protective effect is however, reportedly more likely to be related to patients moving to get to the toilet or commode and therefore relieving the pressure caused by sitting or lying in one position for long periods (Chiari et al., 2017). A reduction in pressure ulcer incidence is likely linked to early mobilisation whereby pressure on the bony prominences is reduced subsequently reducing the risk of a pressure ulcer developing.

Section 2.3 has outlined the factors that increase or decrease the risk and incidence of pressure ulceration for patients with hip fractures. The studies reviewed here have reported that risk is cumulatively increased when patients are older (over 70 years of age), male, dehydrated, have moist skin, reduced sensory perception, pulmonary disease, diabetes, sepsis, high pre-operative platelets, existing pressure ulcer, urinary tract infection, delirium, low grip strength and being dependent before the injury occurs. Statistically significant preventative effects encompass the use of a care pathway, early surgical intervention, use of an air mattress, turning regime and early removal of the urinary catheter. This therefore facilitates an understanding of the key risk factors involved in pressure ulcer development for patients who have sustained a fractured hip. This therefore may aid in understanding the experiences of patients in relation to these aspects given that some of the participant in the study experienced delays in surgical intervention.

## 2.4 Knowledge, involvement, participation, and empowerment of older people in care

Within the literature terms such as involvement, participation and empowerment are often used interchangeably. These have become synonymous within modern healthcare delivery. However, as will be seen in this section, these concepts, although linked, have

different meanings. It is necessary to define and discuss these in relation to pressure ulcer prevention to help explain the differences between them in this context. Patient knowledge is also relevant here as knowledge is required if patients are to be involved, participate, and be empowered. These will be explored in relation to the delivery of care. Although involvement and participation are now incorporated into modern healthcare delivery, this has not always been the case, and it is therefore necessary to look back to when healthcare was governed by paternalism.

#### 2.4.1 Models of health and illness and paternalism

Several models have been used to explain the phenomena of health and illness and these will be explored further in section 3.6.1.1. These include the biomedical model, biopsychosocial model, holistic model of health and the social model of health (Singh, 2020). Traditionally the most prevalent has been the biomedical model (Farre & Rapley, 2017). This model considers the physical aspects of disease and treatment, considers the absence of disease as a measure of health and views patients paternalistically as passive recipients of healthcare (Singh, 2020). Its major critique is that it does not consider social, psychological and behavioural aspects of health and illness (Farre & Rapley, 2017).

Conversely, the biopsychosocial model does incorporate these aspects of life and patients have a more powerful and active role (Singh, 2020). The model also spotlights preventative health as well as cure (Russell, 2013). Despite its criticisms, including a lack of philosophical underpinnings and poor application in practice (Williamson, 2022), the concept of health has changed over the last 40 years from a biomedical definition comprising of the reductionist view that health is merely the absence of disease, to incorporating the psychosocial elements of health (Farre & Rapley, 2017). It could be argued that embracing this view, constitutes a move towards a person-centred approach to care and a move away from paternalism. This model has been seen as highly influential in person-centred care delivery (Card, 2023).

This transition to person-centred care provision initially started in the UK when The Patient's Charter was published in 1991. Since then, it has seen several reiterations but essentially it sets out the legal rights that patients have in relation to the delivery of care including being involved and consulted (Department of Health, 2021). Before this, patient involvement and participation were not explicit, and paternalism dominated healthcare delivery. In recent times, UK government policy has driven a move away from the traditional paternalistic approach of healthcare, towards a more person-centred approach (Wittink & Oosterhaven, 2018). Such concepts are now taught as part of professional healthcare programmes including Nursing, Medicine, and Physiotherapy. Yet, in the practical delivery of person-centred care this participation is often dependent on the patient's situation and generational cohort, as participation by older people is reportedly low (Dyrstad et al., 2015). Older people generally want information and to be consulted about their healthcare, but often have a paternalistic perspective when it comes to decision-making and prefer to leave decisions up to the healthcare professionals (Casado et al., 2020). Given that the focus of this study is older people, this concept required further exploration. For example, in life-threatening situations, patients have been found to be more willing to let the doctor decide (Gregório et al., 2021). In non-emergency situations, some patients are more likely to participate, but again these tend to be younger, female and more highly educated (Gregório et al., 2021). Engagement of older adults in decision-making requires time and effective communication skills (Bynum et al., 2012). Capability (due to illness) can also impact the desire to participate. As a pragmatic way forward, clarification of the patient's desired role in the process is required to meet patient needs (Politi et al., 2013).

#### 2.4.2 Patient-centred or person-centred care

The terms patient-centred care and person-centred care are used interchangeably in the literature however they are perceivably different (Starfield, 2011). Whilst there are similarities between these two concepts, such as empathy, respect, engagement, shared decision making and coordinated care, the goals of these concepts differ (Håkansson Eklund et al., 2019). Patient-centred care may be episode-orientated and

focuses on the management of diseases or health problems such as hip fracture (Starfield, 2011). In contrast, person-centred care implies a longer duration of contact with multiple episodes of care over the duration of a patient's life. This is seen to be not just focused on one disease or health issue but the interrelationship between these (Starfield, 2011). Håkansson Eklund et al. (2019) expand on this and suggest that person-centred care has a more holistic view and considers the whole life of a person not just viewing them as a patient with a disease at a single moment in time. Hence the goal of care is on facilitating a meaningful life for the person and not just a functional one of existing. Person-centred care has been introduced more recently as a development of patient-centred care (Håkansson Eklund et al., 2019). Nevertheless, both are relevant to patients following hip fracture as the recovery is not isolated to the duration of their hospital admission but can extend for months afterwards or cause permanent restrictions on their lives (Pol et al., 2019). As such, both are reviewed in more detail below.

Patient-centred care was originally proffered by Edith Balint in 1969 (Santana et al., 2018) and the term person-centred was first declared by Carl Rogers in the early 1960's in relation to psychotherapy. Today person-centred care and involvement is now a common feature of healthcare policy in the UK (The Health Foundation, 2016). Person-centred care is closely related to patient involvement and participation, is used to support people to develop knowledge and self-reliance to manage and make decisions about their own healthcare (The Health Foundation, 2016). It encompasses four key principles of 'affording dignity compassion and respect', 'co-ordinated care and support or treatment', 'personalised care' and 'supporting people to develop their own strengths to enable them to live an independent and fulfilling life' (The Health Foundation, 2016).

Patient-centred care has been part of healthcare for several years, disparate to the paternalistic and biomedical diseased-focused view that previously predominated healthcare (Håkansson Eklund et al., 2019; World Health Organization, 2007). The introduction of the Health and Social Care Act 2008, included person-centred care (regulation 9) as one of the fundamental regulations used by the Care Quality Commission during their inspections of healthcare and social care providers (Care

Quality Commission, 2023). Following the Francis Enquiry into the Mid Staffordshire care failings (Francis, 2013), dignity, compassion and respect were highlighted and this further elevated the profile of person-centred care (The Health Foundation, 2016).

Person-centred care has been shown to be beneficial. Individuals who have more knowledge and are engaged in their health have better health outcomes (Street et al., 2005). Person-centred care has also been shown to reduce healthcare costs (The Health Foundation, 2016). Treating people as individuals is also a fundamental part of The Code, formally known as The Code of Conduct (Nursing and Midwifery Council, 2018). When considering older people specifically, person-centred care has also been shown to increase the quality of care and patient satisfaction when provided consistently in acute care (Nilsson et al., 2019).

There are disadvantages of this concept being used in practice. Person-centred care can however take longer, certainly in the short term. Yet when compared to patient-centred care, this may then save the time of healthcare professionals in the longer term due to satisfied, self-managing patients (The Health Foundation, 2016). Whilst person-centred care has been defined, there is a paucity of studies on how this is carried out in practice in acute care settings (Nilsson et al., 2019). This gap in practice is not only isolated to acute care settings. A void remains in the practical guidance for achieving person-centred care universally across other settings too (Santana et al., 2018). For this to be implemented effectively, it is reportedly necessary to create a culture for person-centred care, implement health promotion and educational programmes, support the workforce to deliver this and have a measure of the effectiveness of such an intervention (Håkansson Eklund et al., 2019; Santana et al., 2018). Effective implementation however, is not standard practice (The Health Foundation, 2016).

As far back as 2007 the WHO recognised the need for such a person-centred care approach to be used so that people could be informed and empowered in promoting and protecting their own health before they become patients (World Health Organization, 2007). This idea supports a need for the prior education of patients on pressure ulcers before hip fracture or hospitalisation occurs. This WHO framework document, identified low levels of health literacy among patients and their families citing limited availability of

information and education as the cause (World Health Organization, 2007). Over 25 years later and despite patient information on pressure ulcers now being commonly available in NHS trusts and its use directed by current NICE guidance, health literacy of pressure ulceration among patients remains poor (Durrant et al., 2018). Despite the need for person centred care, this is not always effectively delivered and in a recent study carried out in the Netherlands, it was found that for the majority of older patients involved in the study, their goals of independence and freedom, and improving daily functioning were not achieved at hospital discharge (van Munster et al., 2022). This leaves further questions as to why this is not working in practice and indicates a need to explore why person-centred care is not being effectively delivered.

### 2.4.3 Patient involvement and empowerment

Whilst the involvement and empowerment of patients in pressure ulcer prevention are promoted in both acute and community settings (Latimer et al., 2014; Ledger et al., 2020; Schoeps et al., 2017), this strategy requires further exploration. Engaging patients in healthcare is not a new concept. The National Health Service Act 2006 states that Clinical Commissioning Groups have a legal duty to involve patients in decisions that relate to their care, treatment, prevention, and diagnosis of illness. Involving people in their care is important and has benefits such as improvements in health and well-being, care and quality, financial sustainability and the effective use of resources (NHS England, 2018). It also results in improved treatment outcomes (Vahdat et al., 2014). In 2016, the World Health Organization published a document on patient engagement to overcome challenges and improve the safety and experience of patients (World Health Organization, 2016). Despite this, The Five Year Forward View reported that only half of patients said they were as involved as they wished to be (NHS England, 2014b). Nevertheless, education and involvement of patients in pressure ulcer prevention do occur in some settings. The recent addition of the giving information element to the SSKIN care bundle (see section 1.5), has facilitated this, but this approach of providing patient information about pressure ulcer prevention has not yet been fully exploited (Team et al., 2020).

The provision of patient information on pressure ulcer prevention is actively encouraged through guidance such as NICE (National Institute for Health and Care Excellence, 2014). Often this is carried out through patients receiving patient information leaflets and/or verbal information from healthcare professionals in the ward setting during admission, but the effectiveness of this has been questioned (McCartney, 2013). It could be argued that this is a tokenistic exercise to satisfy the requirements of NICE guidelines, however, Mackenzie (2018) states that leaflets can be beneficial by allowing patients to understand their treatments and make informed choices. Nonetheless, a pressure ulcer audit that was carried out in 2020, found that the evidence of patient understanding and patients being given information about pressure ulcer prevention was limited (Stephenson & Fletcher, 2020).

#### 2.4.4 Summarising the differences between involvement, participation, engagement, and empowerment

In summary, the paternalistic nature of healthcare is now considered outdated and unethical and has given way to a person-centred approach (Lynøe et al., 2021). The role of the patient is no longer passive and there is an expectation that doctors and professionals engage patients in their care (The King's Fund, 2022). Participation, involvement, engagement, and empowerment are in the main, in academic discourse, used when referring to how patients engage and are involved in research, however, for the purposes of this study, these are examined within the context of healthcare and how professionals interact with patients. Such terms are used interchangeably within the literature, but what can be shown is that there are key differences between these concepts.

Patient participation is complex with many facets but the concept is ill-defined within the healthcare literature (Phillips et al., 2016). This is further complicated by the absence of theoretical and conceptual clarity (Castro et al., 2016) and few valid and reliable tools exist to measure patient participation (Phillips et al., 2016). What is known, is that

patient participation and involvement focus on the patient being at the heart of the decision-making process regarding treatment and care (Castro et al., 2016; Vahdat et al., 2014). There are varying levels of involvement including micro; focusing on individual care, meso- involving service development and evaluation of care, and macro; which refers to policy development (Castro et al., 2016). In this case, it is the micro level of patient participation that is in focus here. Participation requires the patient to be informed, and have education, knowledge and support (Castro et al., 2016). This can be affected by the doctor-patient relationship, patient knowledge, the ability to participate due to illness, time for participation, and the patient's values and beliefs (Vahdat et al., 2014). Therefore, participation is not confined to consultation with a patient or, for example, the provision of a patient information leaflet.

Patient engagement and empowerment encompass an active component, and the prerequisites to this are patient involvement and participation. Patient engagement is the desire and ability to actively participate (Higgins et al., 2017). For empowerment to occur, patients must play an active role in their health behaviour, and this requires good communication on the part of the professional for the enhancement of the patient's knowledge, skills and attitudes (Castro et al., 2016). This tailoring of healthcare delivery by professionals requires the capacity for a high level of health literacy on the part of the patient, positive attitudes of healthcare professionals, and taking into account cultural issues (Higgins et al., 2017). What makes engagement and empowerment different from involvement and participation is the self-determination needed by patients to put the information to use actively (Castro et al., 2016). The drive to take steps to seek a greater understanding of pressure ulcer prevention and the motivation needed to do this are key elements of the process that allow a patient to collaborate (Higgins et al., 2017). Accordingly, for patients to be fully empowered they require strong self-determination. Whilst patient participation in care may be an effective approach to reducing pressure ulcers (see section 2.5), it has been noted that patients' views of their role in this are unknown (Latimer et al., 2014; McInnes et al., 2014; Schoeps et al., 2017).

Promoting patient empowerment is a fundamental strategy for improving patient safety (Tobiano et al., 2016). Education and involvement alone are not enough to prevent

adverse outcomes; action in the form of empowerment is also required to enhance patient safety (Castro et al., 2016). It could be argued that patients knowing about preventative strategies for pressure ulcers are not enough. Active participation is a core aspect of patient empowerment (Castro et al., 2016) and therefore patients should have an active role in physically repositioning or allowing nurses to reposition them. As such patients need to be provided with the knowledge to understand (Higgins et al., 2017), as well as encouragement to act or allow nurses to act on their behalf. This is where patient engagement and empowerment feature. Hence it is not sufficient to inform a patient so they are aware of the risks of pressure ulcers and discuss with them what can be done to reduce them. Prevention can only be successful if some form of active implementation is carried out based on this information (NHS England, 2018). As noted above, pressure ulcers are caused by the deformation of tissue due to sustained mechanical loading, the damage from which can be reduced through repositioning (Gefen et al., 2022). Hence active repositioning (whether this is carried out by the patients themselves or with support from healthcare professionals) is advocated in clinical guidelines to redistribute pressure for the prevention of pressure ulcers (Gillespie et al., 2021).

## 2.5 Patient knowledge, involvement, and participation in pressure ulcer prevention

As well as nurses' knowledge of pressure ulcer prevention being widely researched (Demarré et al., 2012; Gunningberg et al., 2015; Samuriwo, 2011), patient knowledge and involvement has also attracted the interest of researchers (Hartigan et al., 2012; Schoeps et al., 2017; Durrant et al., 2018; Shanley et al., 2020). It is helpful to discuss and explore here how knowledge is gained and how education is delivered to patients. Research has shown that some patients are keen to be involved in care (Latimer et al., 2014), however, this can be impacted by several factors.

### 2.5.1 Patient knowledge and health literacy

Low health literacy is linked to poor health outcomes (Protheroe et al., 2009). There is also a relationship between health literacy and involvement and engagement in pressure ulcer prevention (Wynn, 2020). Therefore, there is a potential for health outcomes to be improved if health literacy is increased, through involvement and engagement in care. This is in part, patient dependent. People who have higher levels of health literacy and participate in decisions about their healthcare tend to be younger, female and well-educated (Protheroe et al., 2009). Conversely, patients with low health literacy can have difficulty with reading, writing, communication and the use of technology (Wittink & Oosterhaven, 2018). To promote education, the use of electronic methods is becoming more common but this poses difficulties for some patient groups (Hudgell et al., 2015). The acceptance of technology by older adults is limited (Peek et al., 2014). This is not solely restricted to healthcare. A report by Age UK (2023) found that many older people are struggling to access public services in the face of increasing technology use. In a study undertaken in China, those who were younger, with higher education, non-widowed and of a higher economic status were more likely to use a smartphone (Ma et al., 2016). Hence the use of technology may hamper access to information and care for some patients (Wittink & Oosterhaven, 2018) and the use of technology and the internet as a means of providing information and education to improve health outcomes for older adults may not be the answer.

Patient experience, involvement, and participation in pressure ulcer prevention are complex, dependent on multiple factors and appear to be inherently linked. Increasing patient knowledge by improving health literacy is one way to promote participation (Castro et al., 2016). Patient education is vital to increase knowledge and awareness and therefore aid in understanding the importance of participation in pressure ulcer prevention (Gillespie et al., 2014). Current guidelines from the National Institute for Health and Care Excellence for the prevention and management of pressure ulcers, state that patients at high risk of developing a pressure ulcer and their carers should be offered timely and tailored education on the causes and ways to prevent pressure ulcers (National Institute for Health and Care Excellence, 2014). Yet, there are multiple challenges that the guidance does not take into account when providing effective patient

education such as lack of time, insufficient teaching materials and heavy nursing workloads (Flanders, 2018).

### 2.5.2 Patient information leaflets

The use of leaflets for patient education has a long history, and the inclusion of information leaflets with licenced medicines has been a requirement since 1999 (Medicines and Healthcare Products Regulatory Agency, 2020). Several studies have looked at the effectiveness of leaflets, pamphlets or brochures (again, these are terms that are used interchangeably within the literature), and what needs to be included in a leaflet for it to be an effective tool for educating patients.

A recently updated Cochrane systematic review (O'Connor et al., 2021), assessed the effects of education on patients at risk of pressure ulcers. The review showed no certainty that educational interventions made any difference to the number of new pressure ulcers developing or to the level of patient knowledge. The authors of this Cochrane review stated that it was difficult to draw any conclusions from the studies examined, due to reporting, performance, and detection bias. Notwithstanding the perceived bias issues, these findings are consistent with a UK study conducted in 2018 (Durrant et al, 2018). This study aimed to provide information on the health literacy of community patients with pressure injuries (the terms pressure ulcer and pressure injury will be used interchangeably here as they are in the literature) and to analyse if patient information leaflets were effective at informing knowledge. Health literacy was poor, and patient knowledge was not enhanced by the leaflets. It was felt this was due in part to the availability of the leaflets but also to the poor readability of the leaflets that were used. The authors concluded that leaflets play a minor role in pressure injury health literacy; however, due to the sampling method used (convenience), findings were reported to not be representative of a wider population.

There are other considerations for the effective use of leaflets as educational tools for patients. Availability and the giving of a leaflet are also necessary along with patient motivation to read the leaflet for knowledge to be gained (Flanders, 2018). The readability of leaflets is also an important consideration. A descriptive study carried out in Turkey (Akkuzu et al, 2009) found that if patients were elderly or had limited education, the use of font sizes eleven to thirteen was needed and the leaflets should be written between the third and fifth-grade level to be understood.

The timing of the delivery of leaflets also warrants consideration. In the Turkish study, the information was delivered at visiting times. However, none of the patients indicated that education would be more or less meaningful if it was given at some other time (Akkuzu et al., 2009). The patients were assessed just one day after the information leaflet was given meaning that the information would have been current and remembered. It would be pertinent to ascertain if these patients had the same level of recall and knowledge after an extended period. The authors concluded that limited use of illustrations was recommended, however, it is not clear as to how they came to this conclusion as three patients recommended the use of colour for the images used.

Conversely, research commissioned by the now historic NHS Midlands and East Region as part of their Stop the Pressure Programme, found that the use of photos was essential (Robinson & Thurman, 2013). This was an extensive piece of research that included several methods of data collection including interviews and focus groups. Patients, carers, at-risk groups, and the general public, were included in the population sampled. General awareness of pressure ulcers was high, and participants wanted information in the form of TV adverts, billboards, posters and leaflets. They especially liked the “95% of pressure ulcers are preventable” key message from the Ambition programme as they said this provided hope. Ironically, as noted above (section 1.5), this figure has since been refuted as being nearer to 40% (Downie et al., 2013; Downie et al., 2014) but the essence of the message remains and patients found it helpful.

Most interestingly, the participants in the Stop the Pressure Programme study wanted clear, advice and photos, however graphic. Respondents indicated that they were shocked and disgusted by the images, particularly the more serious category three and

four pressure ulcers but that this provided a moment of realisation and understanding (Robinson & Thurman, 2013). Respondents admitted that it was not until they had seen the images that they knew and understood how bad pressure ulcers could get (Robinson & Thurman, 2013). Whilst the use of illustrations to show the locations where pressure ulcers can occur is common, the use of images and photographs of wounds is less frequent (Durrant et al., 2018). This is surprising given that the use of images has been reported to dramatically improve the knowledge and understanding of people with lower levels of health literacy (Schubbe et al., 2020). Anecdotally, applying to get photos of pressure ulcers published in patient information leaflets is a challenge. One patient panel took the view that having distressing photos of wounds was not suitable (Rossiter, 2015) and yet research commends this strategy. The rationale for this may have been that the patient panel view may have been related to the higher cost of producing leaflets with photographs especially in colour, given the financial challenges within the NHS, but this is not directly commented on by Rossiter (2015).

Nonetheless, there are circumstances and settings where brochures and leaflets are reportedly beneficial. A study of older adults carried out in Ireland was used to test the use of a patient education leaflet to evaluate older adults' knowledge of pressure ulcers and prevention (Hartigan et al., 2012). Within this study, 59% of the participants were assessed as being at low risk of pressure ulceration and therefore may not have felt that this information was particularly relevant to them at the time. Overall the patient information leaflet was deemed beneficial in increasing the knowledge level of older people in this study and the authors stated that this increase in knowledge can help older adults to feel more empowered although this aspect was not specifically researched in this study (Hartigan et al., 2012).

Another study, carried out in Sweden, also found that using a leaflet increased the pressure ulcer knowledge of the participants involved (Schoeps et al., 2017). All the patients in this study received a leaflet and yet the authors stated that following this when questioned, some patients did not know about pressure ulcers. This arguably demonstrates that providing a leaflet does not mean that patients will read and digest its content. This finding was also echoed by Latimer et al. (2014) who also found that placing

leaflets in the healthcare environment does not increase knowledge and participation. The Swedish study did not directly measure the level of knowledge, instead this finding was gathered through self-reporting of knowledge by the participants. This is therefore subjective however it does raise an important point that patients perceive that their knowledge is greater than it is.

The acquisition of knowledge is an important factor in compliance with treatment as it can aid understanding (Hossieny et al., 2012). The interviews carried out in this Australian study, included asking if participants had received verbal or written information or both, if they had read the written information, and if they had understood it. Findings showed that the provision of written information was inconsistent with only 62% of participants having received this. Recall of the information was reported to be better by participants who had received written information compared to participants who had only received verbal information. Of the patients who received written information, only half read the leaflet that they were given (Hossieny et al., 2012). This supports the findings of Latimer et al. (2014) and Schoeps et al. (2017) that providing information does not necessarily mean that it will be read and understood by the recipients.

Participants in the Australian study, who had received and read the written information had a higher recall and this was found to be statistically significant although this was still less than 60%. It was reported that three participants in the study sustained a pressure ulcer, however, it was not clear if these participants had been the ones who had received and read the written information. Due to the low numbers in this study, the statistical power was reduced, nevertheless, authors stated that understanding the information received is an important factor in compliance with treatment (Hossieny et al., 2012). What can be deduced from this study is that patients need to be encouraged and empowered to read the written information for it to have any chance of effectiveness.

The availability of leaflets in this study is not an isolated occurrence. Another Australian study was carried out to assess the availability of online education materials which included leaflets and brochures on pressure injury prevention in Victoria (Team et al., 2020). Although this study was limited to just one state in Australia, it highlighted some

key points. Websites of 212 hospitals were assessed for the availability of online educational material on pressure ulcers that included leaflets or brochures. Qualitative content analysis of each source of material was then carried out. Of the hospital websites assessed, only 23 sources of information on pressure ulcer prevention were found. It could be argued that hospitals may provide pressure ulcer education via other methods such as verbal education. This was not captured in this study as only information accessible in the public domain was used. Of the 23 leaflets that were acquired, all contained information on what a pressure ulcer was and strategies for prevention, although none included information for the management of an existing pressure ulcer. Images were included in 21 out of 23. What this does however highlight is that there may be a lack of availability of high-quality patient information within the state of Victoria, Australia (Team et al., 2020) which may also not be accessible to patients who are less technologically able. Currently, no such studies exist in the UK, and this should be highlighted as an opportunity for future research.

The experiences of patients concerning the availability of information may well differ depending on their age, with younger patients having greater awareness. A study that focused on patients' perceptions of their role reported that one 45-year-old participant said there was information available for people who needed it and yet another participant, 70 years old stated that there was no mention of it (Latimer et al., 2014). What is not clear, is whether the nurses had made a judgement on the ability of the patient to participate here. Nurses are required to assess the cognitive ability of patients to understand information that is given, so that this can be tailored accordingly as advocated in pressure ulcer guidelines (National Institute for Health and Care Excellence, 2014). However, ageism around ability judgment, even if unintentional may have been a factor in the study by Latimer et al. (2014) and indeed most patients wanted to be involved in pressure injury prevention in whatever capacity they were able to do this.

### 2.5.3 Factors influencing patient education and participation

Even if pressure ulcer prevention leaflets are widely available and patients engage with sources and read the leaflets provided, there are additional caveats that need to be

satisfied to lead to an increase in knowledge and hence participation in care. In a study by Sahingoez (2016), a pressure education event for patients in acute care was evaluated by comparing it to standard education. It was found that patient-centred education was considerably more effective and led to an improvement in knowledge compared to standard care. This echoes the previous discussion regarding a partnership in care rather than a paternalistic approach being of more benefit to care provision.

Repetition in the delivery, together with careful timing has also been identified in providing effective patient education. McInnes and her research team in Australia surveyed hospitalised patients' views on their perceived roles in pressure injury prevention (as it is termed in Australia) and factors that enabled or inhibited participation (McInnes et al., 2014). Findings from the study indicated that 86% of participants understood the concept of pressure injury and 80% said that they had a role within this, but only 37% reported receiving information from staff during their admission. More pertinent were the factors that affected this participation. These included managing pain and discomfort, working together, and ongoing education. The giving of patient information both written and verbal on more than one occasion was also found to better meet the needs of the participants. There were times when the participants were less receptive to taking in information, for example when they were in pain or during the peri-operative phase of their hospital admission (McInnes et al., 2014). It would therefore seem that the giving of information to patients who are having elective surgery may be a realistic solution, however, for patients admitted as an emergency (such as a hip fracture) this opportunity is absent. The timing of the educational intervention is therefore seemingly crucial. For example, post-operatively participants were often drowsy or acutely unwell and not able to concentrate or remember the educational materials (Roberts et al., 2017).

More recent attention has focused on additional caveats to successful patient education in pressure ulcer prevention such as a change in attitudes and behaviour of patients (Shanley et al., 2021). Compared with the studies mentioned previously, this pressure ulcer prevention programme was carried out over five weeks. Most of the participants were at low risk of pressure ulcers as ascertained from the Braden scores as detailed in

the study results (Shanley et al., 2021). Largely, the pressure ulcer prevention programme was deemed to be beneficial to support the active engagement of older people in this study (Shanley et al., 2021). Although not discussed in the study, the realities of time pressures and the cost implications of providing such a comprehensive pressure ulcer prevention programme may inhibit its use in routine clinical practice.

A nurse's knowledge of pressure ulcer prevention can also affect patient participation. Recommendations for pressure ulcer care were published in 2023. They recommended implementing appropriate communication to increase awareness and facilitate patient concordance with pressure ulcer prevention strategies (National Wound Care Strategy Programme, 2024). The National Wound Care Strategy was founded in 2018 to improve care for people with wounds. They carried out a review of wound care education for staff and found that although post-graduate education for wound care specialists was available, the education for general nurses was either provided in house or by industry wound dressing companies (Adderly, 2023). Therefore, such training may present a potential risk of bias where wound care dressing companies have the primary aim of selling their products. It also presents the potential for a lack of consistency in what information and training is delivered to nurses. As a result, this inconsistency could have direct impact on patient care and participation.

#### 2.5.4 Patient's condition

The patient's condition and how they are feeling at the time have been cited by several authors as factors that can influence a patient's ability to participate (Gillespie et al., 2014; McInnes et al., 2014; Roberts et al., 2017; Schoeps et al., 2017). These conclusions are also consistent with an integrative review conducted by Ledger et al. (2020). The review was to investigate (from a patient perspective) the factors affecting adherence to pressure ulcer prevention strategies. Again, pain and discomfort were found to be barriers to participation and participants did not always reposition as they were in too much pain (Ledger et al., 2020). Pain and physical effort required to reposition can also be a considerable disincentive to patients repositioning themselves. Waiting for staff to

help with repositioning, can present as a barrier to effective pressure ulcer prevention (McInnes et al., 2014). Participants in this study felt they did have a role in pressure ulcer prevention but for this strategy to be effective, health professionals needed to provide them with adequate pain management (McInnes et al., 2014).

A Swedish study that used a qualitative approach, focused on the participatory capabilities of hospitalised older adults (Hultin et al., 2019). Tiredness due to clinical condition was also found to affect the patient's ability to participate. The study employed technology in the form of a continuous bedside monitoring device in conjunction with a pressure mat that was placed on the bed, to remind patients to reposition to prevent pressure injuries. This was the only study that included both participation in pressure ulcer prevention and hip fracture. It recruited patients who were aged 65 and over from an orthopaedic rehabilitation unit. The patients had a range of orthopaedic conditions including hip and femur fractures. The technology used a monitor that displayed colour images of pressure points that changed to amber and red to denote an increase in pressure and that repositioning was required. This helped older people, regardless of age understand the risk of pressure ulcers, recognise these risks, and most importantly act. It was found the participants playfully used the device and found it fascinating to see that even just a slight movement in their repositioning could reduce the high pressures being exerted and change the colour of the monitor. Unfortunately, this accounted for only 10 of the participants and 21 did not use the monitor as they did not understand it, were too tired, not interested, or unable to see it due to impaired vision. Where the pressure mat and monitoring devices were used, it was felt that they were effective at complementing existing pressure ulcer strategies and encouraging patient participation in clinical practice. However, there was an acknowledgement that nurse communication and interaction are also needed if such strategies are to be more effective (Hultin et al., 2019).

Findings associated with pain and tiredness as a barrier to involvement are commonplace. Pain has been cited in several studies as a factor that precludes education and participation (Hossieny et al., 2012; McInnes et al., 2014; Roberts et al., 2017; Serraes et al., 2020). This is particularly relevant given that some of the patients

from these studies attended the hospital because of an emergency admission rather than an elective admission. Pain following hip fracture has been cited as one of the main concerns for patients who have sustained hip fracture (Archibald, 2003) and therefore the findings presented here are relevant to this study of hip fracture patients as they will be emergency admissions and in pain.

### 2.5.5 Use of care bundles for patient education

Educational methods for pressure ulceration are not limited to the giving of verbal information and patient information leaflets. The use of care bundles (including a video, written checklist brochure, and poster) for hospitalised patients is a popular way, particularly in Australia to provide information and education, as well as encouraging patient participation (Deakin et al., 2020; Gillespie et al., 2014). However, care bundles have not always been shown to be effective in reducing pressure ulcer risk or increasing patient participation (Chaboyer et al., 2016). Written checklists and information brochures were far less successful at engaging patients than video and poster formats. Patients at lower risk (40% of the participants interviewed) had a lower level of motivation to participate in pressure ulcer prevention and felt that education should be aimed at patients who were at greater risk and would therefore most likely benefit. The effectiveness of the care bundle however was not the only aspect that affected participation as this was dependent on how the participant was feeling at the time. Again, as discussed elsewhere, the medical condition of the patient was shown to strongly influence the ability to participate.

### 2.5.6 Impact of the nurse-patient relationship

A study carried out in Australia has since tried to emulate the use of care bundles and in addition has highlighted the importance of personal contact in pressure ulcer prevention care (Roberts et al., 2017). The human presence (of a research nurse) acted as a motivator and a reminder to many participants to enact pressure ulcer prevention

strategies. Several participants emphasised the importance of continuity and consistency and that they preferred to talk to nurses rather than read or watch pressure ulcer prevention resources. From these findings, it was clear that personal interactions with the research staff were highly valued by the participants and positively influenced participation. These personal interactions reinforced what they already knew, and in addition, the knowledge acquired from the care bundle empowered patients to actively participate. Many did not realise they could be at risk so this new awareness gained acted as a motivator to participation (Roberts et al., 2017). In conclusion, this study highlights that the benefits of personal interactions, a new understanding of how the information was related to the patient personally, and the impact of the ward environment on learning can all affect patient involvement. Participation is therefore not solely reliant on knowledge and the effectiveness of educational materials or the use of a care bundle.

The importance of communication and the nurse-patient relationship to facilitate participation was highly evident in four of the studies reviewed. Even if patients have limited capability, it has been reported that they want to be involved, and that how this is supported and how much involvement they have is facilitated by such a relationship (Latimer et al., 2014). McInnes et al. (2014) also identified that this relationship and communication between patient and nurse aided the empowerment of patients to be actively involved in their care. This interaction was also identified as being key, in identifying gaps in knowledge (of patients) and providing education, thereby increasing knowledge and resulting in participation (Schoeps et al., 2017). In addition to this, good communication was found to be essential for participation strategies to be effective (Hultin et al., 2019). Yet one study found that relationships with nurses are not always positive. Whilst some participants experienced a more enabling and encouraging approach from nurses despite their limiting factors e.g. poor mobility, the more active participants felt frustrated and restricted by nurse interactions which in turn affected their participation in care (Latimer et al., 2014). Some participants felt disempowered, and these tended to be the younger patients under 65 years of age. As can be seen here, the importance of the patient-nurse relationship to facilitate participation was particularly apparent in this study's findings (Latimer et al., 2014).

The attitudes of patients can also affect the nurse-patient relationship. As discussed above (see section 2.4.1), there remains a perception among some older people that the nurse's role is to care for them, and patients feel that pressure ulcer prevention is the responsibility of the nursing staff (Roberts et al., 2017). Whilst they like to be consulted, ill patients often want and need a more passive role (Latimer et al., 2014). Older people sometimes view themselves as recipients of healthcare and a paternalistic approach to care is accepted (Casado et al., 2020). Therefore, many older patients do not perceive they have a role in pressure ulcer prevention, regardless of encouragement from nurses.

### 2.5.7 Personal experience with pressure ulcers

As previously mentioned, knowledge of pressure ulcers has been linked to an increased level of participation (Gillespie et al., 2014), but this knowledge is not always gained through patient education or from nurses during hospital admission or a community nurse visit. Some patients have pre-existing knowledge from first-hand experience. This can often be beneficial in aiding understanding of the importance of pressure ulcer prevention. In the aforementioned study by Gillespie et al. (2014) participants with pre-existing knowledge were better able to participate. This was also found to be the case by Latimer et al. (2014). Participants who had this prior experience were more knowledgeable than those who had not. It was found that many of the participants had gained knowledge of pressure ulcers from first-hand and vicarious experience and that much of this was negative, for example, odour and pain (Latimer et al., 2014). In support of this discussion, a lack of first-hand experience can have a negative effect on participation. In a study that focused on patient perceptions of pressure ulcer prevention, patients who had limited personal experience also had poor knowledge, and understanding and subsequently felt involvement was not of high importance to them (Roberts et al., 2017).

## 2.6 Patient experience of pressure ulcer prevention following hip fracture

Despite a robust search of the literature, no studies were found that specifically focused solely on patient experience of pressure ulcer prevention strategies following hip fracture. Although a few studies identified patient experience, these studies primarily looked at improving the patient experience through the reduction of pressure ulcer incidence, the use of technology or were product evaluations rather than eliciting the patients' thoughts and experiences of pressure ulcer prevention strategies (Hultin et al., 2019; Jones & Fletcher, 2014; Ousey et al., 2016; Thompson, 2011). This gap in empirical evidence identifies a need to carry out research on these patient experiences. Obtaining patient accounts of what it is like to encounter pressure ulcer prevention first-hand will better aid understanding of the patient experience.

## 2.7 Chapter summary

In conclusion, pressure ulcer risk increases with age and is more likely when patients have other comorbidities such as diabetes, reduced sensory perception, delirium, surgical delays, or an existing pressure ulcer. Some strategies such as early surgical intervention, turning regimes and early removal of urinary catheters are statistically significant in reducing pressure ulcers. Active participation in pressure ulcer prevention can also help to reduce the risk, however, knowledge and comprehension are needed for patients to understand the benefits of participation. It has been argued that the overall health literacy and knowledge of patients about pressure ulcer prevention is limited. Some studies have identified factors with methods of patient education that can improve knowledge. The use of written information in addition to verbal information can increase knowledge, but there is also a need for repetition in the delivery of any form of educational strategy. Where education is available, such as patient information leaflets, these need to include photographs or images of pressure ulcers and be provided at an appropriate time. Patients also need to read and be able to understand what is being presented to them. Even, if all these elements are met, individual patient factors such as pain, tiredness and impaired vision related to their medical condition can override any

desire to participate and impact their ability to be involved. Consequently, healthcare professionals need to ensure patients understand the relevance to them personally, along with the importance and benefits of participation. Human interaction and nurse communication have been shown to enable this to have a positive effect of empowering patients who consequently are more likely to participate. Identifying what patients know about pressure ulcers and how this relates to their experiences and level of participation will therefore be important elements to consider in this study.

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## *Chapter 3 - Literature Review - Hip Fracture Experience*

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### 3.1 Chapter Overview

This literature review chapter broadens the lens to examine the context of this study and explore the patient experience following a hip fracture. The chapter discusses the associated theoretical and conceptual frameworks that have previously been used to explain this including biographical disruption and locus of control following hip fracture (Brett, 2014; Bruun-Olsen et al., 2018; Southwell et al., 2022; Tutton et al., 2021). The emphasis of this chapter is to understand the hip fracture experience from a patient's perspective and apply this to the context of pressure ulcer prevention. This will explore hip fracture as a life-changing event; recovery; and factors affecting experience and participation in care. Interestingly, similar themes including information, the patient's condition, and the nurse-patient relationship, emerge across the literature discussed in Chapter 2 and the literature in this chapter. What became clear during the undertaking of this review is that, whilst there is a wealth of literature on pressure ulcer prevention and patient experience of hip fracture there were no primary studies that link the two.

### 3.2 Search strategy

As will be clear from the findings, the fieldwork indicated that the hip fracture experience was significant to patients. So, an additional search was carried out in 2022 to address this. Due to the iterative nature of research, the process of reviewing literature should continue throughout the research study (Maggio et al., 2016). In addition to the hip fracture experience, this search included the term recovery. What could be seen, during the undertaking of this review was that several studies relating to patient experience included both the initial and long-term recovery phases. Therefore, recovery needed to be included so that the studies that involved the initial phase were captured. The overall encompassing list of keywords and alternative keywords that formed these collated search strategies can be found in Table 5.

Table 5 - PEO Table

PEO	Keywords	Alternative keywords
<b>P</b>	Patient*	"Older people"
		"Older adults"
		Aged
		"Frail elderly"
		over 65
		Elderly
<b>E</b>	Hip fracture	"fractured neck of femur"
		"fractured hip"
		NOF
<b>E</b>		falls
		inpatient
		acute
		hospital
		sick role
		power
		self-blame
		recovery
<b>O</b>	Patient experience (as MeSH term)	experience

Table 6 details the databases that were used. The same search limits that were used previously were applied, including English and with a date range of 2003-2024.

Table 6 - Electronic database search table

Database	Hits	2003- date	Language English	Age limits over 65	Title screen	Abstract screen
CINAHL Plus	266	238	238	145	18	10
Pubmed	519	475	458	273	25	22
Medline	639	562	532	299	27	22
The Cochrane Library	6	6	6	2	0	0
OpenGREY	1	1	1	1	0	0
Total						54

### 3.2.1 Inclusion and exclusion criteria

The inclusion and exclusion criteria can be seen in Table 7 below. Only studies that specifically focused on patients rather than family members or healthcare professionals were selected so that the patient experience would be the focus. Numerous studies had researched the longer-term effects of recovery and although recovery information was deemed appropriate, only studies that included the initial stages of recovery were incorporated into the review. This was because the focus of this study was to consider the experiences of patients following injury and the initial phases of recovery when pressure ulcer risk is highest.

Table 7 - Inclusion/exclusion criteria

Inclusion	Exclusion
Studies published in English	Studies that were not published in English
Studies published from 2003	Studies published before 2003
Primary research; quantitative and qualitative studies, systematic reviews, and other types of review such as narrative reviews.	Expert opinion of healthcare professionals, anecdotal evidence, audit, conference papers
Studies involving older adults (as outlined in Chapter 1)	Studies involving children or adults under 65 years
Studies including patient experience	Studies that focused on relatives, caregivers, nurses, or other healthcare professionals, rather than patients
Hip fracture	<p>Studies relating to patients with other health-related problems that were not hip fracture</p> <p>Studies that did not include initial stages of recovery and focused only on long-term recovery.</p>

Grey literature in the form of a Doctoral thesis (Brett, 2014) that reviewed the patient experience of hip fracture was found in the reference list of two other studies that had been selected for inclusion. This was also included as it was highly pertinent to the topic of patient experience following hip fracture. This dissertation was not found via the usual databases. Instead, this was located and obtained from the repository of a UK University.

The Prisma diagram below also shows the screening process and how the relevant final papers were obtained.

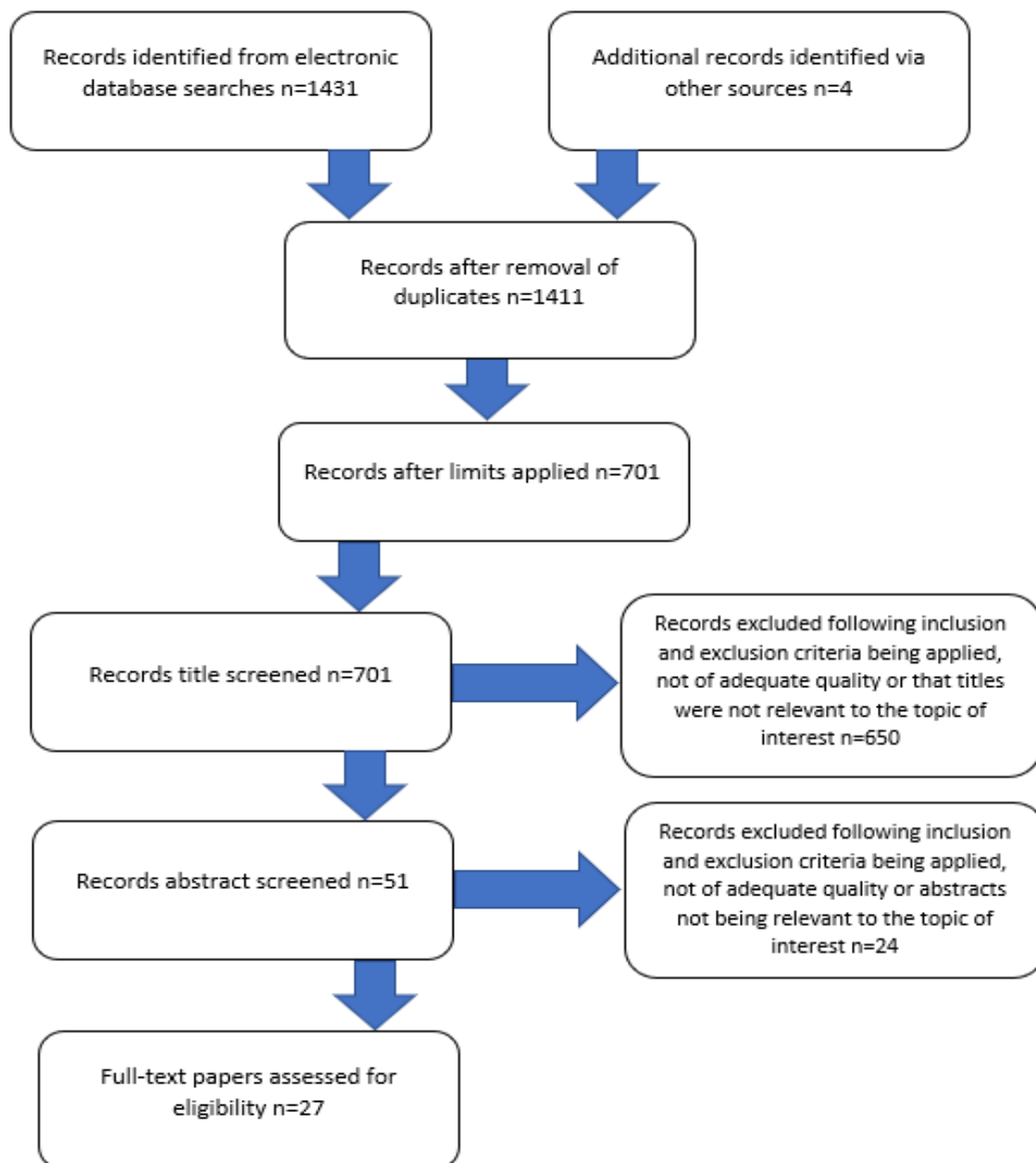


Figure 2 - Prisma diagram

### 3.2.2 Results of the literature search

After the screening process and the quality appraisal were completed, duplicates were removed leaving 27 studies for final review. Studies from the UK (n=9) and Scandinavia (n=15) were most prevalent. The studies identified here were all qualitative in design and therefore deemed appropriate to the investigation of patient experience (Austin & Sutton, 2014). They included grounded theory narrative inquiry, content analysis and Q-methodological approaches. A phenomenological method was employed in six of the studies. The remaining paper was a systematic review and synthesis that featured some of the identified qualitative studies within this.

### 3.2.3 Critical appraisal

As in Chapter 2, studies were appraised using the Critical Appraisal Skills Programme (CASP). Following the appraisal process, commonalities in the findings and themes were identified across the studies. Similar findings were identified and grouped thematically as a means of organising the literature review using data extraction tools (see Appendix 6). Hip fracture as a major life-changing event; loss of independence; challenges of recovery; determination and factors affecting participation in care featured as the central themes from the studies reviewed.

## 3.3 Older people's experiences following hip fracture

Patients experience hip fracture as a complex process where physical and emotional demands are placed on them. This is not solely limited to the initial stages following the fracture where pain, confusion and anxiety are common (Abrahamsen et al., 2022; Archibald, 2003; Southwell et al., 2022) but also where the experience and lasting effects stretch beyond this as part of an ongoing period of recovery. The physical and psychological experience of hip fracture is individual and because of this, a person-centred approach is needed to meet patients' needs (Hestdal & Skorpen, 2020; Jensen et al., 2017). Whilst standardised care can ensure equity and efficiency (Sinsky et al.,

2021) this method of care delivery does not take into account the needs, preferences and patient experience, that aids in the development of patient-centred care and services (Brett, 2014).

### 3.3.1 A life-changing event

Hip fracture has been viewed by older people as a major life-changing event (Bruun-Olsen et al., 2018; Ellmers et al., 2022; Segevall et al., 2019). Hip fracture is a frequent occurrence following a fall with 95% of hip fractures occurring as a consequence (Yang et al., 2020). This unexpected situation has been shown to cause extensive and dramatic changes in the lives of patients including participants reappraising their future life and having existential thoughts (Zidén et al., 2008). One of the first key studies conducted to explore the experiences of individuals who had sustained a hip fracture demonstrated that the injury experience as well as the injury itself was traumatic (Archibald, 2003). The injury and the experience resulted in patients feeling shocked and upset and presented a time of significant change where support both mentally and physically was required (Asplin et al., 2021; Saletti-Cuesta et al., 2017). The injury experience can also have implications for personal identity due to loss of functional ability (Sims-Gould et al., 2017).

This disruption to everyday life is not always temporary, and for many, it can have effects that extend far longer than the normal post-operative recovery period. This was particularly the case for participants aged over 85 years in a qualitative study carried out in Canada (Sims-Gould et al., 2017). Indeed studies that have included interviewing participants several months post-fracture and other longitudinal studies have shown that changes such as not being able to get on a bus or cycle are ongoing a year after the fracture occurred (Abrahamsen et al., 2022; Aronsson et al., 2014). These major life changes impact people's ability to cope with day-to-day activities as well as the demands of being a patient and their recovery.

### 3.3.2 Ageing

Both the experience of falling and hip fracture can be viewed as an indication of the ageing process. Ageing constitutes a steady decrease in physical and cognitive ability that may include osteoarthritis, dementia, diabetes, incontinence, and frailty (World Health Organization, 2022). Falls and fractures have been identified as a consequence of normal decline and an inevitable part of ageing (Ellmers et al., 2022; Griffiths et al., 2015). Awareness of the reality and susceptibility of an ageing body is brought into focus by such an experience (Brett, 2014; Ellmers et al., 2022). This was also found in a study that interviewed elderly people shortly following their return home from the hospital (Zidén et al., 2008). For the participants in this study, the fracture was a sign of the downhill course of ageing including hospitalisation and illness. Gesar, Baath, et al. (2017) also described the experience as a normal and expected part of the ageing process that would have long-term ramifications. Yet, for some patients, the fracture was only one part of this process of decline (Griffiths et al., 2015). The negative aspects that are associated with increasing age, such as other comorbidities compounded feelings of ageing (Karlsson et al., 2022; Zidén et al., 2008). In addition, the experience was not only about confronting ageing but also death. Several studies found that the experience of hip fracture provoked existential thoughts (Saletti-Cuesta et al., 2017; Tutton et al., 2021; Zidén et al., 2008).

The chronological age of a person has also been found to affect the experience of day-to-day life following hip fracture. In Brett's (2014) study, the young old (participants aged 65-79 years old) mourned the loss of their former life and felt devastated, especially if they had been fit and active pre-fracture. Conversely, older participants in this study who were aged 80-89 years old, were more accepting of the change and saw it as a turning point in life and were resigned to this enforced change with some adapting to the limitations the fracture posed.

### 3.4 Experience of hip fracture recovery

The recovery following a hip fracture is complex with multiple factors impacting the success of this. This constitutes hard work and a struggle to regain the independence lost (Archibald, 2003). Fear of losing independence and lack of control of not being able to return to their previous life was a cause of considerable distress (Ellmers et al., 2022).

#### 3.4.1 Pain

Pain was frequently cited in several studies reviewed (Griffiths et al., 2015; Ivarsson et al., 2018; Rasmussen et al., 2018). Coping with pain and pain management were major findings (Archibald, 2003; Hestdal & Skorpen, 2020; Pownall, 2004). The pain experience of older people (with a mean age of 74.5 years) following hip fracture was described as unbearable, yet it was accepted as a natural occurrence (Rasmussen et al., 2018). Older participants (with a median age of 90 years) in a Norwegian study (Hestdal & Skorpen, 2020) experienced severe pain that was linked to insecurity and loneliness, inferring that pain is not just a physical phenomenon. Psychological states such as anxiety pre-operatively can have a negative effect on the experience of pain postoperatively (Hariharan, 2016). Additionally, for patients who did experience severe pain, the psychological states had a damaging effect on their overall well-being (Ivarsson et al., 2018). For some, this experience was not long-lasting and was replaced early on in the recovery process by concerns about the restrictions that the fracture posed (Abrahamsen et al., 2022; Ellmers et al., 2022).

#### 3.4.2 Survival

As discussed in section 3.3, patients who have sustained a hip fracture experience a range of emotions in both the acute and recovery phases. Despite the acknowledgement of decline by participants following hip fracture, it has been shown that some patients take on a survival instinct at the point of injury (Archibald, 2003). Although hip fracture is a serious health issue, patients describe an appreciation for being alive after such a

traumatic event (Sims-Gould et al., 2017). In one study the sharing of this experience with other patients in the same situation enabled patients to see this from a perspective of humility and thankfulness that it could be worse (Zidén et al., 2008). Consideration of this was needed to ensure that when participants were recruited for this study this would be carried out ethically, by ensuring they were agreeing to participate through an informed decision and not thankfulness to a member of staff in the organisation in which they were cared for.

### 3.4.3 Psychological effects and support

The impact on psychological health is not only limited to the experience of pain. Psychological support has been identified in the success of recovery. When psychological support is lacking, there is an associated loss of self-confidence (Gesar, Hommel, et al., 2017). This was also identified by Ziden et al. (2008) who discussed that care after hip fracture is focused on treating the physical injury rather than psychological needs. Coaching in self-confidence and self-determination is needed to improve patient experience following a hip fracture (Gesar, Baath, et al., 2017). In some situations, this lack of psychological support led to feelings of despair if patients remained dependent on others, as this affected their sense of identity and dignity (Rasmussen et al., 2018). Therefore mental and physical support are both required to enhance the experience of older people following a hip fracture (Tutton et al., 2021).

Psychological effects of hip fracture have been previously identified (Brett, 2014; Saletti-Cuesta et al., 2017; Southwell et al., 2022). The extent of this problem is widespread (Sloney et al., 2014) and it is normal for patients to struggle on an emotional level after a hip fracture (Saletti-Cuesta et al., 2017). It is the psychological effects that lead a person to rethink their biography (Brett, 2014). Yet, the focus of the current KPIs for hip fracture care remains focused on physical aspects of treatment and recovery, (see Appendix 2 – KPIs). Whilst it is acknowledged that hip fracture features a clear physical element, coping with hip fracture is an emotional response too (Sloney et al., 2014). For many patients this is short-lived however some patients experience longer-lasting

psychological effects that may also develop into depression (Sleney et al., 2014). Low mood is often associated with poor mobility post-fracture (Griffiths et al., 2015). It has been suggested that healthcare professionals need to understand psychological impacts such as feeling low in mood, old, and grieving for the loss of previous activities and hobbies (Brett, 2014). Given that recovery from hip fracture requires both emotional and physical work on the part of the patient both mental and physical support is needed (Tutton et al., 2021). In addition, psychological consequences are not always related to the severity of the injury (Sleney et al., 2014). Therefore it has been suggested that strategies to support well-being and manage emotional challenges may help with the longer-term recovery of patients with hip fractures (Tutton et al., 2021).

#### 3.4.4 Comorbidities and advancing age

Hip fracture is seen as inevitable in older age (Tutton et al., 2021). This is closely entwined with comorbidities and hip fracture has been perceived as just one part of the ageing process and decline (Griffiths et al., 2015). For older people, the experience of hip fracture can therefore not be considered in isolation. Frail patients experience limitations of hip fracture more so as a consequence of ageing and their comorbidities (Haywood et al., 2017). When patients have multiple comorbidities they are more accepting of their frailty (Brett, 2014). This discourse therefore supports the argument that hip fracture contributes to biographical disruption rather than being the sole cause of disruption for patients with frailty or comorbidities (Southwell et al., 2022). The significance of biographical disruption and variants is revisited in more detail in section 3.6.

#### 3.4.5 Restrictions that hip fracture imposes

Initially following hip fracture, patients can be highly dependent on others for assistance to meet their basic needs (Zidén et al., 2008). A group of patients (an even distribution of males and females) in the UK were shocked by the amount of help they needed (Langford

et al., 2018). Some were afraid to perform basic activities and although they also found them difficult, they were determined not to be a burden. The participants in the studies by Abrahamsen et al. (2022) and Zidén et al. (2008) were mostly older women. For these women, feelings of frustration were common and although their ability to wash and get to the toilet improved over time (Abrahamsen et al., 2022), participants in two further studies voiced their impatience at the speed of progress (Bruun-Olsen et al., 2018; Sims-Gould et al., 2017). Independence whilst undertaking basic tasks such as personal care or walking was valued very highly (Griffiths et al., 2015). The fracture subsequently became less important and it was the restrictions that it posed that came to the fore (Abrahamsen et al., 2022).

Fear of falling again caused considerable anxiety and worry (Archibald, 2003; Beer et al., 2021; Gesar, Baath, et al., 2017). This was a constant feature following hip fracture (Karlsson et al., 2022). The consequence of this was that it now restricted activities that people had carried out previously before the fracture occurred (Pol et al., 2019). These activities were now deliberately avoided (Segevall et al., 2019). This has ramifications for quality of life. However, avoidance of previous activities and being careful was a means of older people regaining control (Ellmers et al., 2022). Being careful gave them the control to reduce the risk of falling. Even after the acute phase of recovery is over, it was reported that hip fracture causes long-term restrictions on life for many patients (Karlsson et al., 2022). Pre-fracture activities such as getting on a bus, cycling or travelling were reported to remain out of reach due to the fear of another fall (Abrahamsen et al., 2022; Segevall et al., 2019).

#### 3.4.6 Importance of social support following hip fracture

Social support was valued highly by participants in various studies and terms such as essential, invaluable and instrumental were used to describe this (Karlsson et al., 2022; Segevall et al., 2019; Sims-Gould et al., 2017). This was because the family provided emotional support to maintain a positive attitude (Sims-Gould et al., 2017). A systematic review found that social support enabled better engagement in recovery (Beer et al.,

2021). These results support the findings of Southwell et al. (2022) who note that anxiety was reduced in the presence of family support. This, in turn, enhanced recovery and overall outcomes (Sims-Gould et al., 2017). Conversely, the absence of social support along with advancing age and comorbidities increased anxiety experienced by patients following a hip fracture (Southwell et al., 2022). Therefore, lack social support can adversely affect patient outcomes following hip fracture.

#### 3.4.7 Returning home and regaining independence

Returning home and regaining independence were viewed as the most important things for patients (Jennison et al., 2014). This is echoed by Segevall et al. (2019) who found these were a central feature of recovery. Despite this, being back at home did not prove easy (Abrahamsen et al., 2022) and participants in a Swedish study found that despite their hopes, they were dependent on others initially but accepted this (Segevall et al., 2019). Nevertheless, home was not always a sanctuary and patients were sometimes trapped in their homes due to the limitations the fracture posed (Zidén et al., 2008). The threat to independence was long-lasting and participants in another Swedish study faced ongoing threats to their independence when they were interviewed four months after the injury had occurred (Gesar, Baath, et al., 2017). The desire to not be dependent was so strong, that personal limitations were accepted and independence was achieved through adapting to the new situation (Karlsson et al., 2022). Adaptation allowed for an acceptable life to be achieved (Karlsson et al., 2022).

#### 3.4.8 Feelings and emotions

Fear has already been discussed in relation to falling but the experience of a hip fracture can also elicit other emotions. Fear of what the future may hold, loss of independence and identity, anger at falling and not being more careful have additionally been identified concerning hip fracture (Ellmers et al., 2022; Griffiths et al., 2015; Hestdal & Skorpen, 2020). Nonetheless, fear is not the only emotion that has been reported following hip

fracture. Loss, anxiety, anger and self-blame have also been highlighted and will be reviewed in more depth across the next three sections.

#### 3.4.8.1 Loss

Loss in various forms was a common theme across several studies (Bruun-Olsen et al., 2018; Ellmers et al., 2022; Gesar, Hommel, et al., 2017; Langford et al., 2018). Hip fracture was identified as a tipping point for a loss of independence (Southwell et al., 2022). Having previously been strong and able, now being dependent and vulnerable was objectionable (Karlsson et al., 2022). Although this was not permanent in all cases, this was generally the situation in the acute stages of recovery, where acceptance of having to depend on others was a necessity. Loss of independence was also viewed as a threat to self-esteem that could affect their self-efficacy for their recovery and future lives (Langford et al., 2018). These feelings of loss were further fuelled by fear of not regaining the independence of their previous life after recovery (Bruun-Olsen et al., 2018).

In the initial stages of injury, being dependent and having to rely on others was not wanted but accepted (Segevall et al., 2019). This has been termed as stoical acceptance where participants acknowledged this unpleasant experience whereby they had no choice but to accept the consequences of the fracture (Archibald, 2003). This was often cited as participants not wanting to be a burden on others (Karlsson et al., 2022; Rasmussen et al., 2018). Determination was therefore exhibited despite difficulties with activities of daily living and achieving short-term goals such as getting to the toilet (Abrahamsen et al., 2022; Asplin et al., 2021). This determination was seen as one way to maintain self-respect and cope with the feelings of loss, however temporary (Zidén et al., 2008). The reason for such determination all revolved around the need for control (Ellmers et al., 2022; Tutton et al., 2021). Feeling out of control caused much distress (Ellmers et al., 2022). One of the ways that control could be achieved, was through adapting to the new situation. This was regarded as essential during the recovery process and patients with a positive outlook found this easier than those who had a negative view of their recovery (Asplin et al., 2021). Even if this new life was not the same as before the fracture,

adapting allowed them to lead an acceptable life and do the things they enjoyed (Karlsson et al., 2022). Recovery was, therefore, possible through adaptation (Griffiths et al., 2015).

#### 3.4.8.2 Anxiety about the future

Feelings of dependency also brought with them feelings of uncertainty about the future (Griffiths et al., 2015; Tutton et al., 2021). Longer-term concerns about how they would manage resulted in passivity (Gesar, Hommel, et al., 2017), but this was not always permanent and could be reduced where patients had social support (Southwell et al., 2022).

#### 3.4.8.3 Self-blame/anger

Feelings of remorse and guilt are not unusual following a hip fracture. Patients often blame themselves for what has happened and this can result in feelings of resentment for the situation they find themselves in (Jennison et al., 2014). It has been proposed that this remorse and guilt stems from patients thinking that the fall and fracture could have been avoided had they been more careful (Segevall et al., 2019). In turn, such feelings can enhance patient suffering (Hestdal & Skorpen, 2020). It has also been found that self-blame was a significant consequence that occurred when participants did not live up to the media portrayals of successful ageing (Lloyd et al., 2020). This left patients feeling vulnerable, and recognition of this (on the part of the patient) was again seen as an inevitable part of ageing (Ellmers et al., 2022).

#### 3.4.9 Determination and self-efficacy

Determination plays a vital role in recovery (Griffiths et al., 2015). Self-determination was identified as an important theme following hip fracture (Southwell et al., 2022). In one study, all participants who were interviewed voiced determination to achieve as full a

recovery as possible (Griffiths et al., 2015). Yet, in a later study, having self-determination required a sense of control and allowed participants to view hip fractures as a temporary disruption to normal life that could be overcome by engaging in rehabilitation (Southwell et al., 2022). This knowledge is not new and previous findings from patients whose perception of disability was consistent with independence and connectedness to the world around them, showed greater improvement in mobility at three and six months compared to patients who did not share this perception (Borkan et al., 1991).

As noted above, returning home and regaining independence were the most important factors for patients who had sustained hip fractures (Jennison et al., 2014; Segevall et al., 2019). This was also echoed by the findings of an explorative qualitative study in which older patients were interviewed two to five days after surgery for a hip fracture. They found that the main motivation and the most important driving force was for participants to regain their everyday lives as soon as possible (Gesar, Hommel, et al., 2017). The study posed that the self-determination of patients should be supported, and therefore involvement in decision-making would help them to reach their goals and regain control of what had been lost because of the fracture. The 30 patients who participated in this study showed an overwhelming desire not to be dependent, however, their ability to undertake active involvement was controlled by the nurses. Passivity in care resulted when patients were not offered opportunities to be involved despite them having the motivation for involvement (Gesar, Hommel, et al., 2017). Patients in this study seemed to seek permission from staff to be involved. This may be in part, due to fear of doing harm if they did something they should not (Perry et al., 2011). Therefore, having some control over their care is vital for patients if they are to be involved. Older people want staff to treat them as individuals rather than merely taking over (Bridges et al., 2010).

#### 3.4.10 Inner strength and positive attitude

Even if recovery was a slow laborious process, the importance of inner strength and a positive attitude helped participants cope and adapt to a new situation (Asplin et al.,

2021). Inner strength and a belief that they would recover were driving forces and encouragement from staff was shown to help these (Gesar, Hommel, et al., 2017). Motivation stemmed from self-optimism and recovery was found to be enhanced through patients having a positive attitude and determination (Sims-Gould et al., 2017). These findings are not unique and are supported by a later qualitative study where the participants themselves identified their personality and outlook as the key to their recovery. In the analysis of the transcripts, words such as ‘motivation’ and ‘strong-minded’ were frequently used and participants stated that it was their belief in their self-efficacy to control their lives that acted as a coping strategy to overcome the temporary loss of independence and recover (Langford et al., 2018). Therefore, according to Segevall et al. (2019), older people have faith in their ability to recover but require social and professional support (both physical and psychological) to achieve this.

#### 3.4.11 Locus of control

Locus of control theory has also been identified in hip fracture recovery (Bruun-Olsen et al., 2018). Although not termed specifically as locus of control, other studies have also identified control as a factor that can inhibit or enhance recovery (Ellmers et al., 2022; Gesar, Hommel, et al., 2017). Where self-efficacy and control over events that could affect their lives were threatened (by the fracture experience), coping strategies were needed to recover and regain the independence that had been lost (Langford et al., 2018). The ability to recover was based on the efforts of the patients themselves and their self-reliance (Bruun-Olsen et al., 2018).

### 3.5 Factors affecting experience and participation

It is not solely the hip fracture that can affect older people’s experience and participation in care. Several factors including ageing and comorbidities as discussed in section 3.4 can prevent participation. However, some factors that facilitate or halt involvement and participation lie with the healthcare professional. Their actions such as how they treat

the person, what information they provide during care delivery and the encouragement they provide can positively or negatively influence involvement and participation.

### 3.5.1 Individualised care

As previously discussed, individualised care is an integral part of modern healthcare. Five studies acknowledged the need for older people who experience hip fractures to be treated as individuals (Aronsson et al., 2014; Asplin et al., 2021; Brett, 2014; Hestdal & Skorpen, 2020; Jensen et al., 2017). Although much of the care is standardised through the use of care pathways such as NICE guidance (National Institute for Health and Clinical Excellence, 2011a) care still needs to be individualised and patients want to be treated as human beings (Hestdal & Skorpen, 2020). Even though this is often viewed as less important compared with other elements of care in terms of efficiency, this individualisation of care is what is seen to matter to patients (Aronsson et al., 2014). The importance of the individual in care delivery was one of the key findings in a UK study that interviewed participants 3-4 months after the fracture had occurred (Brett, 2014). Although using a standardised approach to care can be an effective use of resources, it has been shown to compromise patients with hip fractures as it does not allow patients to be treated as autonomous individuals (Jensen et al., 2017). This, therefore, implies that hip fracture care is not always person-centred. Efficient and cost-effective healthcare can be achieved through reducing length of stay and is one of the KPIs for hip fracture. Yet, the provision of information and knowledge from healthcare professionals to patients to empower them to participate in care was not achieved in a short-term hospital stay following a hip fracture where the emphasis was on a standardised pathway of care (Jensen et al., 2017). What can be seen in this example, is that the quality of care is impacted by the drive for efficiency.

### 3.5.2 Individualised care versus person-centred care

The terms person-centred care and individualised care are often used interchangeably. This is not unusual given that they both involve tailoring support to meet the needs of an individual however the scope and approach differ. Person-centred care is a concept used to describe the role of the patient in a healthcare system (Byrne et al., 2020). Fundamentally it is a philosophy that underpins care delivery by placing the individual at the centre of care and involving them in decisions (Grover et al., 2022). By doing so the person's values, preferences and choices are central. Successfully embedding person-centred care is challenging and requires a comprehensive needs assessment (Stoop et al., 2020). Stoop et al, (2020) explain that this includes staff training, communication, involvement of the patient and healthcare delivery design. Yet it has been found that associated empowerment does not always match older people's capabilities or preferences and therefore in one study, communication and a therapeutic relationship were deemed more important (Stoop et al., 2020). Although, person-centred care is theorised as being complex in nature there is still no consensus on the term (Byrne et al., 2020). Individualised care is viewed as more practical and person-specific and involves the development of a tailored care plan that addresses the unique needs of a person. This may include patient tailored education, individualised treatment, promoting health literacy and patient engagement (Grover et al., 2022).

### 3.5.3 Caring relationships with health care professionals

The power of staff actions and behaviours was noted by four of the studies reviewed. A positive nurse-patient relationship that featured trust, cooperation and encouragement was highly influential in the overall well-being of older people following hip fractures (Rasmussen et al., 2018). These interpersonal factors such as trust and feeling safe were found to alleviate the suffering of such a traumatic event (Hestdal & Skorpen, 2020). The compassion and empathy of the staff not only improved the overall care of the participants in the Aronsson et al. (2014) study but were also found to increase participation in care by patients. The friendliness of the nurses who took the time to talk to the patients was viewed as contributing to a pleasurable personal encounter.

Perceived feelings of involvement were enhanced when patients experienced a good dialogue with staff when they felt that they were listened to, and when they felt staff had time for them (Malmgren et al., 2014).

#### 3.5.4 Encouragement

As well as having a caring relationship, encouragement and feedback were also important for participation (Bruun-Olsen et al., 2018; Southwell et al., 2022). Encouragement from healthcare professionals was viewed as motivational and found by Asplin et al. (2021) to be essential to promote patient activity. This was related to a need for confirmation that as a patient they were progressing in the right direction towards recovery. This need for confirmation was also seen to be important for overall recovery by Griffiths et al. (2015). Such findings are further supported by a Dutch study that used sensor technology (Pol et al., 2019). The tablet devices used allowed participants to see their progress, and this acted as a positive motivator to engage in their rehabilitation. Conversely, a lack of progress in recovery was found to result in ceasing of exercising (Sims-Gould et al., 2017). This was because it resulted in feelings of dissatisfaction and participants in this qualitative study felt discouraged by their lack of progress.

#### 3.5.5 Empowerment

As previously discussed in section 2.4, empowerment as well as involvement, is purportedly needed if pressure ulcer risk is to be minimised for patients with a hip fracture. However, empowerment is not readily achieved. A meta-synthesis found that patients were not empowered to take part in their healthcare following hip fracture, and that this led to feelings of loss of control and fear of dependency (Brett, 2014). A Danish study that focused specifically on the empowerment of patients post-hip fracture, found that current care pathways did not facilitate empowerment (Jensen et al., 2017). This study focused specifically on short time stay after surgery. Where there is a reduce length of stay, patients may have felt rushed into being discharged before they were

ready to go home. Over recent years the hospital length of stay for patients in the UK following hip fracture has reduced (Royal College of Physicians, 2021). This maybe in part due to a drive for efficiency and cost-effective care. However this reduction in stay could affect the quality of care delivered and present problems for the empowerment of patients given that person-centred and individualised care is time consuming and resource-demanding (Meranius et al., 2020). Nevertheless, the active empowerment of older patients following hip fractures has been advocated (Brett, 2014; Southwell et al., 2022), and Brett advocated that empowerment should be actively encouraged by healthcare professionals to motivate patients in their recovery (Brett, 2014). Empowerment allows patients to redefine self and take charge of their recovery (Southwell et al., 2022) but as previously mentioned, this can take time and effort. Advice and support from health care professionals in the provision of coping strategies can restore biographical continuity (Brett, 2014). Therefore, if empowerment of patients with hip fracture is to be successful, then coping strategies needs to be an integral part of hip fracture care.

### 3.5.6 Information

Information is necessary to aid understanding and is therefore a prerequisite to any involvement or participation in activities (Asplin et al., 2021). Quality information is needed to aid decision-making and recovery (Brett, 2014; Langford et al., 2018). Where this is lacking it can result in inadequate knowledge that may have an impact on the rehabilitation outcomes for patients (Olsson et al., 2007). A patient narrative study, reported on in this review, featured one female participant aged 60 years who had fractured her hip. The study design provided some insight into the patient's perspective and gave a voice to the participant allowing them to talk about their experience (Pownall, 2004). The narrative highlights the importance of giving patients the right amount of information and education. As the author noted, good communication is an essential skill for nurses and yet for this patient, there was a lack of explanation and communication. This participant did not understand why the nurses wanted to check her pressure areas on each shift. The patient lacked understanding as to why this was

being done and no explanation was given by the nurses (Pownall, 2004). Indeed, in the study by Hestdal & Skorpen (2020), it was found that patients felt safe when they were informed about what was happening to them. The use of personalised information has also been shown to reduce fear and increase involvement (Ivarsson et al., 2018).

However, sometimes information is deliberately withheld from patients (Aronsson et al., 2014; Malmgren et al., 2014). Some participants were not informed and instead overheard what was planned for them but at the time were too tired to argue. Instead, information was exchanged between relatives and professionals rather than with the patient (Aronsson et al., 2014). This is not isolated to this study. Participants in a Norwegian study also experienced this where only their relatives received information (Hestdal & Skorpen, 2020). In certain situations, this non-involvement of the patient can be justified, given that the ability to comprehend information can vary following hip fracture (Asplin et al., 2021; Malmgren et al., 2014). The inability to process large amounts of information is commonplace following hip fracture. A phenomenological study that interviewed ten participants following hip fracture identified that none had any recollection of information given to them by healthcare professionals during their admission (Jensen et al., 2017). Nevertheless, all participants were able to provide informed consent to participate in the study and were not identified as having problems with mental capacity. Therefore, mental capacity and the ability to recall information needed to be considered when deciding the most appropriate time to interview participants in this study.

Henceforth, any information provided to patients in the hospital needs to be individualised based on each patient's condition and situation at the time (Malmgren et al., 2014). Repetition of information can be a useful tactic to overcome some of these challenges and to enable knowledge acquisition and involvement (Karlsson et al., 2022). Allied health professionals in a Canadian study that used an educational booklet to enhance the recovery of patients aged between 61-97 years, were concerned that they were overloading the participants with information. However, this proved not to be the case as none of the participants expressed a feeling of being overwhelmed (Langford et al., 2018). Indeed patients often want more information (Olsson et al., 2007). In a study

that featured participants within a similar age range, some wanted more information than they received whilst others were too tired to read this while they were in the hospital (Segevall et al., 2019). This dissimilarity reiterates the need for nurses to assess each patient on an individual basis to ascertain their ability to comprehend and digest information at a given time.

Given that the requirement for information following hip fracture varies, in a study on hip fracture experience, Olsson et al. (2007) identified three types of participants related to the level of information they sought. These included 'autonomous' patients, who wanted information and sought this out; 'modest', who wanted information but did not ask for it; and 'heedless', who were dependent and not interested in information. This categorising of participants was also employed by Brett (2014). Notwithstanding the level of information they sought, participants did not want a big pamphlet to read. Instead, the importance of engaging family in the information-giving process was deemed necessary (Brett, 2014). This variation in patients' expectations of information-giving was found to be the case in another study on the experience of hip fractures (Sloney et al., 2014). Participants wanted timely, non-conflicting information about their injury and treatment, so they knew what to expect during their recovery. This study also highlighted the need for both written and verbal information as verbal information was sometimes difficult to take in whilst in the hospital (Sloney et al., 2014). Participants found having written information to refer to following discharge helpful.

### 3.5.7 Participation

Encouragement and guidance from healthcare professionals can facilitate patient involvement in care and be highly valued by participants who described the importance of a nudge to assist them in to action (Asplin et al., 2021). The onus here is on the healthcare professional to provide these opportunities. It has been suggested that these opportunities to participate are lacking. Participants in the study by Aronsson et al., (2014) were not informed about these opportunities to participate or were even excluded. This is supported by another study which found that participants were offered little

opportunity to participate (Bruun-Olsen et al., 2018). Active communication between healthcare professionals and patients about how they can be involved in their care is needed as patients can be unsure about whether they should be involved and how to do this (Ivarsson et al., 2018). Other factors that negatively impact involvement include staff being too busy, and patients finding it easier to leave decision-making and care to them (Malmgren et al., 2014). Subsequently, lack of participation can negatively affect outcomes but engagement in rehabilitation has been found to vary greatly (Olsson et al., 2007). A study that sought patient perspectives on their engagement in recovery found that those who were engaged were more likely to resume their pre-fracture activities (Sims-Gould et al., 2017). In contrast, patients who felt submissive were passive recipients of care rather than being actively involved (Bruun-Olsen et al., 2018).

Equally, determination, ability, and the wish to participate should not be assumed. As mentioned earlier in the chapter, not all patients want to participate in care. Whilst all patients had a desire to recover, they did not all exhibit the same information seeking behaviours. Some patients deliberately sought information and some had no interest (Olsson et al., 2007). For some participants, the wish for information is transient and dependent on their needs and conditions at the time (Malmgren et al., 2014). The experiences of patients are affected by personal circumstances; their condition especially directly after surgery can affect their ability to absorb information and their willingness to be involved (Malmgren et al., 2014). Advancing age has also been identified as affecting a person's ability to participate, with participants in one study expressing that they would have participated had they been younger (Ekdahl et al., 2010). Other factors such as poor hearing and vision and being too ill or unwell, were also cited as affecting the ability of a patient to participate (Bastiaens et al., 2007; Ekdahl et al., 2010). In life-threatening situations, patients have been found to be more willing to let the doctor decide (Gregório et al., 2021). Though in non-emergency situations, some patients are more likely to participate, but these tend to be younger, female and more highly educated (Gregório et al., 2021).

### 3.5.8 Power of healthcare professionals and organisations

Older people can experience feelings of worthlessness, fear and lack of control when they are admitted to the hospital (Bridges et al., 2010). Some of this may be due to the perception of power. There is a strong theme throughout the studies identified here that healthcare professionals and hospitals are viewed as institutions of power, particularly and more so by older people. Patients were often reluctant to criticise hospitals, trusting staff to know what they were doing and therefore relinquishing any decision-making to them (Richardson et al., 2007). Others did not like to argue and felt that professionals were experts and therefore able to make decisions about their care and treatment (Bastiaens et al., 2007; Ekdahl et al., 2010). For some older adults, there continues to be a reluctance to question medical professionals (Eliassen, 2016). It has also been posed that older people have difficulty communicating because professionals are often so busy and unavailable (Gaffney & Hamiduzzaman, 2022). This creates a power imbalance between health services and older people (Farrington et al., 2023; Ocloo et al., 2020).

Unequal power relations lead to passivity and patients feeling powerless (Gaffney & Hamiduzzaman, 2022) and have been shown to trigger ageism where healthcare professionals ignore preferences of older people and do not include them in the decision making process (Martínez-Angulo et al., 2023). Subsequently, such patients are perceivably passive recipients of care (Farrington et al., 2023) rather than active participants. This can be generational and is more prominent in patients with lower education or pre-baby boomers who are more likely to prefer a paternalistic approach to care (Eliassen, 2016). However this is changing and those retiring now are more knowledgeable, better educated and more likely to access information from the internet (Eliassen, 2016). With a diversity of people over the age of 65 years, this means that some (perhaps older) patients prefer a paternalistic approach, and some (potentially younger older people) prefer a more participatory person-centred approach to care. This implies that healthcare professionals need to be able to communicate and negotiate effectively with patients as to their needs and preferences and not only treat them as one homogenised group of older people. Engagement of older adults in decision-making requires time and effective communication skills from the healthcare professional (Bynum et al., 2012). Reduced capability (due to illness) can also impact the desire to

participate. As a pragmatic way forward, clarification of the patient's desired role in the process is required to meet the patient's needs (Politi et al., 2013).

Personalised care and shared decision-making are a means of redressing the balance of power (Martínez-Angulo et al., 2023). In building on the line of argument above in section 2.4.1, this balance of power can only be changed if paternalism is challenged and collaboration is embraced (Ocloo et al., 2020). Paternalism has historically dominated this arena and doctors and nurses have been viewed as trusted professionals and a parent figure acting on behalf of patients' well-being (Eliassen, 2016). Whilst this may be agreeable to some patients, this is not the case for all and therefore it could be argued that the option to use a more person-centred approach is needed where required.

### 3.6 Biographical disruption and conceptual variants

The concept of biographical disruption was first introduced by Bury (1982) in his seminal work on chronic illness and rheumatoid arthritis. This theoretical lens has been extensively used in medical sociology and presents as a major life disruption to the body and self (Cluley et al., 2021). Early sociological approaches to chronic illness have been derived from sick role theory as posed by Parsons (1951), although this was characterised as a temporary role rather than permanent. The concept of biographical disruption has been further developed and other authors have advanced the concept. Various forms including flow and abruption have been elaborated to describe the altered biography in response to different medical conditions including stroke (Faircloth et al., 2004), motor neurone disease (Locock et al., 2009) and critical illness (Tembo, 2017). Bury (1982) suggested that chronic illness (specifically rheumatoid arthritis) presented a disruption and shift in the normal trajectory of life and self-concept. The participants in Bury's (1982) study were all aged under 65 years with the majority aged between 25-54. Arthritis is often seen as a disease of older age (Bury, 1982) and this is endorsed by the work of Anderson & Loeser (2010) who see older age as being the biggest risk factor for arthritis. It could be argued, therefore, that when a younger person is affected by this

disease, it represents a change in their expected biography, an aspect in the discussion of biographical disruption that will be revisited below.

Illness can be defined as a disruption and therefore temporary, with an expected outcome of recovery (Charmaz, 1991). However, this better describes and explains acute illness. Conversely, chronic illnesses, often called long-term conditions are defined as disorders for which there is no cure (The King's Fund, 2015). Therefore, rather than treatment and recovery, the aim for these conditions is management. In her work with the chronically ill, Charmaz (1983) identified suffering that was separate from the physical elements of the illness. This included loss of self and burdening others (Charmaz, 1983) showing parallels to Bury's work. Rather than focusing on the physical aspects of the disease, the concepts of biographical disruption, abruption and other variations focus on the psychological aspects and experiences of the people who suffer from chronic illness.

### 3.6.1 Biographical disruption

Biographical disruption was defined as the disruption to everyday life where the experiences and knowledge that underpins this are also disrupted, and plans for the future have to be re-examined (Bury, 1982). As noted, Bury's work gave a voice to the lay perspective, concerns and experiences of patients with chronic illness (Williams, 2000). Bury's (1982) study was carried out in the north of England where chronic illness was found to be a major disruptive event in the lives and normal biography of patients with rheumatoid arthritis. Arthritis is not something that younger people expected to suffer from and therefore it came as a shock when participants were diagnosed. Whilst medical knowledge about disease and illness can go some way to explaining the condition, the behaviour that people exhibit and experience they have, is affected by the invasion of the disease on all aspects of life (Bury, 1982).

During the study, Bury (1982) found that conditions that lead to disablement involve fluctuating symptoms and an uncertain outcome. The disease represented a biographical shift from a perceived normal trajectory through relatively chronological

steps to one that was perceived by the patient to be abnormal and inwardly damaging because of a change in their sense of self and uncertainty about the future. Chronically ill people can make adaptations to their lives in response to illness and disablement but may still experience sick-role behaviour when exacerbations occur. The study findings focused on three key outcomes: that expectations and plans must be re-examined; a fundamental rethinking of a person's biography and self-concept; and finally, the response to this disruption involving the mobilisation of resources. It was found that maintaining normal activities became challenging and embarrassing due to disability. Things that were once taken for granted such as going to the cinema and sitting became tiring and everyday life a burden. To summarise, it is not the disease itself but how the disease affects the person's ability to live a normal life based on preconceived and cultural ideas of a normal biography and trajectory, that is the focus here. This informs the basis of the use of this biographical disruption in this study.

The concept of biographical disruption has been used to help understand the experiences of hip fractures and how this impacts people's lives (Brett, 2014; Sleney et al., 2014). However, in a study carried out in the UK, the experience of hip fracture alone was not considered as biographical disruption but instead a tipping point in the loss of independence that was part of a wider disruption caused by existing comorbidities and advancing age (Southwell et al., 2022). The hip fracture represents only part of the story of decline and this is closely entwined with other factors related to ageing (Griffiths et al., 2015).

#### 3.6.1.1 Narrative reconstruction of illness

Illness is a complex phenomenon and not merely the result of a natural process as the biomedical model would view it (see section 2.4.1), instead, it is a combination of complex social and psychological processes (Williams, 1984). Therefore, to understand illness [and wellness] the social and psychological as well as the physical aspects must be considered if person-centred care delivery is to be achieved as discussed in section 2.4.2 of the previous chapter. Gareth Williams (1984) proposed that narrative

reconstruction is how people can overcome biographical disruption by repairing and relinking their biography with the body, self and society to cope and maintain identity and self-worth (Williams, 1984).

### 3.6.2 Further variations of biographical disruption

Since Bury's seminal work was published, other authors have explored, built upon and developed this concept in response to explaining the patient experience of various illnesses. Biographical flow, reinforcement, accommodation, abruption, oscillation, continuity and reconstruction have been suggested to explain the experiences of patients. These variants are presented in chronological order of publication to frame the development of these concepts.

#### 3.6.2.1 Biographical flow

In contrast, to Bury's (1982) work on people with rheumatoid arthritis, the participants in the study by Faircloth et al. (2004) experienced a sudden onset of illness in the form of a stroke that did not result in biographical disruption but instead a biographical continuation and flow. Biographical flow is defined as "...an enduring chronic illness narrative that is part-and-parcel of the biography" (Faircloth et al., 2004, p 245). According to Faircloth et al. (2004), illness presents as an intense crisis for a person, but it is not always a disruptive event, instead, it alters the life trajectory and is therefore part of an ongoing flow of their biography. In this situation, the ill person reassesses their biography and self-concept and adapts to the changes needed (Faircloth et al., 2004). In comparison with Bury's study, the participants in this study were older and therefore, according to Faircloth et al. (2004), may have had better coping mechanisms to decrease the impact of the illness. As with biographical disruption, Faircloth et al. (2004) also recognised that age is a factor in whether a person is disrupted by illness or whether this is merely perceived as part of their continuing biography. As such, for older people 'flow' may be a more appropriate concept to describe this experience.

For some people, increasing age and the presence of comorbidities aid in the preservation of identity (Faircloth et al., 2004). Stroke was seen as something that could easily occur in older age and was therefore normalised. One of the participants referred to the stroke as a hiccup as it had not affected his life in a significant way compared to before the stroke. As such, stroke was seen as a hiccup in life and a natural part of the ageing process, not as biographical disruption. All participants in the study had pre-existing comorbidities and these were often blamed by participants for their ill health rather than the stroke itself (Faircloth et al., 2004). In essence, chronic illness can reinforce biography rather than disrupt it.

The experiences of a group of participants diagnosed with hepatitis C also revealed either biographical flow or biographical disruption (Harris, 2009). Of the 40 participants recruited to the study, approximately half were shocked and disrupted upon diagnosis of hepatitis C and half were not surprised. The author concluded the experience of biographical disruption is contextual and dependent on previous illness and hardship (Harris, 2009). Those who did not have a history of injecting drugs were reportedly disrupted by the experience. This was in stark contrast to those who had been injecting illicit drugs at the time of diagnosis and were unsurprised, as hepatitis C is normalised in such communities (Harris, 2009). For these participants, biographical flow was again more appropriate to describe their experience of illness.

### 3.6.2.2 Biographical reinforcement

The concept of biographical reinforcement was developed in a study of Human immunodeficiency virus (HIV) positive men. According to Carricaburu & Pierret (1995), this occurs when the construction of a person's identity is reinforced by their illness. The ability of people to cope with a chronic condition is therefore perceived to be affected by their interpretations of the illness. Medical knowledge does not always provide answers for patients, as Bury (1982) has also argued. Whilst medical practice can sometimes provide answers to questions on the disease process, it cannot always provide answers

on how patients experience the illness. Nevertheless, men with HIV re-composed their sense of identity to achieve continuity in their biographies (Carricaburu & Pierret, 1995).

### 3.6.2.3 Biographical accommodation

As with the other concepts, biographical accommodation built upon Bury's (1982) seminal work. This accommodation is a process of redefining self and mobilising resources to manage the practical and emotional consequences of disruption (Godfrey & Townsend, 2008). This study involved interviewing 64 older people who were receiving intermediate care to aid recovery following various illnesses. It was not just the illness type that was relevant to the recovery, but the circumstances (a crisis or a planned admission). All patients who had experienced a fall and a hip fracture expected a return to their active lifestyles (Godfrey & Townsend, 2008). Given that most do not reach full functional status post-fracture (Hung et al., 2012) this finding was noteworthy as the participants in the study did not perceive that they would be disrupted indefinitely. The trajectory of illness in this study corresponded initially with biographical disruption. In the early part of the illness, people expressed a loss of self when compared to how they were before the illness or injury (Godfrey & Townsend, 2008). Over time, there was a perceived shift towards accommodation by managing the loss by securing continuity in activities and relationships. The meaning of recovery changed over time for individuals, as they appraised the options and choices open to them in the context imposed by the disability and the ageing identity (Godfrey & Townsend, 2008). Essentially, they adapted to be able to continue their pre-illness activities (Godfrey & Townsend, 2008). Research into the recovery of older people following illness suggested that biographical accommodation was more relevant than disruption when explaining the experiences of older adults. Those with a chronic condition experienced a period of refashioning their sense of self. Recovery was influenced by other factors such as prior circumstances, comorbidities and the actions taken by individuals to manage their recovery. Across the participants active engagement in adjusting and managing their illness was key (Godfrey & Townsend, 2008).

#### 3.6.2.4 Biographical abruption and repair

Biographical flow, in relation to illness, implies a need to adapt to changes in the life trajectory, but where there is a terminal diagnosis, Locock et al, (2009) suggested that this is experienced as a biographical abruption rather than a disruption. In this context, abruption came as a sudden event, that for participants diagnosed with motor neurone disease was like a death sentence (Locock et al., 2009). For others, this sudden change in biography led to biographical repair where they tried to make sense of life and identity by restoring normality and finding new meaning in their lives (Locock et al., 2009). Again, identity is a recurring feature of these concepts; along with dependency on others and becoming a burden, finding new meaning in their lives through acceptance, and learning to live with altered circumstances (Locock et al., 2009).

#### 3.6.2.5 Biographical oscillation

In keeping with the review by Larsson & Grassman (2012), which considered how repeated disruptions shaped the lives of those interviewed, research on the experience of Meniere's disease also found that disruption in a person's biography was fluctuant (Bell et al., 2016). This was characterised by periods of turbulence and periods of cherished time, which the authors termed as biographical oscillations in the remitting and relapsing nature of this disease (Bell et al., 2016; Syed & Aldren, 2012). As a chronic condition, Meniere's disease sufferers share similar patterns of illness with the participants in Bury's (1982) study. The unpredictability of the illness and episodes of exacerbations or attacks also affect the experiences of sufferers in relation to their lives. The age range of these participants was not however restricted to those over 65 and instead included participants aged 30-75 years. This is relevant when comparing their experiences to patients over 65 with hip fractures. Life roles for each of these age groups are likely to be different and therefore the challenges experienced may differ, for example, periods of disruption experienced by younger people, undermined social roles such as parenting for them at their current life stage (Bell et al., 2016), when

exacerbations of the illness limited participant's ability to care for children and hence impacted their self-identity.

#### 3.6.2.6 Biographical continuity

Research carried out in a nursing home found a strong need for person-centred care to ensure biographical continuity rather than disruption, so as to maintain normal life (Harnett & Jönson, 2017). Making care personalised ensured the maintenance of identity; a vital aspect of biography already discussed. Maintaining a person's habits and interests through person-centred care, was a means of ensuring their biography was continued not disrupted. It is worthy to note that personalised care was seen as a means to counterbalance institutionalism (Harnett & Jönson, 2017).

#### 3.6.2.7 Biographical reconstruction

The final variation of the concept of biographical disruption is that of biographical reconstruction. A relatively new concept, biographical reconstruction features an element of adaptation in the face of adversity for older people. A longitudinal study on frailty found that although it was biographically anticipated frailty was still disruptive, causing people to reconstruct and adapt to their new situation (Lloyd et al., 2020). The disruption experienced due to frailty, was wide-ranging and not just related to one single event, for example, a diagnosis of rheumatoid arthritis or a stroke. This is akin to the findings of Southwell et al. (2022) where hip fracture, although disruptive, intensified a wider disruption of life related to comorbidities and increasing age. The whole experience and culmination of multiple struggles was overwhelming and made attempts to adapt more challenging, hence being perceived as a reconstruction (Lloyd et al., 2020).

### 3.6.3 Factors that can impact the experience of illness in the context of biographical disruption

The experience of illness is unique to the individual due to their perceptions and beliefs, and psychological, social and emotional responses to the illness (Lubkin & Larsen, 2013), hence some considerations require further clarity and discussion.

#### 3.6.3.1 Onset of the disease or condition

Several authors have built upon the work of Bury (1982) and differences and critiques have been highlighted. For example, there appears to be a divergence in the literature related to the onset of biographical disruption. Each author developed their arguments from empirical evidence drawn from different acute and chronic illness experiences. According to Bury, chronic illness is a single event that has an insidious onset (Bury, 1982). In support, some authors state this 'single event' experience can occur over time, as in frailty (Clarke & Bennett, 2013; Cluley et al., 2021), conversely, others suggest that biographical disruption is characterised by a sudden event (Engman, 2019; Rousseau et al., 2014). In a study of solid organ transplant recipients, biographical disruption occurred following a sudden onset of acute illness (Engman, 2019). This can be likened to a hip fracture as a sudden event following a fall. Whereas in an illness that has an insidious onset where symptoms occur gradually, small changes can be made in response to the illness and coping mechanisms developed. This gradual onset therefore was not deemed as disruptive as people were reported to develop resilience over time (Engman, 2019). So, the likelihood of biographical disruption occurring seems to be somewhat related to the speed of onset of the condition or disease itself. Such findings may also be related to the timing of data collection about the onset of illness. Participants with rheumatoid arthritis in Bury's (1982) study were interviewed around the time of diagnosis, as this coincided with a referral to see a rheumatologist. Many participants had been experiencing symptoms for a considerable time (sometimes years) before this time of diagnosis. In comparison, regarding the current study where a fall that results in a hip fracture is an acute and sudden event with an immediate onset, it could be considered that patients do not have time to reassess the situation, their

social identity and self-concept. Thus, patients do not have time to develop resilience and coping strategies and are likely to experience disruption.

Following the same line of reasoning, the timing of data collection may also affect findings. For example, disabling conditions can threaten a person's identity and self-concept (Locker, 2003). The realignment of the relationship between body, self and society has been termed narrative reconstruction (Williams, 1984). Drawing on lay theories concerning illness is part of the process of coming to terms with the situation a person may find themselves in (Locker, 2003). Therefore, if participants in research studies are interviewed at a later stage following hip fracture, they may have had time to come to terms with the event and adapt to their new identity; and may perceive the experience differently compared to someone who has recently experienced a fracture.

#### 3.6.3.2 A single event or repeated occurrences

There is also some disagreement regarding biographical disruption occurring in response to a single or repeated event. The experience of chronic illness over the lifespan can bring repeated disruptions (Larsson & Grassman, 2012). In a set of two life course studies carried out over 30 years, it was found that biographical disruption may occur repeatedly over the lifespan of a person who is chronically ill. However, it was also found that disruption is less relevant to people in later life or to those who have experienced difficult times in their lives due to them having more experience of disruption (Larsson & Grassman, 2012). Such findings have more recently been echoed by Cluley et al. (2021) whose research on frailty found that people diagnosed with frailty did not always experience biographical disruption. Instead, they viewed this as a normal part of the ageing process, had developed coping mechanisms and adapted to the changes that were happening.

Historically the concept of biographical disruption has most frequently been applied to chronic illness and disease. Yet, in a qualitative UK study about tooth loss, the concept was applied as the lens to view a single acute event (Rousseau et al., 2014). This was to aid in understanding the differences between individuals' experiences in response to the

same event, that of tooth loss and denture wearing. Biographical disruption was found to be a helpful concept to identify disruption following tooth loss. As noted above, biographical disruption has also recently been applied to the condition of frailty (Cluley et al., 2021). Although the authors acknowledge that frailty cannot be categorised as a disease, it is a health-related condition. Despite this, the experience of frailty (which is not always restricted to those with advancing age and older adults) echoes the components of biographical disruption; notably the mobility issues, weakness, sense of identity loss, and the need for support with day-to-day activities (Cluley et al., 2021). This need for support and social networks is also a key feature in several other studies related to the concept of biographical disruption that will be explored in section 3.6.3.7.

#### 3.6.3.3 Gendered experiences

Experience of previous illness, hardship and age are not the only aspects of biographical flow and disruption. Gender can affect the experiences of illness in older adults (Clarke & Bennett, 2013). Men are perceived as more likely to be frustrated by the restrictions of illness however in this frequently cited study, they were resigned, stoic and more emotionally reserved (Clarke & Bennett, 2013). Women in the study, although frustrated were able to achieve acceptance of their situation. The women also verbalised that their abilities had affected their social lives. Men did not verbalise this but did however demonstrate increased dependence and reliance on a spouse. Women, in contrast, were less accepting of the need to depend on others (Clarke & Bennett, 2013). The processing of emotions by women led to them being able to regain a sense of self.

#### 3.6.3.4 Identity

One of the recurrent themes examined within the literature on biographical disruption is that of identity. People with chronic illness often suffer from identity loss particularly when this is related to work and social life (Asbring, 2001). Bury (1982) refers to this as a re-evaluation of a former identity and life and the need to come to terms with a new identity. This readjustment can be more difficult where a person was active in earlier life (Asbring, 2001). For such individuals, where a condition or disease causes perceived

devastation, these feelings are experienced as an identity shock and affect how individuals identify with self (Rousseau et al., 2014). In addition to this, the illness can have an impact on how individuals see themselves and how they think others see them, negatively impacting their self-identity (Williams, 2000) Hence, the level of biographical disruption is argued to be dependent on how much the illness or event affects a person's identity (Wolfenden & Grace, 2012).

In response to this threat to identity, patients develop coping mechanisms. This can present as 'normalisation' by bracketing off the impact of the illness so the effects on self-identity are reduced (Williams, 2000). Normalisation can be achieved through the resumption of life roles and responsibilities following biographical disruption and is an important aspect of re-establishing personal identity (Wolfenden & Grace, 2012). Similar aspects were found in the study on frailty, but here the need for support was at odds with the participants' need to remain independent. They wanted to continue everyday life to maintain their identity but were reluctant to ask for any help (Cluley et al., 2021). For those who experience biographical disruption, there is a need for psychosocial rehabilitation to help patients resume life roles (Wolfenden & Grace, 2012). However, this recommendation by the authors must be accepted with caution as this was a small-scale study with five participants. Nevertheless, it has been recognised that the psychological aspects of hip fracture care delivery require greater emphasis (see section 3.4.3) in addition to the physical aspects of care (Karlsson et al., 2022).

Several studies have researched the effects of hip fracture on identity and loss of self (Brett, 2014; Griffiths et al., 2015; Southwell et al., 2022; Tutton et al., 2021). For patients with hip fractures, the fracture can represent a changed body and loss of self (Tutton et al., 2021). In this study, acceptance of these enforced changes was perceived as a loss of control over the participant's ability to be independent and meet their own needs (Tutton et al., 2021). Similar findings were echoed by Brett (2014) whose participants perceived that others saw them differently immediately after the injury due to the loss of their former self and a loss of independence. This loss of self was seen as a temporary disruption to identity (Southwell et al., 2022). Regaining normality and identity was a struggle (Tutton et al., 2021) yet it was possible through adaptations such as the use of a

walking aid to mitigate the effect of the fracture (Griffiths et al., 2015). This aspect was first identified by Archibald (2003) who suggested that the revision of life goals was a way of regaining a sense of self. Indeed, revaluing identity may support the challenges of life transition following a hip fracture (Tutton et al., 2021).

#### 3.6.3.5 Embodiment

As previously mentioned, the ability to adapt plays an important part in the maintenance of self-esteem and identity (Williams, 2000). This renegotiation of identity, daily life and future adaptation is required after biographical disruption (Trusson et al., 2016). However, there are exceptions, as in the case of women aged 42 to 80 years of age, who had suffered breast cancer (Trusson et al., 2016). A return to previous life was prevented due to fear of recurrence and the embodied changes that occurred (Trusson et al., 2016). It has been suggested that it is the disruption to embodiment that causes the illness to manifest as an experience of biographical disruption (Engman, 2019). In this discourse, biographical disruption begins with a breakdown of embodiment and is therefore dependent on an individual's embodiment before the illness or fracture. Where an individual suffers gradual deterioration over time (perhaps years) and can make minor adjustments to continue daily life, then biographical disruption will not feature, as there is not a huge shift in the biography, and hence identity at one specific point in time (Engman, 2019).

#### 3.6.3.6 The environment

The environment can also have an impact on how illness affects a person and the level of disruption. The wider context of a person's life must be considered. For example, stroke survivors living in rural areas experienced biographical disruption due to environmental factors (Meijering et al., 2017). Where participants previously walked or cycled, the illness affected their ability to do this and hence caused a necessary dependency on others. This was most notable for those living in more rural areas

(Meijering et al., 2017). As such, this highlights again the importance of social networks as a lack of social support may compound the disruption for those living in the countryside.

### 3.6.3.7 Social networks and support

In Bury's work with patients experiencing biographical disruption as a consequence of rheumatoid arthritis, family and social networks were of vital importance and could positively influence the course of dealing with disablement (Bury, 1982). The need for the mobilisation of social resources was also discussed by Simon Williams (2000). Similar experiences were described by participants (with a mean age of 76 years) with osteoarthritis, where family support was viewed as positive even if they lived alone (Sanders et al., 2002). Such networks were found to compensate for the restrictions that the frailty presented (Cluley et al., 2021). Although the frailty study sampled and interviewed participants and their carers who were diagnosed as frail using the Clinical Frailty Scale and although over 65 years old, the average age and range of participants was not stated. Age is important to note given that age has been shown to affect the degree of biographical disruption, and this is further reviewed below.

The need for social support and the ability to mobilise resources has also been discussed in empirical literature within the experience of hip fracture, where chronic illness has been discussed as a social as well as physical experience (Sleney et al., 2014). Social support has been identified as a vital component of recovery for patients to define a new sense of self following hip fracture (Southwell et al., 2022). Social support is important to construct future identity and has been shown to reduce anxiety about the ability to cope (Southwell et al., 2022). Therefore, the importance of social networks and support is not limited to chronic illness but can also be applied to acute illness.

### 3.6.3.8 Age

Illness is anticipated as inevitable in older age and therefore is not always viewed as a biographical disruption (Pound et al., 1998). For a younger person, for example, young women aged between 25 to 54 years from the North East of England; being diagnosed with rheumatoid arthritis was a great shock and therefore deemed highly disruptive to their daily lives (Bury, 1982). Conversely, older participants interpreted the symptoms of osteoarthritis as a normal part of their biography (Sanders et al., 2002). For these participants, osteoarthritis was seen as an inevitable part of ageing and although still presented as a disruption to everyday life, they displayed a sense of resignation to and acceptance of it. This was considered to be due to the participants in this study being older and aged between 51 and 91 years (Sanders et al., 2002). These participants still experienced disruption to their daily lives however they processed this differently. According to Glyn-Jones (2015), increasing age is one of the major risk factors for osteoarthritis and therefore osteoarthritis is deemed normal for older adults. Whilst the physical aspects of the disease are expected in older age and normalised, the consequences and effects of everyday life are significant to those who experience them. Whilst individuals may accept the significance of the experience (the connotations that a diagnosis has) the consequences and restrictions are less accepted and it is these elements that cause biographical disruption (Sanders et al., 2002).

It has been suggested that life experiences and ageing into the 70s, 80s and 90s, provide patients with skills to manage age-related crises and prior experience that equips them to adapt and deal with new situations (Pound et al., 1998). Conversely, advancing age has not always been found to make it easier for participants to manage losses associated with illness. In fact, in the life course studies discussed previously, some losses were seen as more disruptive than they would have been, had they been experienced earlier in life (Larsson & Grassman, 2012). For some participants in this study, a more disruptive event was the final straw which forced them to give up activities, impacting social identity because this might be greater in severity after years of coping with the condition. Yet, this finding was not universal in the study and some participants felt that as they aged they were better at handling things (Larsson & Grassman, 2012).

### 3.6.3.9 Socioeconomic factors

Differences in experience have not only been related to age. Biographical disruption was more likely in younger and more prosperous and affluent participants in the study about tooth loss experience (Rousseau et al., 2014). Biographical disruption is more likely to be experienced by affluent people, due to higher health expectations and less experience of needing to cope with difficulties and hardship (Williams, 2000). Classification by class differences has previously been found to correlate with the effect of the significance of the experience of illness. In 'Hard Earned Lives', the experiences of illness for people from the East End of London were met with stoicism (Cornwell, 1984). For poorer people, illness was expected and not something to be moaned about.

### 3.6.3.10 Adapting to a new life

When people experience illness, especially chronic illness, normal social activities become challenging (Bury, 1982). This can result in social withdrawal as a consequence of the illness; for example by taking longer to get dressed, or feeling tired, and then not being able to go out (Sanders et al., 2002). Hence the outcome of original plans has to be changed due to biographical disruption in response to chronic illness (Williams, 2000). This has been termed as a re-examination of expectations for the future (Bury, 1982). Yet this examination and adaptation in the face of illness can still allow for activities to be performed, just in different ways. Furthermore, in the context of adaptation, biographical disruption should not be seen as permanent. Although illness can cause radical disruption, the degree of biographical disruption can sometimes be partial, not total, when adaptations can be made (Asbring, 2001). The amount of biographical disruption can also vary between conditions and illnesses (Cluley et al., 2021). In the study on frailty, the impact of frailty was seen as more disruptive with a wider range of impact compared to a single illness that contributed to the frailty (Cluley et al., 2021). As discussed above, in line with the biographical variants in certain

situations where chronic illness has been present for many years, the disruption wanes and evolves to become part of normal daily life (Engman, 2019).

#### 3.6.4 Hip fracture as biographical disruption

As has been shown above, biographical disruption has been identified by several authors as a useful theoretical framework to explain the experiences of hip fracture (Brett, 2014; Bruun-Olsen et al., 2018; Gesar, Baath, et al., 2017; Griffiths et al., 2015; Saletti-Cuesta et al., 2017; Sleney et al., 2014; Southwell et al., 2022; Tutton et al., 2021). It has been proposed that hip fracture and its related consequences such as dependency on others and frailty, represent a point of biographical disruption (Saletti-Cuesta et al., 2017). Indeed, chronic illness can drastically disrupt life for an individual but the same has also been found for hip fractures, due to the lasting consequences that the fracture can present. Participants in a study by Bruun-Olsen et al. (2018) continued to experience disruption from normal life up to four months after the incident and feared they would never return to their previous life and functioning. Similar findings were described by Gesar et al. (2017). Both studies were carried out in Scandinavia and interviewed patients over 65 years of age, four months following the hip fracture. Although not termed biographical disruption, the study by Gesar et al. (2017) refers to this as an interruption to life. Regardless of the terminology used, hip fracture is a time of substantial change for patients (Saletti-Cuesta et al., 2017). Conversely, a more recent study carried out in the UK refutes the idea that hip fracture alone results in biographical disruption (Southwell et al., 2022). Although hip fracture was perceived as a loss of independence, on its own the older adults who were interviewed did not perceive this as a biographical disruption. Yet, when this was combined with advancing age and dealing with comorbidities, it did represent a disruption to life. So here, the hip fracture alone was not the sole determining factor of disruption.

### 3.6.5 Overview and relevance of biographical variants to this research

The concept of biographical disruption and its variants attempt to explain the experiences of people in response to various illnesses and conditions, both chronic and acute. However biographical disruption is not always disease-dependent, as it can be affected by other factors. These include a person's age, ability to cope, capacity to adapt and accept a new situation. When people have had challenging times in their lives, they often learn ways of coping, are more resilient and subsequently tend to be older. Younger more affluent individuals, appear to have higher expectations of health care and are therefore less accepting of situations that could be perceived as negative. When illness does cause biographical disruption, this is due to a loss of identity and a disruption to embodiment. The ability to adapt allows for identity to be maintained, but this is also reliant on individual factors and social networks. Most studies discussed have used the concept of biographical disruption or its variants homogenously. However, it is important to note the rarity of studies that have utilised more than one variation. Of the studies reviewed, only Harris (2009) and Locock et al. (2009) used additional variants to aid their analysis. Employing biographical disruption and its multiple variants as a conceptual framework within the current research, may aid in the analysis to inform the findings of this study.

### 3.7 Using research to inform policy, measures and indicators

Historically, outcome measures for hip fractures have focused on mortality and morbidity rates and postoperative complications such as pressure ulcers, however, the focus on patient-centred care has resulted in the 'acceptance' of how outcomes should be assessed (Haywood et al., 2017). Much of the knowledge of patient experience within healthcare comes from patient-reported outcome measures (PROMs) however, there is no universal PROM that has been developed to measure patient perspectives and experience after hip fracture (Brett, 2014). Although it has been suggested that no single patient-reported outcome measure could evaluate the quality of care for all patients, there is now evidence to inform policy decisions for hip fractures (Griffiths et al., 2015).

There is a need for healthcare professionals to gain a better understanding of patient experience to develop appropriate person-centred services (Brett, 2014).

Early identification of recovery concerns could enable greater empowerment of patients (Southwell et al., 2022). Research carried out as far back as 1991 called for psychosocial prognostic factors such as anxiety and depression to be included in hip fracture rehab and recovery (Borkan et al., 1991). As far back as 2003, the meeting of psychological care needs was highlighted for future action following research on patient experience of hip fractures (Archibald, 2003). Despite this, there are still no key performance indicators within the hip fracture pathway that refer to psychological care. Providing information on where to seek help for low emotional state and the provision of coping strategies to aid in the adjustment to a new self-identity and restore biographical continuity have been suggested to meet the needs of patients and improve patient experience following hip fracture (Brett, 2014; Slaney et al., 2014). With several studies pointing towards this policy change, there is a need to review NICE guidance (National Institute for Health and Clinical Excellence, 2011a) on this care pathway. As such the findings from this study will aim to address these gaps.

### 3.8 Chapter Summary

This chapter has identified and discussed the literature relating to the experiences of older people following hip fractures. This multi-faceted experience impacts patients' ability to engage and participate in their care. It can be concluded following the review, that hip fracture experience is a complex process that affects not just physical health but also has emotional and psychological ramifications. For many patients hip fracture is a major life-changing event from which recovery is challenging. Having a hip fracture is marred by increasing age, severe pain, presence of existing comorbidities, psychological distress, and feelings of loss and fear of not being able to return to their previous life. It can be a reminder of an ageing body and can rouse existential thoughts, most notably where patients have been more active pre-fracture.

Hip fractures can permanently disrupt the future aspirations and hopes of patients and require a re-evaluation of life. Yet hip fracture is sometimes characterised by a survival instinct and determination not to be a burden on others. Regaining independence and going home have been shown to be key motivators of recovery. Determination and having a positive attitude are vital to improvement. A greater focus on social, emotional and psychological support is needed along with physical care to enhance recovery and outcomes. Social support has also been shown to be a vital component in recovery and allows patients to compensate for restrictions that the fracture poses. The importance of psychological support following hip fracture is also paramount and the literature indicates that this is not always being addressed effectively and that hip fracture guidance and care pathways would benefit from a review to encompass these important aspects.

Hip fracture experience although complicated by pain, comorbidities, and multiple emotions can be made better by social support, regaining independence, determination and self-efficacy, and individualised care, which includes encouragement and empowerment. The actions of healthcare professionals in this cannot be underestimated and can have a huge impact on the overall patient experience. Relationships that have a solid foundation of effective communication and partnership with healthcare professionals are highly influential in ensuring the well-being of patients following hip fractures.

Historically, the biomedical model has shaped hip fracture management and recovery however, this review demonstrates that this is no longer appropriate to meet the needs of patients who experience hip fracture. Individualised and person-centred care with a basis in the biopsychosocial model of healthcare is better suited to meet patient needs as it encompasses a more holistic approach that combines psychological, social and emotional care as well as meeting the physical elements of hip fracture management.

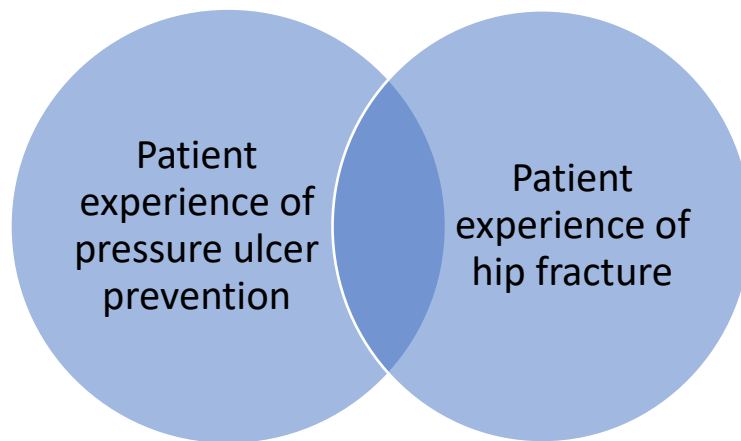
The concept of biographical disruption and its variants have been discussed and provided a beneficial lens through which to view the hip fracture experience. Although biographical disruption was originally used to explain the experiences of patients with chronic illness, this review has shown how biographical disruption, and its variants can

be used to understand the experience of hip fracture. Repairing their biography after a hip fracture is one way that patients can secure a successful recovery after such a traumatic event. The ability to adapt is needed if patients are to have a positive experience during both their acute and longer-term recovery. Several variants of biographical disruption have been discussed: flow; reinforcement; accommodation; abruptness; repair; oscillation; continuity and reconstruction. The present study will examine the ways in which the concept of biographical disruption and its variants can provide a lens to understand the patient experience following hip fracture.

### 3.8.1 Bringing together two bodies of literature

The literature discussed in Chapters 2 and 3 has shown that participation in care generally and in pressure ulcer prevention following hip fracture is dependent on many factors that are common to both bodies of literature. These include the patient's age, physical and psychological status including pain, anxiety, comorbidities, the need for timely information, knowledge and health literacy, social support, individualised and person-centred care, meaningful relationships with staff and the actions of healthcare professionals in encouraging participation.

The bodies of literature on patient experience of pressure ulcer prevention and hip fracture are currently separate and distinct; however, this study will endeavour to bring these together by exploring patient experiences of pressure ulcer prevention following hip fracture. The Venn diagram in Figure 3 shows these bodies of literature and the darker area identifies the gap that this study aims to fill.



*Figure 3 - Venn diagram demonstrating the bringing together of the two bodies of literature*

In closing, it has been shown that the experience and involvement in care for patients who have sustained a fractured neck of femur is affected by multiple factors but can be facilitated through the actions of healthcare professionals. The following chapter will discuss the methodology and how the study was carried out.

### 3.9 Research question, aim and objectives

The idea for the study developed from the need to understand the experiences of pressure ulcer prevention from the patient's perspective. The patient in the story from the conference did not know what a pressure ulcer was (see section 1.2). Anecdotally patients have limited knowledge of pressure ulcers. There is a desire to understand what patients with hip fractures know about pressure ulcers, prevention, and their role within this. For example, do patients link being nursed on an air mattress with the prevention of pressure ulcers, what is their experience of these mattresses, and why do nurses want to check the skin? There is a desire to understand if patients with hip fractures want a passive role in prevention or do they want education and be empowered to actively participate. If they do want to be involved or participate, at what point in time do they want or can be involved or participate and to what extent? Answering these questions formed the basis of the study and led to the development of the research question, aim and objectives.

Following the review of the literature, the research question below was developed to fill the research gap identified. Research that focuses on the knowledge and experiences in relation to pressure ulcer prevention of patients who have sustained a fractured neck of femur, is scant. Therefore, the focus of this qualitative study will be to understand participants' experiences of pressure ulcer prevention following hip fracture.

### 3.9.1 Research question

What are the experiences of pressure ulcer prevention, in older people who have been nursed in an acute ward for a fractured neck of femur?

### 3.9.2 Research aim

To understand the pressure ulcer prevention experiences of older patients following hip fracture.

### 3.9.3 Research objectives

Due to the sparsity of literature on this topic, there is a need to bring together patient experiences of pressure ulcer prevention with their experiences following hip fractures, and in line with the research question an aim above, to do this the following objectives were developed.

- Compile a storyline of when pressure ulcer prevention occurs from the patient's perspective.
- Identify the main types of intervention according to the patient.
- Explore patients' knowledge and understanding of pressure ulcers and pressure ulcer prevention.

Health literacy in pressure ulcer prevention is limited. This study will therefore explore patients' understanding of the pressure ulcer prevention strategies that they have experienced as an inpatient. An additional objective will be to:

- Evaluate if patients want to be involved and participate in pressure ulcer prevention and when they can do this.

There are times in the recovery journey following a hip fracture when patients are fully or heavily dependent on others to meet their basic needs. Therefore, it will be important to identify when this occurs and at what point this may change and why.

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## *Chapter 4 - Methodology*

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### 4.1 Chapter overview

This chapter presents the methodological aspects of the study. It explains how the study was designed to explore the gap identified, following the review of the literature. The purpose of this study was to explore the experiences of pressure ulcer prevention in older adults (65 years and over) who had fractured their hip and been nursed in an acute setting. The overarching aim was to understand their experiences from the patient's perspective. The objectives included compiling a storyline of when pressure ulcer prevention occurs, identify the main preventative interventions according to the patient, explore patient knowledge and understanding of pressure ulcers and their prevention and evaluate if they want to be involved and participate in pressure ulcer prevention. This chapter explains and justifies the methodological decisions and details how the research was carried out.

The sections within the chapter will discuss the research design used, details of the study setting, how the participants were selected for the study and the challenges of recruiting older people. Fieldwork and the methods of data collection, handling and storage will then be deliberated. Ethics issues that were considered before the study are presented together with ethical considerations that arose during the recruitment and interviews. Data analysis and the thematic networks will then be described. A section that addresses issues arising from the situation of a practitioner-researcher includes trustworthiness including participant validation; a reflexive section detailing how the researcher impacts on the process and the outcomes of the research; a discussion of the emotional labour of research; and an analysis of the challenges that arose during the research process.

## 4.2 Research design

This is a qualitative, exploratory study. Data was collected by interviewing participants. The interviews were then transcribed and analysed using thematic analysis to provide inductive data interpretation. This research design was chosen to address the research question and facilitate understanding of the experiences of pressure ulcer prevention for patients following hip fracture. Such questions regarding the interpretive nature of experience are best answered through the use of descriptive rather than numerical data, and questions related to the how and why of human experience can be answered and explored using a qualitative methodology (Cleland, 2017).

Qualitative research design incorporates a range of philosophical underpinnings including: ontology, how we study the social world; epistemology, the nature of knowledge; and axiology the values attached (Mason, 2002). Qualitative research has its grounding in interpretivism, a theoretical perspective that looks for culturally derived and historical interpretations of the social world (Crotty, 1998). In social constructivism/interpretivism, parties seek to understand the realm in which they exist and develop meanings related to those experiences (Creswell, 2013). It is concerned with understanding (a more qualitative view) as opposed to explaining (a quantitative view) the meanings and values of people's experiences (Crotty, 1998). This would therefore denote that participants' views of a situation such as a hip fracture are individual and subjective as they are formed through the social construction of being a patient (Creswell, 2013). The use of a qualitative methodology, allows researchers to access information in the context of everyday life (Barbour, 2008).

Using this qualitative perspective this study seeks to understand the lived experience of what it is like to be nursed in a hospital following a hip fracture. Qualitative research is used to uncover the realities of others and is therefore well-placed to understand patient experience (Mason, 2002). Researcher knowledge can be gained through obtaining the subjective experiences of people (Creswell, 2013). Therefore, to understand what it is like to have a fractured hip, be nursed in an acute ward, and be given an air mattress to sleep on, it is necessary to build a trusting relationship with participants. Grounded in interpretivist philosophy, qualitative enquiry is concerned with how the social world is

interpreted and experiences understood (Mason, 2002). The iterative nature of qualitative research means that data collection and analysis are carried out simultaneously and where possible this was done (Pope et al., 2020). The value of this is that it allows the researcher to refine questions and explore developing ideas further (Pope & Mays, 2020). In line with Pope and Mays (2020) consideration that the development of ideas can inform data collection and analysis, what was seen within this study was that a change of direction in analysis did take place. However, it was not until deeper analysis was undertaken that the change of direction emerged.

Within qualitative research, there is a diversity of approaches (Creswell, 2013). Whilst other designs were considered such as ethnography, phenomenology, grounded theory, case studies and narrative analysis these were discounted in favour of a qualitative exploratory approach.

Ethnography can provide rich data and an in-depth insight into the phenomena being studied; however, it is also time-consuming requiring multiple methods of data generation including observation, interview and documentary data to ensure a comprehensive understanding (Nixon & Odoyo, 2020; Reeves et al., 2013). Involving interviews and observations of participants in a natural setting, ethnography allows for researchers to study the behaviour of a group who share a certain culture (Creswell, 2013). Whilst there was a requirement for this study to understand the patient experience of pressure ulcer prevention following hip fracture, it could be argued that experience and culture are conceptually different, given that the defining nature of culture is that it can shape identity (Grimson, 2010). What is of benefit is that ethnography can aid researchers in understanding how participants perceive events and is advantageous for exploring new lines of research (Nixon and Odoyo, 2020) yet there are weaknesses regarding the gaining of consent for observational data collection (Hammersley, 2018). Ethnography has also been criticised for lacking breadth as it focuses on one particular episode or event (Nixon & Odoyo, 2020). As this study wished to bring together patient experiences of pressure ulcer prevention with their experiences of hip fracture, the decision was taken not to employ ethnography given such a critique. To build trust, ethnography also requires the researcher to become immersed in the field

as an objective insider (Dowse et al., 2014). This would have required full immersion in the field and there was a risk of blurring of roles between that of the researcher and the Tissue Viability Nurse as the research setting was one of the wards I regularly visited as part of my professional role. As discussed later in the chapter, navigating the space between insider and outsider proved challenging regarding objectivity.

Phenomenology focuses on the lived experiences of individuals about a phenomenon, that leads to a rich description and understanding of the essence of the experience (Creswell, 2013). With the aim and objectives developed at the outset, this methodology could have been a viable approach. However, this was not chosen as it could have proved difficult to execute conscientiously. Adopting this methodology requires researchers to bracket out their own experiences to be able to describe the phenomena (Sorsa et al., 2015). Given that the researcher is a key instrument in the research process, there was a contradiction here (Creswell, 2013). As Rapley (2001) states, interviews are jointly constructed between the interviewer and interviewee. Therefore, bracketing out the researchers' assumptions, biases, and theories with good intentions of not unduly influencing the data, the benefits of being a researcher practitioner such as knowing the ward routines and understanding what the participants said about their experiences in hospital outweighed this methodological requirement, leading to the rejection of phenomenology.

Narrative enquiry would have been a possible approach to employ because it can be helpful to understand phenomena such as the experience of illness (or hip fracture), (Creswell, 2013). Nonetheless, it requires the collection of extensive information about the participant (Creswell, 2013) which raises ethical issues for participants already coping with what can be seen as a life-changing event.

The aim of the study was to understand the patient experience of pressure ulcer prevention rather than to generate theory. Although this process begins with the collection of inductive data (Charmaz, 2014), the need to go back and forth between data and analysis can be time-consuming (Creswell, 2013). Therefore, grounded theory as an approach was also dismissed. The research design was based on decisions that evolved from my own epistemological standpoint and an acknowledgement of the participant's

situation following hip fracture. The use of theoretical sampling in grounded theory would have also proved extremely difficult. The recruitment of participants was already challenging during the data collection phase due to the need to recruit older people (see section 4.2.4.2 below). The additional requirement of sampling for specific characteristics may have rendered the recruitment of participants impossible.

Case study research is a qualitative methodology that aims to explore a real-life phenomenon either as a single case or cases and can result in rich descriptions being obtained (Creswell & Poth, 2025). Case study research provides a means of investigating complex situations with multiple variables and having additional sources of data can provide objectivity on a single reality (Searle, 1999). By using case notes alongside interview data would have allowed for methodological triangulation of information. For example, when some of the participants could not remember having their skin checked, having access to the nursing documentation would have provided a way of corroborating or contradicting this. Moreover, if skin was checked but the participants were unaware, this raised other questions of their ability to provide a valid commentary of their experiences. Certainly Silverman (2011) suggests that triangulation is not a guarantee of reality. Conversely if there was a lack of documented data about skin checking in the patient notes this may also not be an accurate representation of the truth. For example, a patient may have had their skin checked but the documenting of this was overlooked. Whilst this practice of failing to document is not condoned, it could have a potential impact on the data collected and subsequent analysis.

Whilst it is acknowledged that this may have been suitable to explore the experiences of pressure ulcer prevention following fractured neck of femur there were challenges from the perspective of the practitioner researcher. Case studies draw on many forms of data including interviews, observation and documents (Creswell & Poth, 2025). Whilst it would have been possible to gain ethical approval to view patient case notes I dismissed this option because I felt there may be the risk of potential bias. As a Tissue Viability Nurse, part of my role was to review patient notes when investigating pressure ulcer incidents. Therefore, given the challenges of being a researcher practitioner, I was concerned that this may affect my impartiality in reviewing patient notes.

What can be seen is that each methodology has its own strengths and limitations. Therefore, when deciding on an appropriate methodology, there are no right and wrong methods, only methods that are more appropriate to the research topic (Silverman, 2013). Consequently, the choice of a qualitative methodology is often based on the decision of what will work best (Silverman, 2013). When deciding on study design Creswell (2013) suggests it is helpful to consider the outcome first. Therefore, for this study, the outcome was to understand the experiences of pressure ulcer prevention for a group of patients following fractured neck of femur. The outcome was not to generate theory or to interpret a culture or study in-depth one single case or understand behaviour as with ethnography. Given the focus of this study, the most appropriate methodology would have been phenomenology however following the change in direction of the study this would not have proved to be suitable given that phenomenology requires the following of set procedures which would have posed problems with ensuring the participants voices were heard and that the study was driven by the data collected and analysed rather than overridden by process. I chose to use a qualitative exploratory study because this gave me the ability to capture the richest data whilst also meeting the needs of the study as outlined by the research question.

#### 4.2.1 Interviews

Semi-structured interviews were chosen to generate the data. Semi-structured interviews are a valued method in the naturalist's quest for the lived experience (Silverman, 2013). Naturalism refers to the approach used where a researcher interprets the experiences of people, in this case, patients recovering from hip fracture within the context of their own world (Salkind, 2012). Within research, the interview is a frequently used method and involves an in-depth discussion between researcher and participant (Barbour, 2008). The interview provides the best way to get the lived experience of a person who has suffered a health-related issue (Nunkoosing, 2005). However, whilst interviewing may appear to be as easy as conducting a conversation, things are not as

straightforward (Silverman, 2013). Interviewing requires skilful management to facilitate the conversation; Lofland and Lofland, (1994) refer to this as a 'guided conversation'. The interviewer acts as a guide for participants to tell their stories and through this the researcher tries to understand how the participant makes sense of an experience or phenomena. Interviews are socially-constructed phenomena, through the interaction of the researcher and participant (Hinton & Ryan, 2020).

Nevertheless, interviews are not direct access to experience. It can be argued from a constructionist perspective that interview data is not a true picture of reality but instead a participant's remembered narrative of their world (Silverman, 2013). Charmaz (2014), agrees that they are performances and that what people say may not be what they do or have done. This is therefore reliant on the participant's ability to remember and then verbalise an experience (Mason, 2002). It is important to consider factors such as this in interviews and qualitative research as they can affect the trustworthiness of the data. For example, in a study that interviewed patients at six months following hip fracture, the authors reported that participants found it hard to remember details of their hospitalisation (Rasmussen et al., 2018). This provided further justification for interviewing participants within four weeks as discussed below in section 4.2.4.

An interview topic guide was developed to answer the research question, aims and objectives by identifying the key themes. The questions in the interview topic guide (see Appendix 7) focused on pressure ulcer prevention however, in line with best practice it is important to establish a rapport with the participant (DeJonckheere & Vaughn, 2019). Therefore, the initial question was phrased as an open question about how the fracture was sustained to allow the participant to tell their story and initiate conversation.

Questions two to six were specifically focused on pressure ulcer prevention. The second question about the use of an air mattress was to ascertain if they were aware of being nursed on an air mattress in line with national guidance (National Institute for Health and Care Excellence, 2014) and the SSKIN bundle (see section 1.5). It has been reported that powered air mattresses can impact on the quality of patients' sleep due to the noise the mattress makes and/or that it is uncomfortable (Serraes et al., 2020). Therefore, asking participants in this study about the air mattress would allow me to develop an

understanding of their experiences of being nursed on an air mattress. Question three was developed to understand if previous personal experience impacted on their health literacy and their desire to participate in pressure ulcer prevention. Given that previous knowledge and experience of pressure ulcers have been linked to increased levels of participation in pressure ulcer prevention (see section 2.5.7) asking this question was key to addressing the study aims and objectives.

Question 4 and five was used to ascertain the participants knowledge, understanding and awareness of pressure ulcers and prevention, as a lack of knowledge has also been shown to impact on active participation in care. Higher levels of health literacy have been documented as a factor in relation to this (see section 2.5.1). Question 6 followed on from this to explore if participants wanted to be involved (or not) and if they did were they able to be and at what point in their patient journey. Question 7 was a closing question to ensure the participants had been given the opportunity to express themselves in discussing any other aspects they deemed important.

The questions were mainly open questions and were piloted at the first interview. Pilot studies can increase the quality of the research (Malmqvist et al., 2019). The interview guide was beneficial in establishing a rapport with the participant and improving researcher familiarity with the interview questions. No changes were required or made to the interview topic guide following the pilot interview, and subsequently this primary interview was included in the final study so as not to lose valuable data. The participant had given their time freely so therefore warranted inclusion. Reflecting on the other 20 interviews it could be suggested that the initial interview question set the tone for the interview and although the participants had been made aware from the Patient Information Sheet (see Appendix 8) that the focus of the study was pressure ulcer prevention, this may have partially affected the change in direction. As has been stated, the data collection phase is where the change of direction was first realised. As will become clear later in the process of analysis, the questions, research design and interviews turned out to have an initially unidentified outcome in establishing what was important to the participants.

#### 4.2.2 Research setting

The location for the research was a 27 bedded medical ward in a district general hospital in England. Annually, the ward admits approximately 380 patients who have fractured their neck of femur. A plan of the ward layout is attached in Appendix 9. This modern ward layout has three bays of five beds each and 12 side (single) rooms. There is a physiotherapy gym and an occupational therapy area which is used to advance patient's mobility, and activities of daily living and move them towards independence post-operatively. Although patients who were admitted to this ward were surgical patients requiring repair of their hip fracture, they are managed under the care of an orthogeriatrician consultant (National Institute for Health and Clinical Excellence, 2012). This is for the management of the multiple comorbidities that many of this group of patients have. Following changes within the hospital, the ward was relocated downstairs within the same block midway through the data collection phase and the ward gained five extra beds in a five bedded bay (shown in Appendix 9 as the gym), but the ward staff, ward function and patient group remained the same. This change did not appear to have any impact on the data or patient experiences. When available, most patients are cared for in a side room when they first return from theatre unless there is a clinical reason, such as requiring being nursed together with other patients with the same risks, termed cohorting, in a bay for high-risk fallers. However, this was dependent on bed availability and the needs of the patients on the ward at the time. Due to the increased levels of pressure ulcer risk for patients with hip fractures and frequent visits, the fractured neck of femur ward presented the most appropriate choice to use as the setting for the study.

#### 4.2.3 Population and sampling

Theoretical sampling as posed by Glaser and Strauss (1967) involves selecting groups to study based on the research question or theoretical position (Mason, 2002). The study population consisted of any patient admitted to the district general hospital with a fractured neck of femur who met the inclusion/exclusion criteria. The sampling frame for this study encompassed older people, men and women, with traumatic as opposed to pathological fractured neck of femur. Patients were approached and recruited after

the acute phase when they returned from the theatre. Ethically, it was not appropriate to recruit a participant when they could still be under the influence of opioid and anaesthetic drugs and recovering from an orthopaedic procedure. Therefore, participants were recruited 48 hours or later, after surgery.

#### 4.2.3.1 Inclusion and exclusion criteria

Clinical and researcher knowledge and information from the literature review was used to compile inclusion and exclusion criteria that would be used when recruiting potential participants.

##### Inclusion criteria

- >65 years as older people are significant users of healthcare (see section 1.6).
- Traumatic hip fracture
- Peri-prosthetic fracture (as the care of these fractures about pressure ulcer prevention is the same).
- Having the mental capacity and ability to consent to take part in the study.
- Able to speak and read English

##### Exclusion criteria

- < 65 years of age
- Pathological fracture
- Fracture treated without surgery
- Patients lacking mental capacity and requiring MCA2 for surgical consent
- Have been nursed clinically by the researcher

Older people are the focus of this research, as age is one of the key risk factors for the development of pressure ulcers (see section 1.3.3 and section 1.6). This is due to older people often having more complex health needs, including age-related skin changes and poor hydration (Barry & Nugent, 2015). A physical printed copy of the inclusion/exclusion criteria also acted as an aide memoir for me as the researcher as I showed this to the

ward staff every time I visited the ward to recruit, as sometimes there were patients on the ward who had fractured their neck of femur but were under 65 years of age. Traumatic hip fracture and peri-prosthetic hip fracture patients are, regarding pressure ulcer prevention strategies, managed in the same way. As such it was believed that this would not impact their experience post-operatively. Two patients with peri-prosthetic hip fractures were interviewed in this study. Patients with pathological fractures were automatically excluded. Given that these patients may be vulnerable and have significant underlying pathology and reduced life expectancy, it was felt that recruiting this group was not necessary and their exclusion would not impact the aims of this study. Whilst patients with reduced life expectancy had every opportunity to be included in research, their diagnosis and prognosis would mean they would be facing additional issues that would be outside of the scope of this study. This decision was informed by the consideration that clinician researchers have an ethical and legal duty to act in the patient's best interests (Kleiderman et al., 2012). Patients who had had a previous pressure ulcer were not excluded, however, none of the patients interviewed had experienced a pressure ulcer themselves.

Being nursed clinically by the researcher was also one of the exclusion criteria. This was added in case it was required as I was a specialist nurse in the same Trust who visited the ward regularly in my professional role. This situation did occur on one occasion. I had been to the ward to recruit, provided a patient information leaflet and consent form, and left the patient to consider overnight. The following day, I was the only Tissue Viability Nurse on duty for the hospital and was called to see the same patient. As I had a duty of care to the patient, I consulted and treated her and then explained that I could no longer recruit her to my study. She was disappointed and said she did not feel it was a problem and wanted to participate. Nevertheless, to carry out the study ethically I had to politely decline. Situations where clinicians are also researchers can cause tension and internal conflict between clinical duty and ethics (Hay-Smith et al., 2016). There exists a potential for manipulation due to the power imbalance and therefore excluding these potential participants acted as a means of safeguarding against this (Hay-Smith et al., 2016). Participants were recruited to the study for a limited duration of time. This

was from point of recruitment until after the interview. Interviews occurred within four weeks of recruitment and/or discharge.

#### 4.2.3.2 Sample size and use of quota sampling

Quota sampling is the approach of choice when researchers seek out groups or individuals where the phenomena being studied are most likely to occur (Denzin & Lincoln, 1994). Quota sampling allows for stratification of the sample and is a method of non-probability purposive sampling that is favoured by market researchers due to its convenience for example when wishing to interview specific groups such as males and females or people in different age bands (Bowling, 2023). Quota sampling has weaknesses such as not knowing if adequate numbers of participants will be obtained for each quota set (Polgar & Thomas, 2020). Comparatively rarely employed in academic social research, it aims to produce a sample that reflects a population in different categories for example age, or gender. Criticisms of this are that whilst it is inexpensive, it is not representative (Bryman, 2008). Subsequently, the findings of health research between these cohorts cannot be generalised (Ihle et al., 2016). However qualitative research does not claim to be statistically representative (Pope & Mays, 2020). The decision on when to stop recruiting was related to data saturation rather than the number of interviews and this makes gauging the number of participants needed, difficult to assess at the start of a study (Tracy, 2019).

Nevertheless, quota sampling was utilised for pragmatic reasons as advocated by Ihle et al. (2016) into two groups to ascertain if there were any differences in the experiences of patients in two age ranges: the young old (65-80 age group), and the old old (the 81+ group) (see section 1.6). The rationale for this was the differing needs between the young-old and the old-old (Ansah et al., 2015). Stratification was explicitly planned to ascertain if there were any differences in the experiences of 65-80 and 81+ age groups.

It was hoped that between 20-30 participants would be recruited, 10-15 participants from each stratum. Reasons for this number included pragmatic considerations of feasibility within the bounds of this study, but to also avoid over recruiting which would

raise ethical consideration of overburdening study participants (Hennink & Kaiser, 2022). When considering how many interviews would be needed, it is noted to be dependent on the research question and what is being asked (Silverman, 2013). This research aimed to capture the richness of the participants' accounts and experiences and therefore smaller sample sizes could be justified on this basis (Pope & Mays, 2020). The sample was not intended to be representative but rather to provide in-depth insights into the experiences of the two different age groups. Further discussion on sample size can be found in section 4.2.3.2.

#### 4.2.4 Recruitment

Patients were recruited from the setting and all but two (who were interviewed on the ward) were subsequently interviewed in their own homes following discharge from the hospital (see Figure 4.1). The recruitment strategy involved going to the ward in my own clothes rather than my nurse uniform (so as not to coerce potential participants) after I had finished my working day but before protected mealtime. Whilst I was clear from the outset that I was not going to hide the fact that I was a nurse I did not want the wearing of a uniform to create any power imbalance (Spragley & Francis, 2011). I decided not to recruit in the early mornings as this is the busiest time on the ward with doctor's ward rounds, meetings, personal care and therapy taking place. The hospital has a strict mealtime policy that safeguards time for patients to eat or be assisted with their meals where no other activities are taking place for example ward rounds, washing, drug rounds and dressings. Therefore, careful timing for recruitment was paramount and my awareness of ward routines ensured that this time was safeguarded.

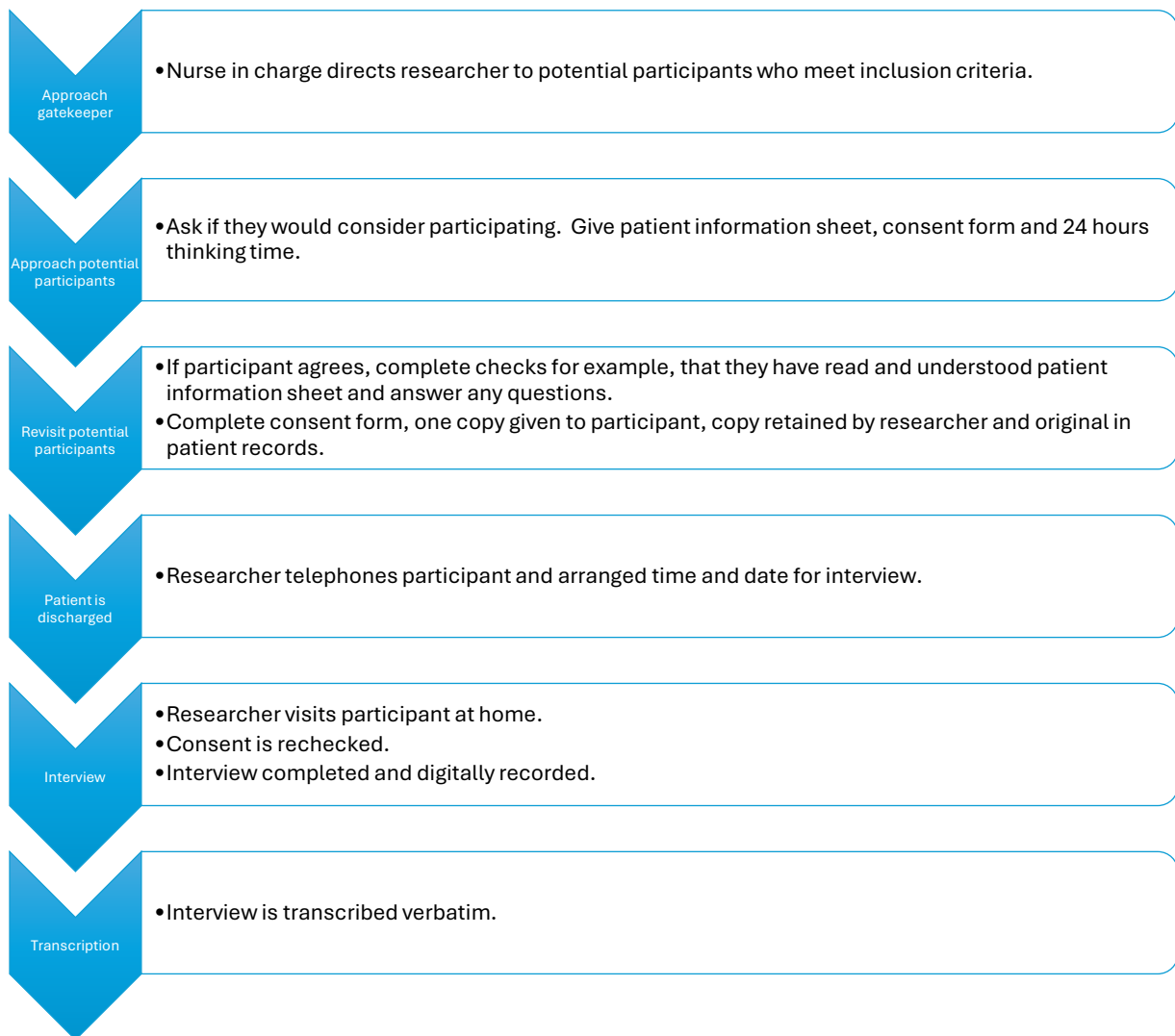
When I went to the ward, I would speak to the nurse in charge to identify any potential participants who met the inclusion criteria. These potential participants were then approached and given verbal and written information including a consent form (see Appendix 10) and a participant information sheet (see Appendix 8) about the study. They were then left to have 24 hours of thinking time. The amount of consideration and thinking time allotted to participants is not fixed (NHS Health Research Authority, 2020).

The importance of giving potential participants adequate time to consider participation was highlighted in a recent study by O' Sullivan et al. (2021). After the 24 hours had elapsed, they were revisited to see if they would agree to participate in the study. If in agreement, they were consented, a copy of the consent form given to the participant, the original placed in the patient's medical notes (as this was requested by the trust and a requirement of my approval to carry out the research) and a final copy retained by me as the researcher. An agreement to contact form (see Appendix 11) was also completed permitting me to phone them following discharge to arrange a convenient date and time for the interview to take place.

On my regular visits to the ward, I would check with the ward staff when participants had been discharged and then phone them to arrange the interview. This involved visiting the participant at home, within four weeks of discharge (there was no minimum time set) to carry out the interview (see section 4.3). The duration of four weeks was considered a suitable amount of time to allow the participant to settle back at home after such a period of disruption whilst not being so long that they forgot elements of the experience. Guarding against recall bias required careful consideration. Recall errors can occur when study participants can provide erroneous responses dependent on their ability to recall an event (Althubaiti, 2016). The greater the duration of time that passes, the greater the risk of recall error (Khare & Vedel, 2019). However, it is not possible to eliminate recall errors, and therefore a pragmatic time of four weeks was chosen.

When the interview day arrived, the consent was rechecked before starting the interview to ensure that the participant was still happy to participate. This also allowed participants the chance to ask any further questions and as the researcher I could be assured that there had been no lapse in mental capacity. The Mental Capacity Act 2005 states that a person's mental capacity is assumed unless there is any doubt that a person lacks capacity. Therefore, I had to assume the participant had capacity unless there was any cause for concern such as not knowing who I was or why I was there. If mental capacity was in doubt, the interview process would have been suspended, and data not included, however, this did not occur.

The following flowchart shows the process of recruitment through to transcription of the interview.



*Figure 4 - Recruitment, consent and interview process flowchart*

#### 4.2.4.1 Participants

A total of 21 participants were interviewed, 11 participants from the 65-80 age group and 10 from the 81+ age group (see Appendix 12 and 13, Participant Classification Sheet and Vignettes). Participants ranged from 67-97 years of age. There had been apprehension that not enough participants over 81 years would be recruited and successfully interviewed from the older age group strata, given the increased incidence of

comorbidities for older people, however, this proved to be unfounded. The difference in the number of participants in each stratum was negligible with eleven in the 65-80 years age group and ten in the 81 years plus age group. Thirteen of the participants were female and eight were male. This did fall within the suspected norms given that women experience osteoporosis due to the known hormonal links with post-menopause which can predispose them to hip fracture (see section 2.3.1.1).

#### 4.2.4.2 Considerations when recruiting older people

There are well-known barriers that prevent older people from participating in research. Older people are the main users of health services (Scottish Executive, 2002) and yet there is strong evidence that they are being excluded from clinical studies (McMurdo et al., 2011). There are also difficulties in recruiting older people especially frail older people to clinical trials (Harris & Dyson, 2001; McMurdo et al., 2011; Piantadosi et al., 2015; Provencher et al., 2014). Subsequently, older people are known to be an under-researched group (Forsat et al., 2020). Retention of frail older adults is also challenging (Provencher et al., 2014). It has been suggested that reasons for this include (in order of priority) fatigue, co-morbidity and mobility problems (due to poor health or availability of transportation), difficulty understanding and reading the consent form, lack of perceived benefits and relevance of the study and distrust of researcher (Field et al., 2019; Provencher et al., 2014). For this reason, the study design needed to consider these factors and make adaptations to this study to facilitate older people's participation (Piantadosi et al., 2015). Arranging interviews in the morning is considered better in terms of the circadian rhythms of older people and was an example of where adaptations to the study design were made. Other adaptations are detailed in further paragraphs below. The need for research specifically focused on older people is increasing (Ridda et al., 2010), but engaging frail older individuals is challenging because of their vulnerable health (Holroyd-Leduc et al., 2016); and this was certainly echoed in this study.

As a way of managing such challenges, research with older people often focuses on single conditions and excludes patients with comorbidities (Holroyd-Leduc et al., 2016).

Many studies have targeted older people who have fewer comorbidities and less disability (Piantadosi et al., 2015). However, patients with hip fractures generally have multiple comorbidities, (El-Daly et al., 2015), and such a tactic would not have met the needs of this study as increasing age and frailty are risk factors that predispose an individual to an increased risk of pressure ulceration. The research study in question here reflects the need to involve frail older people.

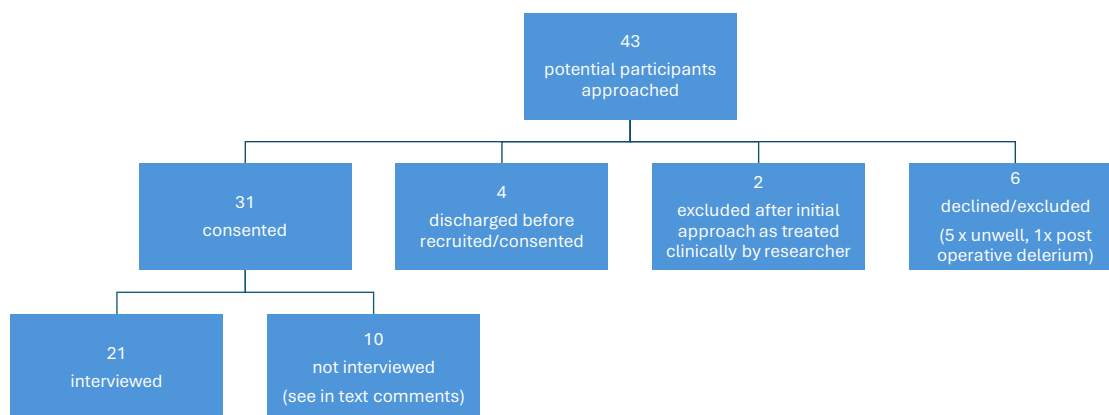
Practical endeavours were made before data collection including using larger print for consent forms and patient information sheets, to allow partially sighted participants to read the research documents. Comments and advice were sought from the Public Involvement in Research Group at the Centre for Research in Public Health and Community Care (CRIPACC), at the University of Hertfordshire, on the language and readability of the patient information sheet and consent form. This however could not overcome one issue when I recruited a participant who was blind and was unable to read the documents. This was surmounted by support from her son who read the form to her, which led to a successful outcome and interview.

#### 4.2.4.3 Recruitment and fieldwork

Accessing the field did not pose any difficulties. As a member of staff within the organisation, I was well-known on the ward. The gatekeepers, the Research Development Group, the Ward Manager, and the Medical Consultant were in support of the study and once NHS ethics was obtained, access was given promptly. During the study, 43 patients were approached to participate. Four were discharged before they could be recruited and consented (during the 24 hours thinking time), and six were excluded or declined. Four of these were too unwell, one patient died suddenly, and one was excluded due to their mental capacity being in doubt due to post-operative delirium. The incidence of delirium in orthopaedic patients is between 4.5-41.2% (Yang et al., 2021) with the incidence following hip fracture surgery being 28% (Bai et al., 2019). Two other patients had to be excluded as they were treated clinically by the researcher between the initial approach and being consented and therefore did not meet the

inclusion criteria. The recruitment flowchart can be seen below in Figure 4.4. Of the remaining patients who were approached, 31 gave consent and 21 of these were interviewed. Although they gave consent, ten patients were not interviewed due to either the researcher not being able to contact them post-discharge despite having contact details, post-operative complications, becoming unwell at home post-discharge, declining to continue participation in the study, or declining after discharge due to family bereavement. One patient had also been readmitted to the hospital when I visited the house at the agreed time to carry out the interview.

The following figure shows the total number of potential participants who were approached to the number who were interviewed.



*Figure 5 - Recruitment flowchart*

The data collection phase was considerably elongated due to the challenges mentioned. Part of this was also due to the recruitment rate. For this study it was slightly under 50%. This may seem low but when recruiting older adults 50% should be deemed successful (Harris & Dyson, 2001). It became clear that timing of approach and tenacity were essential to the process. The first day or two of an acute admission are often tiring and illness can make it difficult for patients to concentrate on consent forms and patient information sheets (McMurdo et al., 2011). For this and ethical reasons (see section 4.4), patients were not approached until they were over this initial post-operative phase. Even

then, some patients were still too unwell due to cardiac issues, pain, fatigue, experiencing side effects of medication, the need to go back to bed, and post-operative delirium. Frailty is common among patients with hip fractures and is linked with an increased risk of complications post-operatively (Kistler et al., 2015). Therefore they can have more difficulty coping with the consequences of surgery compared with less frail adults due to their vulnerability (Provencher et al., 2014). It has been reported that this frailty contributes to increased refusal rates (Kempen & Van Sonderen, 2002). and this is likely to have occurred during the recruitment phase of this study given that frailty is associated with falls and hip fracture (Southwell et al., 2022).

In addition, waiting for the right moment to approach patients was not without its complexities. During the data collection phase there were multiple entries in my field notes where I felt disheartened when I had been to the ward to recruit but was unsuccessful. One entry stated that I had gone back to the ward to follow-up five patients who I had approached the previous day. Two of the five had been discharged, one declined, one felt too sick to participate and consent, and one was recruited successfully and consented. Therefore the timing of when potential participants were approached had to be balanced against patient flow in a busy hospital environment and the need to recruit without rushing potential participants (Harris & Dyson, 2001). Of the 43 patients who were approached, four were discharged between the time they were given the patient information sheet to when they were due to be consented, as stipulated in the ethics process. The average length of stay following a hip fracture in hospitals around the UK in 2016 was approximately 20 days (Sharrock et al., 2016). In England, this has reduced over the last few years from 19.8 days in 2013 to 15 days in 2020 (Royal College of Physicians, 2021). This has since increased to 20.2 days (Royal College of Physicians, 2023b) however this was after the data collection period had ended. Some of the patients (who met the research criteria) who were approached, had stays of less than this, which made recruitment challenging. This is not unusual and McMurdo et al., (2011) concur, stating that in an acute setting, patients may be discharged before the study activities are completed. Conversely, recruitment of patients who have an extended length of stay may aid in extending the time available to the researcher for recruitment to occur, however due to complications that may have extended their stay, they did not

always meet inclusion criteria or are excluded due to mental capacity. Therefore, the study inclusion and exclusion criteria also played a role in reducing the number of potential participants available.

Another challenge experienced in the field involved patients declining to take part in the study. As noted elsewhere, older patients are also more likely to decline so greater effort is required in recruiting to obtain an adequate sample (Harrison et al., 2016). Researcher integrity has to be upheld to prevent the exploitation of older people and protect their right to refuse (Harris & Dyson, 2001), meaning the avoidance of coercion versus the need to obtain data. In an institution, such as a hospital, patients may feel coerced to participate in research as they are a captive audience (Hall et al., 2009). This was unlikely in the current study as some patients felt able to decline. Reasons given included: that the patient did not feel they could help as they did not know anything about pressure ulcers; one patient did not feel she met the criteria; that there was too much going on for another; and finally, one did not think she would be very good. The incongruity here is that not knowing about pressure ulcers is important. Given that many patients have low levels of health literacy of pressure ulcers and their prevention (Durrant et al., 2018) this is unsurprising, however the relevance here is that their voice would have been a valuable addition to the data to explore patient knowledge (see section 2.5.1). Such reasons for declining have been explored in relevant research literature. In a study of nursing home residents, participants did find the research daunting as most had never taken part or been interviewed before (Hall et al., 2009). This was overcome by reassurance (Hall et al., 2009). These patients may have been apprehensive about the research, as participating when you have little or no experience, can be intimidating (Holroyd-Leduc et al., 2016). This was acknowledged and reassurance was provided to patients approached in the current study.

Once recruited and consented, accessing the participants was not without its difficulties. One participant although recovered and able to return to his home had mobility problems which made getting to the front door arduous. This is not unusual considering that for some hip fracture patients baseline mobility can be affected. The recovery is a long process and most patients may not regain their previous functional

status (Hung et al., 2012). This was overcome by the involvement of a family member in arranging a suitable time for the interview appointment so that the nephew could be there to open the front door. As noted above (see section 3.6.3.7) family support for the oldest old is beneficial for the successful involvement of older people in research (Liljas et al., 2015). The engagement of family members in arranging appointments is one such strategy to facilitate the successful recruitment of older adults (Holroyd-Leduc et al., 2016; Michelet et al., 2014). There was however another time during the current research when the involvement of family/spouse was disadvantageous, this time in terms of recruitment, but ethically correct with regards to the best interests of the patient. The patient had been approached and agreed in principle to participate. He had been left to have 24 hours thinking time and, on my return, he was being visited by his wife. I introduced myself and provided her with details. She declined on his behalf saying he was not well enough. It was clear from his non-verbal body language that this was the case, so I respectfully left the side room thanking them for their time.

Trust can represent another barrier to research (Szabo et al., 2016). The need to develop a trusting relationship with potential participants by spending time in the field is acknowledged (Borbasi et al., 2005). In a study that detailed the complexities of life in the field, the author described the need to develop a rapport with the participants so that they would begin to trust her before agreeing to participate (Dowse, 2014). Investing time to develop such relationships and be seen in the ward environment before approaching potential participants is needed. In the field, the researcher intervened and asked the nurse for more analgesia for a patient in pain or asked for a bedpan and returned at a more appropriate time. The need for sensitivity and picking up on such cues, that it was not a good time to talk, is necessary to build trust between the researcher and potential participant (Harris & Dyson, 2001).

### 4.3 Data collection

Other considerations are required when interviewing older people as noted in section 4.2.4.2. Every effort was made to carry out interviews as early in the day as possible as

older adults experience peak cognitive performance in the mornings and cognitive processes are affected by circadian rhythms (Hood & Amir, 2017; Knight & Mather, 2013; Yoon et al., 1999). Adequate time was also allotted, to allow for the establishment of rapport and a trusting relationship with the participants. This is essential for a successful interview (Dempsey et al., 2016), as allowing older people to tell their stories, facilitates respect and promotes a good relationship between interviewer and interviewee. Taking time to do this even if this does not provide answers to the research question, is beneficial (Robertson and Hale, 2011).

In addition to the well-researched challenges of interviewing older people, there were also practical issues that arose during the research process. These included giving the participant enough time to settle back into their home environment. Several participants asked if I could leave a week after they were discharged before phoning to allow for this. An entry in my research journal also confirmed that time was needed between discharge and interview. Participants requested at least a couple of weeks to settle at home before being interviewed as they were also having to attend appointments such as ongoing physiotherapy. This supported the decision regarding the interviews taking place within four rather than two weeks following discharge.

Two participants were interviewed on the ward at their request at a pre-arranged time and day. These two participants were within a day of being discharged and wanted to take part in the study but did not wish to be interviewed at home. They were approached and given 24 hours of thinking time as part of the process. As they were so far forward in their recovery the participants were asked if they would consent to being interviewed on the ward. The ethics permission allowed for interviews to occur on the ward however I had overlooked the need to recheck the exact process on which the ethics was granted. This was not discovered until the writing up stage later. My supervisor was contacted and alerted to this deviation and consulted first with a School representative of the University of Hertfordshire Ethics Committee, and then the REC and IRAS who reviewed and closed the matter with no further action needed.

Once arranged, I visited the other 19 participants in their own homes following discharge. Every effort was made to visit in the mornings unless an afternoon time was specifically

requested by the participant (see section 4.2.4.2). An interview topic guide that had been pre-planned was used (see Appendix 7). All participants were asked the same questions from the interview topic guide to ensure consistency but adopting a semi-structured interview format also allowed flexibility for me to pursue any issues raised. During the interviews, some participants talked and answered some of the planned follow-on questions out of order in the general flow of the conversation, so these did not need to be asked, and it was easy to let them talk without interruption or the need for probing. For example, when I asked them what the worst thing about their hospital stay was, some patients told me about the air mattress. As such, employing the semi-structured interview format and the interview topic guide allowed participants to talk uninterrupted as much as possible but also aided in ensuring that the purpose of the study was achieved (Holloway & Galvin, 2016).

#### 4.3.1 Data handling and storage

Any patient-identifiable information (names and addresses) was stored on an NHS Trust encrypted computer, accessible only by me, with a participant identification number, to ensure the safety and confidentiality of this information. All interviews were digitally recorded with the consent of the participants and uploaded to a secure encrypted pen drive. The recordings were then transcribed verbatim by the researcher to enable immersion in the data. The transcripts were anonymised by removing names and any geographical data that could potentially identify the participant or location. Anonymised transcripts were kept in a password-protected file on the researcher's home computer and destroyed at the end of the study.

#### 4.3.2 Data saturation

Data saturation occurs when adequate data has been collected and no new information is obtained (Fusch & Ness, 2015). Yet, there is much rhetoric within the qualitative research arena about when this occurs. Data saturation and the number of interviews

required in a study, cannot be answered by statistical calculation (Hinton & Ryan, 2020). The point of data saturation can be affected by the size of the study itself and is often determined by the sample size in qualitative research (Mason, 2010), but the exact number of participants and interviews is dependent on continuing the process until no further deviant cases are found (Silverman, 2015). Therefore, when no additional codes/themes are emerging from the data, any further collection could be considered superfluous. When deciding how many interviews were needed, the work of Guest et al. (2006) was helpful as this detailed the prevalence of analytical codes that emerged from their data. They found that ninety-four percent of the codes were identified after analysis of the first six interviews and ninety-seven percent after the first 12 interviews.

In this study, all the transcripts were coded and although data was further added to existing codes, it was only in the last three interviews where no new codes emerged. Declaring saturation based on individual codes is a recognised way of assessing data saturation. It is recognised that saturation can be assessed using empirical testing, statistical modelling, code frequency counts or code meaning (Hennink & Kaiser, 2022). However, Fusch & Ness (2015) suggest that if one has reached the point where no new data is emerging, then data saturation has been achieved. In this study a coding document where I kept a list of new codes that emerged from each interview, was used to monitor this. Initially multiple new codes from the earlier interviews were identified, but this number dwindled as more interviews were carried out.

Stating a required sample size during the research design phase is often needed as a means of justifying sample size and as a measure of rigor (Hennink & Kaiser, 2022). Nevertheless, as qualitative research is an iterative process, sample size cannot be predetermined and it is impossible to predict the actual number of participants and sample size (Blaikie, 2018). This is because for data or thematic saturation to be achieved, no additional insights are identified in the data collection process (Bowen, 2008). This has been demonstrated by (Hennink & Kaiser, 2022) who found that homogenous study populations (such as a population of patients with hip fracture) can reach saturation with only a narrow range (9-17) of interviews. Although fewer interviews than anticipated (25) were carried out, the lack of new codes emerging in the final three

interviews maybe interpreted as data saturation being achieved. This decision was further strengthened by way of an adequate sample size being established, as based on the research question being answered (O'Reilly & Parker, 2013). The data obtained from the 21 transcripts achieved this.

As data saturation was being considered, data collection was halted by the Covid-19 pandemic in March 2020 and the decision about when to end data collection was taken out of my hands. Lockdown and social distancing started on 23rd March 2020. At that time, government guidance and social distancing were introduced to protect vulnerable people including those 70 years and over. Having carried out 21 interviews up to that point and given the consideration that data saturation had been achieved, this event ended data collection as most of my sample population (as per my inclusion criteria) were in the at-risk or high-risk groups. This would have made any further data collection impossible whilst social distancing measures were in place. Fortunately, all participants who had been recruited to that point had also been interviewed.

#### 4.4 Ethical approval and considerations

As the data collection for this study involved interviewing patients, ethics approval was sought from the Health Research Authority (HRA) via the Integrated Research Application System (IRAS) in addition to the University of Hertfordshire IRAS number 169065 and HSK/PGR/UH/02401. This was deemed a low-risk study and therefore ethics approval was granted via proportionate review. Ethics approval was granted on 10 February 2017. The Declaration of Helsinki (World Medical Association, 2013) was also observed to ensure both the protection of participants' rights and welfare, and to uphold ethical principles.

Pseudonyms were used to ensure the anonymity and confidentiality of the participants who took part in the study as per The Code (Nursing and Midwifery Council, 2018). To ensure and respect patient autonomy, informed consent was obtained from participants (see Appendix 10). All patients over 75 are routinely screened on admission to the hospital as part of the national targets to assess mental status (NHS Commissioning

Board, 2013). Any patient who was deemed not to have capacity and therefore required a Mental Capacity Act Assessment Form (MCA2) before surgery was excluded from this study as they would not have been able to give informed consent to participate. The Mental Capacity Act, 2005 states that if a patient is unable to understand information relevant to participating in the research, unable to retain this information, use this information to make a decision and communicate the decision, then that individual would be deemed to lack capacity and therefore was excluded under the inclusion/exclusion criteria. The ability to give informed consent was needed. Recruitment of patients with cognitive impairment was initially considered but abandoned, as this would have presented complex ethical and methodological challenges.

To participate in the study, participants were therefore required to have mental capacity and be able to give informed consent. During the second interview, the issue of who can legally provide consent arose. The patient on the ward had given her informed consent. She was happy to be part of the study and arrangements had been made over the phone to visit for the interview. I arrived at the house, sat down with the participant (one of her daughters was present in the room) and I rechecked the consent and made sure she was happy to proceed. After 25 minutes another daughter (whose presence I had not been aware of) came into the room from the conservatory and asked what I was doing. I stopped the recording and explained who I was, what my role was and about the study. I provided her with a patient information leaflet. She became verbally confrontational and implied that her mother could not consent to the study. The patient had previously consented to both the surgery and the interview and as noted above, I had followed the procedure and rechecked the consent on my arrival at the house. The patient was frail but there was nothing that led me to think her capacity was in question. The daughter was questioning her mother's mental capacity, but it was understandable that she wished to protect her parent. The presence of relatives in interviews can bring about ethical and methodological conflicts for the researcher (Norlyk et al., 2016). As the researcher I needed to do what was best for the participant whilst acknowledging that this may influence the data collected. The daughter was not happy for me to continue however the participant and her other daughter who was also present were. I rechecked

permission and consent with the participant, and she was happy for me to proceed. As she was happy to continue, and I had only one further question to ask, the interview was completed and on reflection I do not feel this unduly influenced the data as this was the final interview question. This is a real-world example of ethics in practice where unplanned challenges can arise.

The well-being of research participants in the study is paramount. Respect, autonomy and dignity were ensured by providing adequate information to participants about the study, providing time for them to read, digest and consult their family then decide if they want to be involved. Patients were required to have the mental capacity to consent, to take part. If patients did not wish to be interviewed in their own homes following discharge, alternative arrangements were made for this, in a meeting room on the ward located at the hospital at a convenient time and date for the interview to take place. It is acknowledged that the interview location can affect power relations and also readiness of potential participants to take part in the study (Gagnon et al., 2015). This choice was given to participants and two of the interviews took place on the ward at the request of the participants.

Taking part in the research was, of course, voluntary. Patients were advised verbally and in writing, that they could withdraw from the study at any time without giving a reason. They were required to complete a consent form to take part in the research. A participant information sheet accompanied the consent form (see Appendix 10). It was not anticipated that there were any risks associated with the research other than taking the participant's time. However, if any of the research questions or ongoing discussion caused distress, the participant was asked if they wished to stop or pause the interview. The principle of beneficence was adhered to. This is defined as the moral obligation to do good (Kinsinger, 2009). All information was kept confidential. Anonymised digital recordings and transcripts were encrypted on the researchers' home computer. If a patient decided to withdraw from the study the planned action was that any transcripts and recordings relating to that patient would not be included and would be destroyed, however, this was not required. As noted above, all patient identifiable information including names and addresses, was stored on an NHS Trust computer with a participant

identification number, to ensure the safety and confidentiality of this information, these were deleted on completion of the data collection period. Thereafter patients were only identified by a number or pseudonym for analysis so that individuals could not be identified. The anonymity of research participants continued to be maintained with the continued use of pseudonyms. Once the research was completed, all the recordings were destroyed.

The issue of confidentiality was also raised during the process of data collection. I had phoned a participant who had already consented to take part while on the ward. He was very hard of hearing, and it was proving difficult to communicate over the phone to make the necessary arrangements to visit him. His nephew was there at the time and the participant handed over the phone and asked that I speak to him to make the arrangements. The nephew was very helpful and facilitated access for this patient. Given that it was the participant who had made the active decision to involve his nephew in the process it can be argued that I was not breaching his confidentiality by speaking with his nephew as I had the participant's permission to do so. Although an ethical consideration of confidentiality in this case, there is evidence that informs the need that engaging family members is helpful when accessing older people and including them in research, particularly when there are communication difficulties (McMurdo et al., 2011).

#### 4.4.1 Ethical considerations during fieldwork

Older people are sometimes considered vulnerable in both a public sense but also a bioethical one (Bozzaro et al., 2018). Whilst this does not apply to all older people, vulnerability is often linked with frailty and old age (Sarvimäki & Stenbock-Hult, 2016). Indeed, the definition of frailty is where the body system's reserves are lost due to the ageing process (Turner, 2014). An entry in the fieldwork diary highlighted this need to consider vulnerability. One female participant said,

*"I would love for you to come and interview me at home".*

She told me that her two sons did not live close by. The concern here was that she was consenting because she felt vulnerable, wanted company, as well as being happy to be interviewed for the research. As a researcher, governed by ethics, it was necessary to consider whether she was a vulnerable adult who may have only volunteered to be recruited to gain some company. I needed to question her decision and consider her status. She had full capacity to make the decision and sign the consent form. She had understood all the information provided and had made an informed choice to participate however her motives for doing so required questioning because she had implied she was lonely. It was also necessary for me to balance the risks and benefits of her taking part in the study. These approaches are important to ensure ethical principles are applied to vulnerable participants (Arifin, 2018). It is not unusual to meet such ethical difficulties. Older people sometimes participate if they think it will help others, but often believe they have little to contribute (Greenwood, 2009). Therefore, their motivations require careful contemplation. Other researchers have experienced similar instances in practice which require continual attention towards ethical issues (Ajuo, 2013; Russell, 2017). This is not new, as in 1984, Finch recognised the vulnerability of participants and their motivation to participate in her work with clergy wives (Finch, 1984).

#### 4.5 Data analysis

Data analysis is a way of indexing, coding and categorising information collected to be able to interpret what it represents (Mason, 2002). The identification of meanings and providing explanations is also integral in this process particularly in qualitative research (Pope & Mays, 2020). In comparison with quantitative research, it is not about results but instead about producing in-depth findings (Mason, 2002). There are various ways that this can be accomplished including grounded theory, interpretative phenomenological, narrative, content, discourse and thematic analysis (see also section 4.2). In this study, the data was analysed thematically. This is the most commonly used method for analysis in qualitative research and is a simple and effective way of processing large amounts of data (Pope & Mays, 2020). Thematic analysis is also commonly used in studies that examine the lived experience of participants (Finlay,

2021). It has been suggested that the flexibility of thematic analysis is often misunderstood as a lack of rigour however this flexibility is perceived a strength of this type of analysis as it allows responsiveness to the interpretive nature of qualitative data analysis, rather than being a fixed process (Finlay, 2021). As advocated by Silverman (2013), the process of data collection, transcription and initial data analysis, happened concurrently. Adopting this approach, also allowed for the point at which data saturation was achieved to be identified.

#### 4.5.1 Thematic analysis

Thematic analysis is located within a social constructivist paradigm (Earthy and Cronin, 2008). It has an emphasis on what is said rather than how. To ensure a systematic and methodical way of analysing the data obtained, thematic networks (web-like illustrations that summarise the main themes) were used as the analytical tool as outlined by Attride-Stirling in 2001 (see Appendix 14 - Network diagram). At that time, Attride-Stirling (2001) argued that whilst there was a requirement to scrutinise data in qualitative research, there was a lack of tools available to do so; they therefore developed such a tool. Since then, thematic analysis has gained much interest and credibility following the publication of Braun and Clarke’s seminal paper (Braun & Clarke, 2006). This type of analysis is consistent with a qualitative paradigm and provides a rich method of exploring the patient perspectives (Braun & Clarke, 2022).

*Table 8 - Structure of a thematic network*

<b>Steps</b>	<b>Process</b>
<b>1</b>	<b><i>Coding the material.</i></b> This involves developing and using a coding framework. Transcripts coded line by line.
<b>2</b>	<b><i>Identifying themes.</i></b> Development of basic themes from the previously coded data within the transcripts. These are referred to as child nodes in NVivo12.

<b>3</b>	<b>Constructing the networks.</b> Categorising of the basic themes are grouped together into what are termed abstract principles or organising themes. NVivo12 refers to this level of coding as parent nodes.
<b>4</b>	<b>Describe and explore the thematic networks.</b> Organising themes are then encapsulated into principal metaphors of the whole which are the global themes. These are grandparent nodes in NVivo12.
<b>5</b>	These are then represented as web-like maps to show the relationships between the data.

Adapted from (Attride-Stirling, 2001).

As in common with other forms of thematic analysis, each transcript was coded line by line. When new codes were identified, any previous transcripts were reread and coded to check for these new emerging codes. This procedural process of moving back and forth as needed is necessary to ensure all the data is coded and nothing is missed (Braun & Clarke, 2006). This created a systematic process to ensure that all the data was analysed and re-analysed. Similar codes were then grouped into themes by following the steps as detailed by Attride-Stirling (2001) in the table above. Each text segment from the interviews were reviewed for each coded section. This allowed for potential themes to be developed and refined. This involved reviewing the themes and coding to ensure that the themes were capturing the essence of the codes within them. Questions from the interview topic guide were made into nodes (see Appendix 15 for the apriori coding) to inform the initial analysis of the transcripts, and then other nodes added as new information arose during the data collection and analytical process. The structural topics were identified apriori, and then new nodes were added as part of the ongoing cyclical process.

The interviews were coded using the computer software package, NVivo12®. The use of computer-aided qualitative data analysis software (CAQDAS) can help demonstrate rigorous analysis for example counting the number of times things occur as well as demonstrating that negative instances/outliers had been sought (Silverman, 2013). This also proved to be a helpful tool for managing large amounts of data. A coding book (see Appendix 15) was also used within NVivo12. During the analytical process, a

retrospective step was taken to use Post-it notes® to aid in the development of the thematic networks. At the time I felt separated from the data, and this was one way that I could make sense and analyse the data collected. Whilst NVivo12 could also do this, being able to move Post-it notes around the desk provided a more free-flowing and uninhibited way of developing these thematic coding networks (see Appendix 16 - Photo of the Post-it note® board). These feelings of separation were also experienced by researchers of the Green Views project (Richards & Richards, 1994). They used CAQDAS but found the data seemed distant and therefore used non-computer methods as well to experiment with ideas. This was in part due to the large amount of data that had been collected but there was a need to retain context and meaning (Richards & Richards, 1994). Using both the Post-it notes® and NVivo12 allowed for the advantages of each analytical tool to be utilised to provide the best outcome.

The change of focus and the in-depth analysis including consideration of the conceptual framework made it clear the need to refocus attention on what the respondents were saying about their hip fracture experiences. This too was reflected in the codes and then the themes that emerged. The aim for the participants was to recover enough to go home rather than be concerned about pressure ulcer prevention. Such a change is not unusual and in the data analysis stage of her study about stepparents, Christina Hughes also experienced a change of focus in relation to the effects of myth and how stepparents, especially stepmothers are portrayed (Hughes, 1991).

#### 4.5.2 Use of conceptual framework

Initially it was thought that locus of control may have been a suitable conceptual framework as this theory considers self-determination, motivation and sense of control in relation to health related behaviour (Náfrádi et al., 2017) and as such had been included in the objectives of the study. However, through developing a reflexive relationship with the data and the change in focus following in-depth data analysis, biographical disruption and its variants proved to be a more useful lens. The development of the Analysis Grid (see Appendix 17) provided further insights into the

nuanced experiences of the participants. Biographical disruption and the multiple variants were valuable in explaining the differences in the participants motivations, challenges and support networks that affected their overall experience (see sections 6.6 and 8.4).

## 4.6 Trustworthiness

Trustworthiness is a means of assessing the quality of qualitative research. This parallels validity, reliability and objectivity used in quantitative research. In qualitative studies, these elements are referred to as credibility, dependability, transferability and confirmability (Silverman, 2013). These exist to allow readers to assess the strengths and limitations of studies that use a qualitative methodology (Cope, 2014).

### 4.6.1 Credibility

Credibility is a means of demonstrating if a study has been carried out using good research practice (Silverman, 2013). It is a way of evaluating data quality and assuring the truth of the data in that the views of the participant have been represented accurately by the researcher (Polit & Beck, 2006). Several authors discuss seeking out deviant cases or disconfirming evidence to enhance credibility (Polit & Beck, 2006; Seale, 1999; Silverman, 2011). Having such conflicting perspectives can greatly strengthen the description of phenomena (Polit & Beck, 2006). During the data collection and analysis period, there were several instances where this was the case such as the experience of being nursed in a side room or a five-bedded bay (see section 6.5.1). Credibility can also be achieved through respondent validation.

#### 4.6.1.1 Participant validation

Respondent validation also known as participant validation or member checking, provides a method by which participants can explore if the analysis of the researcher is

a reasonable representation of their reality (Doyle, 2007; Sandelowski, 2015). Respondent validation is a process that allows a researcher to present their findings to participants to seek congruence and confirmation (Bryman, 2008). It gives the researcher a way of asking if they are on the right track and checking that they have understood something in the same way a participant meant it (Carlson, 2010). Respondent validation seeks to ensure that the facts are interpreted correctly by the researcher. Whilst the researcher has expertise in research methods, they cannot be an expert in the experience of fracturing their hip and being nursed in hospital, unless it has happened to them. Therefore, participants must be recognised as having expertise in this arena. There is a difference between these types of expertise, the true skill is knowing and recognising when to use each contribution (Sandelowski, 1998). Yet, publications rarely report how the procedure was done (Birt et al., 2016). There is little guidance within the literature on the process of respondent validation (Doyle, 2007) and where there is direction, there appears to be a great variation in how this should be done.

As a way of enhancing the credibility of the research, participants were given the opportunity to participate in respondent validation once the interviews were completed. There was no expectation for them to do so and this was purely voluntary but involved the researcher contacting them if permission had been given by the participant during the interview. This involved the researcher discussing themes identified through the initial stages of data analysis, to ensure that the analyses and interpretations were a true reflection of what the participants had said. This did not include a review of transcripts but instead reviewing and clarification of analysis and ideas generated from the research. What it did show was that my interpretation of what the participants had expressed, and the subsequent coding of the transcripts was accurate. However, it was also clear that not all themes, for example “the fog”, applied to the participants who took part in the respondent validation.

Most health service research involves one-off data collection, where respondent validation is seen as troublesome and merely a technical fix to demonstrate trustworthiness and credibility (Barbour, 2001). There can be challenges to this approach such as participants changing their minds about something they previously

said, disagreeing with the data interpretation of the researcher, or not being contactable to be involved in respondent validation (Bradbury-Jones et al., 2010; Morse, 1994). This latter challenge is especially pertinent to the fractured neck of femur patients, given the three-month mortality rates for this patient group, as participants may have died before the process of respondent validation. Indeed, one early participant (who was not asked to be involved in respondent validation) in this study, sometime after the interview had been carried out died before its completion. It is also questionable as to whether a participant would challenge a researcher if an interpretation was inaccurate. Nevertheless, it does not mean respondent validation should not be used if it can provide a means of enhancing validity. Despite criticism of this technique, respondent validation is deemed of value and is the single most critical technique for establishing credibility (Guba & Lincoln, 1989).

Respondent validation is harmonious with the epistemology of constructivism in that knowledge is co-constructed (Birt et al., 2016). Respondent validation can only strengthen the rigour of qualitative research if it is rooted in the research design and analysis (Barbour, 2001). It provides a means to check that the biases of the researcher have not overly influenced the interpretation of the themes emerging from the data. This alone is reflexive and aids rigour. Respondent validation by two participants who were interviewed towards the end of the data collection phase, did not affect the analysis but instead acted as a confirmatory process.

#### 4.6.2 Dependability

Having consistent and complete records throughout the research process such as participant lists, fieldwork notes, interview transcripts and codebooks added to the dependability of the findings and the research (Silverman, 2013). Auditing such information is one way to achieve this (Seale, 1999). All the above records including a research diary were kept throughout the process. Examples of this can be seen in Appendix 12, 13 and 15.

### 4.6.3 Transferability

Transferability is the transference of findings to other settings and situations where appropriate (Polit & Beck, 2006). One of the critiques of qualitative research is that it is not generalisable (Leung, 2015). This study was not designed to be generalisable. This is also demonstrated by the quota sampling that was used (see section 4.2.3.2). Whilst it is recognised that qualitative research does not seek to be generalisable and have external validity across settings, there may be situations where this is possible. Yet, to achieve this, there must be a rich description to allow readers to assess if findings can be appropriately transferred (Seale, 1999). This study was able to obtain rich descriptions in the transcripts. Quotations are presented in the findings chapters to give the reader a sense of the patient experience through the words of participants.

### 4.6.4 Confirmability

Confirmability is having objectivity in all aspects of the research, but it is acknowledged that complete objectivity is not realistic in qualitative research (Silverman, 2013). This too is further discussed into the next section and section 4.7. So, there is a need for confirmability on the part of the researcher to demonstrate that they acted in good faith and not allow personal values to sway the conduct of the research or findings (Silverman, 2013). Reflexivity is a means of acknowledging if this occurs and the keeping of a research journal was done to aid this.

### 4.6.5 Reflexivity

Given that reflexivity is the consideration of how the researcher is part of the process and contributes to the meaning, this standpoint is helpful (Gilbert, 2008). The previous expectations of the researcher being neutral in the interview process are no longer the case (Hinton & Ryan, 2020) and there now exists a greater awareness and acknowledgement of the role of the researcher (Bryman, 2008). In qualitative research, the researcher cannot be detached from the work. They are instrumental in the process

(Creswell, 2013). Mason (2002) states that a researcher cannot be neutral when collecting data about the social world and that remaining objective is not an option especially when considering that the interviewer is a central and active participant in the interaction (Rapley, 2001). Within the interview process, the researcher will influence what the participant says by encouraging or inciting what they are saying (Hinton & Ryan, 2020). As a Tissue Viability Nurse, I was aware of the potential for this. The same can be applied to interpretation and during data analysis this also requires a level of awareness.

It is this reflexivity that provides credibility to the research. From the beginning of the process, a fieldwork diary was used to capture many of the questions and occurrences during the data collection and analysis phases. The use of the fieldwork diary has allowed a transparent approach and acknowledgement of how my attitudes, values and beliefs can affect the research process. This provided valuable insights into the development of the study and highlighted the difficulties presented throughout this chapter. Reflexivity also provides a means of considering how the researcher is part of the whole process and contributes to the construction of meaning (Gilbert, 2008). Given the challenges of the experience, reflexivity allowed the researcher to demonstrate this here in this chapter and give meaning to the interpretations of events. Creswell (2013) describes these axiological assumptions as how researchers position themselves. The background and work experiences of the researcher can inform the study and the interpretation of the data. In qualitative studies, the role of the researcher cannot be separated from the research and how the knowledge gained through the study generates a specific view of the social world (Bryman, 2008). In this case the role of the nurse researcher and the knowledge and experience that being a practitioner brings has added to the interpretation of the data. Having the background as a nurse I struggled initially to separate the nurse and the researcher. However, as the study progressed, the benefits of being a nurse researcher such as having insight into ward routines and how these impacted patients proved invaluable.

## 4.7 Insider: outsider

During the recruitment and data collection phases, I was a member of staff within the Trust and well-known within the ward environment. I was aware of its routines and language used; I was not, in this sense, an outsider. However, I have never been in hospital or fractured my hip so was unaware of what it feels like to be a patient. Allen (2004) in her research stated that only an insider can obtain a true authentic account as they are immersed in the field. Being a nurse is a privileged position and does have the benefits of fitting in with the organisational workings in the field (Borbasi et al., 2005). Nevertheless, there were situations during the data collection process that made me question this and struggle with the conflicts that being a nurse researcher brings. When recruiting, I made a concerted effort to dress in mufti (my own clothes) rather than my uniform which would define me as a nurse rather than a researcher. This 'disguise' helped me to move my mindset from nurse specialist to researcher and marked clear boundaries between the two roles of practitioner and researcher. This was not only important for me, but also for the ward staff, and potential participants. Not wearing my nurse uniform was one way of attempting to overcome the potential power differential that can exist between researcher and participant. I did not want potential participants to feel obliged to participate during the recruitment phase as evidenced in section 4.2.4.3. This is particularly important in healthcare settings where the researcher has contact with the healthcare team (DeJonckheere & Vaughn, 2019). As this was the case in this study, I had a responsibility to reassure potential participants that their participation would not influence the care they received. This assurance was provided in the Patient Information Sheet (see Appendix 8) and reiterated at the start of the interview. Awareness of the power dynamic reiterated the need for reflexivity in this matter. Nevertheless, it should be noted that participants themselves are not passive and in qualitative research their voice has a bearing on the data collected (Råheim et al., 2016). They are experts in the phenomena under discussion and therefore play an important role in qualitative enquiry.

It is also important to discuss here about the potential power differential between myself and the ward staff and gatekeepers. Although I was a senior nurse in the trust having the role of a specialist nurse, I was not in a position of power as I did not have any line

management responsibility for the staff. My role was one of education, support and advice rather than managerial. Coercion of staff to identify potential participants was avoided by the use of inclusion and exclusion criteria, see section 4.2.3.1. I took a copy of this to the ward as an aide memoir every time I went to recruit so I could show the gatekeeper and nurse in charge. Even if the nurses had felt pressured to find potential participants, these criteria prevented this from happening. There were days (as evidenced in my fieldwork journal) when I went to the ward to recruit but there was no one who met the criteria. This would leave me feeling despondent but nevertheless these criteria were strictly adhered to.

I was there as a researcher to carry out research but like Allen (2004) experienced, this posed dilemmas of having a dual role. On one afternoon visit to the ward, I found the ward was very busy and short-staffed. That day there was a cohorted bay of high-risk fallers and due to the staffing shortages, I was asked by the Matron if I would just stand in the bay doorway to watch to make sure no one tried to get up as they may fall. I was not there in my nurse capacity and felt frustrated and that I should be recruiting participants but the nurse in me felt a moral duty to help my already overstretched colleagues to ensure the safety of the patients. On several occasions, nurses and health care support workers have said “Whilst you are here could you just look at x or could you just advise me on y”. This was a request I felt I had to politely decline and advise them to refer the patients via the office answer phone. The professional boundaries of being a registered nurse and the ethical boundaries of being a researcher were entwined and required careful navigation.

From my own experience, I do not believe it is possible to take the nurse out of the researcher. On the first interview I carried out, I arrived at the given time. The participant had just come down the stairs on her stair lift. She was dressed but had not had anything to eat or drink. I immediately went into nurse mode and insisted she had a cup of tea before we continued. The role of the healthcare professional researcher in older people's research has been thoroughly investigated. The acceptance of increasing familiarity and willingness to undergo role change, from professional distance to a friendly visitor has been documented (Robertson & Hale, 2011). As already noted, a nurse-researcher

working in the Trust and visible in the ward environment is a professional insider. Hence, there is a need to make a concerted effort to become a friendly visitor and to provide an element of objectivity. Nevertheless, it is therefore acknowledged that having a professional status denies practitioners the middle ground between insider and outsider that qualitative researchers typically navigate (Burns et al., 2012). Following this journey and realisation, this status as a clinician-researcher was therefore embraced yet acknowledged.

Ethical boundaries and rules of research conduct must be upheld. On one visit to the ward, I asked the ward clerk if she could tell me if any of my recently recruited participants had been discharged as she was looking at her computer and had the patient data system open. She questioned why I was not able to do this for myself as I was a member of staff and had access to the system. I had to explain that in my role as a researcher, I did not have ethical clearance and permission to do this, and this would be breaching my ethical approval. In effect, I was training the ward clerk in ethical research methods. Ajou (2013) found similar encounters in her research with HIV patients where the staff caring for those patients were surprised when she said she could not look at patient records, despite being a member of staff elsewhere in the hospital, as she did not have permission to do so in her research role.

#### 4.8 The emotional labour of research

Hochschild's (1983) concept of emotional labour is labour that requires one to induce or suppress feelings to remain professional. Reflexivity helped me as a researcher/practitioner to unravel these issues. It is recognised that carrying out research can elicit negative emotions in the researcher but that this aids in the reflexivity of the research (Seear & Mclean, 2008). This section presents some examples of when this occurred. During the interview process, it became apparent on several occasions that many patients were not aware of being repositioned/turned by the ward staff. This is not to say the patients were not turned (I did not have ethical permission to check the nursing documentation in this role as a researcher to ascertain if this was or was not the

case) however there was professional torment here, as I was concerned that their care had been sub-optimal. Had I not been an insider I may not have necessarily realised this was a possible issue. As such, It can be seen that there exist challenges of being an insider and knowing the study population, and the field itself in terms of the way things work and the processes, whilst being an outsider as a researcher (Kanuha, 2000). As a practitioner, knowing the policies and guidelines in pressure ulcer prevention and having the awareness of what the expectation is for nurses, I was disheartened that this could be the case. Whilst I was able to remain neutral in the interview it did not stop me from reflecting on it afterwards. Keeping a research journal has been helpful for this and is suggested by Arber (2006). Conversely, the participants commented on how good the care was. They did not perceive the care as poor, and this was genuinely their perception:

*The nurses were good, been brilliant. (Barbara, aged 79)*

*I felt very well cared for. (Freda, aged 83)*

As a researcher, I had to take what they were saying as truthful according to their perception of the situation but was torn between this and my professional role. This was also evident during the data analysis phase when I was reviewing the transcripts and found myself apologising when participants had a poor experience, such as not having the correct height of the chair or having to walk up the ward as the toilet in the side room was broken.

During her fieldwork, Gerrish (1995) was acutely aware of the dissonance between her responsibilities as a nurse, when she observed nursing practice that she considered detrimental to patient wellbeing. Lofland et al. (2006) referred to this as divided loyalties (between researcher and practitioner) and is typical of encounters that exist when carrying out research in 'your own backyard' (Borbasi et al., 2005). The unacknowledged emotional labour in qualitative research on sensitive topics can produce significant anxiety and stress for researchers (Seear & Mclean, 2008).

The most upsetting event happened when an earlier participant was readmitted to hospital with a serious pressure ulcer. Simply taking part in a research study on the topic

does not prevent a patient from developing this type of injury. I felt very upset when reviewing this interview transcription, knowing that seven months after the interview had taken place, she died from sepsis due to a pressure ulcer. These experiences have led me to develop as a researcher whilst learning how this sits with the clinical sensibilities of this role. It has been suggested that this is a normal part of the research process (Nutov & Hazzan, 2011). Nevertheless, it is a stark example from my research of the lived experience and emotional labour of the researcher, who is also a practitioner.

#### 4.9 Chapter summary

This chapter has detailed the methodology employed to obtain meaningful data to meet the requirements of this study. It has included the recruitment of 21 participants and the challenges that were experienced, extending the time taken for the data collection phase. The challenges of recruiting and interviewing older people have also been discussed and the complexities of fieldwork highlighted. The justification for the data collection method, the type of sampling used, and an in-depth discussion of how the data was analysed has also been presented. The novel use of Post-it notes® as a means of enhancing the CAQDAS analysis is perhaps a little atypical but added to the researcher being able to analyse the data more effectively. The trustworthiness of the study has been evidenced using respondent validation and justified as a useful way of enhancing credibility along with the use of a fieldwork diary to capture some of the more nuanced aspects of data collection. The role of the clinician-researcher has been discussed and how research can be an emotional experience requiring the reflexivity of the researcher explored in depth.

The following three chapters will present the findings of the study and include quotations from the participants to further strengthen the credibility of the study. In Chapter 5, the hip fracture experiences of the participants in the period following the fracture are presented along with the events of their recovery in Chapter 6. Chapter 7 returns to the original focus of the study and explores the patient experiences of pressure ulcer prevention and being nursed in an acute hospital ward.

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## *Chapter 5 - Becoming an Inpatient*

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### 5.1 Chapter overview

In line with the tool developed by Attride-Stirling (2001) that uses web-like thematic networks, the data from the study was organised into global, organising and basic themes, (see Appendix 18 - Thematic Networks). These thematic networks were 'Becoming an inpatient', 'Dependence-independence continuum', 'Continuing recovery' and 'The patient experience of pressure ulcer prevention'. This chapter discusses two of the four thematic networks that emerged out of the data: 'Becoming an inpatient' and the dependence part of the dependence-independence continuum. It will consider in detail the participants' experiences of the fall, getting to the hospital and the acute stage of their journey where they were dependent on others. The use of biographical disruption as a conceptual lens aids in illuminating the participants' experiences of becoming an inpatient.

This chapter will also begin to address the research objectives (see section 3.9.3), detailing the patient's journey as part of compiling a storyline from the patient's perspective (see Appendix 19 – Patient Storyline). The chapter begins at the point of injury and the fall and presents the empirical data of getting to the hospital, the emergency department experience, being admitted to the ward, making sense of the situation, loss of control, dependence and the need to accept help.

### 5.2 Becoming an inpatient

The journey to becoming an inpatient began from the point of the fall. The participants' accounts detailed the fall, waiting for the paramedics, experiences in the emergency department, and admission to the ward. During the interviews, the initial question that was posed to the participants was to enquire how they sustained the hip fracture. This question was primarily used to give them a starting point from where to begin telling their story but also to begin to build a rapport and a trusting relationship with the participant.

### 5.2.1 The fall

For all except two of the participants, the fall occurred while they were carrying out everyday tasks at home such as cleaning, making a cup of tea, gardening, shopping, closing the curtains or getting up to turn off the television. For the remaining two, they were playing golf and walking down some steps at the local swimming pool.

*Table 9 - Activities at the time of fracture*

<b>Participant</b>	<b>Activity</b>
<b>Barbara</b>	Tripped in street whilst out shopping
<b>Bert</b>	Pulled over by his dog
<b>Betty</b>	Cleaning/housework
<b>Charlie</b>	Got up to turn off TV
<b>Christine</b>	Making a cup of tea
<b>David</b>	Gardening
<b>Elizabeth</b>	Tripped in street whilst out shopping
<b>Freda</b>	Carrying a chair
<b>Helen</b>	Getting something out of freezer
<b>James</b>	Playing golf
<b>Joyce</b>	Walking down steps at swimming pool
<b>Mary</b>	Making a cup of tea
<b>Molly</b>	Closing curtains
<b>Phyliss</b>	Tripped over in living room
<b>Reg</b>	Gardening
<b>Rhoda</b>	Fell in lounge
<b>Rupert</b>	Tripped on a pothole in the road
<b>Sheila</b>	Getting shopping out of her car
<b>Vera</b>	Cleaning stove
<b>Wilf</b>	Tripped on step
<b>William</b>	Reaching for light switch on landing

Many of the participants were doing normal activities that happen every day. All the events that led to the fall were ordinary activities. None of these activities might be considered as obviously dangerous and yet they resulted in serious injuries. Their

accounts were often detailed as they recalled the circumstances of the fall. Bert recalled walking back from the pub with his dog:

*How did I end up in hospital? I'd been and had a few pints, I must admit that. And I was coming home, a young lady who lost her grandfather a few months back, bibbed her hooter on her car and waved out the window, so I've turned and waved back. And my dog decided to go between my legs and pulled me over. (Bert, aged 72)*

David was undertaking ordinary activities at home when he fell.

*David: Erm, I fractured my hip and something to the elbow, falling off the front step of my front garden that you can see how it slopes up, and I was in the garden with [wife] and the gardener, we were all together and we were planting pansies on the Sunday. I had my walking stick on this side because I don't trust this knee. I think I had some plants in this side, and I went to step up and I suddenly felt this thing crunch.*

*DR: Oww*

*David: And it turned out, and I tried to go forward, you know because I thought, I'm going to go back, and I think I tossed the plants up in the air.*

*DR: Thank goodness*

*David: And still trying to go back but I couldn't, and I thought, here I go so I tried to do a half turn and put my hand like that (to save self) coz I knew I was coming down onto very hard tarmac out there.*

*DR: Right, yes*

*David: And I did come down on that, crack. I didn't hear the crack, my wife heard it, I was busy yelling because the impact, the pain and the impact on my ankle, I must have landed ankle first.*

Bert and David were both outside and fell onto concrete and tarmac which could have exacerbated their injuries. However, the following participants were at home indoors when they tripped and fell.

*Well, I was in the conservatory over here sweeping the floor and for some reason I think, I think I must have lost me balance and slipped to the floor. I had the frame near me, you know. I went to grab the frame, but it was in the one hand, and it wouldn't hold me. I went down with the frame on top of me and that's how I done it (Betty, aged 81).*

*Oh, well, I was sitting in that chair I had one of these chairs sitting there and I got up to put the television remote down and switch off and I'd been sitting there for about an hour and a half or so and this leg had gone to sleep and I didn't realise I just stood up and went to walk and the bloody leg never moved you see. So, course I went full length down here on the floor, bang yes. (Charlie, aged 97)*

Only two of the participants interviewed had been or felt unwell prior to the fall. An undiagnosed medical problem was a contributory factor to the injury rather than an accidental fall for both Mary and Rhoda. Mary was later diagnosed by the hospital as having anaemia which was the cause of this episode and Rhoda had pre-existing back problems.

*Basically, I was in the kitchen, and I suddenly felt dizzy. I'd not been too well the night before. I'd had a very heavy meal at lunchtime and a couple of glasses of wine and I think I'd eaten more than I had done for a little while. So, I was uncomfortable in the evening, and I didn't feel like eating. I had a disturbed night. I went to, I was sick in the bathroom, and I went to make myself a cup of tea and I suddenly felt dizzy, and I was going to walk back here and passed out. (Mary, aged 84)*

For Rhoda pre-existing pain was the cause of the fall.

*Well, it's quite funny really er it was a couple of Saturdays ago now, when was it, 25th I can't remember the date because I wasn't watching dates. I love ball room dancing and Strictly Come Dancing. I used to do it when I was younger and it was getting near the time, so my son said I'll make some sandwiches Mum because we'd had a lunch and I said, no no, I'll do them, so I went into the kitchen, made a plate of cheese and pickle I think they were, yes. And I was coming back in here (lounge), I sound a terrible wreck, I get it occasionally, it's from my back, sciatica. It had been troubling me and as I came in with the plate of sandwiches, this pain down my leg and I was taken off balance and the sandwiches went up in the air, the plate went up in the air, she (one of her cats) was on the radiator where she is now, he (the other cat) was somewhere on the settee, it was just complete chaos, if I'd got it on film. And then I landed on the floor, and I knew when I hit the floor I guessed I'd broken my femur and er of course well as you can imagine, I didn't see Strictly and I don't know what happened to the sandwiches, my son came down from upstairs to chaos. (Rhoda, aged 90)*

Many participants were surprised about how quickly and easily it had happened. Phrases such as “I just” and “I went down” were mentioned frequently. There was a sense of shock among participants that the fall had occurred.

*Barbara: Oh well, I was out with my daughter and my grandchildren, and we were walking, we was going to B&M's and was walking up the path, I watch, coz they're so bad, the paths are terrible. Alright going, lovely walked there and back, it's a long way to walk anyway coming back I was half-way, near enough half-way home and all of a sudden I was talking away to my daughter and all of a sudden I went. She just went to try to save me, but she couldn't save me.*

*DR: You'd tripped over?*

*Barbara: Yeah, yeah, went. I just went.*

In the initial stages following the fall, raising the alarm and getting help was challenging for some who had been alone when they fell. Yet a few participants also commented on feeling lucky. This was due to their fall coinciding with healthcare professionals passing by at that time who stopped to help.

*Charlie: Three quarters of an hour I was calling out, I was unlucky coz the dustman had pulled up right outside and all the rattle and the banging, nobody could hear me you see.*

*DR: Oh, I see, so what time of day was this?*

*Charlie: Well, a woman, a nurse came off duty and went to walk on the other side of the road and couldn't get by, so she came right round by my door just as I shouted*

*DR: And she heard you, perfect timing. Could she get in?*

*Charlie: The door was open*

*DR: Thank goodness for that*

*Charlie: So, I was lucky in a way*

*DR: You picked the right person by the sound of it, didn't you?*

*Charlie: I said to her, fold those bloody wings up and come in here (laughs).*

Even if participants were not alone, they expressed gratitude for the additional assistance. Charlie was helped by a nurse who was off-duty and David was assisted by a paramedic who was walking her dog past his garden.

*David: No, what happened was, believe it or not, one of the medics, who's in the ambulance service and walks her dogs round here, said, I'm not in until this afternoon but I'll ring this in.*

*DR: Oh perfect*

*David: I don't know who she was*

*DR: You know the right people in the right places don't you!*

*David: She said, I'll ring this in straight away.*

*DR: Fantastic, so did you have to wait long?*

*David: She came back, and she said, they've got it and they're going to have to come from a town 20 miles away because the ambulance that we've got had gone out to XXX or somewhere.*

*DR: Well, that's 40 minutes away at least isn't it?*

*David: Yes, yes, yes*

*DR: So, you were laying on the tarmac all that time?*

*David: Yes but they got there as quick as they could, and they did a very good job of making sure that they weren't damaging anything or making it worse.*

Despite the injuries and the wait for the paramedics David felt they did a good job. Rupert fell whilst crossing the road and this coincided with an off-duty nurse passing by.

*Rupert: A young lady who was a nurse. I think she was one of these, whats-a-name nurse that come in when they need em*

*DR: Like a bank nurse?*

*Rupert: Yes, yes and erm she got a rolled-up thing and put it under me head. But I haven't seen her since, I've still got it, and I don't know who to give it to. But er she said I might see you tomorrow, anyway the ambulance come and took me away.*

All the participants were carrying out everyday activities and then suddenly they had sustained a serious injury. The situation of each participant had changed rapidly. All were independent with such activities until this point and were then overcome by an unexpected sense of shock to what had happened. The sudden awareness of needing help was softened by kindness and assistance from family, friends or passers-by to call an ambulance and raise the alarm.

## 5.2.2 Getting to hospital

Once the alarm had been raised by relatives, friends or passers-by, the participants needed to get to hospital. For most, this entailed someone calling 999 and waiting for the ambulance to come. This section addresses waiting for the paramedics, the treatment given when the paramedics arrived and the journey to hospital.

### 5.2.2.1 Waiting for the paramedics

Waiting for an ambulance to arrive was normalised by the participants. There was an immediate acceptance and understanding that there may be a (long) wait for the ambulance to arrive. The time they waited for an ambulance varied greatly from 10 mins to 7 hours. Whilst most talked about the pain and agony they were in at the time, none complained about the wait. Even the participant who fell over in a shopping centre car park and lay on the ground as it was getting dark, unable to move, did not bemoan the wait, despite her son and passers-by phoning and complaining to the emergency operator.

*DR: Tell me the story of how you broke your hip, what happened?*

*Elizabeth: The actual thing was shopping, we'd parked in the blue badge bays, because I have a blue badge because of my breathing and there was a major kerb about 6 inches, this must have been over a foot. And I didn't know, and I started to go down and I suppose I thought oh there's nothing there and I just tumbled. And my son, who is deaf went to find somebody in one of the shops opposite and he found a young lady who came over and rang for the ambulance. She told them, I've got an 80-year-old lady laying in the road who thinks she's broken her hip and her arm, she can't move and can't move her leg, and they said the ambulance will be about five hours. So she said, I repeated again what had happened and they still said about five hours, she got a bit stroppy with them and they got a bit stroppy with her and she had to go off and my son stayed with me but he was very cold because he only had a very thin jacket on, and about 10 minutes later a young man came along, James and he asked me what was wrong and I told him the story and he said, I'll try and ring for an ambulance so he rung and he got a similar response. I am five minutes from the hospital.*

*DR: Yes quite, so what time of day was this?*

*Elizabeth: About nearly 5 o'clock when they first went. Coz we parked about half three and it was light and when we got back it got pitch black. Because the work was going on behind where the blue badge bay is, I think they cut out the kerb if you know what I mean I don't think it's the original kerb because it used to be a bank there. And the young lady said it's so annoying because it's pitch black here and she works in the shop, so she knows.*

*DR: Yes*

*Elizabeth: Erm, when the young man rung and as I say, got a similar response and bless him he took his coat off and covered me because I was leaning against our car, unable to move and erm I remembered my sons mobile phone number and when the young lady came back she rung 'cause the young man didn't have much more on his phone (charge) and erm my son come with some pillows and blankets and a hot water bottle and he came with his partner who rung the hospital again and the ambulance and she got a better response. Then I laid there really really freezing and the young lady had bought her car up to try and block the wind that was coming across and opened the door and erm about quarter past seven I think, the ambulance came. They said they didn't know about me and that they were over at the hospital which was a bit annoying.*

*DR: Yes, quite*

*Elizabeth: And they had to move our car, which I was leaning against to lay me, they wrapped a thermal silver blanket around me and gave me gas and air and they pulled out one of those long stretchers to roll me onto with a few screams. I managed to get into the ambulance, and it might sound silly, but I was so lucky because half an hour after I arrived at the hospital it fell down with rain.*

Elizabeth waited over three hours for the paramedics to arrive but was able to provide a detailed account of the events. Christine waited seven hours for help to arrive. Initially this was because she did not want to go to hospital. It is not clear whether this was a mix of shock and disbelief. Her daughter realised how serious the injury was, but Christine appeared to need time to process this.

*Christine: I said, you know, don't touch me, and she [daughter] said I'm going to ring for an ambulance, and I said, no you're not. Give me an hour, I'll be ok. And she felt coz it was her Mum, she gives me the hour and she said no way, I can't move you, you can't move yourself. So that's when we rang the granddaughter. So, she come rushing round and I don't know how they did it, there's a big chair in that room that my granddaughter, opened the doors, got the chair to the doors then her and went one side of each of me, they got me up, I don't know how she held*

*me up and then she said you're back so let yourself down as gently as you can. So, one was kinda holding me under me foot and the other one was holding the chair, and she said we can't leave you sitting in the kitchen. We've got to get you up.*

*DR: Thing is you'd already been sitting there an hour hadn't you.*

*Christine: I'd already been sitting there an hour. She said you know I know they are putting blankets round you and things like that. And she said, no way Mum, were ringing an ambulance. This is where the story gets good.*

*DR: No this is fine, carry on. So, the ambulance comes then?*

*Christine: Erm, it happened at 6 o'clock, I let them phone at seven, right*

*DR: Right*

*Christine: They said they were very busy*

*DR: Ok*

*Christine: And it would be about, I can't remember, about seven hours.*

The presence and the severity of the pain were a key issue for all participants. This resulted in a few participants being unsure of exactly how long they waited due to the pain they were experiencing.

*Yes, they took at least half an hour to three quarters of an hour. I can't really remember. I was in a great deal of pain, and they managed to get me up into the ambulance and straight across the [golf] course - which was a bumpy ride. (James, aged 75)*

Whilst most of the participants interviewed had a considerable wait, Rupert who fell in the road having tripped down a pothole waited about 10 minutes for emergency help to arrive. Vera and Sheila were the only other participants who had relatively short waits for help to come.

#### 5.2.2.2 When the paramedics arrived

When help did arrive, their reactions were characterised by relief. Without exception, all participants talked about how efficient and kind the ambulance crews had been. This was a painful experience that was made more bearable by the kindness of the professionals involved and their expertise in managing the pain before trying to move

them. The relief that the participants felt is likely linked to the praise they had for the paramedics. Knowing that a professional was on the scene made them thankful for their intervention and skills and provided feelings of relief. Betty recalled her experience:

*Betty: Yes, but they were all very helpful and very good when they did come.*

*DR: So, what happened when they actually arrived?*

*Betty: Well, they came and before they did anything they started me off, I think they gave me some pain killers.*

*DR: Good*

*Betty: And they tried to settle me before they moved me. It was about 20 mins before they sorted me out.*

*And they were very good, they gave me pain relief and got me onto the stretcher, took me to Accident and Emergency (A and E). (Rhoda, aged 90)*

#### 5.2.2.3 The ambulance journey

Several participants did not live in the town where the hospital was situated and therefore had a longer journey, sometimes through rural countryside to get to the hospital. Despite the bumpy roads (and for one participant an ambulance with no suspension), the participants did not speak negatively about the journey. Instead, there was a sense of relief.

*Well, it was a bumpy old ride. I said 'gosh, its bumpy'. They said, 'yes the suspension has gone on this ambulance' So it didn't help. It wasn't too bad, I mean, I could put up with it. (Freda, aged 83)*

The analgesia that they had all received in line with standard protocol following hip fracture, prior to being transported seemed to help and participants did not mention severe discomfort or complain about the journey to hospital. The analgesia made the journey bearable although had side effects of making some participants feel discombobulated. The journey was secondary to the situation participants found themselves in. Their focus was more on the pain they were experiencing at the time. This

is unsurprising given that pain is reported to be a key feature of the hip fracture experience (Archibald, 2003). Christine and Betty reported:

*DR: So, what was the journey like to the hospital?*

*Christine: Well, I'm sorry but I didn't feel it, I'm sure it must have been because I was floating*

*DR: You were aware that the morphine had had some effect?*

*Christine: I didn't know it was morphine at the time I think she might have told my daughter.*

*DR: So, once they got you in the ambulance, what was the journey like to hospital? Can you remember much about it?*

*Betty: Well, I think he went the motorway way rather than go.... He said he would be as gentle as he could, and it was alright. I can't remember clear or anything.*

Having a chat with the paramedics on the way to hospital, and that they had been given analgesia, made the situation better and detracted from the seriousness of what was happening.

#### 5.2.2.4 Going to hospital by car

Not all the participants travelled to hospital by ambulance. Three of the participants were taken by friends or family in their cars. One participant in this group was reluctant to go to hospital and had walked home following the fall but acknowledged that she was in pain and relented when her daughter told her she was going to take her to the hospital.

*Yes, how did I know it was broken, my daughter only thought I'd bruised it. She said straight away, you've badly bruised yourself Mum. I said, have I? She said yes. Any rate when we got home, sat down on the sofa and put me foot up. Oh, so much pain, so course I thought, no one's in the whole room they've just gone out in the kitchen, I'll try and get across the room. I got so far, and I said my daughter and she come back and helped me to sit down and said I'm going home to get my car and I'm taking you up to hospital, I said, no, I don't want to go up the hospital. You're going up the hospital she said and that's it. And she brought me up the hospital and that's how I know I'd broken it. (Barbara, 79)*

The other two participants realised that they had sustained a serious injury and managed with the assistance of others, to get in a car and were taken to hospital. Helen said:

*Well, I hobbled but I don't know how I did it. We didn't get an ambulance, so got in the car (laughs) and erm we got to [the hospital] and there was an ambulance crew there and asked if he could get some help to get me out the car. (Helen, aged 78)*

### 5.2.3 Recollections of the emergency department

The participants were asked what had happened once they arrived at the hospital. Approximately half the participants interviewed could recollect what happened when they arrived in the emergency department but, despite having mental capacity, half could not. This is a noteworthy difference compared to their recollections of the fall. This may be linked to the effects of powerful analgesia as complications such as cognitive problems are more likely when stronger analgesia is administered (National Clinical Guideline Centre, 2011). This can be caused by changes in pharmacokinetics and pharmacodynamics due to the ageing process (Simpson et al., 2013). This supports the finding that the average age for the group that could remember was 78 years versus 82 years for the group that could not. Christine found herself in a queue:

*Christine: This is why she [paramedic] wouldn't leave us till we were on a trolley and in the queue because I think there was about, I can't quite remember how many trolleys there were before us, but I think we were 7th or 17. Something like that but once we was there it was like a conveyer belt.*

*DR: So, what happened once you were in A and E then?*

*Christine: This is what I, you know, I don't really remember that bit, that's why I know I was floating and then*

*DR: You just remember floating, yes*

*Christine: I'm sure I was floating, you know..... that bit was, that bit was a blur, they must have given me something because I didn't feel. I felt quite good I think.*

Sheila and Vera had little recollection:

*DR: So, when you were in A and E do you have much recollection of what happened in A and E? So, you said you went for x-ray? Can you remember what else happened when you were in A and E?*

*DR: And what happened when you actually got to the hospital?*

*Sheila: Wish you hadn't asked! I thought I was taken in to see somebody, I don't kn... I can't remember.*

*DR: And do you remember what happened when you got to A and E, when you got to the hospital?*

*Vera: [Silence]*

*DR: You haven't got much recollection of that?*

*Vera: No, I haven't actually.*

Interestingly, Barbara, Bert and Helen, did not go by ambulance and therefore did not receive standard analgesia (opioids) that are normally given by paramedics for suspected hip fracture. They all were able to clearly recollect and recall what occurred in the emergency department.

#### 5.2.3.1 [Waiting in the emergency department](#)

There was a variation in how long participants waited in the emergency department. Three were amazed how quickly they were seen and dealt with. There was an understanding and interpretation of how busy Emergency Departments were, so when their own experience exceeded these expectations, they were surprised. For those who experienced a longer wait, this was not viewed as detrimental as they were made comfortable and given pain relief.

*I was seen really really quickly, x-rayed and then taken to the ward.  
(Helen, aged 78)*

*Various people came and saw me, but I really can't recollect any more than being grateful when I eventually was given a bed and could keep still. (James, aged 75)*

Some patients were nursed in corridors in the emergency department but were tended to and cared for despite being nursed on a trolley.

*Well, they got me on to one of their bed things, put me in a corridor. I mean, you read about so many people being left out in corridors and I was a second one. But I got dealt with very quickly. (Freda, aged 83)*

Therefore, despite the well-publicised waits in national emergency departments, several participants were surprised how quickly they were seen.

*DR: So, what happened when you got to A and E? Was A and E busy when you arrived?*

*Rhoda: Yes it was, it was quite busy, erm, you had to wait but not long, you're on a trolley in a corridor but people were coming to you and talking to you, making sure you were alright, you know I can't fault them in anyway.*

*DR: What happened once you got to A and E, what happened then?*

*Rhoda: Well, I was on a trolley, and someone came to me, my son explained everything, so I don't know what he said, he was doing the talking and then they gave me these, no, I was bursting to go to the toilet, so they put a catheter in.*

One participant was admitted on New Year's Eve when the department was very busy. This participant had never been in hospital before so did not have anything to compare his experience against but stated that the staff made him comfortable, and he was not in pain.

*DR: So, what happened when you got to A&E, so did they take you to x-ray?*

*William: Yes they took me for an x-ray*

*DR: Can you remember very much about A&E?*

*William: Well really it's all drunk people in there. They took me in there they put me on a bed in the A&E, and then they er. And that's it I went and had an x-ray on me leg.*

*DR: Did they give you pain relief?*

*William: Yes, I think they give me an injection, I couldn't really feel anything.*

Although he was able to recollect what happened in the Emergency Department, he was unable to remember whether he went to theatre the next day or later. He suggested that he was hallucinating at the time.

*DR: So how long was it before you went to theatre?*

*William: It was the next day; I don't know if I was hallucinating or not.*

#### 5.2.4 Admission to the ward

Following treatment in the emergency department two participants were taken directly to theatre for repair of their fracture. All the other participants were taken to the ward. Reasons for this included no theatre time being available due to other emergencies, the patients requiring more complex surgery and waiting for consultant review or that they had pre-existing medical conditions that required stabilisation before they could have surgery. The fractured neck of femur ward consisted of 3 bays each with five beds and 12 side rooms. Where possible patients were admitted into a side room following surgery; 14 of the 21 participants were nursed in a single side room on their return from the theatre (see Appendix 9 - Plan of Ward). Of these, ten participants stayed in the side room for the duration of their stay and four were transferred out to one of the five bedded bays as they began to recover. The location of where patients were nursed, which participants moved location and the implications of the setting for the progress of their recovery will be discussed in more detail in Chapter 6.

Some participants for example Betty, Bert and James, waited several days before they had their operations. This increases risk of pressure ulcers dramatically (Baumgarten et al., 2003; Chiari et al., 2017; Rodriguez-Fernandez et al., 2011), however none of the participants in this study sustained a pressure ulcer. For Bert and James, pain was their main concern.

*No, I didn't have the operation until about 2 days after. It was on the Friday and there were going to do the operation that afternoon but that didn't happen. So of course, the weekend they don't do them, it went on to Monday and I got it done on Monday (Betty, aged 81).*

*DR: Did you go straight to theatre and then to the ward?*

*James: No, I was actually in the ward for a week before I went to theatre.*

James had had a previous operation carried out by a surgeon at the same hospital and requested that the same surgeon operate on his hip. Due to surgeon availability, the complexity of the surgery and patient preference this request was upheld. However sometimes the delays in operating were due to hospital pressures or the patients' medical condition.

*They kept me in A and E first, then they come down and took me for all these x-rays and that, but they weren't going to operate until the Tuesday and they done it on the Monday. So, I lay in bed comfortable overnight, and everything. They gave me an injection to kill the pain, morphine or whatever it was they give me. But Monday they come and got me before I'd had me breakfast they take you down on a board. (Reg, aged 69)*

*DR: And then did they take you straight to theatre?*

*Vera: No, I had to go to the room because I am on blood thinning tablets, I had to wait 48 hours.*

*DR: So, you obviously went to the ward first then?*

*Vera: But I was in a separate room.*

Despite the increased risk of pressure ulcers caused by the extended duration of time between the injury and surgery (Baumgarten et al., 2003; Chiari et al., 2017; Sasabuchi et al., 2018) none of the participants were concerned about the wait for their operation as they were not aware of the risk. They were pain free and from their perspective, that was imperative.

This section has outlined the start of the hip fracture journey for the participants. The dramatic change from carrying out everyday activities to then sustaining a hip fracture resulted in rapid change to their biography. A sense of shock was common and aligned with previous research into hip fracture experience (Archibald, 2003). In line with the concept of biographical disruption, it could be argued that all the participants began to experience disruption at the point of falling. The experience of severe pain overwhelmed participants at that time and a realisation that they needed medical expertise, and help was acknowledged and accepted. No complaints were made about the wait for an

ambulance or the wait in the ED and instead the participants expressed gratitude in their accounts for the help and pain relief. However, this could have been due the relief that participants felt when help arrived. Answering in a socially acceptable way that may not be an accurate reflection of the situation can pose limitations in qualitative research (Bergen & Labonté, 2020). At the time of the study, NHS England published the Ambulance Response Programme that detailed the response times (NHS England, 2017). A fall is considered as a category three call and the target set out in this guidance states that nine out of ten calls will be responded to within 120 minutes however there is no target for the average response time (Nuffield Trust, 2024). Elizabeth fell outside on cold concrete and Christine waited for 7 hours for an ambulance to arrive. Yet the participants expressed relief and gratefulness for the help they received however delayed.

### 5.3 Learning to be a patient

The data analysis followed the trajectory of the patient's journey, from the sudden dependency at the time of injury, and then the movement towards independence, including the trials experienced in between. This thematic network was named the 'dependence-independence continuum' to demonstrate the change of being independent prior to the injury, to being totally dependent on others to meet their needs at the point of injury, and then to regaining independence as they recovered from the fall and the surgery. This global theme spans Chapters 5 and 6 with this chapter section focusing on the acute phase of injury and the need to be dependent. In contrast, Chapter 6 will continue the discussion of findings around the theme of the dependence-independence continuum but focus on the move towards independence. Organising themes of making sense of the situation; and dependence, demonstrate how participants experienced feelings of being independent prior to the fall and the dramatic change to total dependence at the point of injury will now be explored in greater detail.

### 5.3.1 Making sense of the situation

This organising theme includes the process that participants went through in their own minds to make sense of what had happened. Participants experienced a range of emotions, thoughts, and feelings in the early stages of the injury; recalling some of the events proved difficult for many participants.

#### 5.3.1.1 The aftermath

There were feelings of shock that it had happened (including the speed of how fast it all occurred) and the blatant realisation of the situation; two participants termed this as a wake-up call. There was relief that the surgery was over, and two participants said they were thankful to be alive despite the adversity.

*The pain at that point was pretty fierce if I moved about so it was a bit of teeth grinding but it was alright at the end of the day, I was alive. (David, aged 88)*

There was also overwhelming self-chastisement among more than half of the participants interviewed. Feeling stupid for doing such a thing was common. Words and phrases such as: ‘a disaster’, ‘silly idiot’, ‘stupid’, ‘silly old bugger’, and ‘careless’, were used by the participants. Self-blaming and annoyance were evident in several of the interviews.

*Well, I'm so stupid. I just had my hair done and I have it done up there and I put a chair there for the hairdresser to cut it and that. She had gone and I was carrying the chair through [the doorway], it was so stupid, I mean - I could easily have opened that one as well and had the big gap, but I've never done it before. And I've never stopped blaming myself for it. (Freda, aged 83)*

*I was saying to myself, you silly old bugger. What you doing here? (Bert, aged 72)*

The emotions expressed by members of this group of participants are not unusual and feelings of self-chastisement and guilt are common in older people following hip fracture as found by Jennison et al. (2014) and Segevall et al. (2019). This stems from patients thinking that they could have avoided the situation that they now found themselves in, had they been more careful. These findings also support why people who have experienced hip fracture become more wary of what they do in future to prevent further falls as outlined in section 3.4.5. In addition, it is likely that participants have replayed the fall in their own minds several times and therefore their stories were well rehearsed.

#### 5.3.1.2 Thoughts and feelings in the early stages of the injury

This basic theme relates to the early stages after the initial injury, where participants felt helpless, tired, and unprepared for what had happened to them. This helplessness was also related to the lack of control over the situation and acceptance of help mentioned previously. These feelings that occurred early on also informed the more global theme of dependence and there appears to be an overlap here (see section 5.3.2.2). The acknowledgement that time is needed for the body to recover was one of the reasons given for the acceptance.

*Yes, well, you wouldn't be called a patient. You've just got to sort of, the body takes time to heal and there's nothing you can do about it. (Molly, aged 86)*

This recognition of the laborious speed of progress led to feelings of frustration and fear for some. The participants felt that they were not in control and powerless. The concept of biographical disruption provides a useful lens to understand the complexity of these experiences. Time was needed for participants to regain control. However, at this time in the patient journey, participants had no choice but to depend on others. This was enabled by accepting care from the nurses. These feelings of lack of control were intensified for two of the participants (Sheila and William) who had never been in hospital

before and did not know what to expect. The other participants all had previous experience of hospitals.

*William: I've never been in hospital in me life*

*DR: Interesting ok, so*

*William: First time in my life*

*DR: Was it what you expected?*

*William: Erm, it was, I was a bit frightened.*

As well as fear, other emotions were also experienced by participants at this time. Feelings of loss, akin to women who experienced loss after a diagnosis of rheumatoid arthritis in the work of Bury (1982), were identified by one participant who had previously been very physically active.

*I was always riding my bike they still think I'm superwoman and I'm not. I'm not anymore, no. No, for the first time, I was saying the other day, for the first time in my life I feel my age, I never ever did before, never did, riding on my bike, loved it. Never bothered me, nothing. It hits you doesn't it, suddenly. Yes, hits you hard, yes, you suddenly realise I'm not that person anymore. (Phyliss, aged 80)*

From the explanation given, Phyliss felt that the fracture ended this part of her life. She had lost that part of her identity and was no longer that person.

### 5.3.1.3 The fog

Initially, it was thought this basic theme coded as 'The Fog' that consisted of gaps in their awareness where they had little or no recollection of events from the emergency department admission. Participants in a study by Morse and O'Brien (1995) experienced similar gaps in awareness following trauma. During the data collection phase of this study, it was noted in the fieldwork journal that several participants were unable to remember that part of their experience. However, on further analysis of the interview transcripts, it appeared that this basic theme was not exclusive to the emergency

department and nearly all the participants experienced not being able to remember some aspects of their patient journey, from the point at which the fracture occurred. There was a minor difference between the age ranges with this phenomenon being experienced by ten participants over the age of 80 years and seven aged 65-80. More significant were the gender differences, with more women than men not being able to recall some parts of their hospital stay. Participants referred to these circumstances as 'a bit of a blur', 'not clear', 'lots of it gets vague', and 'I can't recollect'. Sometimes this was due to the participant being in pain and having had analgesia, with one participant saying that she felt as if she was floating, although this was not generally the case for the whole sample. It is worth noting here that all the participants required mental capacity to meet the inclusion criteria for the study and therefore this was perceived not to be related to any form of cognitive decline. Instead, it seemed to be the participants' way of processing the important elements and information and discarding what was not deemed as important. When asked, what it had been like getting out of bed for the first time, Sheila (aged 80) said it was not something that had stuck in her mind. In future, this could be overcome by using an observational ethnography methodology.

*DR: How did you manage to get from the chair onto the x-ray table? You must have been in agony.*

*Barbara: I can't remember now to tell you the truth. I just don't know how I got on there, honestly I don't, from this day to yours.*

*DR: And did you take any steps that day?*

*Helen: Let me think. Do you know, I can't remember*

*DR: It doesn't matter*

*Helen: I can't remember that first day.*

### 5.3.2 Dependence

In the initial stages of hospitalisation following the injury, participants were dependent on the nurses and staff for their basic needs including washing and toileting. Being incapacitated and reliant on others brought with it feelings of loss (of self) and then acceptance. Again, similarities can be seen between the experiences of hip fracture participants and the experiences of participants in the work of Bury (1982). At this time patients appeared to display an external locus of control (see section 3.4.11).

### 5.3.2.1 Loss of control

Prior to the fall, participants had been independent individuals, but once the fracture occurred, they found themselves in embarrassing and humiliating situations that were beyond their control. The things that had previously been taken for granted were now a source of frustration and fear, even panic as demonstrated in the following quotes.

*Well, er I mean I'd wet myself as well, which I felt embarrassed about.  
(William, aged 69)*

*And also pads, which I found humiliating. (Wilf, aged 67)*

Not having the call bell in reach and having to shout to get attention was one example of this. Participants were aware that they could not do things for themselves and therefore had no choice but to accept help. This was experienced at different rates and varied between participants. Female participants in the younger age range (65-80 years old) found having to rely on others more difficult to accept and for some, being incapacitated was the worst thing about the whole experience of breaking their hip. They felt they were being a nuisance if they had to call someone to help them with something they could previously have done for themselves. These findings challenge previous research on the gendered experiences of illness where women were more readily accepting of their situation (see section 3.6.3.3). Still, feelings around the loss of control were common and mentioned frequently by the participants with respect to going to the toilet, especially at night.

The number of staff on hospital wards at night is reduced compared to during the day so anxiety and panic were heightened as it made it less likely to be able to attract attention or that someone would come as quickly.

### 5.3.2.2 No choice but to accept help

Although participants disliked asking for help, when assistance was offered it was readily accepted because they knew that there was no alternative at that time. For some, the help was accepted freely, and they were not troubled by this, but others viewed it as a “necessary evil”. Christine (84 years old) was not worried about accepting help. She commented that had she been younger she would have been, but the staff were so lovely that she did not worry about it, aligning with illness being an anticipated and accepted part of older age (see section 3.6.3.8). Others felt the same about accepting help because they were in pain, too unwell or at risk of further discomfort, and they knew the nurses could make it better and do the things that they could not do for themselves at that time. Conversely, there were aspects of care that some did not like, such as having skin checked as part of pressure ulcer prevention or having to sleep on a special mattress. Yet they were willing to accept help because they understood why these actions were necessary and for their benefit.

*Well, you know that you've had a bang-up, so you know something has got to be done so you've got to accept the thing. (Charlie, aged 97)*

*Well, I knew it [having people waiting on me] had to happen because I couldn't do it myself, there was nothing I could do about it, I had no choice. (Phyliss, aged 80)*

When some participants returned from the theatre following their operation to repair the fracture, they felt too unwell to worry about it. This was referred to as “just one of those things you had to accept” and reticent of “I just let them do what they wanted to do”. Nevertheless, most participants were happy to accept the help offered.

### 5.3.2.3 Leaving it to the professionals

Several participants commented that once they had accepted the situation, they were happy to leave the care to the professionals. As noted above, some stated that the nurses and staff were there to help, that it was their job, and that they needed to be

allowed to do that job. This was coupled with the impression of leaving it to the experts and that they knew best.

*I just said, I'm in your hands, I know what you think, is necessary, and I was alright. (Rhoda, aged 90)*

This idea of being in their hands was not exclusive to Rhoda. A few participants also said they just let the staff do what they wanted and needed to do. This relinquishing of control was for one participant (Christine) a coping mechanism. She felt that had she not handed over this responsibility to the professionals, she would not have coped as well as she did. Such dependence on others was a way of managing the situation in the best possible way at that moment in time.

*I was quite happy with them because that was the one time that I think they treated you as a grown up, you're not do-lally. It's hard when you've just woken up and you're all sleepy, it's like getting out of there [points to her bed], I find that really hard work. (Christine, aged 84)*

The way they were treated and how care was delivered to the participants is also important to note. From the accounts provided by the participants, and my insider knowledge as a practitioner, the nurses were carrying out their duties. However, this was often perceived differently by the participants. For example, being escorted to the toilet to reduce the risk of another fall was seen as caring over and above what might be expected.

### 5.3.3 Anxiety

Whilst participants had concerns about various elements of their recovery including pain, and being able to go home, concerns about getting to the toilet, was one of the most discussed organising themes in the study and several participants had much to say about this. Despite a few participants stating that they suffered with incontinence, many participants alluded to the fear of this happening, perhaps for fear of embarrassment

(see participant quote in section 5.3.3.1). This could be separated into barriers and enablers of continence and the anxiety and embarrassment of aspects related to urinating or having their bowels open.

### 5.3.3.1 Continence

This basic theme was related to the concerns of participants in relation to control of their bodily functions. All patients who have had a fall are deemed to be at high risk of a subsequent fall as part of routine hospital risk assessments (National Institute for Health and Care Excellence, 2013a) and all patients had been instructed to ring the nurse call bell or call for assistance when they wanted to go to the toilet or mobilise anywhere, until they had been assessed by the physiotherapists as safe to do so independently. This need for an escort was especially enforced at night, when the risk of falls is higher (Magota et al., 2017) and participants reported that the nurses were insistent on this. A positive consequence of this was that it made the participants feel safe and provided reassurance, especially given that some were frightened of falling again.

Participants felt that being situated close to the toilet in the ward or having a toilet in their side room was beneficial. This was because the shorter distance made it easier for them to get to the toilet in time. Participants who were situated further away, spoke of their anxiety and not wanting to wet themselves. There were the cot sides on the bed that were there to prevent patients from falling out, so participants had to ring the bell for the nurses to put the cot side (bed rails) down so that they could get out, and then be escorted to the toilet. However, participants recalled that there were times when they pressed their call bell, and nobody came. Sometimes it could be 10 or 15 minutes before help would arrive. Even if the nurses were around, they were often busy and would say 'just give me a minute'. This presented obstacles for participants with pre-existing continence problems such as urge incontinence or colitis. Some of the participants expressed their worry and desperation not to wet or soil themselves. This overriding fear then encouraged risk-taking behaviour for some participants, who would go to the toilet unescorted.

*I said to them, a couple of years ago I had an operation for stress incontinence, and it left me with urge incontinence, so I was worried about going backwards and forwards and being told I had to ring every time I wanted to go. Made me a bit apprehensive that I'd be bothering somebody all the time. Particularly the night-time because of the night-time.... In the day if they didn't come, I could make a dash for it, take my stick and take my chances but at night-time, I had sides on the bed so I couldn't get out of bed. (Elizabeth, aged 80)*

Some participants knew it was risky because of the insistence of staff to have an escort and yet the desperation proved to be the overriding factor.

#### 5.3.3.2 Help with bodily functions

The need to get to the toilet was also driven by the embarrassment of having to use bedpans, commodes, and incontinence pads. Participants were very keen to report that nurses and healthcare support workers had ensured privacy and dignity when carrying out care related to bodily functions. Nonetheless, this topic was not easy for participants to discuss. Having to use bedpans, commodes, and incontinence pads was described by participants as undignified, uncomfortable, embarrassing and even humiliating. This was due to the association that one participant made between incontinence pads and infants. For others, this was a serious breach of expected social behaviour and embarrassment. These feelings of mortification were exacerbated further by the prescribing and administration of laxatives. Due to the side effects of constipation from opioid analgesia used post-operatively, several participants explained that they were offered laxatives regularly and asked frequently about their bowels.

*They do want to give you laxatives in there, they asked you all the time, do you want laxatives and when you come out, they give you a big box of laxatives. (Vera, aged 82)*

*They said, oh you'd better take these laxatives, I said I don't want them, my bowels are working perfectly right now so don't upset nothing that's going right. (Reg, aged 69)*

Some participants were aware that they had not had their bowels open and therefore needed the laxatives but having reduced mobility and difficulty getting themselves to the toilet provoked further anxiety as they were concerned that when the laxatives took effect very quickly and without warning, they did not have the ability to rush to the toilet or receive a bedpan quickly especially if they needed to wait for assistance. Once participants became independent, these feelings and anxieties subsided.

*They kept saying to me - have you opened your bowels? No, no, no! They put me on to laxatives. And that was a bit embarrassing in a way - when things are happening, and you don't know. (Freda, aged 83)*

#### 5.3.3.3 Fear of not making progress

Feelings such as frustration and fear that came from being dependent on others were uncomfortable for participants. This is not an unusual finding given that this has also been suggested in previous studies (Bruun-Olsen et al., 2018; Sims-Gould et al., 2017) They were concerned about how they would make adequate progress and how long this would take. All expressed the need to get home but were aware that the fracture represented a disruption to their plans that now required a period of consideration and possible adaptation.

### 5.4 Biographical disruption

As discussed in section 3.6.1, biographical disruption has been conceptualised as a shift in the normal trajectory of life and self-concept where plans for the future have to be re-examined (Bury, 1982). There are several parallels that can be drawn between the experience of hip fracture and Bury's work. Not all people will experience a hip fracture during their lifetime and therefore if this does happen it constitutes a change in a person's biography, regardless of age. This is because of the sudden change from being independent to requiring medical assistance and nursing care to carry out normal daily activities. This burdening of others equates to a loss of self-identity through not being able to do things that participants could do before the fracture. Bury's (1982) work has

provided a theoretical framework to understand the patient experience of hip fracture. Worries that a patient may have following a hip fracture, such as not being able to walk properly again or ride a bike are different to the concerns of healthcare professionals. These include the increased risk of pressure ulcers, deep vein thrombosis, stroke and even death (Poh & Lingaraj, 2013). Biographical disruption within the context of this study is about the experiences of patients and their sense of self following hip fracture and how this may differ from their perceptions of life without a hip fracture. A clear example given in section 5.3.1.2 where Phyliss talks about her own realisation of not being superwoman anymore demonstrates this as participants felt they were no longer the person they once were.

At the point of the hip fracture occurring, participants were overwhelmed by pain and reduced mobility and accepted the need to rely on others. Hip fracture presented as a disruption to the participants biography and the future. Whilst all participants in this study experienced biographical disruption, not all participants experienced continuing disruption to their lives. Some experienced a period of transition during their recovery. The differing biographical variants discussed in section 3.6.2 provide additional conceptual lenses through which to understand the patient experience in this time of change. Chapter 6 will shed light on the experiences after biographical disruption and explore and analyse the experiences of the participants in relation to these variants in more detail.

## 5.5 Chapter summary

This chapter across sections 5.2 to 5.3 has provided the context for how the participants came to be in hospital and the circumstances that led to this. The patients' stories of the fall, raising the alarm, and obtaining help have been presented. Their journey to the hospital and their initial experiences of healthcare have been outlined demonstrating a sense of relief and acknowledgment of kindness at the help of others. The hospital admission has been presented through quotes from the participants. This has detailed their emotions, feelings, fears and represents the traumatic nature of the hip fracture

experience. This helps to inform the research and begins to address the research aim and objectives (see section 3.9). This chapter has demonstrated that hip fracture was a shocking and painful experience characterised by the need to accept help in the initial stages of injury. Although they were all dependent on the nurses initially to meet their needs, they all wanted and needed to be independent even if this was limited. Chapter 6 continues the patient journey using biographical variants as conceptual lenses to aid in the continued understanding and interpretation of the recovery experience following hip fracture.

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## Chapter 6 - Recovery

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### 6.1 Chapter overview

As established in Chapter 5, in line with the tool developed by Attride-Stirling (2001) that uses a web-like network to categorise data, this chapter explores the need for independence, the second part of the dependence-independence continuum and the thematic network, 'Recovery' (see Appendix 18). This focuses on the participants' experiences of being in hospital and the events that shaped their continuing recovery. The use of biographical disruption as a helpful conceptual framework has been proposed in Chapter 5 as a lens to reflect the experiences of participants. Chapter 6 will now expound this further by using some of the variants of biographical disruption to explain the individual experiences of participants in their recovery journey (See Appendix 19 - Patient Storyline). During the recovery phase, the main goal for each participant was to recuperate and be able to go home. Their varying experiences distinguish the beneficial effects and obstacles they faced in achieving this goal. Using biographical disruption and its variants as a lens, aids in exploring and understanding the experiences of participants as they continued their recovery.

#### 6.1.1 Variants of biographical disruption

As discussed in section 3.6.2 since the seminal work of Bury was published in 1982, other authors have built upon this concept to provide a lens to provide insights and understanding into the experiences of patients with other health conditions and illnesses. These variants of biographical disruption include biographical flow, reinforcement, accommodation, abruption and repair, oscillation, continuity and reconstruction. Whilst not all of these were helpful to illuminate the experiences of participants following hip fracture, biographical flow, accommodation, reconstruction and abruption will be used to provide an understanding of the individual process of recovery.

Although biographical disruption is a useful concept to explain the experience of hip fracture in the initial stages of injury, it does pose limitations when illuminating the experiences of recovery. Biographical disruption as a concept does not fit neatly into explaining the ongoing experiences of patients. Individual patient experience is more complex and nuanced, hence the need for variants as additional lenses. Such a strategy is supported by Barbour (2008) who suggests that it is suspicious if real life fits perfectly into a single theoretical framework posed by a researcher. Therefore, employing the use of variants that have been developed following on from the work of Bury add to the usefulness of the overall theoretical framework to illuminate the experience of hip fracture and recovery. Nevertheless, it is important to note that for some of the participants in this study, continued disruption provided a better representation of their recovery.

The speed of the transition to other variants such as biographical flow, reinforcement, accommodation, abruption, repair and continuity, appears to be dependent on individual factors such as clinical condition, determination, fear, confidence and the actions of healthcare professionals and families in providing encouragement and psychological and social support.

## 6.2 The need for independence

All participants regardless of the level of dependency felt that they needed to make progress towards independence and regain the self-identity that they had lost. Reasons for this were numerous and varied but included getting home to family, pets, having a good sleep in their own bed or home cooking. Fundamentally the goal for all the participants was to get home. This need for progress was driven by various personal motivations and for most participants, the move from an external locus of control to an internal one. For the participants in this study, independence was highly valued as supported by Griffiths et al. (2015).

During the interviews, participants were asked to discuss what they felt was the worst thing about fracturing their hip and being in hospital. Various answers were given about

pain, the discomfort of the bed, other patients in the ward and not being able to watch the football but the most frequently given answer was being away from home and loved ones, and the frustration of having to rely on others. The whole situation was an inconvenience to the life they led before the fracture occurred. The feelings of inconvenience, loss of self-concept and dependence show parallels to biographical disruption. These all acted as negative motivators for the participants, with participants noting that if they were able to get to a stage where they could be discharged these factors would no longer be a problem.

### 6.2.1 Motivational drivers

The codes and basic themes within this organising theme all focussed on the drivers or reasons for the motivation of the participants. This overarching need to be independent again, so they could go home, was tangible.

*I was motivated because as I mentioned earlier the sooner I do it, the sooner I'm going to be out. That was the big motivator with me, I just wanted to get home. (James, aged 75)*

*I think obviously after the operation I was a bit reliant on them but as soon as I could do things for myself that was it. (Rhoda, aged 90)*

The need for independence alone was a motivational driver, but there were numerous other reasons for needing to get home. These were derived from, for example, missing loved ones and pets, and these acted as positive motivators to get better. However, there were many negative motivators given as reasons to expedite their recovery. As previously discussed, the ability to get to the toilet and not have to use a bedpan was critical for several participants. The following quotation demonstrates this was of paramount importance.

*Yes, it [the bedpan] was very uncomfortable and it was painful, it was painful. And my one thing, my one dream was that I wanted to get to that bathroom. (Joyce, aged 80)*

Other negative motivators were identified by participants. Participants expressed feeling silly for having fallen in the first instance and were quick to blame or chastise themselves as seen in section 5.3.1. Therefore, they did not want to add to this by being reliant on others. Being dependent was viewed as being a burden on others, even though the injury was accidental in all cases, and therefore beyond the control of the participants. Yet, the feelings that they were being a bother or a worry to others were expressed.

*I felt I was being a nuisance. I mean I'm not used to it. But I had to have help getting in and out of the bed, no way I could have done it on my own at all. (Freda, aged 83)*

Freda knew and explained that the situation was out of her control, but still felt she was being a nuisance and that this was the worst thing about breaking her hip. Again, such feelings of not wanting to be a burden are commonplace following hip fracture (Karlsson et al., 2022; Langford et al., 2018; Rasmussen et al., 2018).

## 6.2.2 Goal setting and progress

With these motivational drivers (both positive and negative) prevailing, the need to progress in their recovery was apparent and some participants were determined to improve as quickly as they were able to.

*I was determined to do it, you know, to get going and in fact, they called me, I think I told you, they called me Speedy Gonzales. (Rhoda, aged 90)*

*DR: So, what was it like when you were taking those first steps?*

*Freda: Well, I wanted to do it, and I wanted to do it quickly! Terribly impatient. (Freda, aged 83)*

A few of the participants were reprimanded by the physios for moving too fast and rushing.

*I was on top of the world. I was walking away and she [physiotherapist] said, slow down. She said you've got to take your time. I said alright but I said to her I can't walk slow. (Barbara, aged 79)*

*Reg: Yes, they said I was very strong minded. When I say no, I mean no. And when I say I'm going to do something they know I mean it.*

*DR: You put your mind to it.*

*Reg: Put me mind to it, yes I'm quite strong, will power. Sometimes I can be stubborn but then I realise now this is a wake-up call for me when I went down over there.*

This impatience led to frustration for some. This was further compounded by not having physiotherapy at weekends (as physiotherapists only see emergencies out of hours). One participant felt that the momentum of her progress was compromised as a result.

*Elizabeth: I probably like, when I saw the physio, it would be for about 10 minutes and a couple of times I would say oh some days I wouldn't get seen at all as there was more important people or someone has come in, but I would have liked more physio. Weekends it was only for special cases, so I didn't see anybody, and I think there was one time I didn't see anyone for about four days.*

*DR: How did that make you feel?*

*Elizabeth: A bit annoyed because I thought I could have been improving.*

For others, the cause of the frustration was the perception of their own progress, as they did not feel they were making adequate headway despite the physiotherapists providing encouragement.

*They kept telling me I'm doing well, I'm doing well. I didn't think I was myself, but they kept telling me I was doing very well so...maybe I was, I don't know. I think I should be doing better. (Betty, aged 81)*

The word determination was used by most of the participants interviewed. The context of this was in relation to achieving small self-set targets in their recovery such as getting to the toilet or sitting out in the chair, through to the end goal of going home.

*I'm determined not to spend my time in bed, because I suppose I see getting up and being out of bed is a step in the right direction. (Wilf, aged 67)*

A step in the right direction could be viewed as an analogy for stepping out of biographical disruption. Some participants were so driven and motivated that they set their own goals and targets. Two participants set bigger targets for themselves and for the staff.

*I told the physiotherapist the targets that I wanted. He said, that's the same sort of targets I was after and now you've told me, we're going to push for it. (Reg, aged 69)*

*David: I need to get out, I need to get out I said to them, I set them a target. I told them the target.*

*DR: That you wanted to be home by a certain date?*

*David: Yes and they got me out by that day. Well, I went to physio, and I really crunched physio and went up and down, round and round. I really did, I thought you're not going to catch me out on this one.*

*DR: You didn't overdo it though did you?*

*David: Perhaps I did, I don't know but I was determined to get out. And they knew I was determined.*

In addition, and although frail, Molly was very determined and felt that her recovery was her own responsibility, not just the responsibility of the hospital. This determination was the likely reason that Molly did not appear to be biographically abruptly by the hip fracture experience and instead was able to see a way forward for her life even if this required biographical reconstruction.

*Molly: I was determined, I wanted to get out to the loo apart from anything else.*

*DR: right, right, did you have to use, bedpans prior to that*

*Molly: Yes, but I had a catheter in so they, you know, they weren't going to take that out until I could get out to the loo comfortably.*

*DR: Do you feel that they as nurses, we can prevent all pressure ulcers. Do you think they can all be prevented from what you know?*

*Molly: I don't know, I think it's somewhat up to the patient surely*

*DR: Mmm interesting*

*Molly: Well, I mean, if you insist on, if you've got somebody who is a bit demented and doesn't want to be moved. I remember when I had an operation, a prolapse repair, and there was a woman in the bed opposite to me, she was quite young, and she wasn't very old and she'd had a hysterectomy and when she came round, she just wouldn't move and they lost her because she just refused to be moved and because she got an embolism and died and she was only about 30 odd.*

*DR: Oh my, that is young isn't it. And again, your past experiences played on your mind?*

*Molly: well yes, having had, I mean I'd had a couple of quite serious operations, and I knew that because the first thing they said to me, move your legs, move your legs.*

*DR: You were on the case*

*Molly: Pedalling in the bed*

*DR: And that stops you getting sore as well*

*Molly: Yes, yes, the more you move about the better.*

Such a finding can be seen to support the notion that self-determination plays a vital role in recovery (Griffiths et al., 2015).

Parallels can be drawn between being in hospital and experiencing biographical disruption. Hence getting out of hospital equated to making progress and no longer facing disruption in their lives. The participants who discussed setting targets were male although there was a large age difference between them (69-88), so it did not appear that age was a factor in this. The determination that was described appeared to make participants push themselves to their limits.

*I was motivated even though I was getting tired. They would say, do you want to do anymore. I would sit down, but then try again. As long as I am doing this then I'll be out of this place. They'll sign me off and say I can go home. (James, aged 75)*

Again, as described above by David when he talked about getting out of here, James also verbalised these feelings to get out. Getting out meant recovering enough to be allowed to go home. It is at this point that biographical disruption ceased to be a useful lens through which to illuminate these experiences. For David, this experience was initially a crisis event that had altered his life trajectory, however due to his determination and improvement continuity of life was needed to progress. For David, this was more aligned

with biographical flow and continuity. For James too the need to progress was paramount although the difference between these participants was that James required more resources and support to manage and adjust to the life disruption, that the hip fracture had caused.

Whatever the speed or motivation for recovery, the onus for improvement was not only on the staff. It appears that some participants felt that the onus was on them to get better and placed the responsibility firmly on themselves. This constitutes the work of the patient as previously discussed in section 6.5.

*Whatever they told me to do I've done and that's it. If you go against their words that's your fault isn't it. (Barbara, aged 79)*

*When you realise that unless you move and you do try and do these things, you're not going to improve. The more I do it, the quicker the recovery will be. You can't be sitting there doing nothing. (Freda, aged 83)*

In many cases, it was not easy to make progress; tiredness and pain made this challenging. Participants, therefore, found ways of adapting so that they could do things for themselves so that their overall progress was not halted. As a possible example of biographical reconstruction and adaption, finding new ways of doing the things, that they used to do without thinking, meant planning ahead about where to position themselves on the bed so they could push themselves up or in using their unaffected leg to help move their affected leg when they were in bed.

Once participants reached some level of independence there was a sense of being unleashed and liberation for them.

*I think it was about third or fourth day she [the nurse] said I think you can go out to the, walk down to the shower room, she said I think you can wash yourself. I said thank you very much, I will do that. She said there's a chair right behind you, I didn't even use the chair, stood all the time, that was it. (Barbara, aged 79)*

*Well, it satisfied me more because I was doing things for myself, which I like doing. If I wanted to get out during the night, I just used to get on this Zimmer frame and go out. They put a thing on my board [sign board above the bed] with “a frame no assistance” they put. So, I thought, I’m alright to go out when I like now. (Rupert, aged 90)*

Not all participants were keen to progress so quickly. When asked about rehabilitation, a few felt it was just too hurried. They were perhaps still experiencing biographical disruption and not ready or able to move towards biographical flow, accommodation or reconstruction at that point in time.

*I think about the second week they were talking about sending me home and my daughter said no she ain’t coming home. She said I know my Mum and that’s not my Mum because I had no confidence with this. (Vera, aged 82)*

Phyliss fell (again) whilst an inpatient and felt this was because of being hurried to soon before she felt ready.

*I think they were trying to force me. I thought they’d pushed me too quick in the first place, and then felt like saying, see what you’ve done to me, you forced me into doing this and now I’ve had a fall, are you happy? The day after I had the fall the flipping physio was round again (laughs). (Phyliss, aged 80)*

Phyliss was still keen to get home but needed to mobilise at a pace that she found comfortable. Psychologically she was fearful of falling again. Whilst patients generally want to be encouraged (Asplin et al., 2021; Southwell et al., 2022), Phyliss felt rushed. Therefore, the speed of progress is individual and needed to be based on honest discussions with the patient involved by addressing both physical and psychological care needs. For Phyliss, it could be posed that she continued to experience biographical disruption.

### 6.2.3 Mobilising and regaining confidence

Having had a previous fall that resulted in a hip fracture, several female participants (Phyliss, Vera, Rhoda and Elizabeth) vocalised that they were fearful of falling again and despite wanting to make progress, lacked the confidence to do so. Rhoda and Elizabeth were frightened and in need of support, encouragement and guidance. Whereas Vera and Phyliss felt rushed to progress when they did not feel ready. They felt they were being forced to progress without having the confidence or the ability to do so. The thought of mobilising was terrifying for Phyliss. This fear was not only born from the initial fall, but as mentioned above, this patient had also fallen subsequently on the ward which impacted her confidence even further. Fear of falling again post-fracture is common (Archibald, 2003; Beer et al., 2021; Gesar, Baath, et al., 2017) and this fear was deemed an obstacle to independence not just for this participant but for others too.

*Phyliss: It was one evening, early one evening and I had asked for a bedpan and the lovely, one of the male nurses, lovely bloke went to get one, and this nurse, she was so nasty to me, really upset me.*

*DR: What did she say?*

*Phyliss: She said look on that board [above the bed] she said, you've got to do that, it says you've got to go to the toilet, you can't have a bedpan, and I was really upset, anyway thank god he ignored her and gave me one, that really upset me because after I had my fall I was terrified, you know, I really was frightened.*

*Vera: Very shaky and being as I'd broken this (her arm) I was on something called a gutter frame, horrendous, horrendous.*

*DR: Ok, so was it just because it was awkward or were you in pain?*

*Vera: You had to walk... you were leaning over, I had no confidence of it, and I was on that for about a.... a good week.*

It could be argued that psychological distress in the form of fear caused Phyliss to be dependent on others for a longer period because of the fear of falling again. This is not unreasonable as once a fall has occurred, the risk of further falls is increased as stated in section 1.7 (National Institute for Health and Care Excellence, 2013b). In contrast, most of the participants found the staff to be supportive and reassuring when it came to mobilising.

#### 6.2.4 Managing fear and regaining confidence

Getting out of bed for the first time after the operation to repair the hip fracture was both frightening, difficult and painful for many.

*I did get out of bed with assistance. It was a bit difficult 'cause that leg didn't want to move. (Rupert, aged 90)*

*Well, it is the pain, it's partly the stiffness but it is the pain. (Betty, aged 81)*

However, although the thought of getting out of bed filled many participants with dread, when they did get out of bed it was often not as bad as they had anticipated. Phrases such as “It wasn't as bad as I thought it was going to be” and “I did think it was going to be harder but no, I got out alright”, are such examples. This represented progress and could be interpreted as the cusp of moving out of fear and biographical disruption and regaining lost confidence.

Following surgery, all patients are routinely assessed, supported and monitored by either a nurse or a physiotherapist when they first get out of bed and until they are deemed safe, including the patient feeling confident to mobilise independently. This safeguard of having to call a nurse when they wanted to go to the toilet or mobilise, had previously been associated with anxiety and viewed as a barrier to progress for some participants. Getting to the toilet for bodily functions was one requirement that needed to be met but this fear of immobility and loss of independence was also a barrier to progress. Yet, as they recovered and regained confidence, having someone there with them was viewed very differently. In this initial situation, it provided reassurance and assistance if required along with giving participants confidence in their ability to get out of bed safely. Christine explained:

*DR: Do you remember getting out of bed the first day after your surgery?  
The first time getting out of bed and getting out into the chair?*

*Christine: I think that was about the easiest day*  
*DR: Oh ok, how come?*  
*Christine: Well, there was someone there. And I just said I couldn't move my right leg that had been operated on, I couldn't move it.*  
*DR: So, what difference did it make having someone there?*  
*Christine: Oh, I think a lot of difference...*  
*DR: Why was that?*  
*Christine: Yes, it gives you that bit of confidence I think and then I said erm I don't really know, it's hard to describe for me.*

Having had a fall that resulted in a fracture some participants lacked confidence and needed reassurance and encouragement provided by the staff. The reassurance was to make the participants believe they could get out of bed and in taking those first steps after the operation. The encouragement helped participants to reduce the feelings of fear and instil self-belief that they could make progress and recover, as Freda and Vera described:

*DR: So, did they get you out of bed on the first day after your operation? How was that?*  
*Freda: Painful! But when you've got other people round. Ready to be there- it helps. It gave me a bit more confidence because your confidence does get shattered.*

*DR: But do you think that making you go to the bathroom helped?*  
*Vera: Oh, it gives you confidence, confidence is the main thing isn't it.*

Encouragement from nurses and physiotherapists was a necessary part of regaining and re-establishing the confidence that had been lost and Vera was able to progress. In relation to rehabilitation, participants were complimentary about the staff and said that they were very encouraging without being forceful. Participants, therefore, felt safe and were able to regain their independence as their ability increased. Despite this, some participants had not gained confidence by the time the doctors assessed them as fit and ready to be discharged home. This created feelings of anger and vulnerability for two of the participants, Vera and Phyliss who (despite having the goal of going home) were determined to stay in the hospital until they felt ready and confident enough to leave the

security of the ward. One of these participants felt that she was being forced out by the pressure on hospital beds.

*I think all they're interested in is empty beds and that happened to me in rehab, and even the nurse said to me we need your bed. And I said to them when I was in the hospital, you're not forcing me out, when I feel ready in my body, I don't care what the physio says, they haven't got my body, they haven't broken their hip, how can they know how I feel?  
(Phyliss, aged 80)*

Once Phyliss and Vera had regained their confidence, this no longer presented a concern, and they were happy to go home.

The difference between Vera and Phyliss was that Phyllis (having had an inpatient fall in addition to the fall that resulted in the hip fracture) was more fearful of further injury and disruption. Despite having support and encouragement from the staff, the fear outweighed this. Other participants such as David and Helen had different recovery journeys. The journey experience appears to be defined by the level of fear, determination of the individual, confidence and social and psychological support and encouragement from others.

### 6.3 Factors affecting information and involvement

As discussed in section 3.5, involvement and the extent of participation is dependent on several factors including knowledge, health literacy of the patient and the amount of information that is provided. For the participants in this study the level of information and involvement changed over time and was dependent on their clinical condition and perceivably where they were in their journey.

### 6.3.1 Communication and information sharing

The participants' experience of information provided during their hospital admission, was either scarce, unsatisfactory or overwhelming.

*They were saying it could be any of these things, blood pressure they were on about. I said don't tell me. I can't cope with anything else. (Christine, aged 84)*

For some, the level of information and communication especially with the medical team, was felt to be lacking and they said they would have liked to have had more information. Most of these participants were female and in the younger age range. This echoes Protheroe et al. (2009) who found that people who participate in decisions about their healthcare tend to be younger and female.

Whilst they said they had been able to speak to the doctors, they would like to have had the opportunity to ask more questions, be informed and know more about their care. They did not see the doctors as often as they would have liked and said it was because the ward was so busy. Others felt there was a lack of communication and that sometimes they were not listened to.

*I would say I think they told you what they thought you should know which I can understand in a way, but I would have liked to have known why, why I was going there, it all happened a bit quick. (Christine, aged 84)*

At the time of the fall Elizabeth had also fractured her humerus as well as her hip. This impacted the speed of her recovery further and she wanted additional information from the doctors about this.

*I didn't see the doctors as often as I would have liked. I would have liked to have asked more questions about my arm. I don't think he came back; I only saw him once, I can't remember. (Elizabeth, aged 80)*

Conversely, other participants, felt they were kept informed by the doctors and especially by the nurses. Where they did ask questions, these were answered to their satisfaction. Nevertheless, four participants stated there was simply too much information to take on board at that time. They were bombarded with information, overloaded and overwhelmed. These participants were in the older age range of those interviewed.

### 6.3.2 Being involved

This basic theme relates to healthcare professionals actively involving patients in their care and pressure ulcer prevention. Most participants felt that the level of involvement was right for them at any one time. However, this was dependent on when they felt too unwell or in too much pain to participate and engage in care. Those who felt too unwell or in too much pain to participate were happy for the nurses to take over and do whatever was necessary. When participants were in the acute stages of their hospital episode, several participants stated they were kept informed and advised about what the nurses were doing. As they recovered, they received more information and encouragement to be involved.

*I didn't really want to be involved. They were telling you what they wanted you to do, and you have to go along with them. When you was in pain you don't want to be doing these things do you. (Betty, aged 81)*

*It wasn't that I didn't want to engage, I couldn't engage. (Wilf, aged 67)*

Wilf had experienced post-operative delirium which precluded his involvement in the initial days following surgery. However, as he recovered, he was then determined to engage with his rehabilitation.

The participants reported that the decision of how much to involve the patients appeared to rest with the nurses. According to the participants they acted as gatekeepers of involvement. The nurse's assessment of whether a participant was able to be involved,

was mostly effective and met the needs of the participants at the various points in their recovery. From the participant accounts, most were less involved in the early stages of injury but as their condition improved, they were encouraged to participate and their independence subsequently increased.

*DR: When you first had your operation did you feel too unwell to be involved at that point?*

*Betty: Oh yes I didn't really want to be. They were telling you what they wanted you to do, and you have to go along with them. When you was in pain you don't want to be doing these things do you.*

*They were very encouraging, but they weren't pushy. (Freda, aged 83)*

Perhaps therefore, the desire and ability to be involved changed as participants began to recover (see Appendix 19 – Patient Storyline). The impact of information sharing, and involvement was greater at this juncture as they were moving out of disruption. However, worthy of note here is that this is in complete opposition to the risk of pressure ulcer development, whereby as the patient becomes more involved the risk of pressure ulceration reduces dramatically. This is revisited in the next chapter.

#### 6.4 Summary of the dependence-independence continuum

In this thematic network of the dependence-independence continuum, the transition from requiring assistance with basic care needs to regaining the ability to self-care was experienced by all the participants in their patient journey. The participants moved along this continuum from dependence towards independence and by doing so, reclaimed some or all the independence that had been lost. It could be perceivably argued that biographical disruption was experienced by all the participants in their journey following hip fracture. Recovery and getting back to normal was a means of regaining their previous self.

## 6.5 Recovery and ‘getting out of here’

This thematic network illuminates the diverse nature of patient experience and individual recovery. Using the concept of biographical disruption as a lens, it could be posed that all the participants experienced some form of biographical disruption due to their hip fracture. Yet the experiences of recovery showed diverse patterns and therefore the use of a single variant of biographical disruption is not adequate to illuminate the varying experiences of the participants as they made progress towards recovery.

The need and desire to get home was the most important goal for all the participants. Achieving this was dependent on the healthcare professionals working together to meet the complex individual needs of a patient following hip fracture. For example, the doctors were responsible for getting them to the point of being medically fit. The role of the physiotherapists was two-fold. Patients were required to demonstrate that they were adequately mobile to be able to function and live safely in their discharge care setting whether that be home, residential care, or nursing home. Where this meant they needed to be able to climb stairs, all patients were required to be assessed doing this which for some was challenging. The concept of the work of patients was developed and discussed by Strauss et al. (1982). The work here involved participants doing whatever was within their ability and power to recover and get home. As outlined in The Code (Nursing and Midwifery Council, 2018) the nurse's role was to facilitate the overall care delivery whilst maintaining patient safety, but also support the participant's encounters in enduring their continued recovery. This aspect of their care was focussed around three main organising themes, the physical environment, barriers and enablers of progress, and the care environment and culture. For the participants interviewed these aspects could support or undermine their ability and determination for a successful recovery.

### 6.5.1 Personal physical/spatial & social barriers and enablers of progress

The physical environment in which participants were nursed and the people who cared for them appeared to have a great impact on their experience of recovery. The location in which they were nursed was decided in response to the pressure on the availability of

side rooms if they were required by newly admitted post-operative patients although this was also dependent on their own patient needs as assessed by the nurses. For example, if a patient required isolation due to an infection or medical condition or needed privacy they would be prioritised to a side-room.

#### 6.5.1.1 The side room

Most of the 14 participants who were nursed in a side room on their return from theatre, regarded the side room as a place of sanctuary. As stated by Freda, having a “little room of my own” was viewed favourably by the participants. They were grateful for the ability to have the door closed and the lights off at night so they could rest and sleep without interruptions from the events occurring on the main ward.

*Yes, being in that single room on my own was an absolute bonus because I could hear dementia patients crying out in the night. (Joyce, aged 80)*

Each side room also had its own bathroom and toilet facilities (see Appendix 9). Therefore, as the participants improved, and once they were considered safe by the physiotherapist, they were allowed to mobilise independently. They could then get themselves to the toilet during the day and night unaided which reduced any previous anxieties about having to wait for nurses to come.

However, the side room was not always viewed positively. Wilf likened the side room to a prison cell. Feelings of isolation, lack of mobility (in the early stages of injury and recovery) and not being able to leave the room without help, intensified these feelings further. These feelings were so strong that he refused to stay in that side room.

*At one point I was put in one room that I particularly didn't like, and I refused to stay in there. It was just, it been erm, seemed very cell like to me, and I couldn't see anyone else around. That's one of the, this erm room I'm in now, I've got private bathroom but I've also got a corridor*

*nearby so I can actually get to so I can see other human beings and I'm a lot happier. (Wilf, aged 67)*

Due to his medical condition at the time, Wilf needed to be nursed in a side room, so the nurses found another side room in a busier part of the ward so that he could see people going past. Other participants were similarly grateful for human contact and one participant chose to go into a five bedded bay rather than stay in a side room when she was offered the choice of where to go.

*Yes, they then said there was an empty bed, and did I want to go in there and I thought yes, I might as well go in there [bedded bay] with people. (Vera, aged 82)*

In addition to Wilf, a few participants found the feelings of isolation whilst in the side room challenging. They felt tearful and low in mood, and according to one participant (Christine), their mental state at the time resulted in thoughts crowding into her mind about what had happened. For these participants, having human contact was important and for some of the female participants (Vera, Christine, and Helen), moving into the five-bedded bay was a relief.

#### 6.5.1.2 The bedded bay

Vera and Christine found being in the five bedded bay beneficial and a source of comfort and camaraderie. They were able to see that all the patients in the bay had similar problems to themselves and that they were not the only ones who were struggling with the challenges presented following their fracture. Having people to talk to and even have a laugh with, was an important source of support and solidarity. This served as group motivation to progress.

*Yes, you could have a laugh, which is an important thing I'd just started to because I'd been in the other room 3 or 4 days, and I just felt that this*

*was the time I was getting down. Having somebody else around and we were all saying we were all going out together. (Christine, aged 84)*

This camaraderie resulted in some supportive conversations between the women. When discussing going to the toilet in the bay one participant said:

*I was a bit worried about that being one-to-one going one to five. You had to make sure nobody else was in there. The other ladies said what was my arm in a sling for, and I told them my arm was broken and one of them come back with, I've tried it she said, I really admire you, and I said why, and she said coz I couldn't get my pants up [with just one arm]. And she said, yes you said it was quite frightening in there, she said I had to ring too because we are told not to bend, that's the main thing, and when your pants have fallen to the floor you think, do I chance it and then you think I don't want to be in any longer. (Elizabeth, aged 80)*

While this demonstrates the women's understanding and sympathy towards each other's ordeals, it also illustrates their desire to not risk another fall so they could get home and not be in hospital for any longer than necessary. So, while they were keen to be independent this was balanced with the level of risk and the awareness of the potential consequences if they did fall again. This fear of falling and impeding their own progress could also impede their chance of getting home sooner. The valued social connection with other patients was appreciated.

However, being nursed in a five bedded bay was not always a positive experience. A few participants experienced poor sleep which was primarily due to other patients suffering with dementia, who would wander around and cry out at night. The frustration caused by the other patients was common, especially among the male participants.

*Well, there was a guy who er was in there for a serious brain concern and erm the first couple of nights he shouted all night, swore and cussed and kept us all awake. (David, aged 88)*

*Well obviously, there were elderly gentlemen in there who presumably had the same problem as me and had fractures of some sort, but the problem as I saw it in there, the fact that a number of them, and I would say the majority of them, were very confused, mentally. Which made it,*

*not a particularly good atmosphere to be waiting in or even recovering in, particularly at night. It was extremely noisy, and I was very much on tenterhooks regarding some of them who were clearly trying to walk about in the night and talking in the night. It was literally impossible to get a night's rest. (James, aged 75)*

This lack of sleep had a direct impact on their continued recovery and when (as some participants experienced) the sleep disruption continued for several nights they were then tired during the day. For one participant, this experience was relentless, and he discharged himself against medical advice. A few of these participants had never experienced anything similar and were shocked and troubled by the experience.

*I can't say I why don't you throw him out of the bay.....well I did say why don't you get rid of him and then they told me they had nowhere to move him too. I said nobody is getting any sleep and she said we know, and we are very sorry about it because, it's not just me, we were all complaining about.... Christ how do you do something with him. I didn't expect it, I expected him to be in a different department, I don't know why but whatever he is..... poor devil. (David, aged 88)*

William, who had never been in hospital before, was very upset by these types of encounters. He had no prior experience of people with dementia and along with the lack of sleep was not able to cope with these events.

*I've never experienced anything like that in my life. I thought everyone was all the same, but it was all er different people in there and (sighs). It was just I never slept, I mean I was in there for 2 weeks, I never slept at all. You see once it's night-time, all these people start screaming and shouting. (William, aged 67)*

Despite sleep disturbances and frustrations, the participants felt pity and compassion for the patients with dementia. Whilst having compassion towards these patients, the participants were also in admiration of compassion the nurses showed to the patients who had dementia, despite, for example, being verbally and racially abused.

*Marvellous, I don't know. I don't know how they cope with it. Especially the Indian nurses who were absolutely marvellous. The [racist] names they got called were totally not necessary. (Bert, aged 72)*

*Generally, the nurses were fantastic, especially with what they had to put up with. I felt sorry for them. The way people would talk to them. How do you do it? How do you cope with your day? I always used to sort of have a chat and I used to say - you have the patience of Job with some of these fellows. (James, aged 75)*

What can be seen here is that the environment, the bedded bay or the side room, and the other people within them, played a part in the ongoing recovery of participants. For some, this had a negative impact and inhibited their progress but for others, this was a positive and fostering experience. All participants needed the optimal restful environment in which to recover as quickly as possible. The women especially wanted social community and camaraderie to negate fear of the unknown, being in a strange place and medical situation.

#### 6.5.1.3 Interpersonal relationships with staff

The relationships that participants had with staff were often seen as enhancing their experience and recovery. The connection that some participants had with the staff who provided psychological support, encouragement and reassurance met their needs and allowed them to progress. Psychological support has been shown to be beneficial for patients to resume life roles (Wolfenden & Grace, 2012). The participants were complimentary about the nurses and the staff who had been involved in their care and spoke fondly about the doctors and nurses with whom they had built up a rapport. Even though they had endured embarrassing and difficult times during their admission, they were appreciative of the nurses popping their head in to check on them even when they knew they were busy. The participants enjoyed being able to have a laugh and a joke with the nurses.

*They'd care, how were you feeling and you know, are you alright and nobody would ever walk past and not say hello or have a few words but*

*you'd see them fly past some of the others (patients) perhaps because they knew some of the others weren't quite tuned in, I don't know, but we could always have a little joke and a kind word and it was nice. (David, aged 75)*

*No, they don't have much time you see. It's erm they, one of them said to me I've got to look at your... joking about, we used to laugh a lot, the conversation in hospital is funny really, you've got to laugh. I said to her now, I can clean my own bum I said, you don't want to see my bum, she said I've got to look at your bum to see if you've got any sores, any bed sores. (Rhoda, aged 90)*

The impact of the nurse-patient relationship on the care experience was evident from the compliments given by participants. Participants enjoyed the friendly banter that they had with the staff and talked animatedly about this. The interpersonal skills, kindness and compassion of the nurses and other healthcare professionals were highlighted as being beneficial and aiding their recovery.

#### 6.5.1.4 Section summary

The barriers and enablers all contributed to the patient's progress and the trajectory of their continued recovery. Due to the variation in the experiences of these factors relating to physical location, interpersonal relationships and support and encouragement, the patient experience was individual with no single participant having the same experience following their hip fracture and experiencing recovery at different rates. Due to this wide variation, the need for more than one biographical variant was required.

#### 6.5.2 Personal biomedical barriers to and enablers of progress

After the acute stages of the injury, there was an initial sense of relief that the surgery was over. Unfortunately, the early stages of the recovery process brought with it both barriers that impinged on the progress of participants but also on elements that enhanced their recovery. Basic themes here included eating, medical problems, comfort, and the impact of care from nurses.

### 6.5.2.1 Eating

One of the questions posed to all the participants was about their experience of the hospital food. This generated some candid responses from two participants who did not like the food, but overall, the majority felt the food was generally good. What was of greater interest was the commentaries about their appetite. Several participants said that it was not the hospital food that stopped them eating properly but the way they were feeling at the time. Participants commented that the food was well presented and that they were given a choice of what to eat. Despite this there were times that they did not feel like eating and had no appetite.

*Well, yes, the food was nice but of course, me I didn't enjoy it because I wasn't in the mood. It did look nice, but you have the choice, have the choice of what to eat. Yes, it was alright. I picked at it. (Betty, aged 81)*

*Well, the big trouble is, if you on top form like you are now, you'd eat it and wouldn't complain, but to be honest the way I felt at the time, if it had been roasted sirloin beef, the dearest cut, it wouldn't have been all that good anyway. (Charlie, aged 97)*

For a few participants, this lack of appetite was attributed to the pain, and some felt that the drugs had affected their appetite. It was not that participants did not want to eat or that the food did not look appetising. It was that they had no appetite, did not feel hungry and did not feel like eating. Some did experience an altered taste sensation as they said the food tasted bland (the interviews occurred prior to the Covid pandemic so is not related to a side effect of Covid-19), but this improved quickly. Anaesthetic is associated with altered taste and smell (Elterman et al., 2014). Some were aware of the importance of eating to get well and expedite their recovery but found this arduous. Nevertheless, this was seen as a means of getting better and getting out of hospital.

*I didn't want to eat. I ate very little I nibbled at things. My sister bought some salad things in of an evening, but I can't believe..... The only thing that kept me going was the fact I wanted it over and dealt with as soon*

*as possible. I just wanted to get to the other side so I could begin my recovery. (James, aged 75)*

Participants appeared to be unaware of the specific importance of nutrition for skin health and pressure ulcer prevention, but instead viewed eating as an important aspect and milestone of overall progress. Participants were aware of the importance of eating to make them well, give them energy so they could actively partake in their recovery and get home.

#### 6.5.2.2 Comorbidities and medical problems

Medical problems that were either pre-existing or identified once in hospital, presented challenges to the participants, and negatively affected their progress. Arthritis, anaemia, chronic obstructive pulmonary disease (COPD), delirium, nausea due to acute kidney injury and pain were given as examples. These made the recovery process even more convoluted and thus meant a longer period in hospital.

*Betty: Yes, for goodness' sake, but apart from all that when it comes to me leg it's not just where I had the operation, I've arthritis bad in that and I should fall on that leg, the arthritis, that's why I'm bothered with it as well.*

*DR: Do you think that made it more difficult getting out of bed on that first day?*

*Betty: Oh indeed, definitely. Even now it's difficult because of the arthritis. It bothered me before I went into hospital as well.*

This demonstrates and supports previous findings, that it is the restrictions that hip fracture poses rather than the fracture itself, in addition to the normal challenges of life such as arthritis (Abrahamsen et al., 2022). Had Betty not had arthritis, her recovery may not have been as difficult. James and Rupert also had medical problems that made their recovery more difficult.

*I realised after the first operation I had that I had 25 years ago that I was out of bed the same day as the operation and walking about. At that time, I didn't understand why, but now I have an understanding because of the possibility of blood clots. But I was absolutely exhausted. I hadn't had any sleep and also, I had a blood transfusion, and it transpired that my blood count low or something. No energy, I've never felt like that. I took two steps. But the Physios were good, they didn't try to..... but I knew I had to try and do something. (James, aged 75)*

*It was difficult to put your pants and trousers on because you've got to get down and lift the bad leg up, but it wasn't the hip that was playing me up it was my own rheumatoid arthritis that was in me knee. Because this knee's as fat as, twice as fat as that one. (Rupert, aged 90)*

Whilst these encounters were different for each of the participants who experienced them, they increased the effort needed to overcome not just the hip fracture but additional medical conditions and comorbidities. This compounded the experience further, made recovery and getting home even more challenging.

### 6.5.2.3 Comfort as a priority

Patients are routinely sat out of bed as soon as possible after surgery to prevent complications such as pressure ulcers, chest infections and blood clots. This was actively encouraged and carried out by the nurses where patients were physically well enough to sit out in the chair. Most participants went along with the nurses' advice to sit out in the chair however, being comfortable was seen as paramount to their continued recovery. The words comfortable and uncomfortable were also used by the participants to refer to various pieces of medical equipment they came in to contact with during their time on the ward. One participant, when asked if he knew anything about the pressure reducing chair he was sitting on, said he was only interested in whether it was comfortable or uncomfortable but wished that the ward had more comfortable chairs. The chairs themselves were not always found to be comfortable. Sometimes this was due to having the wrong size of chair, but sometimes the participants were uncomfortable especially if they were sat out in the chair for extended periods of time.

*Yes, I'd had enough and every day after that I did get up like, to the chair and longer each day. Sometimes I stayed all day in the chair. It did get me tired; I had to get back into bed, I was anxious to go back. (Betty, aged 81)*

Betty felt that the length of time she spent out in the chair caused her to become very tired. However, James knew he needed to get up to make progress and recover. This proved to be uncomfortable and therefore watching television or reading acted as a distraction from the discomfort he was experiencing.

*Much as I didn't want to do it. Much as I felt I wanted to just lay there. I wanted to get up and I knew that sitting up was better, even though it was damned uncomfortable and was hot. The chair was not very comfortable for me. But as long as I was sitting out watching the television or doing a crossword or reading - rather than lying in bed. (James, aged 75)*

The basics of having the correct sized chair that was fit for purpose was also important for participants. Being left too long in the chair, having a chair too high so that they were not able to rest their feet on the floor or simply having a chair that was uncomfortable to sit in for long periods of time had an impact on their comfort and overall experience.

*That was better 'cause, actually what happened was, that chap that was sitting on the smaller chair was much bigger than me, so the OT's (Occupational Therapists) swapped it. So that was a bit of a relief actually because I could get my feet on the floor. (Molly, aged 86)*

*I suppose its NHS approved design, it's one of those things where, you know, I think that those designers who design it and those administrators who buy it in, should be required to spend 20 or 30 hours sitting on it (laughs). (Wilf, aged 67)*

Bedrest is associated with complications such as pressure ulcers and pneumonia (Li et al., 2018). Therefore, achieving a balance between rehabilitation and preventing such complications was hindered by the uncomfortable chairs for some patients. The chairs were not the only cause of discomfort. As noted above, bedpans were a source of

apprehension and embarrassment for some participants, and a few participants mentioned that they were also painful to use. This caused severe discomfort but also served as additional motivation to get to the toilet and thus make positive progress.

*In the end they got me a commode because having no, I lost so much weight, to sit on those hard pans, terrible, it was agony. (Charlie, aged 97)*

*Yes, it was very uncomfortable, and it was painful, it was painful. (Joyce, aged 80)*

*The bedpan just didn't seem to work. It was too much discomfort. Too much distraction. I couldn't understand how anyone could use it properly myself. (James, aged 75)*

The final item of equipment that caused some forthright responses were the air mattresses. Patients were initially nursed on an air mattress (Duo II) when they were at high risk of developing a pressure ulcer. Once their risk had reduced as assessed by the nurses the mattress was changed to a high-specification memory foam mattress which was for low to moderate risk. This mattress was firmer and easier for participants to move around on. Liking or disliking the air mattress was not based around its function to prevent pressure ulcers but how comfortable it was to sleep on. The participants were equally divided about this. Comments ranged from “it was wonderful” and “it was lovely” to “it was awful” and “bloody uncomfortable”. One patient found that he could not move around on the mattress and took every opportunity to get out of bed as he found the chair more comfortable.

*When I come in, they give me an air bed, to stop sores. It was terrible. I tried to get out of it as much as I could. (Bert, aged 72)*

Bert was not overtly aware the action of getting out of bed, reduced his risk of pressure ulceration as he was moving around and was no longer immobile. The mattresses that were used on the ward (Duo II) immersed the patient within the mattress to relieve pressure, and several participants found that they would get stuck and could then not

move or that the mattress pressure would change underneath them and move them, just as they had got comfortable. Other comments were that the mattress made noises as the air moved around inside, and this disturbed their sleep. Although some participants did know what the mattress was, for them comfort was key.

*Always finished up with a bias, and the idea was good cause every now and again this thing, those areas about that big that would go down and one next to it would come up so all the time you were getting, but it always finished up that I was right up against the side of the bed, I was jammed right this side of the bed, it used to gradually push me over and I'd gradually get myself back again. The idea was good but... (Charlie, aged 97)*

Half of the participants liked the mattresses and found them to be comfortable. One participant did not realise she was on an air mattress for the first few days, and another missed the mattress when it was removed. This group found the air mattresses softer and slept well on them.

*Oh, the bed yes, it was lovely, because at night-time, all of a sudden you went swimming, it was lovely. (Christine, aged 84)*

Air mattresses were exchanged for a memory foam mattress, as and when the participant's condition and level of mobility improved and as indicated by a risk assessment. For most participants, the focus was on comfort and ability to sleep well, not on the value of the mattresses in pressure ulcer prevention, regardless of if they knew of their role or not. A few participants were aware that the mattress was put on the bed to prevent patients from getting pressure ulcers, but this was not their main concern or priority.

In this section it can be seen that for this group of participants, the medical equipment had an impact on recovery. When equipment was found to be uncomfortable it affected the participants sleep (and subsequent consequences of sleep deprivation), wellbeing and ability to carry out normal basic activities and functions. This in turn impacted their

ongoing recovery, towards their goals of getting home and the ability to recover as quickly as they wanted to.

### 6.5.3 The wider care environment and culture

The final organising theme under the global theme of continuing recovery is about the culture and the care environment. By the sheer nature of patients being nursed on the ward the participants became observers to everything that went on within the ward and provided observations and narratives of this experience. The business of the ward and discussions regarding broken equipment had negative connotations for the participants, but this was balanced by the care received from the healthcare professionals.

*The nursing care I had was fantastic. And the physio, first class. (Bert, aged 72)*

The following sections overview the nursing care that many of the participants received and shows that this overshadowed other barriers to recovery that they faced. Nevertheless, the environment and organisational aspects did have an impact on recovery.

#### 6.5.3.1 Broken equipment

Although some of the following issues were cited by single participants, cumulatively they illustrate the condition of some areas in the ward environment. Broken shower seats, broken bed controllers, broken Mowbray frames (a frame that goes over a toilet to raise the level and make it easier to get on and off) and not having enough pillows, all impacted on the patient experience. Although these did not directly link to the experience of pressure ulcer prevention, they did link to how the participants perceived their overall hospital experience and in some instances made their recovery more challenging. Not being able to use the toilet in the side room (because it was broken)

meant one patient had to leave the side room and walk up the corridor to use an alternative toilet. This was manageable toward the end of this participants stay but prior to them being independently mobile this meant ringing the bell and waiting for a nurse to bring a commode. At night this could take longer as there were fewer staff on duty.

*DR: At what point were you able to get to the toilet yourself?*

*Mary: Really, towards the end when I was in their because it wasn't actually working.*

*DR: Ah, that's right you were having to go up the corridor.*

*Mary: People were, I didn't, they used to bring a commode in for me. You often had to wait sometime as there aren't that many people on at night-time, you know.*

Another patient was also required to adapt to be able to shower. After her wound dressing was removed, she was keen to shower but the folding shower seat was jammed in the up position and could not be used. There was a perching stool in the bathroom, but this option did not work, due to her short stature. Instead, she sat on a Mowbray frame. The patient found this seat comfortable and was able to shower safely, however this was not its intended use.

*Molly: And the other thing was, the cover in the system on the loo was missing. It was in the room, but you had to push a little red knob to make the loo flush, and the thing was left there.*

*DR: But those things have an impact on you?*

*Molly: Well yes they do. And the other thing was I wanted to shower when they took the dressing of and what not and er the seat wouldn't come down, that was jammed up.*

*DR: So, what did they do about that? Did you have a shower?*

*Molly: I did have a shower, I used, what I did was, there was er, one of those seats, like the one over the loo here*

*DR: Ok a Mowbray frame, yes*

*Molly: I used that and sat on that because that was comfortable.*

Showering was therefore seen as another way of getting back to normal, but this quote also reiterates the need for comfort during the recovery phase.

### 6.5.3.2 Patient experience of NHS pressures

Many patients commented that the hospital was very busy and that there were too many patients. This all impacted on the speed of progress and recovery and the transition out of biographical disruption. A few participants felt the whole atmosphere was affected and that hospitals were no longer places where you could get better.

*Well, everything has changed, everything's busy busy. Hospitals you could walk in and never hear a sound, perhaps the nurse would walk across the hard floor but now it's like a bloody tube station. (Charlie, aged 97)*

Half of the participants made comments that the nurses were constantly pressed for time, which subsequently impacted on the speed of their progress and that they had to wait for help.

*I mean as far as the, being in hospital is concerned, I've been in hospital before and I know they do their best and they're just pushed for time and you just have to be patient, that's what patient means. You've got to wait to be dealt with. (Molly, aged 86)*

Nonetheless, most of these participants were quick to comment that this did not stop the nurses from caring, but they were acutely aware of the pressures the nurses were under. One patient commented that on one night he did not see a night nurse.

Within ward settings, there is a balance between providing person-centred care whilst ensuring the best use of resources to maintain efficiency. Therefore, hospital wards have certain routines such as drug rounds, nurse handover and doctor's rounds at specific times. Due to these time pressures, participants felt compelled to adhere to the ward routines such as ward timings, but this posed its own drawbacks.

*DR: What was it like sitting out in the chair?*

*Elizabeth: Yes, that was fine erm the annoying bit, and I probably should have said something, but I didn't, but they gave me a sheet with exercises on to do. Not in the chair they said but laying on the bed. We*

*got up in the morning, taken to the washroom, to have a wash, come back and the bed was stripped and raised so those exercises that I was supposed to have been doing on the bed I couldn't do.*

*DR: So, you had to wait for them to make your bed?*

*Elizabeth: They left it up there most of the day. You feel a bit guilty once they've made the bed up sitting there doing so, I didn't do it, I don't know if I'd have been further on if I had managed to.*

*DR: Were you worried you were going to be told off?*

*Elizabeth: Yes, probably because they only just tuck those sheets loosely underneath and it's all neat and tidy and yes, I suppose I should have done something but erm.*

These feelings of guilt may have been due to the perceived power relationships between patients and healthcare professionals. According to Elizabeth, not wanting to get back onto the bed to carry out her exercises impacted her recovery, and arguably left her experiencing ongoing biographical disruption. Given that she was recalling these events at home a few weeks later after she had been discharged, it was clear that her vexation remained. She was still considering that she may have recovered quicker had she been able to get onto the bed to perform her exercises as she had been advised. As previously discussed, (see section 3.5.7) the busyness of hospitals and healthcare professionals affects communication and can create a power imbalance. This may have been due to older people's beliefs about the dynamics of power between nurse or doctor and patient as previously discussed in section 3.5.7.

### 6.5.3.3 Quality of nursing care

Despite some of the negative aspects of the care environment, mentioned by the participants, they made very positive comments about the nursing care they received. Most of the patients were very quick and keen to praise the nurses. No questions in the interview guide specifically asked about the care they received and so where this information was communicated during the interview, it was done so without any prompting. It could be argued this was a consequence of the halo effect (Nicolau et al., 2020). The halo effect is a type of cognitive bias where people, in this case participants form, an opinion about an attribute of the nurses based on their predisposition towards

another attribute (Nicolau et al., 2020). Participants were thankful and full of gratitude for the care they had received. Words such as fantastic, brilliant, marvellous, helpful, industrious, wonderful, outstanding, excellent, attentive, amazing were used by the participants when talking about the nurses and the care they provided. Rupert said he felt “at home in there”. David and Joyce were also very complimentary about the care they received.

*All I can say, the nursing staff and all who attended me gave me wonderful care and attention and I want that to go on record because I've got nothing but praise, what went on in that hospital in that ward towards my wellbeing was outstandingly good. (David, aged 88)*

*I thought the staff were absolutely amazing, from the cleaners to right to the top of the tree and the nurses were amazing, so much care for you. (Joyce, aged 80)*

Most participants had very positive experiences with health care staff, where they felt understood, well looked after, and cared for. Even the few participants who had a bad experience with a particular member of staff had positive experiences with other staff members. Phyliss was upset by one nurse who had made her walk to the toilet rather than bringing a commode to the bedside.

*Only that one , all the others were absolutely lovely, couldn't do enough for you. (Phyliss, aged 80)*

The actions of the nurses also had a significant impact on the participants. For example, they were surprised to have their feet washed. The action of having their feet place in a bowl of warm water was felt to be over and above what they themselves would do if they were at home having a strip wash.

*Joyce: There was one little Thai nurse, lovely bubbly little girl, she came, and she said, I'm going to wash your feet today and she came with a little bowl to wash my feet, now how caring was that?  
DR: It just made you feel so much better?*

*Joyce: Yes, it's the sort of thing you don't do, if you're having a strip wash your feet don't get washed do they?*

*DR: So, she took your stockings off*

*Joyce: Yes she took my stockings off and was washing my feet and I thought wow.*

*I couldn't reach me toes but when I got out of having the bed bath they brought a bowl in and did a massage of me feet, oh it was lovely.  
(Christine, aged 84)*

What could be viewed as basic nursing care and a simple task by nurses, made the participants feel much better. Such elements initially appeared minor or insignificant for me as a nurse, as these are an expected part of basic nursing care. Yet, for the participants, they had a big impact on the overall patient experience and their recovery because they appeared to mean a great deal.

#### 6.5.4 Summary of recovery

During the recovery phase, participants needed to overcome barriers such as the fear of falling again so they could get home. For a few, such as David, Reg and Helen, this was achieved through their motivation and goal setting. Initially information was not important but as participants recovered, they became more receptive and wanted more information to know how they were progressing in their recovery. Individuals who are more knowledgeable and engaged have better health outcomes, increased patient satisfaction and quality of care (Nilsson et al., 2019) and this is demonstrated here and shown in Appendix 17 - Analysis Grid whereby the participants named above, experienced perceived continuity and flow following biographical disruption rather than being abrupted as some others were.

Up to this point, the experiences of participants have been demonstrated by their responses during the interviews that have been presented in their own words. Although biographical disruption has been posed as a suitable theoretical framework to use in making sense of the participant experience in the initial and acute stages of injury, it is less beneficial during the recovery phase. This is because different patients experienced

recovery at different rates and in different ways due to differing struggles including comorbidities, fear, physical health problems, psychological issues, frailty or being over 80 years of age. Recovery was also affected by enablers of progress such as having been active prior to the injury, setting their own goals for recovery and having social support. Given that recovery has been shown to be such an individual experience, the additional variants of biographical disruption have been seen to be helpful in further understanding and making sense of the experiences during hip fracture recovery (see Appendix 20 - Pictorial representation of the patient journey experience through biographical disruption and its variants).

## 6.6 Moving on from or getting stuck in biographical disruption

It is useful to explore the varying experiences of each participant using the lens of biographical disruption but also its variants. Appendix 17 – Analysis Grid shows this visually and which factors impacted on each participants' overall experience. At the point of interview all participants were recovering however, some were more advanced in this process than others. Participants Barbara, David, Freda, Joyce, Reg and William all made significant timely progress and for them, the hip fracture whilst initially disruptive to their lives, represented a continued part of their biography. All demonstrated a strong willingness to recover using coping mechanisms including goal setting. The hip fracture had happened and that could not be changed but for these participants, it did not continue to define their identities and instead became part of their ongoing biography. Therefore, for these participants biographical flow represents a useful lens through which to understand their ongoing experiences.

Helen and Vera whilst wanting to recover and get home experienced more (in number and severity) barriers to recovery compared to Barbara, David, Freda, Joyce, Reg and William. Vera had fractured her arm as well as her hip and Helen had acute kidney injury post-operatively and both had been affected psychologically by the experience and were frightened. Nonetheless, they were both physically active prior to the injury which appears to have positively benefited their experience during the recovery phase. In

addition, Vera and Helen both had social support and encouragement from their daughter and husband respectively. Both needed to mobilise resources to be able to continue their previous activities. Therefore, biographical accommodation as a means of redefining self provides some insight here. Despite biographical accommodation providing a suitable lens for Vera's journey it is important to note that she was perceived to go through an extended period of biographical disruption due to the challenges she faced during her recovery.

Although hip fracture for older people is not an unexpected event with over 70,000 sustaining a hip fracture every year in the UK (Royal College of Physicians, 2023a), the long-term effects are not anticipated, with participants in one study voicing that they would make a fuller recovery as possible (Griffiths et al., 2015). For Bert, Christine, Mary, Molly, Rhoda, Rupert, Sheila, Elizabeth and James the use of biographical reconstruction as a conceptual lens is helpful to provide an insight into their experience of hip fracture because of the need to adapt in the face of adversity. These participants differed from those for whom biographical flow provided a useful lens in that Bert Christine, Mary, Molly, Rhoda, Rupert, Sheila, Elizabeth and James were not as driven and self-motivated as Barbara, David, Freda, Joyce, Reg and William. This was evidenced by their goal setting.

Four of the 21 participants (James, Phyliss, Vera and Wilf) experienced an extended period of disruption to their lives and longer hospital stay than expected when compared to the average length of stay. James although in the younger age group and active prior to the injury, experienced severe physical and organisational barriers during his recovery. Phyliss, Vera and Wilf experienced significant barriers including physical and psychological, most notably fear. Again, these participants were all active prior to the injury and had social support but despite these facilitatory aspects, had protracted recoveries. Although Vera and Helen both had good social support they were seen to have different trajectories. Once they had recovered from their medical and surgical interventions, Vera was still very fearful about mobilising, and this resulted in her having a prolonged stay in comparison with Helen.

Three participants experienced severe disruption to their lives and although they had been discharged at the point of interview continued to experience a change in their perceived biography and self-identity. Betty, Charlie and Phyliss all experienced four or more challenges following the fall and during their hospital stay. Whilst Phyliss and Betty both had social support at home, this did not outweigh the challenges they had and continued to experience. Similarities can be drawn from their experience to those of patients with motor neurone disease where the disease was seen as a death sentence that required participants in the study by Locock et al, (2009) to find new meaning in their lives to restore some normality and identity. As this is not a longitudinal study it is not known whether these participants went on to make a full recovery. Empirical evidence suggests that one third of patients who fracture their hip, die within 12 months or do not go onto make a full recovery and regain their functional pre-fracture status (Hung et al., 2012; National Clinical Guideline Centre, 2011). However, such inquiry is not within the scope of this study.

Aside from biographical disruption, it could be argued that four participants experienced more than one variant in their recovery journey (see Appendix 20). Therefore, the use of multiple concepts as lenses can be beneficial to illuminate the experiences of the participants following hip fracture. For Betty and Charlie, the use of biographical accommodation and biographical repair/abruption are both pertinent due to their need to mobilise resources to maintain some normality. The sudden change in their lives because of the fracture may have led to a permanent redefining of their identities as at the time of interviews, they had not regained their previous functional ability.

The use of more than one variant also provides insight into the experiences of Elizabeth and James. Both experienced two or more challenges in their recovery but only had one enabler. This was social support in the case of Elizabeth and being active prior to the injury for James. Both Elizabeth and James needed to mobilise resources to overcome the practical aspects of disruption that the hip fracture had posed. For James, this meant moving in with family to continue his recovery. Both needed to adapt to the new situation they found themselves in.

The Analysis Grid (see Appendix 17) and the use of the biographical variants demonstrates visually how some elements such as being driven, setting goals, having social support and being active prior to the injury could be protective and mitigate against some of the negative aspects of the hip fracture experience such as having comorbidities, being older or frightened and experiencing physical, psychological and/or organisational barriers.

## 6.7 Chapter summary

This chapter has examined the experience of being a patient on an acute ward following fractured neck of femur. The patient journey (see Appendix 19 - Patient Storyline) from recovery to discharge has been explored through the quotes and narratives of the 21 participants. Comfort, having privacy in a side room, human contact and their feet being washed were all seen as having a positive impact. Conversely, the presence of patients with dementia, discomfort, incorrect and broken equipment, being nursed in a busy NHS ward and individual comorbidities were seen as challenges to recovery. This exploration of the barriers and enablers of continuing recovery for the participants demonstrates that the experiences of participants were individualised based on their health condition, where they were nursed on the ward, other patients and the impact they had on recovery, relationships with the staff and if the environment was conducive to their continued recovery. The use of one or more variants of biographical disruption has been shown to provide a useful lens through which to explain the experiences of patients following hip fracture. The use of the variants will be further explored in the discussion chapter.

Following the discussion and insights given above, there appears to be a balance between the negative challenges and the positive enablers following hip fracture that influence how individuals experience this traumatic event. This will be explored and discussed further in Chapter 8. What can be seen from the work in this chapter is that the nuances of recovery are much more complex and require not only biographical disruption but also the variants to help explain and understand the differences between the experiences of individuals.

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## *Chapter 7 - Pressure Ulcer Prevention*

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### 7.1 Chapter overview

Chapters 5 and 6 have focused on the experiences of patients following a traumatic fall and fractured neck of femur. These have been explored and analysed through the interviews and quotations of the participants. This final chapter of findings returns to the initial premiss of this research to discuss the participants' experiences, awareness, understanding and involvement in pressure ulcer prevention strategies that occurred during their patient journey and how their experiences and the patient journey impacted on this.

### 7.2 Patient experience of pressure ulcer prevention

The final thematic network returns directly to the research question and focuses on the patient experience of pressure ulcer prevention in acute care. Participant accounts of experiences of pressure ulcer prevention provided insights into their perceptions and understanding of what was happening to them. The actions of the nurses regarding pressure ulcer prevention are also discussed from the participant's perspective. During the interviews, my dual role status, that of researcher and practitioner allowed me to view other perspectives. It was evident to me as a practitioner that the nurses appeared to control the amount and level of information that was given and that the participants had limited emotional and physical capability to grasp the importance of pressure ulcer prevention especially in the early stages of their injury. It is important to note that none of the participants who were interviewed sustained a pressure ulcer during their involvement in the study.

### 7.3 Pressure ulcer knowledge and understanding

Participant knowledge and understanding of pressure ulcer prevention was limited. Most knew at least one cause of pressure ulceration, some knew the purpose of the air mattress and had ideas on the causes of pressure ulcers, but there were several misconceptions about these, along with the perceived treatments. A fieldwork journal entry written immediately following an interview, detailed where one participant asked further questions about pressure ulcers. A quote from my field notes can be seen below:

*When I stopped recording, the participant said she hoped she had been of help and then asked what is the cause of pressure ulcers? I explained and told her how serious they can be. She looked visibly horrified.*

The interview raised uncertainties for her, and it was clear that she was not aware of how serious they could be and was visibly shocked. No other participants asked such questions.

#### 7.3.1 Patient perceptions of pressure ulcer prevention and treatment

Eight of the participants knew or guessed what the air mattress was for and said that they had not been told by the nurses. Some had previous admissions to hospital or previous personal experience of pressure ulcers. For others, they guessed what the function of the mattress was.

*Yes because I had it when I was in hospital before. It just keeps you, stops you from getting things like pressure sores. (Elizabeth, aged 80)*

*When I come in they give me an air bed, to stop sores. (Bert, aged 72)*

*I thought, working it out it's because you've had a nasty operation and it's probably to support and to stop you, to stop your bottom breaking down. (Helen, aged 80)*

*DR: Did you know that before, what the mattress was for or was that because the nurses had told you?*

*Molly: Erm, I sort of surmised that's what it was. (Molly, aged 96)*

Two participants lacked certainty and during the interview they answered in a questioning way to gain clarification. They had some awareness but pushed the question back to me as the researcher.

*DR: Did they tell you why you were on that mattress?*

*Joyce: I guess it was to prevent bed sores?*

The rest of the participants did not know what the mattress was for. Some thought that it was there to 'help you relax', 'help with the pain', 'prevent blood clots', and 'improve circulation'. In terms of patient understanding, there was a great deal of uncertainty. The only situations where this was not the case was where participants had first aid training or previous exposure to pressure ulcers. This prior experience provided them with an awareness of the causes of pressure ulcers and how they occur. Rhoda was able to clearly articulate the causes of pressure ulcers.

*Well, I think it's the blood has to reach the surface and when you are pressing on something flattened like that [through sitting all the time] it can't do that and so therefore the tissue dies doesn't it and of course it opens. I mean literally with her the skin just opened to this horrible ulcer. (Rhoda, aged 90)*

Rhoda had first-hand experience of pressure ulcers and understood the basic aetiology of pressure ulceration as shown above but such an in-depth level of understanding was not common. A similar depiction was found when discussing treatments for pressure ulcers. Suggestions about the use of cotton wool pads, cream and ring cushions were given.

*Do you know what I thought was needed? You used to get, you used to have cushions with a hole in them, I thought that I needed that, to take the pressure off. (Sheila, aged 80)*

Paradoxically the use of ring cushions has been outlawed in clinical practice for decades (Li et al., 2018; Mitchell, 2018). Similar comments were made when the participants were asked if they thought pressure ulcers could be prevented. Many felt that as they had not had any problems or got a pressure ulcer when they were in hospital that whatever had been done had been effective. This question also raised the issue of co-operation in pressure ulcer prevention and the need to work with nurses rather than against them.

*I think it's somewhat up to the patient surely. I mean, if you insist on, if you've got somebody who is a bit demented and doesn't want to be moved. (Molly, aged 86)*

*Sheila: Well, it is if you do as you are told.*

*DR: In what way?*

*Sheila: Well don't say no to them when they are trying to help you.*

### 7.3.2 Patients' perceptions of nurses' actions for pressure ulcer prevention

As discussed in Chapter 2, there are multiple actions taken by nurses to reduce the risk of pressure ulcers including the use of specialist mattresses and cushions, assessing risk, turning, and repositioning patients regularly, and keeping the skin clean and dry. Most of the participants were unaware of the many actions that the nurses would have taken to prevent them developing pressure ulcers. When asked what the nurses had done, they replied in the negative, that the nurses had not done anything or advised that they had just put cream on their bottom or heels. Yet, when they were asked if they had had their skin checked or if they had been nursed on a special mattress the majority replied in the affirmative. The link between the actions of the nurses (through checking skin and putting an air mattress on the bed), and pressure ulcer prevention was not made by the participants. Therefore, it seems that the significance of these preventative strategies was not known to be or viewed as important.

*DR: Ok, and so they did check your skin*

*Rhoda: They did check, and first of all, when she said to me how's your skin? This was prior to that I said my skin's fine and then I realised she meant the skin on my you know, where I was sitting. You're the first person I've talked to about that because nobody would be interested.*

This lack of awareness was sometimes due to the nurses not explaining why they were doing these things. Some participants were told, and others were not. It is not clear from the participants' accounts whether this was because the nurses were deliberately withholding information (by overseeing all the aspects of pressure ulcer prevention) to allow the patient to get better without additional concerns, or whether this information and education was simply not given due to lack of time or lack of nurse's knowledge.

### 7.3.3 Patient's understanding of the causes of pressure ulcers

The causes of pressure ulcers as identified from patient's understanding and knowledge, and in order of frequency included pressure, sweat, friction, not cleaning oneself properly, or through laying on a hard surface, but by far the most common cause given was immobility with over half of the participants referring to this. Several thought that being in bed too long was the main cause.

*DR: So, do you know what causes bed sores?*

*Helen: Yes I do, I think it's pressure on your bones isn't it. It's too long sitting, not being moved around enough and that's worried me this week being here.*

To provide some context here, Helen had previous experience of pressure ulcers and was aware that once she was home she needed to continue to move around so that she did not develop a pressure ulcer. This knowledge did affect Helen's motivation to progress and not have to rely on others and move out of being biographically disrupted (see section 6.6). For her she took getting up and the avoidance of sitting too long to be her responsibility as well as the nurses. Her knowledge impacted her behaviour, but this was unusual and even when other participants had some knowledge this did not affect their behaviour and awareness of their own vulnerability during their hip fracture recovery.

*I presume it's pressure, but I've never had them, and I don't know. (Sheila, aged 80)*

*I suppose continuously laying in the bed I expect. (Barbara, aged 79)*

*Well, I suppose it's if you're in bed too long is it? (Betty, aged 81)*

*Yes, if you don't move, if you keep still, the flesh dies because it's got no blood supply. (Molly, aged 86)*

*It's obviously where you don't move, it's the pressure. (William, aged 67)*

Several participants (correctly) thought that sweat and friction were also causes that could contribute to the development of pressure ulcers.

*DR: Do you know how bed sores are caused though. Have you got any idea of how they are caused?*

*David: You perspire. Then you toss and turn, and the friction causes the dampness and there must be some fluid in there that causes a reaction. I'm only guessing. I just imagine how it would come about because I don't get bed sores at home.*

*DR: So, do you know what causes pressure ulcers?*

*Bert: Sweat I would have thought. I don't know. I'm only guessing.*

*Well, they said anything can cause it. I thought it was sweat; I thought was one of the things. They were always saying. That was only putting two and two together and making five. Because they were so concerned that you wiped yourself properly. (Christine aged, 84)*

There was a high level of uncertainty in the participant responses to these questions, with many participants indicating that they were guessing. Language such as: I thought, I suppose, I think, I imagine were used before any answer was proffered. Some participants had had personal experience of pressure ulcers and were more certain but in general there was vagueness.

## 7.4 Past experiences and present behaviours

The actions and priorities of participants in relation to pressure ulcer prevention was based on numerous factors. Their involvement and engagement were based on previous experience and how important they personally viewed pressure ulcer prevention to be. Even when participants had an awareness and experience, pressure ulcer prevention was not a priority for them.

### 7.4.1 Personal experience of pressure ulcers

Of the 21 participants interviewed, seven, a third of the sample had an awareness of pressure ulcers. This experience was gained through caring for a spouse, a relative or someone they knew. A few of these seven participants had first-hand experience of pressure ulcers. This involved seeing and managing the pressure ulcers which had left them with vivid memories of how awful they could be. Although experienced by both men and women participants it was the men participants who seemed most affected and horrified by their experiences. Their memories and descriptions of the wounds were vivid and shocking for participants when they recalled them.

*Well, I got a horrible memory of my father, the day before he died in hospital, we went to visit him and they were trying to change the bed before we got in and I can remember them pulling the sheets off and it was covered with blood from his bed sores, horrible thing. If only they made us stay outside. He only lived a day after that. (Charlie, aged 97)*

*Just before she died, she was in hospital and I went in there and she kept on and when I had a look ahhhh she [his wife] was in a shocking state round her backside, all these holes appeared. (Rupert, aged 90)*

One of the women participants (Rhoda) who cared for a neighbour (and her pressure ulcer) was more pragmatic about the wounds and whilst she said how terrible the pressure ulcer was, her conversation focussed more on what she had done to help, the advice she had given and her friendship with the neighbour. These first-hand experiences had left lasting memories for these participants who had experienced the distress that

pressure ulcers can cause. The reason this was discussed was to ascertain if this had any effect on their own behaviour or understanding when nurses were providing pressure ulcer prevention following their hip fracture. For Rhoda, this knowledge did not affect her behaviour as there were other more demanding needs that required her attention such as getting to the toilet and getting home. Therefore, the need to recover was impacted more by her desire to go home rather than the avoidance of pressure ulcers. The behaviours of Charlie and Rupert did not change in relation to their personal experiences. Rupert struggled with recovery due to his comorbidities and Charlie experienced a protracted recovery due to fracturing his humerus in addition to his hip which made using a frame to walk more challenging post-operatively. All these participants were aged over 90 and therefore it is possible that their age could have also affected their recovery and reprioritisation of what was important at that time. Principally, there is an important distinction to be made here between the motivation to recover versus the motivation to reduce the risk of getting a pressure ulcer.

#### 7.4.2 Behaviour and actions

This section explores the participant's behaviour and subsequent actions based on participants knowledge of pressure ulcers. Gillespie et al. (2014) and Latimer et al. (2014) suggested that where participants had previous knowledge and experience of pressure ulcers, they were better able to participate in care. However, the findings of this study do not support this standpoint and although participants had an awareness of pressure ulcers this did not make them more likely to participate, especially if they faced multiple other challenges to their recovery such as post-operative complications or comorbidities. Having knowledge and/or personal experience of pressure ulcers did not always change the behaviour of participants in relation to preventing themselves from getting a pressure ulcer. When Rhoda was asked if the experience of nursing her neighbour had made her conscious of pressure ulcers when she was a patient, she said that this had not occurred to her.

Only one participant, Helen, who had previous experience working in social care, was actively aware of the risks and mobilised regularly to relieve the pressure on her bottom. In addition to Helen, there were three participants whose behaviour and actions were affected by their basic knowledge and awareness. None of these had any training or a high-level of knowledge, but they were motivated to move.

*That's why I wanted to get out, I didn't want to get sores. I thought I'm not getting none of them. I checked my feet, and they made sure they were alright. (Barbara, aged 79)*

*The more you move about the better. (Molly, aged 86)*

*I knew I wasn't going to have any! I moved my feet around and my legs around. Yes, I turned my ankle and foot over, so it wasn't always lying on the same part of my back of my heel. (Mary, aged 84)*

Determination to make progress, get home and maintain wellness was not just evident for this aspect of care but in other aspects of their admission and lives. Barbara walked regularly sometimes up to six miles a day before fracturing her hip.

#### 7.4.2.1 Information and involvement in pressure ulcer prevention

There were differing experiences between the participants when they were asked about the giving of information. It was routine practice on admission to the ward for all patients to receive a pressure ulcer information leaflet in a ward information pack but verbal information on varying aspects of pressure ulcer prevention was also given by staff to participants. For some, this included information on what the mattress was for or why they were checking their skin. Some had received verbal information from the nurses and had been told what the air mattress was for, some had not. Advice was given when in conversation with the nurses throughout the admission. This was part of the nurse's way of obtaining consent by explaining why they wanted to look at the participants' skin or the reason given as to why they were changing the mattress over on the bed. However, this was reported to be very informal and generalised. Just under half of the participants

remember being told what the air mattress was for, but only half of that group remembered and were able to explain this. The other participants had forgotten, perhaps misunderstood, could not remember what had been said or were overloaded and replied that there was just too much to take in. This may have been due to the strong opioid analgesia that is used to manage acute pain as previously discussed (see section 5.3.1.3). When asked about what the nurses had said about the air mattress one participant said:

*I don't think it registered. I think it was supposed to be softer or something there was too much to take in at times. (Freda, aged 83)*

Another was confused about the action of the mattress:

*I think they did vaguely tell me, but I can't remember, I think it was they had to have you up one end because of the flow otherwise it would be causing problems and flowing down, probably creating blood clots, that's what they were concerned about. (David, aged 88)*

*DR: And did they tell you why they'd swapped it [the mattress]?*

*David: No*

*DR: Do you know why?*

*David: I'm not sure but*

*DR: They didn't really explain?*

*David: If they did, there was so many things going on, they probably did.*

From these quotes it appears that the nurses acted as gatekeepers, relinquishing information when they felt a participant could comprehend it without overloading them. There were no age or gender differences noted between which participants were told or not told, about the mattresses. None of the participants recalled being given any written information, however, it was also commented on that so much information had been received they may have overlooked it, or that it would not have been a high priority given the circumstances in which the participants found themselves. As previously discussed, (see section 2.5.3) repetition and careful timing of the delivery of education seems to be crucial if it is to be an effective strategy.

*Naturally, handouts about bedsores would not have been at the top of my reading list. (Wilf, aged 67)*

Even if David and Wilf had received written information, these quotes show that they were overwhelmed and not interested in pressure ulcer prevention. This again reiterates that pressure ulcers were not a priority for the participants in this study.

The imparting of knowledge and information on pressure ulcer prevention was controlled by the nurses and healthcare staff. Some were seen to be keen to relinquish information and explain to participants about pressure ulcer prevention. However, this did not seem to be conducted in a consistent or formalised way. So, whilst some participants did receive information, others reported not receiving any. Although it is not within the scope of this study, it would be beneficial to carry out an ethnographic study to understand how nurses assess patients need for information and know the extent to which this is happening.

## 7.5 Summary of patient experience of pressure ulcer prevention

This section has shown that participant knowledge of pressure ulcer prevention was limited, inaccurate or outdated. Even when participants did have some knowledge or personal experience of pressure ulcers, other aspects of their continuing recovery took precedence most notably in the acute stages of injury and the initial phase of recovery. Whilst there was some awareness of pressure ulcers and that lying in bed for too long was one of the causes, the majority had not made this link to their own situation. It simply was not realised. Pressure ulcers were deemed to be something that happened to other people, and they were not a priority when compared to the need to get home. Even when information had been received, this was considered not to be of interest or that participants simply did not have the cognitive capacity to take in any more information due to feeling overwhelmed with their continuing recovery. As can be seen in the patient storyline (see Appendix 19) when the patient was most at risk of developing a pressure ulcer, their ability to process any information related to this was low. Conversely, as they

began to recover and their risk reduced, their cognitive capacity for information and education increased. Yet, this shift occurred too late for patient education and involvement to be a beneficial strategy for pressure ulcer prevention following hip fracture. Previous knowledge and experience of pressure ulceration and trying to prevent themselves from developing a pressure ulcer was not the driver to move. Instead, the need to move was driven by the need to get home.

## 7.6 Pressure ulcer prevention is not a priority for patients

Largely, there was a lack of awareness of pressure ulcer prevention among this patient group and their focus was not on the prevention of pressure ulcers but instead on their continuing recovery. When participants could not be involved or were not interested in pressure ulcer prevention, this role was surrendered to the nurses.

*Barbara: Yes, they've changed it now and I am back onto a normal mattress now.*

*DR: Did they tell you why they'd changed it?*

*Barbara: No, it didn't worry me. They said you've got to have this, and you've got to have that, I just got on with it, let them get on with it, that's right.*

*DR: You got over that. So, when you were in hospital this time, did they, did you have a special mattress on your bed with a pump on the bottom?*

*Christine: I think so. They said about a pump.*

*DR: they didn't tell you why it was there and what it was for?*

*Christine: [shakes head]*

Participants were happy for decisions to be left to the nurses (deemed to be the experts) and as such they did not take much notice of what was being done to them such as repositioning or skin checks. There were several reasons for this. The first being that they were accepting of this care.

*No, it didn't worry me. They said you've got to have this, and you've got to have that, I just got on with it, let them get on with it, that's right.  
(Barbara, aged 79)*

Sometimes it was because the participants lacked awareness or interest in pressure ulcer prevention and did not understand or comprehend the relevance in the actions of the nurses.

*Wilf: I don't know the ins and outs of it, I'm not particularly interested.*

*DR: So, if the nurses had said you're at risk of getting a bed sore, would the comfort still outweigh the risk of sitting in a chair that's uncomfortable?*

*Wilf: Until the beginnings of the bed sore, I suspect.*

*DR: Ok, ok so not as a preventative thing*

*Wilf: No, after all if you are sitting in something which is uncomfortable, to know that you are preventing something worse is no particular point.*

Other participants were unable to be involved due to their condition at that time due to being too tired or unwell as previously stated.

During the interviews, when participants were asked a pressure ulcer related question they would briefly answer but then continue talking about their experiences. Again, although pressure ulcers constitute significant harm and are important to nurses and healthcare organisations, pressure ulcers were not regarded as a priority for the participants in this study. Instead, they were keen to talk about their experiences of having a hip fracture and being nursed on an acute ward.

Pressure ulcer prevention was not a significant concern for participants. From their perspective, other elements of their recovery were of greater importance. Getting home and setting targets to achieve this, coping with the pain and other medical conditions they had, were of higher importance (see section 6.2). Therefore, it seems that pressure ulcer prevention was less concerning.

The use of biographical disruption and its variants to analyse the data from this study shows that those who experience a greater level of disruption, loss of identity and slower recovery consequently were more likely to require nurses to provide pressure ulcer preventative care as the participants were not able to do this for themselves. Even

participants who had not experienced such a high degree of disruption were still not able to be involved in pressure ulcer prevention in the acute stages of the injury when the risk of pressure damage was at its highest. Pain, tiredness and the experience of fracturing their hip and being hospitalised and dependent, outweighed any desire to be involved in their care delivery in the acute stages. This desire is inversely proportional to the risk of pressure ulceration. Initially nearly all patients who fracture their hip are assessed as being at high risk of developing a pressure ulcer and yet this is the time when the participants in this study were least able to be involved in preventative strategies. Conversely as they began to recover and the risk of pressure ulceration subsided, their ability to be involved and participate in preventative care increased.

## 7.7 Chapter summary

This chapter has focused on the knowledge and experience of pressure ulcer prevention strategies from the perspective of the participants. This has highlighted the elements that were and were not important to the participants in their recovery journey. Although pressure ulcer prevention was the original focus of the dissertation, participants did not perceive this as an important aspect of their own journey. Health literacy of pressure ulcer prevention was limited. Participants were often unaware when nurses were providing care to prevent or reduce their risk of pressure ulcers. Whilst information was wanted during the hospital episode, the capacity to take in information was affected by the way they were feeling and their overall progress and recovery. Therefore, participants repeatedly left pressure ulcer prevention to the professionals or were not aware when it was taking place. Essentially pressure ulcer prevention was not a priority for the participants interviewed. In linking this back to the research question, aim and objectives (see section 3.9), the findings show that patients are generally unaware of when pressure ulcer prevention occurs. Whilst participants did show some knowledge or had taken onboard some information that they had been told by the nurses, for example about the air mattress, they were happy to leave this aspect of care to the nurses and professionals. This was because the priority for the participants was to

recover enough to be able to go home. The involvement in care centred around this rather than participation in pressure ulcer prevention.

The findings Chapters 5, 6 and 7 have explored the substantive ways in which participants made progress in recovery and the ways in which biographical disruption and its variants may be helpful to provide an understanding and interpretation of the patient experience. The use of biographical disruption and its variants may offer a greater analytical purchase and hence a more nuanced understand the experience of recovery following hip fracture. Chapter 8 will discuss the relevance of the concept of biographical disruption but also how the additional variants help to explore the recovery experience of individuals. Through the interpretation of personal experience of fractured neck of femur implications for clinical practice will be made. This includes the delivery of pressure ulcer prevention information and care and how best to support patients in their recovery journey following fractured neck of femur. Implications for policy development and nursing practice will be made in the form of recommendations.

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## *Chapter 8 - Discussion*

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### 8.1 Chapter Overview

This chapter discusses the empirical findings of the study and the contribution this research makes to link the two bodies of literature on patient experiences of pressure ulcer prevention and hip fracture. The research integrates the two bodies of previously separate literature and discusses the findings in the context of those literatures. The value of the concept of biographical disruption and its variants are discussed in the context of the patient experience of hip fracture.

The aim of the study was to understand the patient experience of pressure ulcer prevention following hip fracture. The objectives included compiling a storyline of when pressure ulcer prevention occurs and identifying the main types of intervention from the patient's perspective. The chapter continues with the exploration of patients' knowledge and understanding of pressure ulcers and pressure ulcer prevention and evaluating if patients want to be involved and participate in pressure ulcer prevention and when they can do this.

The development of pressure ulcers is multi-faceted and although various preventative methods are used concurrently in clinical practice, including the use of pressure relieving mattresses, regular repositioning, and ensuring adequate nutrition, these are not effective in all cases and pressure ulcers remain a consequence of acute hospitalisation and a cause of patient harm. Initially, the aim of the study was to understand the patient experience of pressure ulcer prevention and to explore if patient involvement and participation is an effective strategy to reduce the risk of pressure ulcers for older people following hip fractures. As the study progressed it became clear that this was of little importance for the participants interviewed compared with the need to regain independence and get home. Although the interview schedule in its design and questions focused on the original aim of the study, participants had very little to say about pressure ulcers and were more interested in talking about their hip fracture experience. The change in the direction of the study that has been discussed throughout the

dissertation was driven by the data and reflected the need to acknowledge the participant voice. This relevant but necessary change of direction resulted in the original aims and objectives to also be discussed in light of this change.

The empirical findings of the study in relation to hip fracture and pressure ulcer prevention are discussed in relation to the literature. A key finding, namely that the point at which participants were receptive to education and possible empowerment was also the turning point where they were no longer at high risk of pressure ulcers, is termed the pressure ulcer paradox. The chapter then outlines the conceptual insights of using biographical disruption and its variants. Locus of control had initially been considered as a suitable conceptual framework, however during data analysis this was found to be unhelpful in understanding the differences between the individual experiences of the participants. Therefore, biographical disruption along with its variants provided a more appropriate framework and lens to analyse the interview data.

### 8.1.1 Change in direction of the study

At the beginning, the aim was to understand the pressure ulcer prevention experiences of older patients following hip fracture. The interview topic guide was subsequently developed based on the existing empirical literature on the subject. At the point of data saturation where no new codes were emerging from the interview data and the Covid-19 pandemic began, data collection ceased and themes were developed from the codes using thematic networks (Attride-Stirling, 2001). As has been previously discussed in section 4.5.1 the themes were reviewed to ensure that they captured the essence of the participant experience. However, what had begun as a study that would focus on understanding the pressure ulcer experiences of older people following hip fracture, generated data from the interviews that revealed a different focus. The initial question from the interview topic guide proved to be most salient to the participants and by allowing participants to verbalise their experiences and what was most important to them at that time, changed the focus and direction of the research. It is important to reiterate here the importance of listening to respondents and ensuring that this change

was driven by the data and not overshadowed by the research question and process. As Orona (1990) had experienced in her research (see section 1.9) the data was the driver of the change in focus.

## 8.2 Empirical evidence

The empirical findings of this study support the findings of previous studies that hip fracture is a traumatic event, the effects of which could last well beyond the post-operative recovery period and have implications for personal identity (Archibald, 2003; Sims-Gould et al., 2017; Southwell et al., 2022). For the participants in this study, the hip fracture experience was distressing, painful and shocking. It required them to accept help from others and leave care delivery to health care professionals, even if this is not what the participants wanted. Feelings of loss, fear, anxiety and being a burden on others were commonly expressed as previously found (Karlsson et al., 2022; Rasmussen et al., 2018). The speed of progress was often slower than participants had anticipated and independence at carrying out what may appear to be the simplest of task such as getting to the toilet were highly valued. Such short-term goals like this and carrying out activities of daily living have been shown to be highly valued by patients following hip fracture (Abrahamsen et al., 2022; Asplin et al., 2021). Hence, demonstrating that this sample is not atypical when compared with participants' experiences of hip fracture and recovery in previous studies.

### 8.2.1 Experience of falling and becoming an inpatient

Hip fracture is an overwhelming experience for which the participants in this study and previous studies were unprepared (Archibald, 2003; Saletti-Cuesta et al., 2017). Their previous abilities and life roles were suddenly upset and replaced by feelings of helplessness and loss for their previous life (Langford et al., 2018; Karlsson et al., 2022). This helplessness that the participants felt here can be related to the passivity that participants in a previous study exhibited when considering how they would cope and

manage long term (Gesar, Hommel, et al., 2017). Feelings of shock, fear for the future and self-blame were common among those interviewed. In harmony with the body of literature on the experience of hip fracture, this type of injury has previously been described as a shocking, life changing event that can have long lasting effects on a person (Bruun-Olsen et al., 2018; Segevall et al., 2019; Ellmers et al., 2022). Analogous to the participants in the study by Archibald (2003) the experiences of hip fracture in the pre-operative and initial post-operative stages were likened to survival. Some participants felt lucky to be alive (Wilf and David) and all had the determination (however limited) to recover and get better. Such feelings after hip fracture are not unusual (Sims-Gould et al., 2017).

However, patients experience of hip fracture is individual and influenced by multiple factors (see Appendix 17 – Analysis Grid). As the analysis grid shows, different factors impact the overall experience, whether these be positive and therefore protective or negative. Therefore, the care provided needs to reflect this. These factors include social and psychological support or lack of, the presence of comorbidities, gender, age, activity levels pre-fracture, life experiences and coping mechanisms, and determination, inner strength, and identity (Haywood et al., 2017; Beer et al., 2021; Tutton et al., 2021; Southwell et al., 2022).

### 8.2.2 Beginnings of recovery

Recovery for the participants was challenging both intrinsically and extrinsically. Intrinsically, recovery was hampered by increasing age, gender, comorbidities, fear of falling again, frustration at the situation and their level of determination. Again, these findings support the findings of previous studies on the hip fracture experience (Beer et al., 2021; Griffiths et al., 2015). Not progressing as quickly as they thought they should be caused exasperation, but some participants were fearful of falling again and therefore wary about doing things independently. Extrinsically, camaraderie and support from others, encouragement and reassurance from staff and the presence of confused patients on the ward and sleep deprivation all impacted on the progress of recovery.

Age and frailty have been indicated in previous studies (Kistler et al., 2015; Tocchi et al., 2020) as factors in the experience of hip fracture and this study is no exception. Being over 80 years of age was found to impact negatively on the overall experience (see Appendix 17 – Analysis Grid). Some illnesses and conditions such as hip fracture, are anticipated in older age and are therefore not always seen as disruptive (Pound et al., 1998) and when seen as inevitable, people are more accepting (Sanders et al., 2002). This was shown through the experiences of Rhoda, Elizabeth and Christine. It is acknowledged this reaction is not unanimous and sometimes people can be totally overwhelmed by the losses and challenges they experience and therefore become disrupted (Larsson & Grassman, 2012). Betty, Charlie and Phyliss were all very overwhelmed by the hip fracture and although also over the age of 80 years their experiences differed from those of Rhoda, Elizabeth and Christine. Clarke and Bennett (2013) found that frustration caused by the restrictions of the fracture is a frequent occurrence for many patients, men tend to be more emotionally reserved and stoic. Conversely, women are more able to verbalise their frustrations and therefore able to achieve acceptance of their situation (Clarke & Bennett, 2013). Elizabeth and Christine spoke of the camaraderie with other women in the same bedded bay and how this also aided acceptance of their situation through seeing that others were in the same situation as they were.

In addition to a hip fracture, comorbidities can affect overall experience. The fracture is not the only part of this reality and other factors such as existing comorbidities compound these feelings of getting older (Haywood et al., 2017). Brett (2014) has argued that the experience of dealing with other comorbidities makes people resilient and more able to cope and that where patients do have existing comorbidities, they are often more accepting of their frailty and situation. However, the findings of this study do not support this. Betty, who suffered with arthritis, reported that the pain in her knee had made her recovery more difficult. Six other participants also shared challenges due to comorbidities such as stroke, anaemia, and chronic obstructive pulmonary disease (COPD). Although the participants did not display resilience as termed by Brett (2014) they did want to recover and despite the challenges some were able to regain some independence.

The impact of the nurse-patient relationship has been shown to improve participation in pressure ulcer prevention (Latimer et al., 2014; McInnes et al., 2014; Roberts et al., 2016) and although an increase in participation because of this relationship was not seen in this study, the importance of a therapeutic relationship was referred to positively by participants. Caring, empathetic and encouraging staff who develop therapeutic relationships with patients have been shown to improve care (Aronsson et al., 2014). This is supported by other research findings that demonstrate that the nurse-patient relationship can positively affect the well-being of patients following hip fracture (Rasmussen et al., 2018). Alleviation of suffering through compassion and empathy can improve overall care (Aronsson et al., 2014; Hestdal & Skorpen, 2020). The findings of this study support these points and demonstrate that such factors had a protective effect on the participants in balancing out the negative factors that they experienced; therefore, the nurse-patient relationship and actions of healthcare professionals should not be underestimated as these have been again shown here to have a positive impact on patient outcomes.

Despite the challenges of recovery, all participants interviewed had a strong desire to get back to normal, regain independence, and not be a burden on nurses or family members. In line with the work of Langford et al. (2018) and Ellmers et al. (2022) the severity of this type of injury resulted in patients having to rely on others in the early stages and this loss of independence caused distress in part due to loss of self-esteem and self-concept. Studies have demonstrated that the desire to recover can fuel determination and the ability to adapt to be able to lead an acceptable life (Griffiths et al., 2015). Half of the participants voiced determination; this was particularly pertinent to David, for example, who set goals for himself and the staff. As such, determination provided control over the future and allowed patients to view hip fracture as a temporary disruption not a permanent one.

Recovery is not only physically challenging but also emotionally challenging, and as has been shown in the quotes of the participants, psychological and social support can significantly improve the patient experience. Hip fracture can have implications for personal identity due to the loss of functional ability (Sims-Gould et al., 2017). Feelings

of loss of identity and feeling overwhelmed were expressed by several participants during the interviews. Patients can struggle emotionally after hip fracture (Saletti-Cuesta et al., 2017), most notably, the experiences of Phyliss and Wilf validate this in their descriptions of the fear and delirium they experienced and the impact this had on them and their recovery. Although holistic care is the aim for all patients, formal policy driven psychosocial care following hip fracture is lacking. As has been noted previously, both mental and physical support are needed (Tutton et al., 2021). The current fractured neck of femur pathway does not include emotional and psychosocial care or promote the use of coping strategies in its KPIs (Royal College of Physicians, 2021). The lack of attention given to psychosocial care following a fractured neck of femur has been previously reviewed and more recently psychological support therapy has been shown to reduce pain and improve recovery and quality of life in patients following a hip fracture (Houldin & Hogan-Quigley, 1995; Auais et al., 2022; Li et al., 2022). For Phyliss and Wilf formal psychological care and the implementation of coping strategies may have resulted in improvements in their overall experience and their recovery being less protracted.

Not all patients will need psychosocial care and bureaucratising and implementing this as a blanket approach would not be appropriate as some participants managed this successfully themselves. This reiterates the need for patient/person-centred care for what the individual patient needs at a certain point in time. However, person-centred care is always going to be a challenge in an overstretched NHS (Kelsall-Knight & Stevens, 2024). In addition, there cannot be a routine checklist approach to psychosocial care delivery, with the wide variation in patient experience as has been evidenced in this study. Whilst Phyliss and Wilf would have likely benefitted from formal psychosocial support, David and Helen may have not as their challenges were physical. Such circumstances have been demonstrated by James and Field (1992) in their study on hospice care where bureaucratisation led to routine care delivery. Routinisation of care has demonstrated a move away from the individualistic founding ideals of hospice care. Similar findings were shown by Rhodes et al. (2006) where the needs of a biomedical audit into diabetes care, hindered patient-centred care delivery. What may be deemed as progress in providing a consistent standard of care to all, can conflict with patient-

centred principles. Therefore, care needs to be tailored to the individual needs of the patient.

The quality of care following hip fracture is measured primarily using mortality and morbidity data and KPIs within the hip fracture database which focus primarily on the physical aspects of care and recovery (Royal College of Physicians, 2022). Other patient-related outcome measures have been used to measure patient outcomes such as days alive at home after hip fracture (McIsaac et al., 2021). However, there remains a lack of outcome measures based on psychological health and care. Psychological factors are known to influence outcomes such as pain severity, emotional distress and return to pre-fracture levels of independence (Alexiou et al., 2018), yet the patient voice is not prioritised in what constitutes success. Patient-reported outcome measures (PROMs) are seen as an important way of assessing outcomes and quality of patient-centred care (Haywood et al., 2017). Currently, no PROMs exist for hip fracture care, thus overlooking the patient experience and the issues that matter to patients (Haywood et al., 2017). Yet, despite the recommendations of Brett in 2014, to include psychological care in PROMs, the falls and fragility fracture audit programme does not specifically identify psychosocial care (Royal College of Physicians, 2023). Now, nearly ten years later, the hip fracture pathway remains the same in respect of psychosocial care and therefore it could be argued that the fundamental elements have not been addressed. Psychosocial rehabilitation has been shown to help patients resume life roles and aid people to rethink their biography (Wolfenden & Grace, 2012; Brett, 2014). Based on the findings of this study the heavy focus on physical compared to psychosocial care in hip fracture leaves a deficit in the provision of holistic individualised care.

### 8.2.3 What are the priorities for patients?

Despite the challenges experienced during recovery, not being a burden to the staff and getting home were the key priorities for all participants so they could be with loved ones and pets, be able to eat home-cooked food, and sleep in their own bed. This is comparable with existing literature. Regaining independence is viewed as one of the

most important aspects in the recovery of patients following hip fracture (Jennison et al., 2014; Segevall et al., 2019). Being comfortable during the recovery period was also important for the participants interviewed in this study. Whilst there are known potential complications that a hip fracture can impose, such as pressure ulcers, the participants were happy to leave these concerns to the healthcare professionals. The importance of comfort should not be overlooked and has been identified as one of the key concepts in patient-centred care (Bechtold & Fredericks, 2014).

#### 8.2.4 Health literacy is limited

For the participants of this study, the level of health literacy for pressure ulcer prevention was limited. Patient knowledge and understanding of pressure ulcer prevention was incomplete and sometimes their perceptions of treatment were erroneous. Many patients were unaware of the prevention strategies that they received. A few participants had first-hand experience of pressure ulcers which left a lasting memory with those affected, however they did not make the connection with their own reduced mobility and risk of pressure ulcers whilst they were bedbound following the fracture. These findings are inconsistent with the findings of Gillespie et al. (2014) and Latimer et al. (2014) who found that participants with prior knowledge and experience of pressure ulcers were more likely to participate in care. This may be due to the advancing age of participants in this study with the median age being 80 years compared to 71 years and 65.5 years in the aforementioned studies (Gillespie et al., 2014; Latimer et al., 2014).

Assessing which patients can understand and process information is a key role of nurses and given the findings of this study it is argued that any education and participation in pressure ulcer prevention needs to be individualised. Some patients may be open to education earlier in their recovery when they are still deemed to be at high risk however this was not the case for all the participants interviewed. In this study it was found that when the risk of pressure ulceration was high, the receptiveness to information was low and vice versa as shown by the green, amber and red lines between the boxes in the Patient Storyline (Appendix 19). Feeling overwhelmed or too unwell and not able to

comprehend information was experienced by all participants. This is unsurprising given that other studies have found there is an inability for many patients, to process large amounts of information due to being overwhelmed by the experience of hip fracture (Asplin et al., 2021; Bates-Jensen et al., 2009; Malmgren et al., 2014).

The point at which participants in this study were receptive to education and possible empowerment was, paradoxically, the point at which they were no longer at high risk of pressure ulcers. From the literature, it has been suggested that a patient's need for information following hip fracture varies depending on their condition and timing (Segevall et al., 2019; Slaney et al., 2014). The participants in this study who wanted information were those who demonstrated high levels of determination through setting their own goals, to regain independence. Paradoxically, these patients were less in need of information because they had reduced their risk of developing a pressure ulcer by mobilising and regaining independence rapidly.

The timing of when information is given is also important and repetition of information giving has been found to facilitate knowledge acquisition and involvement (Karlsson et al., 2022; Segevall et al., 2019). Findings of this study indicate that despite all the participants having mental capacity to meet selection criteria for study inclusion, several had difficulty in recollecting their experience in the emergency department and for some aspects of the patient journey. This has been referred to in this study as "The Fog" following the experiences of patients in a study by Morse and O'Brien (1995). Regardless of the cause of this lack of event recall, this has implications for the giving of information following hip fracture as advocated in NICE guidance (National Institute for Health and Care Excellence, 2014) and serves to emphasise that this is not an effective approach for all patients.

Although leaflets have been found to be an effective means of giving information in some studies (Hartigan et al., 2012; Schoeps et al., 2017), this is not supported by the findings of this study. Participants, notably the older age range participants aged 80 years and over, felt they were bombarded with information and subsequently overloaded and overwhelmed. For the participants in this study, leaflets were therefore not an effective method of providing education and information to patients following hip fracture. When

information is sought and where patients are receptive, leaflets are merely one part of providing information and the giving of verbal advice and the development of a therapeutic relationship is required if patient involvement is to be successful (Latimer et al., 2014; McInnes et al., 2014; Roberts et al., 2017). Such considerations are in line with the deliberation that patient information leaflets can complement face to face activity and therapeutic communication as adjuncts but not replace them (McCartney, 2013).

There is some evidence in the findings from this study that nurses may have withheld information on some occasions. For example, some participants were given information about the mattress they were lying on whilst others were not, and some nurses were keen to explain to participants about pressure ulcer prevention whilst some did not. It is not clear from this study why this was the case. Previous research has found that information is sometimes withheld and instead information exchanged with relatives (Aronsson et al., 2014; Malmgren et al., 2014). It could be suggested that nurses were making a deliberate or unintentional decision to withhold information if they felt that the patient was overwhelmed and lacked the ability to take on new meaningful information at that point, as was found in a study by Latimer et al. (2014). Alternatively, it may have been that the patient did not recollect being given information or that there were other conflicting priorities that did not allow time for patient education. In addition, it is possible that the nurses themselves lacked knowledge, however as the nurses were not interviewed, this is beyond the scope of this study. In summary, it is important to know the reasons why nurses were not giving information to participants. As the scope of this study did not include the nurses' role and perceptions this would signify a recommendation for future research (see section 9.7).

Previous studies have suggested that patient involvement and engagement is a vital component in pressure ulcer prevention (see section 2.5). However, the findings of this study suggest that for this group of participants, this was not a realistic or achievable strategy. Due to the traumatic nature of hip fracture and participants being overwhelmed and preoccupied with making progress to recover substantially enough to get home, pressure ulcer prevention was not a priority for them. This may also explain why pressure ulcer prevention leaflets may not be effective for this patient group (McInnes et al., 2014).

In the past, nurses have been subject to potentially misguided criticism through NHS Trust root cause analysis processes for not providing leaflets to patients, but these findings show that this criticism may be futile. Such a line of reasoning represents a paradox of pressure ulcer prevention whereby education and involvement in pressure ulcer prevention was not effective in preventing pressure ulcers among this group of participants who had fractured their hip. When they were most in need of prevention was when they were least able to engage. Yet, as participants recovered and became less dependent their desire and ability to participate in care increased (see Appendix 19 – Patient Storyline). The impact of information sharing, and involvement was greater at this point. However, this is in direct opposition to the risk of pressure ulcer development, whereby as the patient becomes more involved, the risk of pressure ulceration reduces dramatically.

#### 8.2.5 Empowerment versus experience

Given the previous discussion, this study suggests that healthcare professionals need to understand the whole patient experience before making any assessment on whether the patient is receptive to information on pressure ulcer prevention and if genuine empowerment can be considered. Empowerment involves patients taking an active role in their care delivery (Castro et al., 2016). For participants such as Betty, Charlie and Phyliss, sustaining a hip fracture was an overwhelming experience that encompassed multiple emotions and required complex management to address both the physical and psychological aspects of recovery. These physical and emotional limitations made it difficult for these participants to be empowered.

The findings of this study echo many of those in the study by Brett (2014) that hip fracture is a devastating event that can result in significant changes in the life course and where people were required to adapt to the changes the fracture posed. This study has shown that the experiences of patients have changed very little in the last 10 years. However, there are differences between this study and the findings of Brett's study in relation to the empowerment of patients. Brett (2014) concluded that healthcare professionals

need to encourage, empower, and motivate patients following hip fracture. Empowerment literature indicates that patients need to be empowered to regain a sense of self and control and that empowerment of patients with hip fracture is needed if pressure ulcer prevention is to be successful (The Health Foundation, 2016). However, empowerment of hip fracture patients is not readily achieved (Jensen et al., 2017). Participants in the current study were too unwell to participate in care and pressure ulcer prevention in the early stages of the fracture. The participants were not receptive and were too overwhelmed by their experience to participate or be empowered due to conflicting priorities of, for example, being able to get to the toilet or climb stairs independently. Despite this, active empowerment of hip fracture patients has been advocated in two studies (Brett, 2014; Southwell et al., 2022) to facilitate patients in redefining their identity and recovering. These disparate findings may be due to differences in the study designs and focus.

In summary, there are limits to patient empowerment following hip fracture and instead there is a need to provide individualised and tailored care, where nurses assess a patient's ability to comprehend information by using effective communication and in discussion with the patient to ascertain whether they want or indeed can be involved. Hence it can be argued that there is a need to empower nurses in delivering individualised care rather than attempting empowerment and involvement of patients in pressure ulcer prevention following hip fracture. Having an awareness of different patient journeys from empirical and theoretical stances allows for a consideration of where involvement in pressure ulcer prevention could be beneficial.

### 8.3 The pressure ulcer paradox

A key finding of this study was that patients were usually unaware of when pressure ulcer prevention occurs and what this entails. The development of the Patient Storyline (see Appendix 19) was one of the objectives outlined at the beginning of the study. However, this yielded more than merely meeting one of the research objectives. The visual representation of the participant storyline led to the identification of the paradox. The

inverse relationship between the stage in recovery and the ability of participants to comprehend and act on information provided was observed. Prior to falling, all the participants interviewed were independent with activities of daily living and therefore at low risk of pressure ulcers. However, at the point of the fracture this changed, and they all became immobile and dependent. The consequence of this is that they would have been at very high risk of pressure ulceration due to pain and the disability caused by the hip fracture. This is supported by reduced mobility being identified as a key risk factor in the development of pressure ulcers (see section 1.3.3). This high-risk state would have continued whilst waiting for the paramedics to arrive, during the journey in the ambulance, time spent waiting for surgery, in the operating theatre and post-operatively whilst remaining dependent on others. Pressure ulcer risk reduces once patients become mobile and can reposition themselves, stand and walk as the blood flow in the tissues of the skin is not impaired (see section 1.3.1). Hence until the participants in this study could move themselves, they remained at high risk of developing a pressure ulcer.

Furthermore, at the point of fracture, participants were so overwhelmed by the whole experience (see section 5.2.4 and 5.3.1.2) that their receptiveness and capacity to comprehend new information (pressure ulcer education) or act on this information, was low or absent. This remained the situation until participants began to recover, regain confidence (see section 6.2.3) and become more independent. The paradox exists therefore between these two states, in that as the participants ability to act on pressure ulcer education increased, their risk of pressure ulcers decreased, and vice versa at the initial point of fracture.

Pressure ulcer prevention was not a high priority for the participants and in the initial stages involvement and participation in care were limited or not possible due to their clinical condition, the need to be dependent on others and/or being overwhelmed by the whole experience. The experience both emotionally and physically jeopardised their continued biography at that point in time. Similar to the participants in the study by Latimer et al. (2014) the participants in the current study wanted a more passive role when they were feeling unwell, therefore their focus was on their recovery. Other priorities such as comfort, and recovering enough to get home took precedence over

pressure ulcer prevention. This was in part due to most participants not being fully aware of the risks and ramifications if they sustained a pressure injury. Patients are often unaware of what pressure ulcers are until they have experienced this through knowledge of others with a pressure ulcer (Langemo et al., 2000). The data from this study also supports this finding.

Pressure ulcer prevention strategies, included in the SSKIN bundle (see section 1.5) are ultimately for the patient's benefit and wellbeing, however the key actions required in the prevention of pressure ulcers according to current NICE guidelines (National Institute for Health and Care Excellence, 2014) and best practice were not actively welcomed by the participants. Skin checks, being nursed on an air mattress or being encouraged to mobilise when tired were deemed wearisome but were accepted as the participants felt that the nurses were the experts, and they knew best. Some participants were unaware of when pressure ulcer prevention was taking place such as when they were having their feet washed and heels checked and were happy to leave pressure ulcer prevention to the experts. Again, this is consistent with previous findings (Bastiaens et al., 2007; Casado et al., 2020; Ekdahl et al., 2010).

Empirical research on pressure ulceration indicates that patients who sustain hip fractures are at high risk of pressure ulcer development (McGee et al., 2017). Despite prevention strategies including use of support surfaces and repositioning, pressure ulceration still occurs in this high-risk group of older patients with hip fracture (National Institute of Health and Care Excellence, 2014). Patient education, involvement, participation, and empowerment in care have been shown to improve health and wellbeing along with treatment outcomes (NHS England, 2018). Potentially, this could provide the missing link in pressure ulcer prevention. Yet, the findings of this study do not support the use of patient involvement and empowerment to prevent pressure ulcers in all cases. Provision of patient information for pressure ulcer prevention is advocated in NICE guidance (National Institute for Health and Care Excellence, 2014) using leaflets and giving verbal information. Nevertheless, health literacy in pressure ulcer prevention among patients is limited (Durrant et al., 2018) and leaflets alone do not enhance patient knowledge of pressure ulcer prevention (O'Connor et al., 2021). Likewise, the knowledge

of pressure ulcer prevention among the participants in this study was limited. Whilst previous knowledge and experience of pressure ulcers by individuals and good communication and interpersonal relationships with nurses who provide information about pressure ulcer prevention can lead to higher levels of involvement, having education alone is not enough to prevent pressure ulcers (Roberts et al., 2017). Empowerment to act is needed for this to be an effective strategy (Tobiano et al., 2016).

## 8.4 Conceptual insights

The use of biographical disruption as a conceptual lens has guided insights into the experiences of participants following hip fracture. The use of biographical disruption is a useful lens during the acute episode from the point of injury up until the first signs of regaining independence. Due to the nuanced patterns of progress, the use of more than one biographical variant is needed to provide additional lenses to understand the varied nature of recovery for individuals.

### 8.4.1 The use of biographical disruption and its variants as conceptual lenses

This study aligns with key elements of the concept developed from Bury's seminal work on biographical disruption (1982) but argues that some of the biographical disruption variants that were later developed may be more helpful in providing a lens to analyse the experiences of patients following hip fracture. For participants who were very determined and set goals like David and Joyce, biographical flow and continuity were useful to explore their experiences. Charlie and Betty had a different experience and therefore accommodation and abruption in addition to biographical disruption were more appropriate lenses through which to understand their experience (see Appendix 20). Several authors have discussed biographical disruption in relation to hip fracture (Brett, 2014; Saletti-Cuesta et al., 2017; Slaney et al., 2014; Southwell et al., 2022), however none of these studies have explored the relevance of associated variants. This study argues that other variants in addition to biographical disruption are needed,

particularly as biographical flow, accommodation and reconstruction are more insightful in explaining the experiences of patients following hip fracture. Where people are able to compartmentalise the effects of the illness on their own identity, they can reduce the impact on their self-concept (Williams, 2000). For example, many participants, including Joyce (who had played golf every week and was as independent pre-fracture as Phyliss), were keen to progress and return to pre-fracture activities. Conversely, Phyliss was not able to compartmentalise the injury and following the fracture this defined her. The fracture and the restriction it posed, meant that her previous life and riding her bike was in the past. When the hip fracture has longer lasting effects on a person, this can result in them being disrupted and their identity becoming defined by the fracture. Where participants were able to compartmentalise, they were seen not to be defined by the hip fracture and hence able to regain their identity; appearing to experience hip fracture as a hiccup and thus biographical flow, accommodation, or reconstruction of their life is seen to occur. Being able to ascertain which patients can compartmentalise the hip fracture may well aid in explaining which variant of the concept is most appropriate to illuminate the patient experience.

Few authors have considered the use of more than one variant. Locock et al. (2009) discussed the use of biographical disruption and repair but the use of more than one variant is unusual. The individualised nature of recovery following hip fracture within the findings from this study have suggested that more than one variant is beneficial to use as a conceptual lens to explain and analyse the varied experiences of participants, a finding that has theoretical implications for this area of research, in that there is a need for multiple variants. It also raises questions in any study of the need to address disconfirming evidence to view a broader perspective (Barbour, 2008). This study demonstrates a need for disconfirming instances in the data to be considered rather than being ignored, which could affect the trustworthiness of the study. This study argues that using multiple variants in addition to biographical disruption is useful for analysing and explaining the experiences of hip fracture recovery. The use of multiple variants allowed for all the participant experiences to be analysed and fully explored.

#### 8.4.2 A journey through more than one variant

For some of the participants (James, Elizabeth, Charlie and Betty) the use of biographical disruption and more than one single variant was beneficial in illuminating their recovery journey (see Appendix 20 – Pictorial Representation of the Patient Journey). The use of additional variants aided in exploring and explaining the transitional phases of recovery. The use of multiple variants was particularly important where participants experienced disruption but needed to redefine themselves and mobilise resources to accommodate the change in their own biography before adapting to their new life in the face of adversity. Using multiple lenses allowed the data to take precedent rather than making it fit a concept. Therefore, the use of additional variants of biographical disruption were able to embrace disconfirming instances rather than discarding them because they did not fit neatly into a particular standpoint.

#### 8.4.3 The importance of a conceptual framework for data analysis

The change of focus for the study following on from the initial data analysis identified that the participants were not particularly interested in pressure ulcer prevention and instead their desire to get home and back to normal dominated their recovery. The empirical findings were able to demonstrate this through the identification of themes, but the nuances of each individual patient journey required further exploration. Whilst it was evident from all 21 participants that they were biographically disrupted from the point of fracture and in the early stages of recovery, what occurred after and when differed. The use of multiple variants in addition to biographical disruption provided a means of interpreting the differences between each participant's journey and using existing literature about the experiences of hip fracture, the analysis grid (See Appendix 17) allowed for a visual representation of the positive and negative factors to be explored and analysed.

## 8.5 Chapter summary

This chapter has discussed the empirical findings of the study and has demonstrated how the findings link the two bodies of literature on patient experiences of pressure ulcer prevention and hip fracture. The nuanced and individualised experiences of the participants have promoted the need for individualised care following hip fracture. It is recognised that the use of patient information leaflets can be beneficial for some patients, yet this was not found to be the case in this study and instead the need for individualised and tailored care has been suggested. The discovery of the pressure ulcer paradox demonstrates that when the participants could not participate in pressure ulcer prevention and be empowered, they were at highest risk of pressure ulcers. Conversely, when they were able to participate in pressure ulcer prevention the pressure ulcer risk had reduced. Finally, the use of multiple variants in addition to the concept of biographical disruption has been shown to be beneficial to understanding the complexity of hip fracture recovery.

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## Chapter 9 - Conclusion

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### 9.1 Chapter Overview

The final chapter concludes the dissertation by outlining the contribution that this study makes to knowledge, its strengths and limitations, and implications for practice. Recommendations are made about how the findings can improve clinical practice and indicate more effective ways of working when caring for patients with hip fracture. Directions for future research are then identified.

### 9.2 Contribution to knowledge

This study has contributed to the literature on both hip fracture experience, the patient experience of pressure ulcer prevention and identified what was important in regard to their recovery and overall wellbeing for the 21 respondents who participated. In addition, the study has contributed to the conceptual literature through consideration of the utility of more than one conceptual variant together with biographical disruption to understand the distinct experiences of individuals.

This research brings together two bodies of literature, patient experience, knowledge and involvement in pressure ulcer prevention, and patient experience of hip fracture that previously did not co-exist in a common discourse. There has been extensive research carried out on the experience of hip fracture however the findings of this study add pressure ulcer prevention into the conversation. Following completion of this study, the discourse on hip fracture experience now includes aspects of pressure ulcer prevention and highlights the importance of individualised and tailored care considerations concerning education, information, and empowerment. Empirically, this study has also established through the quotes of the participants, the pressure ulcer paradox. Although policy and guidelines encourage patient involvement and empowerment in healthcare, this study has shown that this strategy was not appropriate for the 21 participants in the initial stages of injury following hip fracture. The paradox occurs because the point at which they can be involved in pressure ulcer prevention, is the point in time when they

are no longer at highest risk of developing a pressure ulcer. Therefore, in light of the above, this study may have potential implications for nursing practice and patient care in considering the timing of patient education and giving information to patients on pressure ulcer prevention.

In addition, it has been shown that one variation of biographical disruption is not adequate to examine and explain the experiences of patients who fracture their hip. The concept of biographical disruption has been shown in this study and previous studies, to provide a useful lens through which to explore patient experience. However, in this study this concept alone was not enough to fully explore the range of experiences of the participants interviewed. One single concept did not explain the experience of all patients who sustained hip fracture, and in some cases more than one variant was needed to explore the recovery journey of individual participants. These are the key contributions of this study. Additional strengths and limitations of the study are outlined in the following section.

### 9.3 Strengths and limitations of the study

This study explored the experiences of participants in the early days of recovery and was therefore closer in time to the hospital experience compared to the work of Brett (2014) who interviewed participants later in their recovery, three to four months after surgery. Whilst the research design was similar in that participants were interviewed about their hip fracture experiences; the focus of Brett's study was on the identification of participants perceived healthcare needs and recovery. In comparison, the participants in this study were interviewed within four weeks of being recruited and/or discharged and were still in the acute phase, coming to terms with what had happened to them and requiring emotional and physical support. Having the initial focus on the experience of pressure ulcer prevention, it was deemed important to capture participant experiences of the hospital episode rather than the whole recovery period. This study therefore helps to fill a gap in the previous literature around the acute phase and experience of hip fracture and pressure ulcer prevention rather than solely the recovery phase.

A possible limitation of this study is the time lapse between the acute experience and the interview. This may have allowed chance for the participant accounts of the fall and their experience to be well-rehearsed having been recounted several times. This is an accepted limitation of interviews where the narrative and interpretations that the participant recalls may not be exactly what happened (Mwita, 2022). However, this may also be a strength of this study in that the experience was recent and fresh in the minds of participants and provided a trustworthy account of their experiences. This difference also identifies and fills a gap in the literature whereby the accounts of participants four weeks after discharge can now be included in the body of literature available. The findings may have been different had the data collection been carried out later in the recovery phase, as more time would have elapsed as this may have allowed time for some aspects of the experience to have been forgotten, as demonstrated by “The Fog” (see section 5.3.1.3). Conversely it may have required the use of differing and greater or fewer biographical variants for each of the participants.

The change of direction in the study highlighted the importance of listening to respondents. Researchers have an obligation to pay careful attention to what their respondents say to accurately reflect their experiences, ensure integrity of research data and enhance trustworthiness (Ahmed, 2024). Therefore, this change was led by the voice of the participants rather than being constrained by the research question. The refocusing that occurred was not about forcing the data into the original research question but instead allowing the data to shape the direction of the study. This can also be considered as a strength of the work. As in line with the arguments forwarded in the methods chapter (see section 4.2) that the voices of the participants are central; reiterating the importance of listening to respondents and accurately presenting their views increasing the trustworthiness of the study.

Being a clinician-researcher also adds strength to this study, as this privileged position facilitated a greater understanding of how organisational factors impacted the patient experience. Familiarity with the ward and its staff was also helpful in the recruitment phase of the study. Nevertheless, as discussed in the methodology chapter (see section 4.7) this dual role proved to be a disadvantage when my professional boundaries as a

nurse and a researcher collided. This is not unprecedented as other researchers have also experienced similar challenges when carrying out nursing research (Allen, 2004; Gerrish, 1995). The dissonance between having responsibilities as a healthcare professional and carrying out research, can present dilemmas particularly if the professional insider status raises awareness of detrimental practice.

Despite the challenges of recovery, all the participants interviewed had a strong desire to get back to normal, regain independence, and not be a burden. This may have been a selection effect of willing participation in the study. An observational study in the future may overcome this limitation, widen and further illuminate the range of experiences following hip fracture.

This study set out to understand the patient experiences of pressure ulcer prevention following hip fracture as this is an under researched area. Previous research studies have extensively focused on nurses and their knowledge, actions, attitudes and behaviours concerning pressure ulcer prevention (see section 1.8.1), whereas as noted here, this study identified a need to focus on the patient experience. Future work could build upon this by combining the two, to provide further depth. An additional perspective could be provided from interviews with nurses and other staff in addition to how their work is represented in patient notes. This could also clarify if information was deliberately withheld by nurses so as not to overwhelm the patient or if this was an oversight. It is acknowledged that using, for example a case study approach, and having access to patient case notes and interviewing nurses may have offered additional insights into the overall experience of pressure ulcer prevention following hip fracture as gained here from the patient experience perspective.

An additional merit of this study was the use of quota sampling. It is recognised that this type of sampling is not frequently used in qualitative research however this was beneficial to this study. Differences in findings between the age ranges of the young old (65-80 age group), and the old old (the 81+ group) were identified during the data analysis. For example, differences in the recollection of their experiences between the age ranges with the younger participants more able to recall events. The younger participants were also more likely to require information whereas the older participants felt overwhelmed

with the information they received. The participants over the age of 90 years also had a more challenging recovery (see section 7.4.1). Differentiating between the experiences of men and women was also useful. Men were more affected by personal experiences of pressure ulceration and less able to cope with other patients on the ward who had dementia. On the other hand, the women were more compassionate, and they were more appreciative of the camaraderie and support from other patients in the same position as them.

#### 9.4 Implications for nursing practice

From clinical experience, the number of pressure ulcers occurring is unnecessary. In the current National Health Service (NHS), nurses are regularly working in stressful and highly pressurised environments with increased workloads (Babapour et al., 2022; Dierckx de Casterlé et al., 2020). Subsequently, some aspects of care including pressure ulcer prevention are missed or depreciated (Abdelhadi et al., 2022; Valles et al., 2016). Arguably, given the findings of this study the fundamentals of care including pressure ulcer prevention and individualised care, in line with these authors' views, need to be reprioritised.

What this study has shown is that patient education for pressure ulcer prevention is only beneficial if it occurs before the injury happens, as by the time the fracture has occurred the opportunity for education has elapsed as demonstrated by the pressure ulcer paradox (see section 8.3). Therefore, based on the voices of the 21 participants, the findings of this study have suggested that empowerment of patients in pressure ulcer prevention from the point of fracture is not a helpful strategy. Instead, the decision of whether a patient can be educated and empowered, needs to be based on patient assessment and tailored individualised care which is dependent, in the case of this study, on the patients' ability to participate at that point in time. Therefore, in some cases, providing effective nursing care for the prevention of pressure ulcers rather than educating and empowering patients may be more beneficial in preventing pressure ulceration in this high-risk group.

Given the discussion and discourse which has developed across this study, it could be argued that it is misguided for nurses to spend time trying to educate and empower patients in the acute stages following hip fracture. Instead, these findings suggest that nursing time would be better spent on providing a high standard of fundamental care and pressure ulcer prevention in the acute phase of fracture and recovery, when patients are at their most vulnerable and least able to act for themselves.

The findings of this study and differences in the bespoke experiences of each of the 21 participants show that care also needs to be individualised. It is suggested here therefore that pressure ulcer prevention following hip fracture needs to be driven by an individual and tailored approach rather than a blanket decision to involve and empower all patients. The recovery process is dynamic and as patients recover, it is argued that nurses need to have the skills and knowledge to assess health literacy and the ability of patients to be involved in care. Participants like Helen and David were keen to be involved in their care as they recovered but as has been shown, standard care delivery does not work for all. For many patients, including Phyliss, there is an inability to process large amounts of information due to being overwhelmed by the experience of hip fracture (Bates-Jensen et al., 2009). As such, this study would advocate that healthcare professionals need to assess the ability of patients to comprehend information and negotiate with patients to provide bespoke material to meet their individual needs. According to Ivarsson et al. (2018) this requires skilful negotiation and the building of a therapeutic relationship between the nurse and patient; an approach to nursing care that this study advocates.

## 9.5 Implications for policy development

In addition, the findings of this study have potential implications for policy and provide additional support to the body of evidence in furtherance of the need for psychological support to be included in the fractured neck of femur pathway. Using the concept of biographical disruption and its variants has shown that psychological barriers can affect

patient outcomes following hip fracture. Formally addressing psychological care may therefore reduce the risk of hip fracture resulting in a biographically disruptive event.

Whilst NICE guidance on pressure ulcer prevention advocates that information should be provided in a tailored timely way (National Institute for Health and Care Excellence, 2014) any education following hip fracture leading to involvement and empowerment has been shown to be ineffectual in this study. What may be more beneficial is to provide information on discharge as a means of forward thinking, so that patients can be made aware and be educated to prevent pressure ulcers in the future.

## 9.6 Recommendations

Considering the points made above, this study makes the following recommendations for care delivery in general and for pressure ulcer prevention.

1. Recognise the expertise of nurses and empower them to provide and prioritise effective, individualised nursing care and pressure ulcer prevention, through the development of a therapeutic relationship with patients. Timely assessment by nurses to identify individual patient capabilities in relation to participation is proposed.
2. Patient education for pressure ulcer prevention needs to be provided before the fracture occurs or after recovery, as education may not be effective in the acute phase of recovery for all patients, due to more pressing priorities whilst in hospital setting such as getting home. A potential example could be the use of a public health campaign to raise awareness of pressure ulcers.
3. Treating patients as individuals by assessing their need for emotional and psychological support as well as physical support could help them to regain

their identity. If healthcare professionals can better understand the patient experience and the impact on the patient both physically and mentally then appropriate strategies could well be provided to allow a person to regain their sense of self and recover even if this is to a limited degree.

4. Use the findings of this study together with previous studies to address the current omission of psychological care within the key performance indicators for hip fracture. This study has suggested the need for a change in policy related to hip fracture pathway and NICE guidance (National Institute for Health and Clinical Excellence, 2011a) to include psychological care. Inclusion of patient reported outcome measures in the future development of hip fracture care and management would also support this strategy.

## 9.7 Further research

During the process of carrying out this study, other questions have been raised that may require further investigation.

1. Nurses were not interviewed as part of this study, but it would be pertinent to understand if, when and why nurses withhold or do not actively provide information on pressure ulcer prevention to patients post hip fracture and in other clinical specialities. As discussed above, a case study approach including a review of case notes could provide a more in depth understanding of patient experience of pressure ulcer prevention following hip fracture. In addition, having the nurse's perspective and access to patient notes may support analysis for example in providing a greater clarity on if nurses withheld information deliberately or if this was an oversight.

2. Although it was not within the scope of this study, it would be beneficial to carry out an ethnographic study to understand how nurses assess patients' ability to comprehend information and education at various times in the hospital episode. As people recover, the narrative can change and therefore the timing of an interview can influence the findings of a study. Hence using an ethnographic methodology would overcome this as it is time appropriate and would capture the immediate ideas and feelings of participants. The immediacy of data collection would mean that participants would not have had time to reflect on their experiences and therefore not have a problem remembering. This would also not have given opportunity for participants to rehearse their accounts of the fall and their experiences.
3. Findings of this study may also have implications for patients experiencing other acute conditions and therefore further research into these would provide further knowledge on when patient education is a suitable strategy to use to enhance patient care.
4. Future work might also usefully include longitudinal research, perhaps taking a mixed-methods approach (ethnography, qualitative interviews, documentary sources such as hospital records). Such a study could examine the ebb and flow of the variations within each participant's evolving experience. The value of one or multiple biographical variants also warrants future research. In addition, a longitudinal ethnographic study looking at disruption over a longer period would add to the discourse. This would allow a better understanding of whether people stay in flow, abruption, or disruption across differing periods of recovery.
5. As discussed in section 2.5.2 other future research could include a study to review the availability and efficacy of patient information leaflets for pressure ulcer prevention available in the UK for use prior to a fracture occurring.

6. Consider if advancing age in addition to prior knowledge and experience of pressure ulcers affect a person's ability to participate in care.

Pressure ulcers continue to be a serious cause of patient harm with 180,000 new cases every year (Wood et al., 2019). Consequently, it is imperative that there is a sound evidence base for policy development and care.

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## *Appendices*

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## Appendix 1 - Categorisation Tool

### Appendix 1

## Pressure ulcer categorisation



#### Blanching erythema

Healthy skin may develop transient redness when subjected to pressure – for example, if the legs are crossed. To test if damage has occurred, light finger pressure should be applied to see if the skin blanches (goes white). In darker skin tones, redness may present as a darker area that is grey or purplish. This is **not** a pressure ulcer.



Example of skin blanch



Blanch in darker skin



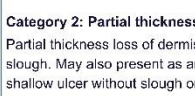
This redness is persistent and does not blanch



This redness will not blanch when pressure is applied

#### Category 1: Non-blanchable erythema

Intact skin with non-blanchable redness of a localised area, usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area. The area may be painful, firm, soft, warmer or cooler compared to adjacent tissue. Category 1 may be difficult to detect in individuals with dark skin tones. May indicate 'at risk' individuals (a heralding sign of risk).



#### Category 2: Partial thickness skin loss

Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising.\* This category should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation.

\*Bruising indicates suspected deep tissue injury.



An intact serum-filled blister



A shallow open ulcer with a red pink wound bed without slough



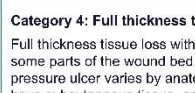
A superficial ulcer with a collapsed blister



Full thickness tissue loss. Subcutaneous fat is visible but no bone, tendon or muscle

**Category 3: Full thickness skin loss**  
Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss.

May include undermining and tunnelling. The depth of a Category 3 pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue, and Category 3 ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep Category 3 pressure ulcers. Bone/tendon is not visible or directly palpable.



#### Category 4: Full thickness tissue loss

Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunnelling. The depth of a Category 4 pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue, and these ulcers can be shallow. Category 4 ulcers can extend into muscle and/or supporting structures (eg fascia, tendon or joint capsule) making osteomyelitis possible. Exposed bone/tendon is visible or directly palpable.



In this wound, the bone is clearly visible



This wound shows exposed muscle



This occipital ulcer is covered by softening necrosis



This heel ulcer is covered by hard dry eschar



The necrotic cap on this heel has softened and started to separate

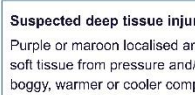


Although still firmly attached, there is a ring of demarcation where this eschar has been rehydrated

#### Unstageable: depth unknown

Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black) in the wound bed.

Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore category, cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as 'the body's natural (biological) cover' and should not be removed.



#### Suspected deep tissue injury: depth unknown

Purple or maroon localised area of discoloured intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler compared to adjacent tissue. Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid, exposing additional layers of tissue even with optimal treatment.



This heel ulcer appears as a dry blood blister



This heel ulcer appears as a linear area of deep purple black discoloration

These images have kindly been supplied by members of the NHS Improvement pressure ulcer categorisation group. Permission has been given by the patients for them to be freely reproduced.

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# Pressure ulcer categorisation

## Device-related pressure ulcers (DRPU)

'Pressure ulcers that result from the use of devices designed and applied for diagnostic or therapeutic purposes.'

While some DRPU may also be allocated a category of damage, others may not as they are on parts of the anatomy that do not have the same structures as the skin – for example, the mucosal membrane. Where possible, a device-related ulcer should be categorised and the presence of a device noted by the addition of a (d) after the category.



This infant has Category 1 damage to the cheeks and a small unstageable ulcer on the ear



This neonate has damage to the nares that cannot be categorised



The damage caused by this urinary catheter could be categorised as a DTI (d)



Although difficult to identify, this PU was caused by the leather ring at the top of an old-fashioned calliper



Damage has occurred where the spectacles and elastic from the oxygen mask press on the pinna of the ear



Although difficult to identify, this PU was caused by the patient having their feet caught in the bed sheets which were tightly twisted across the toes

## Moisture-associated skin damage

This can occur due to the presence of any type of moisture on the skin, including incontinence, leakage from stoma, saliva, wound exudate and sweat



These multiple superficial lesions with diverse edges are typical of Incontinence Associated Dermatitis



The white cobblestone appearance of the tissue around this wound shows evidence of significant maceration due to wound exudate remaining on the skin



Wounds related to IAD such as these are often extremely painful



This wound demonstrates how the epidermis can easily be stripped away by incontinence

## Mucosal pressure ulcers



Mucosal pressure ulcers can not be categorised as the tissue does not have the same layers as the skin and therefore does not conform to the definitions. These PU are therefore uncategorisable (NOT unstageable). They are usually caused by devices and therefore should be recorded as PU (d), locally you may wish to denote them as "Mucosal" or "Uncategorisable".

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## Appendix 2 – Key Performance Indicators



FFFAP

## National Hip Fracture Database

National Falls and Fragility Fracture Audit Programme (FFFAP)

Home | Charts | KPIs | Benchmarks | Dashboards login

Key performance indicators (KPIs)  
KPI 0 - Ortho Ward  
KPI 1 - Prompt review  
KPI 2 - Prompt surgery  
KPI 3 - NICE compliance  
KPI 4 - Mobilisation  
KPI 5 - Delirium  
KPI 6 - Home return  
KPI 7 - Medication  
KPIs  
KPIs Overview  
KPIs Table

Search: enter a hospital name, address or postcode... About Using charts FAQs

### KPI overview: [ALL]

*Annualised values based on 65,113 cases averaged over 12 months to the end of July 2022.*

<b>0. Admitted to Specialist Ward</b> <b>7%</b> NHFD overall: 7%	<b>1. Prompt orthogeriatric review</b> <b>87%</b> NHFD overall: 87%	<b>2. Prompt surgery</b> <b>60%</b> NHFD overall: 60%	<b>3. NICE compliant surgery</b> <b>69%</b> NHFD overall: 69%
<b>4. Prompt mobilisation</b> <b>80%</b> NHFD overall: 80%	<b>5. Not delirious post-op</b> <b>63%</b> NHFD overall: 63%	<b>6. Return to original residence</b> <b>69%</b> NHFD overall: 69%	<b>7. Bone Medication</b> <b>32%</b> NHFD overall: 32%

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NHFD - Charts & Reports v1.0 © Copyright 2019 - 2022 HQIP/RCP Falls and Fragility Fracture Audit Programme (FFFAP)  crown audit

### Appendix 3 - Data/Information Extraction Tool – hip fracture and pressure ulcers

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
Avenell et al, (2016)	Cochrane Library	UK	To review the effects (benefits and harms) of nutritional interventions in older people recovering from hip fracture.	Design: Systematic review involving 41 trials and 3881 participants. Data was pooled by 2 independent authors and primary outcomes identified. Trials included the use of oral supplementation and oral tube feeding.	<p>Primary outcomes were mortality, morbidity, post-operative complications including pressure ulcers. There was low-quality evidence that the number of participants who experienced complications was reduced with oral supplement feeds. This was based on 13 studies analysed (RR 0.71, 95% CI 0.59-0.86). No difference was found in complications when participants were tube fed. This evidence was deemed very low quality.</p> <p>Overall, there was low quality evidence that multi-nutrient supplements started before or soon after surgery may prevent complications following hip fracture.</p>	The trials reviewed were methodologically flawed and showed evidence of bias related to allocation concealment, incomplete outcome data or selective reporting of outcomes.	Adequately sized randomised controlled trials with robust methodology are required.	<p>Oral supplementation</p> <p>Tube feeding/nutrition</p>
Baumgarten et al. (2003)	Wound repair and regeneration	USA	To estimate the incidence of hospital-acquired pressure ulcers among elderly patients hospitalised for hip fracture surgery and to identify extrinsic factors that	Design: Retrospective cohort study using secondary data from hospital records (chart review) that was collected for a previous	Incidence of HAPU was 8.8% with 95% CI. Longer wait before surgery, intensive care stay, longer surgical procedure and general	Ethical approval was obtained from the Institutional Review Board of the Robert Wood Johnson Medical School as	Intrinsic factors were not investigated but could also have an impact on the development of	Factors statistically significant for pressure ulcer development following hip fracture:

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
			are associated with increased risk	<p>study on blood transfusion.</p> <p>Instrument: Population: Patients who had had hip fracture and blood transfusion at one of 4 hospitals from a previous study.</p> <p>Sample: Patients aged 60 years and over who underwent surgical hip fracture repair at one of 20 hospitals in Pennsylvania, Texas, New Jersey and Virginia between 1983 and 1993 who had had blood transfusion as part of their care.</p>	anaesthesia were significantly associated with higher pressure ulcer risk.	well as the Review Board from each of the hospitals identified.	pressure ulcers. The authors did acknowledge the impact of intrinsic factors but did not feel they were modifiable during a short hospital stay. Some extrinsic factors were not mentioned such as use of preventative strategies such as pressure redistribution devices and repositioning regimes.	Longer wait before surgery, intensive care stay, longer surgical procedure and general anaesthesia were significantly associated with higher pressure ulcer risk.
Baumgarten et al, (2012)	Journal of American Geriatric Society	USA	To identify care-related factors associated with increased incidence of hospital acquired pressure ulcers (HAPU).	<p>Design: Prospective cohort study that reviewed factors associated with pressure ulcers including duration of surgery, time between admission and surgery, activity level, age, sex, and use of pressure redistributing mattress or overlay.</p> <p>Instrument: Observation of patient's skin alternating days for 21 days. Baseline assessment completed as soon as possible after admission once consent</p>	96 (14.6%) developed a pressure ulcer during the study, most commonly stage 2 to sacrum. The authors stated that these patients had a greater severity of illness, poorer mental status, more likely to be incontinent and bedbound and had a higher risk of nutritional complications at baseline that those patients who did not develop a hospital acquired pressure ulcer.	Ethical approval was gain from the Institutional Review Boards of the University of Maryland and each of the hospitals who participated. Written consent was gained from participants who had capacity. Those who were unconscious or not able to consent were consented by a proxy.	<p>Large sample size.</p> <p>Use of a validated assessment protocol to detect pressure ulcers and expert research nurses.</p> <p>Pressure ulcers were only detected whilst patient was in hospital which would not have captured any which occurred after discharge.</p>	<p>Factors statistically significant for pressure ulcer development following hip fracture:</p> <p>Length of time in ED</p> <p>Time from admission to surgery</p> <p>Surgery that used other forms of anaesthetic and not general.</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>gained, average 2.9 days. Research nurses assessed the presence and severity of pressure ulcers using a standard protocol which was validated. Staging was used at this time rather than category. Statistical analysis was completed in SAS v9.1. Poisson regression model was used.</p> <p>Population: Patients who were 65 years or older and had surgery for hip fracture at one of 9 hospitals.</p> <p>Sample: 658 patients were enrolled into the study. This accounted for 62% of population. It is not clear why the other 38% did not participate as information about this was not provided.</p>	<p>Longer emergency department stay was associated with lower incidence of HAPU RR 0.68 with 95% CI. Authors felt this was because sicker patients are transferred more quickly from ED.</p> <p>Patients with more than 24 hours between admission and surgery has a higher rate of HAPU RR 1.62 95%CI. Patients with multiple comorbidities often require stabilising to reduce the risk of mortality. HAPU was inversely associated with length of ED stay, (authors felt this was due to sicker patients being admitted quicker).</p> <p>Surgery with general anaesthesia had a lower rate of HAPU RR 0.66 95% CI.</p>		<p>Although use of pressure redistributing mattress was captured and included in the statistical analysis other preventative measures were not accounted for such as repositioning. Therefore, this could have had an impact on the results obtained.</p>	
Chiari et al, (2017)	PLOS One	Italy	<p>To evaluate the instance of pressure ulcers and potential predictive factors.</p> <p>Both intrinsic and extrinsic factors were investigated including the use of preventative measures.</p>	<p>Design: A prospective multi centric prognostic cohort study. Data was analysed using SPSS. The Kolmogorov-Smirnov test was used to assess the normality of the continuous variables. Multivariate</p>	<p>The incidence of pressure ulcers was 22.7% [246 cases].</p> <p>Of all the intrinsic characteristics assessed only age more than 80 years was found to be significant.</p>	<p>Approval was gained from ethics committees from the various participating hospitals including Rizzoli Orthopaedic Institute, University Hospital of Bologna and Hospital of</p>	<p>Large number of intrinsic and extrinsic factors were considered and included.</p>	<p>Risk factors for pressure ulcers in patients with hip fracture:</p> <p>Age over 80 years</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>analysis was used. Analysis of variance was used to assess between group differences and the Mann Whitney test was used for all other assessments.</p> <p>Population: Participants were recruited from orthopaedic wards in three Italian hospitals. Patients were over the age of 65 and had sustained a hip fracture. 1211 patients presented to the Er with hip fracture. Patients were excluded if they had a pathological fracture.</p> <p>Sample: 1083 to participate and were recruited in this study between 2013 and 2015.</p>	<p>Of the extrinsic factors frequent positioning and early post operative rehabilitation and mobilisation, Positioning railings on the bed the use of air mattress early removal of urinary catheter and limiting the use of incontinence pads for faecal incontinence had a protective effect.</p> <p>The length of time to surgery did not have any correlation with the development of pressure ulcers, which is in contrast with many other studies. However, the average wait was less than stated in previous studies therefore confirming the value of early surgical intervention.</p>	Reggio Emilia. Written consent was gained from all patients.		Of the extrinsic factors frequent positioning and early post operative rehabilitation and mobilisation, Positioning railings on the bed the use of air mattress early removal of urinary catheter and limiting the use of incontinence pads for faecal incontinence had a protective effect.
Forni et al, (2018)	Advances in Skin and Wound Care	Italy	To assess the rate of pressure ulceration in older adults with hip fractures in an orthopaedic hospital.	Design: Prospective prognostic monocentric cohort study over a 12-month period, Oct 2013-Sept 2014 in an Italian hospital with 327 beds. Multivariate analysis was used to identify predictive factors. Sample number estimate was calculated to be 400 prior to the study commencing.	467 met the inclusion criteria and consented were enrolled in the study 8 patients died. 27% (n=127) of these developed a pressure ulcer with a mean onset of 4 days with sacrum and then heel being most common sites.	Ethical approval gained. Information provision and gaining of consent was carried out by the nurses on the ward.	<p>Sample was noted to be adequate but at the lower limit needed for statistical analysis.</p> <p>Inter-rater reliability was maintained through training of the nurses assessing the skin of participants.</p>	<p>Risk factors identified as: Aged 81 or over</p> <p>Bone fixation surgery</p> <p>Having a splint insitu</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>Instrument: Daily skin checks were carried out by an appointed nurse on the ward.</p> <p>Population: (589) were over 65 years old who had been admitted to ED with hip fracture.</p> <p>Sample: 467 patients met the inclusion criteria and agreed to participate.</p>	<p>Predictive factors that were statistically significant included:</p> <p>Aged 81 or over, type of surgery and having limb placed in a rubber splint. No correlation was found with any other variables including use of pressure relieving mattress</p>		<p>Patients with an existing pressure ulcer were excluded from the study but no reason for this was given.</p>	
Galivanche et al, (2020)	Journal of the American Academy of Orthopaedic Surgeons	USA	To determine the factors predictive of post-operative pressure ulcer development in older people.	<p>Design: Multicentre cohort study using data from the 2016 American College of Surgeons National Surgical Quality Improvement (NSQIP) Programme that included 600 hospitals. Data is collected for 90 days post- surgery. Multivariate logistical regressions were used to identify both pre-operative and post-operative risk factors. Various variables were considered including ascites, CCF, hypertension and dementia.</p> <p>Instrument:</p>	<p>8871 participants were included in the study. With 457 (5.15%) of these developing new pressure ulcers post operatively.</p> <p>Results found that post-operative pressure ulceration was statistically significant and more likely to occur in:</p> <p>Older patients, male, if patients were partially or totally functionally dependent before the injury.</p> <p>Pre-op factors that increased risk were sepsis, high pre-op platelet count, IDDM,</p>	Human Investigation Committee exempted the current study from review.	Large sample size.	<p>Risk factors for pressure ulceration in hip fracture.</p> <p>Older patients, male, if patients were partially or totally functionally dependent before the injury.</p> <p>Pre-op factors that increased risk were sepsis, high pre-op platelet count, IDDM, and having an existing pressure ulcer.</p> <p>Post-operative factors were sepsis, pneumonia, UTI, delirium.</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>Population: 9390 patients captured on the (NSQIP) database.</p> <p>Sample: 519 were excluded as were under 60 leaving 8871.</p>	<p>and having an existing pressure ulcer.</p> <p>Post-operative factors were sepsis, pneumonia, UTI, delirium.</p> <p>No differences were noted based on BMI.</p>			
Gonzalez et al, (2018)	Acta orthopaedica Belgica	Mexico (Belgium journal)	To analyse if low grip strength is associated with a higher incidence of pressure ulcers in patients with hip fracture.	<p>Design: Observational longitudinal cohort study. 462 patients were admitted following hip fracture.</p> <p>Instrument: Hand grip strength measurement was performed by a trained physician, using a Jamar® Hydraulic Hand Dynamometer</p> <p>Population: Patients were grouped according to their hand grip strength and then incidence of pressure ulcers evaluated from admission until discharge.</p>	<p>After multivariate analysis, hand grip strength was associated with pressure ulcer incidence.</p> <p>After multivariate analysis, only HGS remained associated with PUs incidence. Low handgrip strength is associated with a higher incidence of pressure ulcers.</p>		The study showed limitations in that some variables could not be controlled, such as care in the ambulance as 5 different ambulance stations were involved and that patients were not always cared for on an orthopaedic ward so ongoing care could also not be controlled.	Hand grip strength
Hommel et al, (2007)	Journal of Orthopaedic Nursing	Sweden	The aim of this study was to improve the quality of care and patient safety in patients with hip fracture using a new clinical pathway.	<p>Design: Quasi experimental study conducted at a University Hospital in Sweden evaluating a new clinical pathway.</p> <p>Instrument: Daily skin assessments</p>	478 patients were recruited. The intervention consisted of administration of oxygen in the ambulance en route to the hospital, intravenous supplementation prior	Ethical approval was obtained from the Ethics Committee of the Medical Faculty of Lund University and consent gained from patient or if they did not have capacity from their NOK.	Not all patients were treated on the same ward which meant that controlling other confounding variables was therefore a risk.	Use of pathway reduce the risk of pressure ulcer development.

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>Population: 478 patients who had fractured their hip between April 2003 – Mar 2004 and admitted to University Hospital in Lund. Any patients with existing pressure ulcers were excluded from the analysis but not the study.</p> <p>Sample: Comparisons were made between the first 210 patients in the control group and the last 210 patients in the intervention group after the pathway was introduced in October 2003.</p>	<p>to surgery, adequate pain relief at A&amp;E, and instead of returning to A&amp;E after x-ray they were transported directly to an orthopaedic ward to reduce the time spent on hard surface (trolley).</p> <p>The pathway was shown to significantly decrease the incidence of hospital acquired pressure ulcers in the intervention group compared with the control group.</p>	Written information and consent were gained from participants or NOK for non-lucid patients.		
Houwing et al, (2003)	Clinical Nutrition	Netherlands	To investigate the effect of nutritional supplementation on the incidence of pressure ulcers in at risk hip fracture patients.	<p>Design: Double-blind randomised, placebo-controlled trial. Patients were randomised to receive the study or placebo supplementation in addition to their regular diet. Data was analysed using SPSS.</p> <p>Instruments: Nursing staff assessed skin daily and pressure ulcers were defined using the four stage EPUAP guidelines from 1998.</p> <p>Population: All patients with hip fracture who</p>	<p>103 met selection criteria and were included in the study. 52 were randomised to receive the placebo and 51 to receive supplementation which began as soon as they were able to start oral intake post-operatively. 59% in the placebo group and 55% in the supplementation group. This was not statistically significant.</p> <p>Incidence of pressure ulcers was not different between placebo and supplement groups, but</p>	The Medical Ethical Committee of the 3 participating centres approved the study. Written informed consent was gained from all patients or their legal representatives.	Authors felt that due to low numbers there was insufficient power.	Nutritional supplementation may not prevent pressure ulcers but may contribute to a delayed onset and progression of pressure ulcers.

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				<p>were admitted between April 1998 and December 1999. Exclusion criteria included terminal care, metastatic hip fracture, IDDM renal disease or hepatic impairment, morbid obesity and need for a therapeutic diet that was incompatible with supplementation.</p> <p>Sample: Authors calculated that they would need a sample size of 350 patients per group to be included in the study to detect a difference in pressure ulcer incidence.</p>	<p>incidence of stage 2 pressure ulcers showed a 9% difference.</p> <p>There was a later onset of pressure ulcers in the supplement group but again was not statistically significant.</p>			
Lindholm et al, (2008)	International Wound Journal	Pan-european study, Sweden, Finland, UK, Spain, Italy and Portugal.	<p>To identify factors (intrinsic and extrinsic) for the development of pressure ulcers in patients admitted following hip fracture.</p> <p>Did include turning regimes.</p>	<p>Design: Prospective cohort study of 20 consecutive patients from each country. SSPS used to analyse data.</p> <p>Instrument: Patients skin was inspected daily by staff trained as part of the study from day 1 to day 7 or discharge.</p> <p>Population: 20 consecutive patients from each country with hip fracture diagnosis.</p> <p>Sample:</p>	<p>Various variables were analysed including pain on admission, smoking status, blood pressure, Hb, BMI. 609 patients participated in the study. 131 (22%) had a pressure ulcer on discharge. Risk factors that were identified and were statistically significant were ages over 71 years, dehydration, moist skin, low Braden score (&lt;16), lack of turning schedule, friction and sensory perception. Presence of diabetes and pulmonary disease were also statistically</p>	<p>Consent gained using verbal and written information or if patient was confused, this was provided by the next of kin.</p>	<p>Each country/study co-ordinator was responsible for training and education of local investigators and staff however it is not clear how inter-rater reliability was assured.</p>	<p>Risk factors for pressure ulcer development:</p> <p>Risk factors that were identified and were statistically significant were ages over 71 years, dehydration, moist skin, low Braden score (&lt;16), lack of turning schedule, friction and sensory perception. Presence of diabetes and pulmonary disease were also statistically significant for</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
					<p>significant for pressure ulcer development.</p> <p>Waiting time for surgery, duration of surgery, type of anaesthesia, traction and type of fracture were not significantly correlated with pressure ulcer development.</p>			pressure ulcer development.
Rodriguez-Fernandez et al, (2010)	Clinical Orthopaedics and Related Research	Spain	To examine the effects of delays in surgical treatment of hip fracture on mortality post operative complications length of stay and functional recovery in elderly patients. This delay was because of a fire at the hospital.	<p>Design: 188 patients were included in the study. All patients were older than 70 years of age and had a hip fracture. The first group of 109 patients (81 were women and 25 were men) was studied retrospectively these patients had had a delay in surgical repair for more than one week. the second group comprising of 79 patients (62 women and 15 men) were studied prospectively and operated on within 48 hours of the fracture occurring. All patients were operated on by the same team of surgeons and anaesthetists.</p> <p>Qualitative variables were analysed using SPSS and compared using Pearson's chi-square test Fisher's</p>	Group One were found to have a larger number of complications including pressure ulcers (0.02) and increased length of stay (0.001) compared to group 2. There were no differences in mortality or functional recovery at three months and one year between the groups.	Informed consent for participation in the study was obtained.	The study was designed to make the 2 groups as homogenous as possible, but group 2 was smaller in size.	<p>Risk factors for pressure ulcers and hip fracture</p> <p>Surgical delays and pressure ulcer risk.</p>

Authors & date	Journal	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Ethical considerations	Strengths and limitations	Themes
				exact test, chi square test and students T test. Statistical significance was set at p<0.05				
(Sasabuchi et al., 2018)	Injury	Japan	To compare post-operative outcomes of early (same day or next day of admission) and delayed surgery (any days thereafter) for elderly patients with hip fracture.	<p>Design: Retrospective cohort study</p> <p>Population: Anonymised data was obtained from the national inpatient database (Japanese Diagnosis Procedure Combination Database) of patients who underwent hip fracture surgery between July 2010 and March 2014. There are 1000 hospitals who input into this database.</p> <p>Sample: Patients were included if they were admitted with a hip fracture and underwent surgery. Patients under 65 years of age or records where data was missing were excluded.</p> <p>Variables such as LOS, mortality, perioperative complications including pressure ulcers were investigated.</p>	<p>208936 patients were included in the analysis.</p> <p>47,073 had early surgery (within 2 days of admission) and 161,805 had delayed surgery (after 2 days or more).</p> <p>Early surgery was significantly associated with a reduced risk of pressure ulcers during admission. 0.56 95% CI, 0.33 to 0.96, p=0.035</p> <p>It was also associated with shorter LOS and a reduced risk of hospital acquired pneumonia but was not associated with 30-day mortality or pulmonary embolism.</p>	Institutional Review Board of the University of Tokyo approved the study. As the data was anonymous, the need for informed consent was waived.	The authors recognised that randomisation was the best way to control confounding factors however, it was not ethical to randomise patients and delay surgery when this was not needed due to medical condition or organisational factors, but the authors noted that patient characteristics were well balanced between the groups regardless of the instrumental variables.	Timing of surgery/delays, did increased risk of HAPU.

## Appendix 4 - Data/Information Extraction Tool – Patient participation (knowledge and involvement) in pressure ulcer prevention

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Akkuzu et al., 2009)	Turkey	To evaluate the opinions of patients at moderate to high risk of pressure ulcers about an educational brochure on pressure ulcer prevention.	<p>A descriptive study of 33 hospital patients assessed over the course of 1 year who were admitted to an acute hospital ward. 54.5% were women and 60.5% were over 65 years of age. All at moderate or high risk of pressure ulcers as assessed using Braden score. 18.2% had had a previous pressure ulcer.</p> <p>Researchers provided verbal education and the brochure “Information for Patients and Relatives about Preventing Pressure Ulcers” was given to participants. After one day, researchers then administered a questionnaire.</p> <p>Verbal and written consent gained, and</p>	<p>Patients ranked educational material as “satisfactory”.</p> <p>Study found that content should be written at 8<sup>th</sup> grade level or 3<sup>rd</sup>-5<sup>th</sup> if patients elderly or have limited education and use font size 11-13.</p> <p>None of the patients opined that education would be more meaningful if it was given at some other time rather than visiting hours.</p>	Assessed after 1 day so information fresh in their minds.	Authors concluded that limited use of illustrations recommended!!!! However, the participants recommended the use of colour.	<p>Patient information leaflet</p> <p>Timing of education</p> <p>Use of images</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			ethical approval obtained.				
(Chaboyer et al., 2016)	Australia	<p>The INTACT trial: To evaluate the effectiveness of a patient centred care bundle in preventing hospital acquired pressure ulcers among at risk patients.</p> <p>2 parts to this cluster RCT:</p> <p>To investigate if the incidence and severity of pressure ulcers was reduced with use of care bundle.</p> <p>And</p> <p>To explore if the use of the care bundle resulted in higher reported patient participation</p>	<p>Cluster RCT. Eight hospitals in 3 Australian states and 1600 patients across these were recruited. Patients were included if they were over 18 and had reduced mobility.</p> <p>Poster, information brochure and DVD were used to educate patients in the intervention group. Nurses were also educated about patient participation.</p> <p>Participation element was compared between the 2 groups using a cluster adjusted independent t-test.</p> <p>Ethical approval was gained.</p>	<p>52% had a reduction in the risk of pressure ulcers when comparing bundle to standard care however this was not statistically significant. There was also no difference in pressure ulcer severity of new pressure ulcers.</p> <p>No statistical differences were found in patient participation between the groups. Authors felt this may be due to inadequate training and ongoing support of nurses to facilitate the engagement in care and that some nurses were not ready to relinquish this care element to patients.</p>	Ethical approval was not obtained to collect data on nursing staff. Therefore, it was not known how many nurses received training on the care bundle.		Use of care bundle to facilitate patient participation did not demonstrate a statistically significant increase in participation among this group of patients.
(Deakin et al., 2020)	Australia	To measure the relationship between patient participation in pressure ulcer prevention	Pre and post quantitative intervention survey used. Two validated	80 patients (average age of 67) were recruited in Nov-Dec 2019. The survey results showed significant increase in	The authors did not assess/know which of the individual components were	Patient engagement is the best way to increase participation in	Patient knowledge, Patient satisfaction and patient participation through engagement.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
		<p>before and after the use of a patient centred care bundle.</p> <p>To assess knowledge pre and post intervention</p> <p>To ascertain level of patient satisfaction with the use of the care bundle</p>	<p>scales were used to measure participation and satisfaction. Study site was 3 acute medical wards in Australian hospital. Descriptive statistics used to describe the sample. Paired samples t-test used to measure changes before and after.</p> <p>Intervention consisted of a poster, video (via bedside technology) and brochure in English, Croatian and Greek.</p>	<p>patients self-reported knowledge and participation in pressure ulcer care.</p>	<p>effective in the intervention however 92% of participants accessed the video.</p> <p>Single site, not generalisable</p>	<p>pressure ulcer prevention.</p>	
(Durrant et al., 2018)	UK Primary research	<p>Provide information on the health literacy of community patients with pressure injuries and to analyse the patient information leaflets were effective at informing knowledge.</p>	<p>Mixed methods, semi-structured interviews on 12 participants (aged between 31-92 years) who had pressure injury. Potential participants were identified by TVN, podiatrist or DN teams and then participation was on a voluntary basis. Patients were community based.</p>	<p>Patients had limited knowledge of pressure ulcer prevention, causes. Health literacy was poor. Knowledge was not enhanced by pressure ulcer leaflets.</p>	<p>Small study with only 12 participants. Not generalisable due to sampling used.</p>	<p>Alterations needed in the approach to improving patients understanding of pressure ulcers and facilitating their role in prevention.</p>	<p>Knowledge and understanding were not enhanced by patient information leaflet availability partly due to poor engagement and poor readability of leaflets analysed.</p> <p>Leaflets play a minor role in pressure injury health literacy of patients.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Gillespie et al., 2013)	Australia  Primary research	Was to develop and pilot a pressure ulcer participatory care bundle for hospitalised patients regardless of pressure ulcer risk.	Qualitative but this was not wholly clear initially. However, interviews were used to seek patients views and opinions of the bundle. Sample was from one surgical and one medical ward in the same one hospital. 58 participants (11 interviewed) in the study. General interview guide was used. Content analysis used.  Ethics permission gained and patients were provided with information sheet and consented.	3 categories emerged from the data. This included conveying main messages, delivering a contextually responsive care bundle and catering to the target audience. Participants stated that the information needed graphic images to show the ramifications of prolonged mobility whilst keeping the message simple.  They found that the more the care bundle required from the patient, the greater the immediate reward to sustain it was required. Overall, it was found that the written checklist and information brochure was far less successful at engaging patients than video and poster formats.  The need to engage patients in participating for a sustained period was not effectively balanced by the elusive nature of avoiding pressure ulcer development.  Patients at lower risk had a lower level of motivation to participate in pip and felt that this should be aimed at patients who were at greater risk and therefore would most likely benefit.	That patients were consulted in the use of the bundle however 40% of participants in this study were deemed to be low risk of pressure ulcers. Authors also acknowledged that the pilot demanded a reasonable level of health literacy.	Recommendations of this study were to refine the care bundle in line with feedback from participants.	Written information (Patient information leaflet) far less effective compared with videos or posters.  Ability to participate in using the care bundle was dependent on how they were at the time. Their medical condition strongly influenced their ability to participate.  Participants with pre-existing knowledge were better able to participate.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Hartigan et al., 2012)	Ireland	To test the use of a patient education leaflet and to evaluate older adult's knowledge of pressure ulcers and prevention.	<p>Prospective quasi-experimental study. Pre-test was carried out; a patient information leaflet was given to patient to read and digest following their appointment visit. Then a post-test was carried out 1 week later, on their return to the centre. Convenience sample of adults over 65 years old, from a community treatment and assessment centre for older adults (n=97). N=6 failed Mental test score and were excluded and 16 declined to participate.</p> <p>Participants were 66-99 years of age with a mean age of 79.9.</p>	<p>The patient education leaflet enhanced the knowledge (related to pressure ulcers) of the older people in this study. After the intervention, only 9% did not know what a pressure ulcer was compared to pre-test where 32% did not.</p> <p>Knowledge of causes, 77% pre-test could identify causes, 89% post-test and included sitting or lying in one position for too long, friction and incontinence.</p>	<p>Measurement instrument was designed that finally included 11 questions on. Each question directly mirrored information in the educational leaflet.</p> <p>Authors acknowledged that the interval for knowledge retention was short (1 week) and suggested that a longitudinal study is required to assess over longer periods.</p> <p>59% of participants in this study were deemed to be at low risk of pressure ulceration.</p> <p>19 patients were lost to follow-up due to non-attendance at appointment or discharge from the service.</p>	<p>A follow-up study using a control group may enhance findings.</p> <p>Assessment of literacy skills of participants required.</p>	That patient information leaflet was beneficial in increasing knowledge level of older people in this study. Authors stated that this can help older adults to feel more empowered.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Hossieny et al., 2012)	Australia	Examine the effectiveness of verbal and written patient information in relation to (plaster) cast safety.	<p>Method of study not clearly defined by the authors but used interviews of 10 mins in duration to administer a questionnaire on patient information regarding their cast. This included asking if they had received verbal or written information or both, if they had read the written information and if they had understood it.</p> <p>109 participants recruited, 17 lost to follow up.</p> <p>Ethics approval gained and participants were provided with patient information sheet and written consent form which they were required to complete.</p>	<p>Provision of written information was inconsistent, with only 62% having received this.</p> <p>Patients who had verbal information only had the lowest level of recall. Participant who received written had better recall. However, only half actually read the information they were given. Reasons cited for this were that they had waited too long for appointment, were in pain or thought it was just repetition of what they had already been told.</p> <p>Participants who had received and read written information had higher recall of information. This was found to be statistically significant and yet this was still less than 60%.</p> <p>3 participants in the study sustained a pressure ulcer under their cast however it was not clear if these participants had been the ones who had received and/or read the written information and therefore the impact of this could not be assessed.</p>	<p>Low numbers reduced statistical power.</p> <p>Participants could not all be followed up at a standardized time after cast applied due to nature of setting.</p>	Authors stated that understanding information received is an important factor in compliance to treatment.	<p>Provision and availability of patient information leaflets.</p> <p>Patient information/education</p> <p>Patient knowledge</p>

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(Hultin et al., 2019)	Sweden  Primary research.	To assess the participatory capabilities of hospitalised older adults in response to continuous bedside monitoring device that was placed on the bed to prevent pressure injuries.	Descriptive qualitative research,  Semi-structured interviews (4-21 mins),  Patients aged 65 and over recruited from orthopaedic rehab unit. Ethics approval gained.  Convenience sample, 31 participants took part. They had a range of orthopaedic conditions including hip fracture, femur fracture. Approached post-operatively and invited to participate. Device installed and used for 3 days and participants interviewed on day 4.	21/31 participants did not use the monitor, did not understand it, too tired, no interested, unable to see it due to impaired vision.  Knowledge increased among participants who did use device.  Technology helped older people (regardless of age) understand the risk of pressure ulcers, recognise the risks and act. Used in a playful way, found it fascinating to see that even just a slight movement could reduce high pressures exerted.	Convenience sample therefore not representative. More females n=20 than males n=11.	Pressure maps devices are effective at complementing existing pup strategies in clinical practice.	Patient participation proved positive, awareness and knowledge increased because of taking part in the study, action/behaviour change, use of technology to enhance care. Patient awareness of pressure points has a positive impact on them acting in their own care. Technology used (continuous bedside pressure monitoring device) increased participants participation and taking action to reduce risk of pressure ulcer development.
(Latimer et al., 2014)	Australia  Primary research	To describe patients' perceptions of their current and future role in pressure injury prevention.	Interpretive, qualitative study using semi-structured interviews 10-15 min). Purposive sampling used. 20 participants (13 female: 7 male)	3 categories identified: experiencing pressure injuries, participating in pressure injury prevention and resourcing pressure injury prevention and treatment.  Participants gained knowledge of pressure ulcers	Limited to healthcare context of medical units. Participants wanting to provide "the correct answer".  Purposive sampling meant a range of	Most participants wanted to be involved in pip. The importance of nurse-patient relationship to facilitate the above.	Importance of the nurse-patient relationship to facilitate participation in pressure ulcer prevention.  Patient willingness/motivation to participate is a factor.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			<p>from 4 medical units in 2 hospitals were recruited. Median age was 65.5 years however age ranges were from 24-80.</p> <p>Content analysis used to interpret the data</p>	<p>from first-hand and vicarious experience and much of this was negative experiences e.g. odour and pain. Participants who had this had more knowledge.</p> <p>Active participants felt frustrated by negative experiences with nurse interactions. Whilst some experienced a more enabling and encouraging approach from nurses even despite limiting factors they had e.g. poor mobility. Some participants felt disempowered in their involvement but interestingly these were younger, under 65 years.</p> <p>Reporting on the availability of patient information was mixed. One participant (45 years) said there was information out there for people who needed it and yet another participant (70 years) stated that there was no mention of it. Again, this appears to be aged related from the reporting of this.</p>	<p>opinions were collected.</p>		<p>Patients require access to preventative resources. Ageism (even unintentional) may be a factor here.</p> <p>Low health literacy is a barrier to participation in pup.</p> <p>Placing brochures in the healthcare environment (on its own) is not an effective education strategy.</p> <p>Patients wanted to be involved in whatever capacity they were able.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Ledger et al., 2020)	UK	To investigate from a patient perspective, the factors affecting adherence to pressure ulcer prevention strategies (all healthcare settings were included)	Literature review that included 12 studies	3 themes identified: <ol style="list-style-type: none"> <li>1. Individuality and lifestyle considerations (including motivation to follow advice)</li> <li>2. Patient involvement in the decision-making process (patients did not always feel they were listened to by staff. Link found between patient involvement and adherence to prevention strategies).</li> <li>3. Pain and discomfort, (participants did not always carry out advice as they were in too much pain).</li> </ol>			Factors affecting adherence and motivation  Patient involvement  Pain
(McInnes et al., 2014)	Australia	To survey hospitalised patients views on their perceived roles in PIP and factors that enable or inhibit participation.	Used a survey questionnaire that used fixed and open-ended responses. 10-15mins in duration at the bedside. Participants were recruited from orthopaedic and neurology wards in 2 hospitals (4 wards in total). Mean age of participants was 65 years but not clear	86% of participants understood the concept of pressure injury and 80% said they had a role. Only 37% reported receiving information from staff during their admission. Strategies that participants felt were important were to keep skin healthy, listen to your body, looking after the inside, manage pain and discomfort, work together and ongoing pressure injury education.	Not stated but convenience sample used.	HCP need to ensure patients understand the risks and identify the patients' ability to prevent pressure injuries, support them to adhere to regimes and manage pain and comfort that allows participation.	Patients felt they had a role in pip.  Pain identified as a key barrier to repositioning. Manage pain and discomfort so that patients can play an active role in prevention.  Patient knowledge was variable.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			<p>on ages. 18+. Convenience sample used. Over half were female. Approx half of sample were medium to high risk of pressure ulcers.</p> <p>Ethics approval gained, 51 participants were informed consented if eligible and agreed to participate.</p>	<p>Factors affecting participation included: managing pain and discomfort, working together and ongoing education.</p> <p>Pain and effort were a disincentive to repositioning self. Waiting for staff to aid repositioning was a barrier.</p> <p>Education required pre-admission, during post-op period when they were recovering and able to take in this information.</p>			<p>The giving of patient information (written and verbal) and education on more than one occasion may better meet their needs as there were times when participants were less receptive to taking in information e.g. pre-operatively, when in initial post-operative stages.</p> <p>Good communication with nurses aided empowerment of patients to be actively involved in their care.</p>
(O'Connor et al., 2021)	UK  Cochrane Review	To assess the effects of patients and or lay carer education on preventing pressure ulceration in at-risk people.	Cochrane review of 10 studies that focused on 2261 participants across these studies.	Overall, the review showed no certainty that educational interventions make any difference to the number of new pressure ulcers that develop or to patient knowledge. However, the evidence from these studies was deemed to be low or very low.			Patient education is not effective.
(Roberts et al., 2014)	Australia	To explore patient perceptions of the role of nutrition in pressure ulcer prevention and patient experiences with dieticians	Interpretive qualitative study. 20 participants of which 13 were female, aged between 24-80 with a mean of 61 years. Patients with restricted mobility were nursed on an acute medical ward in a public hospital.	5 themes identified: recognising the role of diet for the prevention of pressure ulcers, promoting skin health with good nutrition, understanding the relationship between nutrition and health, lacking insight into the role of nutrition and pressure ulcer prevention and knowledge of nutrition and pressure ulcers.	<p>Purposive sampling was used.</p> <p>Authors stated that participants were aware that their oral intake was being monitored and therefore this may have alerted some to the link between nutrition and</p>	<p>Patients in this study had varying levels of knowledge, therefore health literacy needs to be considered when educating patients on this subject.</p> <p>Authors recommended that if patients have a</p>	<p>Patient knowledge</p> <p>Patient participation</p> <p>Health literacy</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			<p>Interviewed using a semi-structure interview guide for 15-30mins.</p> <p>Data saturation was reached at 16 interviews but 4 more were completed to ensure this was the case.</p> <p>Informative detailed description of how the data was analysed including how trustworthiness was assured. This included the use of a code book to provide an audit trail for the analysis.</p> <p>Ethics approval obtained and patients consented using a signed consent form.</p>	<p>Overall, it was found that participants did not have adequate knowledge of the role of nutrition in the prevention of pressure ulcers.</p> <p>Therefore, this led to patients not really appreciating the role of a dietitian in their care and more specifically the care of their skin.</p> <p>Some participants thought that nutrition played a role in pressure ulcer prevention, most were unsure exactly what this role was. This was also supported in that some participants lack ed insight into the link between nutrition and pressure ulcer prevention. Some did not think there was a link.</p>	pressure ulcer prevention.	better understanding of the link between nutrition and pressure ulcers then working with dietitians rather than being done unto by dietitians may improve participation in care.	
(Roberts et al., 2017)	Australia	To identify patients' perceptions and experiences of a pressure ulcer prevention care bundle in hospital. The study also focused on barriers and facilitators to patient participation in pressure ulcer prevention.	A qualitative descriptive study. 19 patients were interviewed across 4 acute hospitals in Australia. Semi-structured interviews were used and recorded and were of 15-20 min duration.	<p>3 themes identified:</p> <ul style="list-style-type: none"> <li>• The importance of personal contact in pressure ulcer prevention care</li> <li>• Understanding enhances participation</li> <li>• Individual factors impact on</li> </ul>	Small sample	Pressure ulcer care bundles may be an acceptable way to promote participation.	<p>Patient participation in care</p> <p>Nurse patient interaction</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
		<p>N.B. This was a follow-on study from the Chaboyer et al. (2014) study (INTACT trial)</p>	<p>Questions focused on 3 specific domains:</p> <p>Understanding the intervention,</p> <p>using and participating in the intervention, value of the intervention.</p> <p>Purposive sampling was used.</p> <p>53% participants were female with a mean age of 68.8 ranging from 31-96 years.</p> <p>Ethical approval gained and patient information sheet and consent form completed prior.</p>	<p>engagement and participation in pressure ulcer prevention.</p> <p>Overall participation in pressure ulcer prevention was perceived as advantageous.</p> <p>Human presence acted as a motivator and a reminder to enact pup strategies. Many participants highlighted the importance of continuity and consistency and preferred verbally engaging with people rather than reading or watching the pressure ulcer prevention resources that were used in the trial (poster, leaflet and DVD). Personal interactions with the research staff including meaningful exchanges of knowledge were highly valued and influenced participation. Interaction with nursing staff was not specifically mentioned.</p> <p>Existing knowledge or natural instincts were reinforced by the messages in the care bundle, and this impacted positively on their participation and empowered them. It reinforced what they already knew. Knowledge from the care bundle empowered patients to actively participate. Many did</p>			

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				<p>not realise they could be at risk so this new awareness (gained through being part of the trial) also acted as a motivator to participation. Some however felt this was not of high importance to them but acknowledged this was due to lack of previous experience with pressure ulcers.</p> <p>Reasons for not participating included: lack of knowledge and understanding, or their perception of risk, thinking it did not relate to them.</p> <p>Individual factors such as pain, age, mobility, medications, anaesthesia and tiredness were also cited as reasons for not participating. The busyness of the ward environment was also a factor in not being able to concentrate of the educational materials. Some patients felt this was the responsibility of nursing staff.</p> <p>Timing of the educational intervention was also noted as crucial as post-operatively they were drowsy, acutely unwell and not able to concentrate or remember the educational materials.</p>			

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
Robinson & Thurman, 2013)	UK	Research commissioned by NHS Midlands and East.	Interviews and focus groups used. Patients, carers, at risk groups and general public were included in the population.	General awareness was high, and participants wanted hard hitting advice and photos. It was felt that TV adverts billboards, posters and leaflets were suggested by participants as a means of communicating with the general public.			Use of photos felt to be necessary.
(Sahingoz, 2016)	USA Primary research	Evaluate a pressure ulcer education event for patients in acute care and comparing this to standard education.	39 participants were identified from medical and surgical wards in an acute care setting and randomised into intervention and control groups and surveyed.	Pre and post test scores for intervention group were 59.44% and 94.44%. Scores for control group were 62.86% and 64.29%. Therefore, indicating that the intervention led to an increase in the knowledge.		Education needs to be patient centred.	Patient knowledge (and education).
(Shanley et al., 2021)	Ireland Primary research	To explore the impact of a pressure ulcer prevention programme on older persons' knowledge, attitudes and behaviours towards prevention.	Multicentre (9 sites), open-label, single blind (outcome assessor was blind to the intervention group) RCT. Pre and post-test applied to intervention and control groups. Stratified random sampling based on days older people attended day centre or retirement group. Sampling calculations explained and minimum numbers of participants (64) identified prior to study commencing. 64 participants of which 48 were	Pre-test scores were same for both groups, but post-test scores were higher in the intervention group. Knowledge and attitudes increased in intervention group after programme compared to control group. Behaviour changes (increases in excellent nutritional intake, fluid intake, use of soap substitute, use of moisturiser) noted in intervention group. Beliefs and physical activity levels remained unchanged following intervention.	Most participants were at low risk of pressure ulcers as ascertained from Braden scores. Further research needed identify if higher risk groups have different outcomes.  Study was 20 days in duration and whilst knowledge and behaviour changes (for certain aspects of prevention e.g. skin care) were shown to increase in the intervention group, it is unknown if such a behaviour	Pressure ulcer prevention programmes are beneficial to support the active engagement of older people and is an important aspect of health care provision.	Patient education leads to increase in patient knowledge and a change in some aspects of pressure ulcer prevention. However, there is no evidence in this study that this equates into action i.e. to reposition and move.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			female assigned to control and intervention groups (32 in each group). Differences in age and gender in each group was not statistically significant. 75% were female (both groups had equal numbers of men and women. Ethical permission sought from REC. Consent gained. Risk assessments were carried out on participants, Braden and MUST.		change would be maintained over a longer duration. This was acknowledged by the authors.		
(Schoeps et al., 2017)	Sweden  Descriptive comparative pre and post-test study	To evaluate a patient information leaflet on pressure ulcer prevention which also encompasses key elements of their knowledge and participation post intervention.	61 patients were recruited from 2 wards (Vascular and orthopaedic) in a hospital in Sweden. Convenience sample was used and 61 patients recruited. From the demographic data provided, ages ranged from 57-93 years with the majority being 70-80 years of age. Inclusion criteria stated that patients be >65 or at risk of developing a pressure ulcer by having a Norton score of >20	Before intervention 13% of patients said they had received information about pressure ulcer prevention. This increased to 48%.  Participant self-assessment of knowledge gained was higher post-intervention and the authors stated this was statistically significant with a p-value of 0.005, however details on how the data analysis was carried was limited.  All patients in the study received a leaflet and yet the authors stated that there were patients who answered via the questionnaire that they did not	Sample size was small.  There is no mention in the results section of if having an existing pressure ulcer or being at greater risk of a pressure ulcer impacted on the results presented.  Authors stated that the results showed that participants <i>believed</i> they had more information and knowledge when they had used the leaflet.	Participation not just about providing knowledge in the form of a leaflet. Authors acknowledged that the nurse-patient relationship is also key.  Providing participants with a leaflet made them more knowledgeable and likely to participate in their care.	Patient information leaflet  Nurse-patient relationship  Patient knowledge  Patient participation

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
			<p>however this was not commented on further.</p> <p>52% were female and 4 patients had one or more existing pressure ulcers.</p> <p>Self-assessment pre-test questionnaire with 10 questions on pressure ulcer knowledge and participation in care was administered. The EPUAP patient information leaflet published in 2012 was then provided and a self-assessment post-test questionnaire with 11 questions completed approx. 2 days after the leaflet was given.</p> <p>Ethics approval obtained, information provided, and verbal consent gained along with instruction that they could withdraw at any time.</p>	<p>know about pressure ulcers. Simply providing a leaflet does not mean patients will read and digest its content.</p> <p>In terms of participation in pressure ulcer prevention care, 46% of patients reported they had participated post-intervention. However, what is of greater interest in that 5 patients indicated that they did not have the energy or were in too much pain to participate. These patients were emergency admissions rather than elective.</p>	<p>However, this was self-reported by participants and therefore subjective. The study did not measure their knowledge per se, which the authors did acknowledge.</p>		

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Serraes et al., 2020)	Belgium  Primary research	To explore the experiences of patients using a static overlay mattress	<p>Explorative, qualitative study. Convenience sample of 14 residents from a nursing home in Flanders. Structured interviews.</p> <p>Participants were over 65 years (average aged of 84 years) with a Braden score of equal to or less than 12. 13 were female. All were bed/chair bound and had previously been nursed on a powered alternating pressure reducing mattress. They were changed to a non-powered static mattress overlay for the duration of the study. Interviewed between day 3 and 14 of the study. Average of 22 min interview.</p> <p>Ethical approval gained and participants were provided with written and verbal information and consent.</p>	<p>Thematic analysis used to analyse the data generated from the interviews. 3 key themes identified: rest and sleep, mobility, discomfort and pain.</p> <p>The reduction in noise with the non-powered mattress was deemed positive as this did not impinge on their rest and sleep. The way the air moved within the non-air powered was reported and patients found this more comfortable.</p> <p>Participants felt the new mattress was softer and more level compared to the alternating mattress which they stated was harder and more unstable. This allowed them to move more easily and reposition themselves.</p> <p>Participants also reported that they experienced less pain over the skin on bony prominences associated with pressure ulcer development.</p>	<p>14-day duration was not long enough to evaluate the new mattress.</p> <p>Two researchers carried out the interviews but there is no detail provided on how consistency was maintained between the 2 interviewers or how credibility and trustworthiness of the data could be assured other than that they were recorded and transcribed. Given that patients were being asked about a new mattress it could be that the participants wanted to say what the researchers wanted to hear in terms of their experiences with the new mattress. This was not considered.</p>	Quality of life for patients including rest, sleep, pain and mobility, should also be considered as well as incidence of pressure ulcers when selecting a support surface for patients at risk of pressure ulcers.	Patient experience of mattress.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and limitations	Recommendation	Themes
(Team et al., 2019)	Australia  Primary research	To assess the availability of online education materials on pressure injury prevention in Victoria.	212 hospital websites were assessed for availability of online educational material on pressure ulcers. Qualitative content analysis of educational materials found was then carried out.	212 hospitals were assessed and yielded only 23 sources of pressure ulcer prevention information.  It was found that private hospital was more likely to have patient information about pressure ulcers compared with public hospitals.  All 23 leaflets included information what a pressure ulcer is, and strategies for prevention. 21 out of 23 included an image.	Authors acknowledged that many hospitals may provide pressure ulcer education via other routes, and this was not captured in this study as only public information was used.  This only relates to this location. UK study needed.	Lack of availability of (high quality) patient information.  Research suggests that there is a deficit of high-quality information publicly available on hospital websites in Victoria.	Availability of quality patient information leaflets.
(Webster et al., 2017)	Australia	To investigate if participation in a clinical trial and being in the intervention group had any impact on subsequent hospital care.	Retrospective evaluation of the follow up care of the 133 patients who developed a pressure ulcer in the Chaboyer et al. (2016) RCT.  Ethics approval obtained.  Quantitative descriptive statistics were used to analyse the data.	Mean age of participants was 75.y years and 50.4% were female. Participants in the intervention group were more likely to received additional post-trial care and improved documentation compared to those in control group. Documentation of the category of the pressure ulcer was also more likely for participants in the intervention group. The authors hypothesised that this was due to the intervention raising awareness about pressure ulcer prevention among patients, carers and nurses with some patients participating in this.	Not adequately powered and confidence intervals were wide and therefore uncertainly about the effect.		Patient participation can be influenced by previous participation in clinical trial. However, results were uncertain.

## Appendix 5 – SSKIN Bundle

SSKIN is a five-step model for pressure ulcer prevention:

- Surface: make sure your patients have the right support
- Skin inspection: early inspection means early detection – show patients and carers what to look for
- Keep your patients moving
- Incontinence/increased moisture – your patients need to be clean and dry
- Nutrition/hydration – help patients have the right diet and plenty of fluids.

(NHS Improvement, 2018 p5).

## Appendix 6 - Data Extraction Tool – Patient experience of hip fracture and acute care

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
<p>(Abrahamsen et al., 2022).</p> <p>Cited by 0</p>	Denmark	<p>To explore the impact of a hip fracture on elderly patients' everyday life from a patient perspective. Explored the meaningfulness of being active and how this changed over time.</p>	<p>Qualitative longitudinal study using interviews. 12 patients over 65 were interviewed once, 6 twice, 4 interviewed 4 times (whilst in hospital, 2-6 weeks, 5-6 months and 12 months post fracture).</p> <p>Purposive convenience sampling was used over 3 months on an orthogeriatric ward in a Denmark hospital.</p> <p>Analysed using abductive reasoning.</p> <p>Ethical approval and consent gained.</p>	<p>Ten female and 2 male participants were recruited aged 65-103 years with mean of 85.3 years). Early on in their recovery patients expressed pain, fear of falling again, and worry for the future. After discharge, the activities of daily living were used as measures of recovery and had a greater emphasis for patients.</p> <p>Despite pain and worry for the future during admission, the patients' perspectives switched towards their ability to handle practical issues in everyday life and enjoy social activities, and their view on quality of life increased when their dependency on help decreased.</p>	<p>Some patients were lost to follow-up.</p> <p>Data saturation challenged due to above.</p>	<p>The fracture itself was not important to patients, it was the restrictions that this brought with it.</p> <p>Pain in initial stages restricted life and was mentioned by all participants.</p> <p>Fear of falling was a great concern.</p> <p>Found it difficult initially to carry out ADLs when first back home but determined not to be dependent on others.</p> <p>Latterly things improved in terms of confidence and ADL's but getting on bus or cycling were out of reach due to continued fear of falling.</p>
<p>(Archibald, 2003).</p> <p>Cited by 147</p>	UK	<p>This study was conducted to explore the experiences of individuals who had suffered a hip fracture.</p>	<p>Phenomenological methodology was used. A purposeful sample of five older patients (aged over 65, 4 x female and 1 x male) was interviewed, following a stay in a community hospital for rehabilitation after surgical repair of a hip fracture. Unstructured interviews were tape-recorded, transcribed</p>	<p>Four major themes emerged: the injury experience, the pain experience, the recovery experience and the disability experience.</p> <p>The injury experience consisted of storytelling, recalling the experience of the injury itself. The pain experience consisted of coping with the pain. The recovery experience involved the operation, beginning the struggle of recovery, and regaining independence.</p>	<p>Respondent validation used to validate and establish credibility.</p>	<p>Morse and O'Brien model of recovery was used to explore and compare themes.</p> <p>Injury experience was traumatic with pain management being a major factor.</p> <p>Survival at the point of injury</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
			<p>verbatim and analysed using Colaizzi's analysis framework.</p> <p>Ethical approval from university and health service committees obtained. Patient information sheet given.</p>	<p>The disability experience consisted of the disability itself, depending on others, and being house bound.</p>		<p>Stoical acceptance of having to depend on others.</p> <p>Fear of falling is a considerable obstacle.</p> <p>Motivation was a key factor in recovery.</p> <p>Recovery after hip fracture is a sequential process.</p>
<p>(Aronsson et al., 2014).  Cited by 53</p>	<p>Sweden</p>	<p>To describe and explain older patients' lived experiences of prehospital emergency care in cases of suspected hip fractures after falling.</p>	<p>Qualitative interview study. Patients were interviewed in their own homes 2-4 months post fracture.</p> <p>Although ethical approval was not required under Swedish law, ethical principles were all adhered to.</p>	<p>Ten participants were interviewed. Recorded and transcribed verbatim. (seven female and three males, mean age 80 years, age span 68–91 years old).</p>	<p>Recall?</p> <p>Time constraints impacted on number of participants interviewed however rich data was obtained.</p>	<p>Care for these vulnerable patients could be improved through more compassion being shown towards older patients' existential needs and their increased participation.</p> <p>Pre-hospital care was efficient and standardised. However, there is a need for care to be individualised.</p> <p>Patients appreciated the caring relationship with the ambulance crew and the importance of touch to make them feel safe.</p> <p>Patient participation in this study was lacking. Often not informed and excluded from care and information exchanged between relatives and professionals rather than with the patient. Patients reported having auditory hallucinations, being confused</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						and lacking insight into the situation.  Conversely being seen by the HCP and respected for who you are created a sense of participation in care.
(Asplin et al., 2021).  Cited by 8	Sweden	To explore patients' experiences of their recovery after hip fracture surgery and the use of Traffic Light System-Basic ADL in their rehabilitation process.	Nineteen patients (13 females and 6 males), aged 66–94, were interviewed. A qualitative content analysis method (Graneheim and Lundman) was used for analysis of data.  Purposeful sampling used.  Verbal and written information given and consent gained from all participants. Ethical approval gained from Regional Ethics Board.	Two categories were identified: 'Being seen as a person' with subcategories; Interaction affects trust and security; Information is key to understanding; and Encouragement is essential to promote activity. And 'Striving for Independence', with subcategories; Accepting the situation while trying to remain positive; The greener the better, but it's up to me; Ask me, I have goals; and Uncertainties concerning future.	Participants limited to one hospital although were recruited from 3 wards.	Shocked and upset and needed to be taken care of whilst being seen as an individual.  Importance of inner strength and positive attitude.  Ability to take information varied.  Adapting to the situation.  Wanted to be involved in rehabilitation, ask me.  Short –term goals such as regaining ability to go to the toilet independently were referred to.  Uncertainty about how they would manage in the future.
(Beer et al., 2021).  Cited by 5	UK	To consider patient's' perspectives of their recovery.	A systematic review and qualitative synthesis of semi-structured interviews with patients over 60 years who had fractured their hip. Several of the studies identified had also been identified for the purposes of this literature review.	Themes identified included: recovery back to pre-fracture activities, feelings of vulnerability especially for the older adults with poorer mobility and fear of falling, driving recovery and the need for a positive outlook and the need to be motivated and engaged and lastly reliance on support from both professionals but also social support mechanisms.	Only studies in English were included.  Patients with cognitive impairment or too unwell to take part were not included and therefore this is not representative of all	Hip fracture was identified as a major life event.  Self-efficacy was paramount to recovery.  Support from professionals (particularly in the initial stages) and social support were

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
					patients who fracture their hip.	needed to enable engagement in recovery.  There was a desire to actively engage in recovery.
Brett, 2014)	UK	To explore the experience of hip fracture in older people.	Qualitative study using an interpretative phenomenological analysis methodology. Twenty-four participants were interviewed 12-16 weeks after surgery.	Greater emphasis is needed on discharge planning and continuity of care. Participants who had been active before the fracture experienced frustration and felt incompetent, more so than those who had been less active pre-fracture.  More information and communication were indicated.	Interviews took place 12-16 weeks after the fracture had occurred and therefore in the recovery rather than acute phase.	Changes to self and loss of former self, responsiveness of health care services and expectations of recovery including information and support.
(Bruun-Olsen et al., 2018)	Norway	To explore how elderly patients with hip fracture have experienced their recovery process.	Phenomenological approach was used. Eight frail elderly in recovery after hip fracture (aged 69–91) were interviewed in their home four months after their fracture. Analysis described in detail. Used a text condensation method.  Written informed consent gained.	Three main themes: “Feeling vulnerable”, “A span between self-reliance and dependency” and “Disruption from a normal life”.	Interviews took place 3-4 months afterwards and this may have posed problems with the recall of experiences by the participants.	Described as a major disruptive event, a disruption to normal life. Fear of not regaining their previous life. Impact of age, feelings of loss, and loss of some independence.  Felt subservient and a passive recipient of care rather than having an active part in their recovery.  Impatience and frustration at the speed of their recovery.  Encouragement from HCP important.  Offered little opportunity to participate.  Fear of the future.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						<p>Self-efficacy and Locus of control were related to some of the participants experiences of recovery.</p> <p>Ability to recover was based on their own effort and self-reliance.</p>
<p>(Ellmers et al., 2022)</p> <p>Cited by 1</p>	UK	To conduct an in-depth exploration of older people's experiences of worries about falling.	<p>Methods: semi-structured interviews (via telephone or video call) were conducted with 17 community-dwelling older people (mean age=79 years; males=5/17) who reported experiencing worries about falling. Reflexive thematic analysis (Braun and Clarke) was used to analyse the data. Nine out of the 16 had fallen in the previous year. Participants volunteered to participate via interest groups for older people.</p> <p>Ethical approval gained from local ethics committee and written informed consent gained following information being given.</p>	<p>The age of falling': recognition of the ageing body; in control of being careful: worries as a protector (two subthemes: 'Identifying the risks and planning for safety' and 'Consciously engaging movement strategies'); uncertain and out of control: worries as a source of panic and 'A prisoner in the house': activity curtailment and an altered sense of self</p>	Self-selection of participants.	<p>Fall seen as an inevitable part of the ageing process.</p> <p>This acknowledgement made them feel vulnerable.</p> <p>Worries focused on their ability to continue living life rather than physical pain of the injury.</p> <p>Feelings and worries about losing independence were common.</p> <p>Having a fall seen as life changing.</p> <p>Altered sense of self.</p> <p>Worries acted as a protective mechanism of being careful, risk assessing activities or avoiding them. This was how they maintained control. Feeling out of <i>control</i> caused significant distress. Compared to Weiner's attribution theory where attributing outcomes to controllable causes leads to</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						greater motivation to avoid a fall.
(Gesar et al., 2017a).  Cited by 28	Sweden	To reveal how previously healthy people, aged 65 years and older, described how they had adapted to daily life four months after a hip fracture.	Semi-structured interviews, 4 months after hip fracture. Recruited on ward post-fracture. Content analysis was used. Interviewed in own homes.  Written and verbal information provided. Written informed consent, right to withdraw. Regional Ethical Board permission granted.	Thirty were initially recruited and 25 agreed to participate. All aged over 65, (22 women and 3 men).	Recall bias?	An interruption in everyday life.  Adapting  Striving for independence  Fear of falling  Importance of self-esteem and self-confidence in managing everyday chores was noted.  Recovery was a challenge for all.  Threat to independence even after 4 months.  Although there is a strong physical focus on care post-hip fracture, there is also a need for coaching in self-confidence, self-determination, and control to improve patient experience of the recovery phase and beyond.
(Gesar et al., 2017b).  Cited by 42	Sweden	To explore healthy older patients' perceptions of  their own capacity to regain pre-fracture function in the acute phase following hip  fracture surgery.	Explorative qualitative design. Population was from 5 orthopaedic wards at 3 hospitals in Sweden. Convenience sample used. Semi-structured interviews (n = 30) were conducted two to five days after hip fracture surgery. Data were analysed using manifest inductive content analysis.	To end up in a situation with or without control. Following the fracture and acute element of care they became passive and uncertain about the future.  Need to adapt and accept the hospital routines.	Multiple researchers analysed data.	Lack of psychological support for recovery causes a loss of self-confidence.  Driving force to regain their everyday life.  Need for confirmation of progress.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
			Informed consent gained. Right to withdraw and study approved by Regional Ethical Board.	Staff telling patients to be careful and not to mobilise on their own made them passive in their care decisions.		Fear of the future. Insight into ageing. Impact of staff on their psychological recovery. Importance of staff to improve patients inner drive for recovery.
(Griffiths et al., 2015).  Cited by 92	UK	To explore what patients consider important when evaluating their recovery from hip fracture and to consider how these priorities could be used in the evaluation of the quality of hip fracture services.	Qualitative study - Semi-structured interviews exploring the experience of recovery from hip fracture at two time points—4 weeks and 4 months postoperative hip fixation. Thematic analysis was used. Ten participants were interviewed twice. Purposive sample from a larger cohort study to ensure a diverse mix of participants based on age, gender, AMTS and eQ-5D score.  Informed written consent gained.	Thirty-one participants recruited 20 female and 11 males. Mean age of 81.5 years. A total of 41 interviews.  Stable mobility was the most important thing to patient's post-fracture.  Some interviews contained almost no data related to the fracture, more so at the 4-month interviews.  Themes: mobility, valued day-to-day activities, self-care, pain, mental well-being, fear of falling  and leg shortening.	Interviewed participants who did not have capacity and consent gained via their consultee. Loss to follow-up.  Authors acknowledge difficulty of older patients recounting their experiences.	Health problems and the fracture were all part of the one experience.  Frustration at the restriction on ADL's but these were consistently valued by all the participants.  Pain not considered a major problem.  Fear of falling.  Concern about the future  Determination to progress was important for recovery.  Part of normal ageing and decline.  Recovery made possible through adaptation.
(Hestdal & Skorpen, 2020).	Norway	The aim of this study was to gain a deeper understanding of subjective experiences of suffering among	Q-methodological approach was used.	Fourteen participants (9 patients and 5 nurses) There exist differences between how the nursing staff, the youngest and	Inclusion of nurses and patients allowed for comparisons to be made.	Uncertainty increased patient suffering.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
Cited by 4		elderly hip-fracture patients during the preoperative period, seen from the patients' and nurses' perspective.	Approval given by managers of ward. Informed written consent gained, right to withdraw. Regional ethics committee permission gained.	the oldest elderly patients experienced the preoperative period and what can enhance or alleviate their suffering. Where the youngest elderly communicated safety through trust and relatives' presence, the oldest elderly communicated insecurity in relation to staff and experienced severe pain and loneliness.		Being informed was important for patients to feel safe. Only relatives received information.  Pain relief was important  Being seen as human beings/individuals.  Feeling angry at oneself.  Oldest, old and youngest old had different experiences.  Patients did not want to be dependent on staff.
(Ivarsson et al., 2018).  Cited by 12	Sweden	This study aimed to elucidate perceived situations of significance experienced by patients  with hip fracture during the prehospital- and in-hospital care.	Qualitative study using critical incident technique.  Ethical board approved study.	Fourteen participants were recruited and interviewed. Five categories of interest were identified; Pain and pain management, fear, experiencing continuity in care, considering information.	Participants were able to tell their stories to aid confirmability of the study.	Severe pain had a damaging impact on well-being of patients.  Pre-operative care was good.  Participants were unsure about their involvement in care. They identified a need for personalised information to reduce fear and increase involvement.
(Jennison et al., 2014)	UK	The aim of this study was to assess patients' experiences of their hip fractures and hip fracture management. Approval from local patient experience team.	Qualitative interviews were carried out.	15 patients were interviewed with an average age of 81.7 (range 70-94). 13 females and 2 males participated.  Most felt resentment and blamed themselves for the injury. Returning home and regaining independence were the most important factors highlighted by all those questioned.		Blame  Returning home and regaining independence were most important.

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
				<p>Returning to their pre-fracture level of mobility and living circumstances following a hip fracture were most important to those interviewed.</p>		
<p>(Jensen et al., 2017)  Cited by 30</p>	<p>Denmark</p>	<p>The aim of this study was to clarify if the patients feel empowered and able to perform self-care after short time stay in hospital (STSH) due to a hip fracture.</p> <p>Informed consent gained and approvals obtained from REC.</p>	<p>Descriptive phenomenology.</p>	<p>Ten patients were recruited from 3 different hospitals who had sustained hip fracture that had previously lived in own home and were able to walk.</p> <p>The findings revealed that patients felt unprepared and insecure about their future, but also had a strong desire to be in charge of their own lives. Of all the patients interviewed, none had any recollection of the information given to them by health professionals during their hospital admission.</p> <p>This standardized way to treat patients may compromise the patients' wish to be involved and treated as individuals.</p> <p>Acquiring a hip fracture severely interferes with an individual's life and personal concern for the consequences of the hip fracture on life after hospitalisation.</p> <p>The inability to comprehend a large amount of information within a relatively brief period may also lead to the feeling of insecurity and the feeling of not being in charge of the situation.</p>		<p>Current care pathways do not facilitate autonomy and empowerment of patients. Patients want self-care and have a desire to remain autonomous. Informed patients were not readily achieved. This was due to patients not being provided with adequate and enough information during their hospital stay which led to them to feeling insecure. However verbal and written information for example about falls prevention, that was provided was not effective and was not taken into consideration by patients during their hospital stay.</p> <p>Poor recollection and comprehension of information.</p> <p>Hip fracture interferes with life.</p> <p>Concern about life after hip fracture.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
(Karlsson et al., 2022)  Cited by 0	Sweden	<p>To explore older adults' experiences of their rehabilitation after a hip fracture and of the recovery process during the 12 months following the fracture.</p> <p>Oral consent gained.</p>	<p>Qualitative study using interviews. Participants were interviewed approx. 1 year after hip fracture. Qualitative content analysis was used.</p>	<p>Twenty older adults aged 70-91 (were consecutively selected from the RCT that was being carried out) were interviewed. The analysis resulted in four themes: Moving towards recovery with the help of others; Getting to know a new me; Striving for independence despite obstacles; and Adapting to an altered but acceptable life.</p> <p>They experienced a change in their self-image but strove for independence despite struggling with complications and functional limitations and used adaptive strategies to find contentment in their lives.</p>	<p>Long period of time after the initial fracture and this affected some of the participants ability to recall information about their experiences.</p>	<p>Importance of support from family</p> <p>Change in self-image</p> <p>Having skilled people to aid their recovery and rehabilitation and most importantly to tailor this to their needs.</p> <p>Need for repeated information to enable involvement in care.</p> <p>Family support was deemed essential, but participants did not want to be a burden on loved ones.</p> <p>Lives were affected by the fracture due to the dependence on others. A change from being strong and able to dependent and vulnerable.</p> <p>Constant fear of falling.</p> <p>Desired independence even if this was by adapting.</p> <p>Comorbidities compounded the challenges of hip fracture.</p> <p>Even after the acute phase the hip fracture restricted their lives when compared to what they had been able to do before such as travelling, cycling.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
<p>(Langford et al., 2018)</p> <p>Cited by 36</p>	<p>Canada</p>	<p>Written informed consent and ethical approval gained for study.</p>	<p>Qualitative interpretive descriptive study.</p>	<p>Semi-structured telephone interviews were conducted with 23 older adults at 4 months after hip fracture. Eleven men and 12 women aged 61-97 years. They were stratified into two groups, intervention and control . All participants received an educational booklet to aid their recovery. Intervention included 5 coaching calls within the first 4 months after hospitalisation.</p> <p>Themes that emerged included physical limitations and loss of independence, the long recovery time, and coping with additional complications/comorbidities.</p>		<p>The majority remembered the educational booklet and found this useful for their recovery.</p> <p>The AHPs felt they were overloading participants with information, but no participants expressed feeling overwhelmed.</p> <p>Study identified the importance of quality information and communication for recovery.</p> <p>Shocked by the amount of help they needed to carry out ADL's. Often they needed to make changes/adapt to continue their normal routines.</p> <p>Comorbidities inhibited their recovery and if these were not addressed too this caused distress. Not in line with the ethos of patient centred care.</p> <p>Importance of family/friends support not just physical but also emotional to maintain positive attitude.</p> <p>Participants identified their own personality or outlook as the key to their recovery. Words like strong minded and motivation used.</p> <p>Loss of independence was seen as a threat to self-esteem and</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						belief in their own self-efficacy to control their lives. Their own coping strategies were deemed by participants to be responsible for their recovery to overcome the temporary loss of independence.
(Malmgren et al., 2014)  Cited by 32	Sweden	<p>The aim of the study was to describe</p> <p>patients' experiences of participation during hospitalization for hip fracture.</p> <p>Ethical approval gained from regional ethics review board. Informed consent sought. Written and verbal information provided, and written consent then obtained. Advised that they could withdraw at any time and that information would be kept confidential.</p>	<p>Qualitative study using interviews. Analysed using content analysis. Participants were recruited from an orthopaedic ward in Sweden.</p> <p>Instrument: Semi-structured interviews lasting 20 minutes that were recorded and transcribed verbatim. Four of the interviews were carried out at the time of discharge and 7 afterwards.</p> <p>Population: Patients nursed on an orthopaedic ward in a hospital in the west of Sweden during a 3-month period. Excluded if they had dementia or cognitive impairment.</p> <p>Sample: 11 patients participated (6 women and 5 men) aged between 34-88 years with mean age of 82 years.</p>	<p>Eleven chose to participate, 6 women and 5 men aged 34-88 with a mean age of 82.</p> <p>The results illustrate that the experiences of participation are governed by the</p> <p>patient's personal circumstances, needs and wishes and are affected by how responsive the staff are to these.</p> <p>Patients' experience of participation was guided by personal circumstances; the ability to absorb information was a significant factor. Many patients found it difficult to understand, remember and assimilate the information. Some of the patients had no desire to be involved but handed responsibility over to the staff.</p> <p>Affected by staff responsiveness to the patients' individual circumstances. Communication with staff was deemed important to feeling involved. Some participants felt that there was not always time for this.</p> <p>It was common that patients handed over decision making about personal care to the staff. They let the staff decide</p>	<p>Interviews were conducted by 2 interviewers to minimise the risk of bias through preconceptions.</p>	<p>Information</p> <p>The study demonstrates that patients' ability to absorb information and their need for information varies. If the information is individualized, staff need to ask the patient about what information they need.</p> <p>Patient participation was controlled by the patients' circumstances and needs. Inability to absorb information was a key factor here most commonly after surgery. Some patients did not want to be involved.</p> <p>Participants found that they were caught up in the ward routines and often handed over decision making to the staff over their personal care.</p> <p>They were very aware of staff time so did not always ask for help.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
				<p>when they would get up in the morning and when and how often they would take a shower without questioning this or stating their own desires. The patients found themselves caught in the routines of the ward.</p>		
<p>(Olsson et al., 2007).  Cited by 38</p>	Sweden	<p>The aim of this study was to describe the hip fracture patients' own perceptions of their situation and views of their responsibility in the rehabilitation process.</p>	Qualitative study using interviews and phenomenographic analysis.	<p>Thirteen participants aged 71-93 years took part. Three categories of description were formulated: the Autonomous, i.e. patients who were self-sufficient and used to taking care of themselves and who searched for relevant information; the Modest, i.e. frail patients in need of more support who wanted information, but did not ask for it; and the Heedless, i.e. patients who were already dependent, who were not aware of their own responsibility and not interested in information.</p>	Data saturation was reached.	<p>Engagement in rehabilitation varied greatly across the sample.</p> <p>They all needed more information.</p> <p>The study suggested that inadequate knowledge and engagement on the part of patients may have an impact on their rehabilitation outcome.</p> <p>All participants had a strong desire to recuperate.</p>
<p>(Pol et al., 2019).  Cited by 31</p>	Netherlands	<p>To gain and insight into what older adults perceive as most beneficial to their recovery to everyday life following hip fracture.</p> <p>Written informed consent gained. Ethical approval sought and obtained from University Ethics Committee.</p>	Qualitative study using interviews. Constructivist grounded theory approach taken. Part of an existing trial on sensor technology.	<p>Nineteen older adults</p> <p>Themes identified were support and coaching, me and technological support. From this a conceptual model of recovery including myself, supporting and coaching and tech support was developed.</p>	Diverse nature of the sample is representative of the Dutch population who fracture their hip.	<p>This included own positive will and attitude was an important resource for recovery.</p> <p>Fear of falling caused restrictions on activities that had been carried out prior to the fracture.</p> <p>Sensor technology allowed participants to see their progress on a tablet device and this acted as a motivator to engage in their rehabilitation.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						<p>Coaching boosted self-confidence for carrying out everyday activities.</p> <p>A combination of coaching and technology</p> <p>can be used to empower older adults to self-manage and adapt their activities for their return to everyday life.</p>
Pownall (2004)	UK	Critical appraisal of a patient narrative on care delivery following fractured hip.	<p>Design: Qualitative narrative enquiry</p> <p>Instrument: Information collected through routine nursing evaluation of care.</p> <p>Population:</p> <p>Sample: 60-year-old female who presented following a fall with suspected hip fracture.</p>	<p>Finding: Poor communication and the need for explanations and patient education.</p> <p>Also, long wait in A&amp;E, poor pain management, could not understand why nurses wanted to keep moving me to check my bottom when I was comfortable. Surprise at being mobilised the morning after surgery.</p>	Narratives can provide and account of the experience through the voice of the participant.	Communication and patient education
Rasmussen et al, (2018)	Denmark	<p>Explore facilitators and barrier for being active as experienced by older people following hip fracture.</p> <p>Study was registered with the Central Denmark Regional Research Council. Assurance was given to participants about confidentiality, right to withdraw at any time and that it was acceptable to decline to answer any questions. Information sheet was provided, and consent was obtained by the gatekeepers on the</p>	<p>Design: Phenomenological approach using a theoretical framework of personal wellbeing</p> <p>Instrument: Semi-structured interviews, collecting data at 2 weeks and 6 months after discharge from hospital. Semi-structured interview guide was used. On the first-round interviews took place in patients own homes n=10, rehab centre n=2, and day centre n=1. On the second</p>	<p>Findings: Two themes with sub-themes emerged from analysis of the findings.</p> <p>Inner dialogue and actions (sub-themes of inner driving forces and inner limitations).</p> <p>Struggling and striving (sub-themes building relationships and considering complications and conditions.</p> <p>To have a sense of belonging was a confirmation of being alive and gave feelings of hope and meaningfulness.</p>	Small sample of 13 which reduced to 11 by second interview. However, this generated 26 hours of interview data. The participants represented a variation in age and gender which the authors felt added to the richness of the data.	<p>Loss/sense of identity</p> <p>Dependency and lack of control</p> <p>Impact of staff relationships and positive effect on well-being.</p> <p>Pain</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
		ward prior to interviews being arranged	<p>round, 2 participants were lost to follow up. Reasons for this were given due to death n=1 and n=1 being in a mentally difficult situation.</p> <p>Population: Due to a delay in admissions, two non-university hospitals. Inclusion criteria was over 65 years, not living in a nursing home, able to speak Danish, no other fractures and has some pre-hip fracture limitation of functional ability. Reasons or justification for this were not provided.</p> <p>Sample: First round of interviews 13 participants Mean age 74.5 (age range between 73-92). Two men and 11 women.</p>	<p>Having a sense of identity was a driving force related to being able to do things independently and feeling dignified.</p> <p>All the participants interviewed has experiences of feeling helpless which was related to their own sense of identity. They felt helpless in experiences of undignified dependency. They felt inadequate and out of control. They were concerned about becoming a burden.</p> <p>Pain was accepted as natural even though it was unbearable.</p> <p>Relationships with staff influenced their well-being.</p>		
(Segevall et al., 2019).  Cited by 14	Sweden	To describe rural older people's experiences of recovering after hip fracture surgery.	<p>Qualitative study using interviews as method of data collection. Content data analysis method for analysing data obtained. Purposive sampling employed from an orthopaedic ward in Sweden.</p> <p>Ethical approval granted and informed consent gained from participants. Right to withdraw also stated.</p>	<p>A sample of 13 older people (seven women and six men) aged 66-98 years were recruited. Patients described finding themselves in a new and vulnerable situation, dependent on others for simple everyday chores. They struggled to regain independence while staying positive, convinced that they would recover.</p> <p>Fear of another fall, as well as lack of information, made recovery at home difficult.</p>	Two participants had their spouses present during the interview which may have affected their answers. The data obtained was rich description of the patient experience.	<p>Life-altering event</p> <p>Remorse and guilt for the fracture.</p> <p>Dependency on others was not wanted but accepted both in the initial post-operative stages but also when they first returned home.</p> <p>Adapting through use of aids and help. Grateful for these. Support from family and friends was invaluable.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						<p>Some participants wanted more information that they received, and others were too tired to read this whilst in hospital.</p> <p>Fear of falling again resulted in the avoidance of some activities.</p> <p>Regaining independence was central to their recovery. Returning home was the most important thing.</p> <p>Strong inner drive to recover.</p> <p>Needed to feel supported to enhance participation.</p> <p>Living in a rural area did not appear to affect their experience.</p>
<p>(Sims-Gould et al., 2017).  Cited by 45</p>	<p>Canada</p>	<p>To understand older adults' engagement in their recovery experience and rehabilitation after a fall-related hip fracture.</p>	<p>Qualitative sub study as part of a larger RCT comparing a specialist hip fracture management programme with standard care. Interviewed at 6 months and then again at 12 months after the fracture. Thematic analysis used. Inductive approach.</p>	<p>Fifty community-dwelling older adults recovering from a recent (3–12 months) hip fracture (32 women, 18 men) participated. All were aged 65 years and older. All had sustained a hip fracture within the last 12 months prior to data collection.</p> <p>Themes identified were: (1) managing expectations; (2) engaging in physical activity; and (3) there is life after fracture. Participants shared valuable insight into how their expectations for their recovery period compared to their lived experience and</p>	<p>Interviews were short and not recorded. Instead, notes were taken verbatim.</p>	<p>Recovery was not what they expected and took longer.</p> <p>Motivation stemmed from positive attitude and their own optimism.</p> <p>Perceived lack of control resulted in the ceasing of exercises following lack of progress in recovery for one participant. But this was not the case for others who stated that a positive mental attitude</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
						<p>was important for their recovery.</p> <p>Those who resumed their pre-fracture activities were more likely to have more engagement in their post-fracture care and rehabilitation.</p> <p>Social support and encouragement from family instrumental in recovery.</p> <p>Serious life event that has implications for personal identity.</p> <p>Recovery is enhanced through social support, positive attitude, motivation and determination.</p> <p>There is life after fracture. Acknowledgement of being alive after the traumatic event.</p> <p>Participants' discussion of their recovery from hip fracture as a long-term process highlights their continuation with life activities under the adoption of a new perspective.</p>
<p>(Southwell et al., 2022).  Cited by 4</p>	<p>UK</p>	<p>To explore older adult's perceptions of early rehabilitation and recovery after hip fracture</p>	<p>Qualitative study using in-depth semi-structured interviews with 15 adults aged 60 years or more in hospital after hip fracture surgery.</p>	<p>Participants voiced the importance of self-determination, professional support, meaningful feedback, and social capital after hip fracture.</p> <p>Themes related to the study aim: importance of self-determination,</p>	<p>Included over 60 not just over 65-year-olds.  Coded by 3 authors</p>	<p>Healthcare professionals need to educate and empower older adults to take charge of their own recovery.</p> <p>Hip fracture was not perceived as biographical disruption</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
				<p>reliance on professional support, importance of meaningful feedback, anxiety about the future, and reliance on social capital.</p> <p>Self-determination required a positive sense of control over</p> <p>their rehabilitation through maintaining autonomy for certain components such as feeling competent to control their recovery and progress and working collaborative with healthcare professionals to ensure that their progress was in keeping with their expectations for their stage of recovery.</p>	<p>Interviewed on average 8.2 days after surgery.</p>	<p>following hip fracture, but it did present as a tipping point for the loss of independence.</p> <p>Many participants perceived they would recover the same sense of self they held before their fracture.</p> <p>Feedback and encouragement were important.</p> <p>Anxiety about the future and their level of dependence but reduced if patients had social support from family and friends (social capital). However, participants did not want to be fully reliant.</p> <p>Anxiety and uncertainty about the future was fuelled by advancing age, co-existing conditions and absence of social support. Management of this at an early stage could reduce this anxiety and increase the level of empowerment.</p>
<p>(Tutton et al., 2021).  Cited by 1</p>	<p>UK</p>	<p>The aim of this study was to gain an understanding of patient and informal carer experience of recovery in the early stage, while in acute care.</p>	<p>A phenomenological (lived experience) approach was used to guide the design of the study. Interviews took place on the ward.</p> <p>A purposive sample of 36 participants.</p>	<p>A purposive sample of 36 patients with a hip fracture took part. There were 25 patient interviews and 13 patients took part in 52 hours of participant observation (two patients chose interviews and observation). The age range was 63–91 years (median 83), 10 were men.</p>	<p>Population was not ethnically diverse.</p>	<p>Injury disrupted everyday life and there was a loss of companionship. A time of significant change where mental and physical support are required.</p> <p>Living with frailty and death and part of life. Not knowing what</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
		<p>Informed written consent with participant information sheet being provided.</p>	<p>Interviews were digitally audio recorded and transcribed verbatim. Analysed thematically.</p>	<p>This was conveyed through three themes: (1) sustaining relationships while experiencing strong emotions and actively helping, (2) living with uncertainty about the future and working through possible outcomes, (3) being changed, visibly looking different, not being able to walk, and enduring indignity and pain.</p>		<p>will happen in the future. Fearful about the future. Made them confront ageing and death.</p> <p>Hip fracture is a point of biographical disruption.</p> <p>Realisation that life would now be different.</p> <p>Regaining normality but the extent to which this would occur was uncertain. Required to work through it.</p> <p>Limited control over what they could do.</p> <p>Chronic conditions exacerbated frustration and anxiety.</p> <p>Loss of control over the ability to meet their own needs.</p>
(Zidén et al., 2008)	Sweden	<p>To explore and describe the consequences of an acute hip fracture as experienced by home-dwelling elderly people shortly after discharge from hospital.</p> <p>Ethics approval obtained. They received written and oral information about the study and that participation was voluntary</p>	<p>Phenomenographic method. Eighteen participants were interviewed 1 month after discharge. Interviews were recorded and transcribed verbatim. Then analysed by all 3 authors. Analysis was carried out using the phenomenographic method.</p>	<p>Sixteen women and 2 men aged between 65-99 years old (mean age was 80.6 years).</p>	<p>Interviewed soon after the injury to effectively capture the early experiences.</p> <p>Lack of men recruited.</p>	<p>Unexpected. The fracture caused extensive and dramatic changes to their bodies and their lives.</p> <p>Insecurity and restricted movement, slower.</p> <p>Afraid of performing ADLs.</p> <p>Fear of falling again.</p> <p>Uncertainty over recovery.</p>

Authors & date	Country Context/Setting	Purpose/Aim/objectives	Methodology: Design; Instruments; Population; Sample	Findings/ results	Strengths and Limitations	Themes
		and that they could withdraw from the study at any time.				<p>Meeting other people in hospital and experiencing sickness and misery made them see another perspective. They felt gratefulness and humility "it could be worse".</p> <p>Wanted to avoid being dependent on others and stay as independent as possible - to maintain self-respect.</p> <p>Dependent on others for ADLs.</p> <p>Feeling trapped at home due to the limitations imposed by the fracture.</p> <p>Seen as a sign of ageing and downhill course. Sign of forthcoming death. Provoked existential thoughts.</p> <p>Unsure about the future and feelings of hopelessness.</p> <p>Care after hip fracture is focused on treating the acute injury but does not consider psychological and sociological reactions.</p>

## Appendix 7 – Interview Topic Guide

(questions in red are to prompt for further clarification if required)

1. Tell me the story of how you broke your hip.
2. Did you have a special air mattress on your bed when you were in hospital? (show photos if needed)
  - What did you think about the mattress?
  - Did the nurses explain why you needed the special air mattress? What did they tell you?
  - Did you have more than one type of mattress during your admission? Can you explain why this was?
3. Have you or someone you know ever had a bed sore/pressure sore?
4. What do you think are the causes of bed sores?
5. Can you describe to me anything the nurses did to prevent you getting a bed sore?
  - Did the nurses come and turn you regularly? How did you find this?
  - Did they check your skin including your heels and bottom? How did this make you feel?
6. Did you feel you wanted to be more involved in your care or did you feel too unwell? At what point did this change?
7. Is there anything else about your experience you would like to share?

Prompt phrases:

Would you give me an example?

Would you explain that further?

Is there anything else?

## **Patient accounts of pressure ulcer prevention following fractured neck of femur.**

I would like to invite you to take part in a research study. Before you decide whether or not to take part, you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and ask questions if you require more information or if anything is not clear.

### **Purpose of the Study**

The purpose of the study is to learn about patients' experiences following hip fracture and gain an understanding of patient insights, views and opinions of pressure ulcer (more commonly known as bed sores) prevention.

This may include your feelings and thoughts, also you may describe your own involvement in pressure ulcer prevention in hospital.

This is part of a University research degree being undertaken by the researcher.

A large amount of research has already been carried out internationally, looking at pressure ulcer causes, prevention and nurses' knowledge but there is very little known about patients' knowledge and experiences. Discovering what patients know and understand could help nurses to educate patients better and help prevent pressure ulcers from occurring.

### **Why have I been invited?**

You have been invited to take part because you had a fractured hip (neck of femur) and were nursed in hospital following your operation. You are also able to give informed consent.

P.T.O.

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

No. Taking part in this research is entirely voluntary. It is up to you to decide. We will go through the information sheet with you to ensure you understand it. If you decide not to take part, it will not affect your ongoing care and treatment in any way. If you do wish to take part, we will ask you to sign a consent form. If at any time, you wish to withdraw from the study, you can do so without giving a reason. This will not affect your medical or nursing care in any way.

### **What does it involve?**

The study will involve each patient being interviewed and asked | questions about their experiences in hospital relating specifically to pressure ulcer prevention. This will be after you have been discharged from hospital. The researcher will come and visit you at home at a time agreeable to you, within 4 weeks of your discharge from hospital. Alternatively, you can come back to the hospital (again at a time agreeable to both yourself and the researcher) and be interviewed in a private room if you would prefer. Your partner, carer, family member can come with you but will not be part of the interview.

The interview will last between 45 and 90 minutes and will be taped using a digital audio recorder if you are in agreement with this. After the interview, the tape recording will be transcribed/typed up. Confidentiality will be maintained at all times and digital recordings and transcripts will be kept in a locked filing cabinet and destroyed once the research has been completed. Your personal details e.g. name and address will be stored securely on NHS computer within the Trust and will not be included in the study report.

Six-eight months after the interview, there is an opportunity for the researcher to visit you again to discuss feedback from the study. There is no obligation to do this but if you would be interested, please advise the researcher at the interview. With your permission, your consultant will also be informed of your participation in the study.

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

There are no direct and immediate benefits for you in taking part in this research as all patients in hospital receive pressure ulcer prevention care. However, research does deliver wider benefits to future patients.

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

With your permission I would like to show you some photographs of pressure sores to confirm that we are talking about the same thing. Some people may find these images distressing. I will reveal the photographs one by one in order of severity. If you do not wish to see these photographs please alert the researcher.

### **What if there is a problem?**

If there is a problem or you have a concern about any aspect of the study, please contact the researcher on the number provided below who will try and resolve the problem.

If you remain concerned and wish to complain formally, you can do this through the University complaints procedure and the research supervisor Mr Charles Simpson (details can be found below) or via Patient Advocacy Liaison Service (PALS)/NHS Complaints Procedure, 01279 827211.

In the event that the researcher is alerted to something e.g. a health problem, by a participant during the course of the interview, they will advise or refer you (with your permission) to the appropriate person(s) e.g. G.P. or Patient Advocacy Liaison Service.

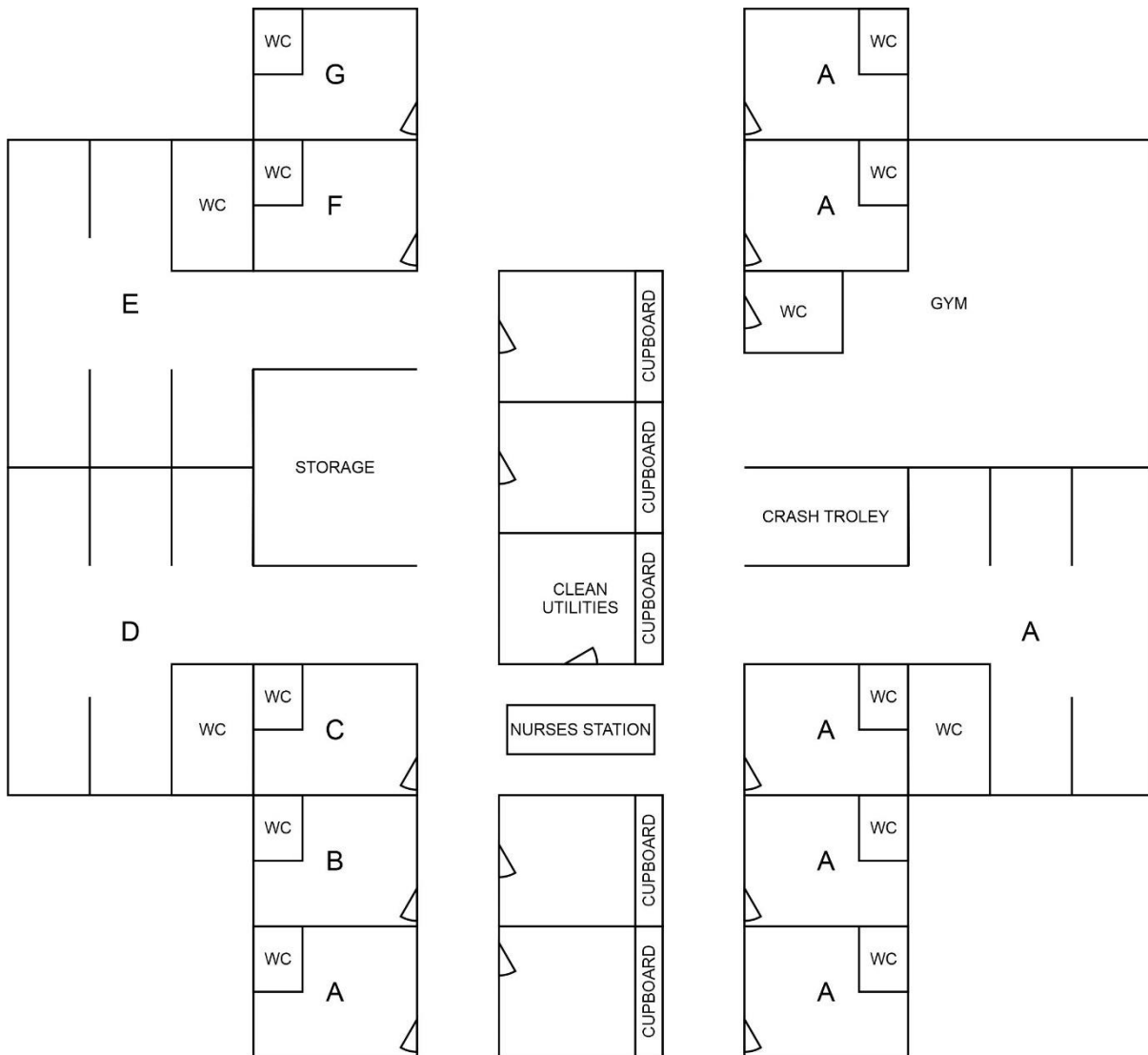
If you decide to withdraw from the study at any time you may do so without giving a reason and the transcripts and recordings relating to you will be destroyed.

### **Who has reviewed it?**

This study has been reviewed by the Leicester Central Research Ethics Committee.

## Appendix 9 - Plan of Ward

N.B. This is the original plan of the ward. Halfway through data collection the ward was moved down one level in the same block and the gym became an additional bay with five beds.



## Appendix 10 – Consent Form

University of  
Hertfordshire



Participant Identification Number for this research:

### CONSENT FORM

Title of Project:

**Patient accounts of pressure ulcer prevention following fractured neck of femur.**

Name of Researcher: Dawn Royall

Please initial box

1. I confirm that I have read the information sheet dated 09/02/17 (version 7).
2. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
3. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.
4. I consent to the interview being digitally recorded
5. I give permission for anonymous data may be published
6. I give permission for my consultant to informed of my participation in the study
7. I agree to take part in the above study.

\_\_\_\_\_  
Name of Participant      Date      Signature

\_\_\_\_\_  
Name of Person      Date      Signature  
taking consent

When completed: 1 for participant; 1 for researcher site file; 1 (original) to be kept in medical notes. Version 5 (09/02/17) HSKIPGR/UH/02401 IRAS number 169065

### **Results of the Study**

Once the study is completed, it will be written up as part of the researcher's thesis. In the event that findings of the research are written up for publication purposes, anonymity of the research participants will be maintained. A summary of the results will be provided on request via email or telephone.

### **Further information and contacts**

If you require further information, please contact Dawn Royall on 01279 827845 or dawn.royall@nhs.net or Dr Charles Simpson, Research Supervisor 01707 285297.

Version 7 (09/02/2017)

## Appendix 11 – Agreement to Contact Form

University of  
Hertfordshire



### Agreement to Contact Form

*Patient accounts of pressure ulcer prevention following  
fractured neck of femur.*

I have received a Patient Information Sheet and Consent Form for the above mentioned research. I am aware that the research is part of a Doctoral programme at the University of Hertfordshire.

At this stage I am happy to be contacted. This does not commit me to be involved in the study at this point in time but gives the researcher permission to contact me by telephone/or in person on the ward.

Patient Name (in block capitals): \_\_\_\_\_

Signed: (patient) \_\_\_\_\_ Date \_\_\_\_\_

Telephone number or preferred method of contact \_\_\_\_\_

If you have any questions, please do not hesitate to contact Dawn Royall on 01279 827845.

Version 4 (18/11/16)

HSK/PGR/UH/02401

## Appendix 12 – Participant Classification Sheet

<b>Name (pseudonym)</b>	<b>Gender</b>	<b>Age</b>
<b>Barbara</b>	Woman	79
<b>Bert</b>	Man	72
<b>Betty</b>	Woman	81
<b>Charlie</b>	Man	97
<b>Christine</b>	Woman	84
<b>David</b>	Man	88
<b>Elizabeth</b>	Woman	80
<b>Freda</b>	Woman	83
<b>Helen</b>	Woman	78
<b>James</b>	Man	75
<b>Joyce</b>	Woman	80
<b>Mary</b>	Woman	84
<b>Molly</b>	Woman	86
<b>Phylliss</b>	Woman	80
<b>Reg</b>	Man	69
<b>Rhoda</b>	Woman	90
<b>Rupert</b>	Man	90
<b>Sheila</b>	Woman	80
<b>Vera</b>	Woman	82
<b>Wilf</b>	Man	67
<b>William</b>	Man	69

## Appendix 13 – Vignettes

### Barbara

Barbara was a 79-year-old woman who fell over whilst out shopping. Following the fall and with the help of her granddaughter's pushchair she walked for a further 10 minutes home. At the time both herself and her daughter thought she had just bruised herself badly. She was not keen to go to hospital but due to the pain related and a daughter transported her there by car. During the interview she appeared very stoical about the experience. She was full of praise for the nurses however was not keen on hospital food and was looking forward to going home to her husband's home cooking.

### Bert

Bert was a 72-year-old man who was walking home from the pub early one evening when his dog went between his legs and pulled him over. The young woman who was passing by in her car saw what had happened and enlisted the help of some of the people in the pub to help him up and put him in her car so she could take him to hospital. Having had previous orthopaedic surgery, he was known to the orthopaedic team. This made the repair more complex along with his COPD and therefore required stabilisation and an experienced orthopaedic team to carry out the repair to his hip. He was therefore on the ward for seven days prior to his surgery.

He was quick to chastise himself during the interview but acknowledged that sometimes these things happen. He thought the food in the hospital was disgusting. He also found the air mattress particularly uncomfortable and was keen to get out of bed after surgery. He was very determined and voiced to the staff that he was not going to stay in hospital long and that he would be off. His experience in hospital was affected by other patients who were suffering with Alzheimer's disease. He was full of praise for the nurses who were caring for these patients despite the verbal abuse they received from them.

### Betty

Betty was a frail 81-year-old woman who was sweeping the floor in her conservatory one day when she lost her balance. She had tried to reach for her walking frame, but it would not hold her, and she slipped to the floor with the frame on top of her. Her husband had heard her fall and came to help but her pain was too severe in both her hip and her knee. Betty spoke of the agony while she waited for the ambulance to arrive but once they were there they gave her pain relief and waited for it to take effect before they tried to move her. She was X-rayed in the emergency department and then transferred to the ward but did not have her operation until two days later but could not remember why there was a delay. Betty talked about getting her life back once she had had her surgery and she was

no longer in pain. Betty had a reduced appetite whilst in hospital due to feeling bloated at times but said this was not due to the food as that was nice. The worst thing about fracturing her hip was mobilising but this was not because of merely the hip but instead the pre-existing arthritis that she had in her knee. She found the whole experience tiring and was keen I'm relieved to go back to bed after her physiotherapy. Betty stated that she was nursed on an air mattress initially, but this was changed later to a memory foam mattress. She missed it when they took it away, but she found it easier to move around on the bed and it helped to relieve the pain that she was experiencing in her leg. Betty found recovery challenging due to the tiredness and although she was encouraged to be independent she found that this was often too much for her to cope with. There were times when she was in pain, and she did not want to be in control and was happy for the nurses to do things for her.

### Charlie

Charlie was a 97-year-old man and the oldest participant that was interviewed in this study. He fractured his hip following a fall at home when he got up from his chair to switch off the television and his leg had gone to sleep. He fractured his hip and his humerus and laid on the floor until an off-duty nurse was walking by and heard his shouts for help. She called an ambulance, and he was taken to hospital Charlie's recollection of what happened in the emergency department was vague and a bit of a blur as he described it. His blood pressure at the time was low and needed to be stabilised but was transferred directly to the operating theatre for repair of his hip. His appetite post operatively was poor, and he said that it wasn't that the food was bad but that he just felt lethargic and could not be bothered to eat. Charlie was very aware of the busy hospital environment and felt this was one of the worst things about being in the hospital because he often had to wait for two nurses to be available to help him to get out of bed and get to the toilet. The nurses had made it very clear to him that he must not go to the toilet on his own due to the risk of falling however at night Charlie did venture to the toilet himself without assistance. Charlie stated he had lost a considerable amount of weight whilst in hospital and showed me a photograph during the interview of how he used to be his former self.

Charlie was also nursed on an air mattress but complain that due to the movement of the mattress underneath him that it pushed him over to one side when he was in the bed. He knew the mattress was to prevent pressure sores but couldn't remember whether the nurses had explained that to him or not. He had some awareness of what bed sores were and was able to recall and describe the bed sore that his father had prior to his death. On direct questioning Charlie was aware of some of the pressure ulcer prevention that was carried out such as turning and checking his skin however said much of the recollection was vague because a lot had happened. He developed a good relationship with one of the nurses and enjoyed the banter that they shared whilst he was a patient.

## Christine

Christine was an 84-year-old woman who lived with her daughter and son-in-law. One afternoon she had got up and gone into the kitchen to make herself a drink. As she turned round to go to the fridge she fell although is not able to remember falling. Her daughter was in the next room and heard her mum fall and came running to help. She wanted to ring for an ambulance, but Christine would not let her and said to give her an hour. Christine was not able to move herself and after an hour her daughter did call the ambulance. It was busy and the ambulance took seven hours to arrive. She could not recall her journey to hospital and said that she felt like she was floating which she attributed to the pain relief she had been given by the paramedics. Christine's experience of hospital food was that it was initially tasteless, but she stated that this was not the food as this was always hot and well-presented but instead her mouth and poor appetite. Christine felt there was a lack of communication that impacted on the overall experience of her hospital stay. She wanted to know in more detail what was happening to her and why. Christine was keen to be able to get to the toilet on her own rather than use the bedpan and having a Zimmer frame and commode allowed her to adapt and be able to achieve her aim and was therefore accepting of these aids. In the initial stages of recovery Christine was unable to wash herself independently and was willing to accept help from the nurses and staff to meet her needs. She felt that the doctors and nurses were the ones in control but voiced that she couldn't have coped without their control of the situation at the time. She said she was treated as a grown up and although tried to do as much for herself as she could was grateful and happy for the staff to provide other care. As she recovered she became emotional and fell being on her own in the side room. Hence she was happy to be moved into a 5 bedded Bay with other women and could talk and laugh with them. Christine was keen to maintain as much independence as she could and found new ways of doing things so as not to unduly burden her family.

## David

David was an 88-year-old man who sustained a hip fracture in his garden whilst planting pansy's one Sunday afternoon. Although he had his stick due to a problem with his knee he went to step up and felt a crunch. His wife and gardener were also present, but it was a passing off duty paramedic walking her dogs who called the ambulance. Following a short wait for the ambulance to arrive and pain relief being administered David was taken to hospital. Although stating the pain was very fierce if he moved he was glad to be alive. Having been X-rayed promptly he was then transferred to the ward. Due to other emergencies, there were no theatre slots available that day. The following day David was kept nil by mouth, but surgery was further delayed by more emergencies but was operated on the following day. Following the operation David experienced an altered taste sensation and was not able to taste the food initially post operatively although this improved very quickly. David saw the physiotherapist on day three and stated it was nice to get out of bed as he back was getting sore and that he found the memory foam mattress uncomfortable. He was aware he was given a special kind of mattress which was more comfortable and suggested he was on it to reduce the risk of blood clots as

this is what they were very concerned about. He enjoyed the little jokes that he had with the nurses. He was nursed in a 5 bedded bay and talked about a patient with what he described as a brain concern who would shout swear and cuss all night which interrupted the sleep of the other patients in the bay. He was frustrated by this and whilst he was sympathetic to this other patient's plight was surprised that he was being nursed in the same ward.

David was desperate to get home and chastised himself for having the fall. Subsequently he set himself (and the staff) targets to work towards so he could get home. David was not aware of the pressure also preventative care that he received in general however when questioned directly acknowledged that his skin had been checked and that he had been repositioned. Although initially dependent on the nurses following surgery David was not bothered by this as he said they were there to help him get better and he was happy to accept help when it was needed.

### Elizabeth

Elizabeth was an 80-year-old woman who lived in a house with her deaf son. They had gone out shopping late one afternoon. As she got out of the car in the disabled bay where her son had parked, she did not notice a high kerb and fell. Her son went to find someone at the shops opposite and a lady rang for an ambulance. They were told there was a delay, and the ambulance would be at least 5 hours. By this time, it was getting dark and cold as it was nearly 5pm. Passers-by came with a pillow and some blankets. Eventually the ambulance did arrive at around 7.30pm.

The ambulance crew gave Elizabeth gas and air and the journey to the hospital was very quick as she was only 5 minutes away when she fell. She did not wait very long in the emergency department before she was seen and x-rayed. She had broken her hip in 3 places and shattered her shoulder. Her knee was hurting but there were no broken bones, but she was worried as she was not able to bend her knee very well. She was transferred to a single room on the ward and then seen by the consultant the next morning who then operated. After a few days she was moved into a 5 bedded bay where there were ladies with the same problems and one lady with dementia. Elizabeth liked the 5 bedded bay and enjoyed the camaraderie with the other patients in the bay. It made her feel that she was not the only one experiencing challenges.

She had a catheter in post-operatively, but this was removed soon after surgery which worried Elizabeth. She has had a previous operation for stress incontinence and was worried about getting to the toilet in time especially at night as the nurses insisted the patients rang the bell. Sometimes it could be 10-15 mins before they came, and she was desperate not to wet the bed.

Having a broken arm made walking difficult and she needed a special walking frame to accommodate this. However, after 4 or 5 days she was going into the ward gym for her physio daily and managing to walk upstairs. Initially she lacked confidence to move but

having two physiotherapists there with her helped and she said they were impressed by her progress. Being so incapacitated with her arm injury as well as the hip fracture she realised quickly that she needed to rely on other people for a while. She felt vulnerable going home, knowing that she was going to be on her own during the day as her son would be out at work.

## Freda

Freda was an 83-year-old woman who lived with her husband. On the morning of her fall her hairdresser who came to the house had just finished doing her hair. Freda picked up the chair as she had done many times before to return it back to the dining room and caught it on the door frame. At this point she fell backwards with the chair landing on top of her. She said she felt so stupid as if she had just opened the door a little more it would not have happened. She had pain in her groin. Her husband had not heard her fall as he was hard of hearing. However, she was aware that he would not be able to get her up. Her husband decided to call an ambulance as Freda was in so much pain. The ambulance arrived 2 and a half hours later. When she arrived at the emergency department it wasn't very busy, and she was dealt with very quickly. An x-ray confirmed the hip fracture, and she was then transferred to a side room on the ward and was nursed in the side room for the duration of her admission.

Following her surgery when she was back on the ward, her appetite was very bad. She knew she needed to eat to get better and said there was nothing wrong with the food but forced it down. For Freda the worst thing about being in hospital was having to rely on other people. Especially at night when she needed to call the nurses if she had to go to the toilet. She felt she was being a nuisance. Using commodes and bedpans was undignified and she hated it. Getting out of bed on the first day after surgery was painful but her confidence was repaired by the people who were there to help. Nevertheless, Freda was determined, and the physio even had to tell her to slow down. They were encouraging. She was taken to the toilet by a male nurse who waited outside the closed door until she had finished to ensure her safety but maintain her dignity. She thought he was lovely.

She did not know much about pressure ulcers and was happy for the nurses to deal with this. She said she felt well cared for but couldn't wait to get home. Yet once home in her own bed she said she felt vulnerable without the bed rails.

## Helen

Helen was a 78-year-old woman who lived with her husband in a house with an adjoining garage. She had gone out to the garage to get something out of the freezer that was in there. She went to pull the cord to pull the up and over door closed and as it began to move it pulled her forward and dragged her off balance and she fell. She knew she had

done something serious, but rather than wait an ambulance and with the help of her husband and neighbour got into the car. Her husband drove her to hospital, and she was then assisted out of the car by some ambulance crew that were there. She noted that she was seen very quickly and did not spend long in the emergency department before being x-rayed and moved to the ward. She had her surgery the following morning and rather than having a general anaesthetic had an epidural instead. During the interview Helen told me that before she retired she had worked in the care sector for older people and had first-hand experience of pressure ulcers. She was acutely aware of the risks, but this was compromised by some post-operative complications. Therefore, she was also dependent on the staff in the initial stages of her hospital stay. She knew what the air mattress she was nursed on was for and why she needed it.

In the aftermath when she was back on the ward, the realisation of what had happened began to trouble her. She talked in the interview about her own mental state and how thoughts kept crowding in. She was aware in the initial stages she needed help and was happy to accept assistance but when she did get out of bed and to the toilet this was a great relief and achievement. She knew that pressure ulcers could be caused by sitting for too long and made sure to move around when in hospital and now that she was home.

She was very grateful to the nurses for their care and remarked on a male nurse who escorted her to the toilet at night. She told him she could manage herself, but he was insistent. On further questioning I asked her how this made her feel, and she said it made her feel safe rather than frustrated. She went on to say that her privacy was maintained whilst she was in the bathroom but that he then escorted her back to bed safely. She was making good progress but then suffered further complications that lengthened her stay. Despite this setback she was determined to make progress and get home by saying she was able minded as well as able-bodied.

## James

James was a 75-year-old man who was waiting to have elective surgery on his hip. He had been experiencing pain for some time but had gone out to play a round of golf. He had put the golf ball down onto the tee, stepped back, lost his balance and fell heavily onto his side. His friends called an ambulance, and the paramedics arrived within 30-45 minutes and took James to hospital. Once in the emergency department he was seen quickly and x-rayed. His recollection of the emergency department was hazy, and he was more grateful for the comfortable bed. His surgery was delayed for nearly a week due to complications. On the ward, he was nursed in a 5 bedded bay with four other patients. Many of the patients in the bay and on the ward at that time were confused. James found trying to recover in this environment challenging as it was noisy especially at night and he could not get a good night's rest. He felt sorry for the confused patients but was not coping well with his recovery as he was not sleeping well. During the interview, he said he thought the nurses were excellent, especially with what they had to put up with and how other patients spoke to them.

Getting out of bed was exhausting and although the physios were supportive, and he knew he had to push himself he found this very difficult. Being constipated, made this even more difficult as he wanted to get to the bathroom rather than use a commode. He was full of praise for the male nurse who cared for him and encouraged him to mobilise without making him feel embarrassed. Despite the pain and the tiredness, he was determined to do his physio so he could get out of the hospital. He knew that the sooner he mastered his exercises and mobility the sooner he would be signed off and get out. Pressure ulcers were not a priority.

### Joyce

Joyce was an 80-year-old woman who was a keen golfer. The weather forecast had said it was going to be 6 degrees with a windchill factor of 2 degrees so rather than play golf, as she did every Tuesday, she decided instead to have lunch with her girlfriends and then go for a swim instead. After her swim some of the girls were sitting chatting so she joined them for a while. At 5pm, she got up to go. She walked down the front steps and slipped. Several people came to her rescue and called an ambulance but were told there would be a 3 hour wait. As it was cold outside on the steps two men from the golf club lifted her off the steps and onto a chair in the reception so she would not get hypothermia. She described the pain as so intense that she knew if she tried to move she would pass out. After four hours, the ambulance crew arrived and gave her gas and air. She was transferred to the emergency department and had an injection for the pain. On confirmation of the fracture, Joyce was moved to the ward and then went to theatre the following morning. She was nursed on an air mattress which she guessed was to stop her getting pressure ulcers. Her appetite was poor after the operation, and she struggled to eat but for her the worst thing about being in hospital was having to use a bedpan as it was so uncomfortable. She longed to get to the bathroom. Although the physios did work with her she felt it was her own determination that got her to walk to the bathroom. It was clear from the interview that the nurses were providing pressure ulcer prevention care like checking skin, but Joyce was not aware of why they were doing this. Her focus was to get to the bathroom. In the meantime, she was happy to accept help from the nurses. The turning point for Joyce was when she was able to get to the bathroom.

Having been nursed in a side room she was able to close the door and rest at night which she was grateful for as she could often hear patients with dementia calling out at night. Getting rest enabled her to work hard when the physiotherapists came around. She admitted she was scared stiff about walking but said the physio was able to help her to regain her lost confidence.

### Mary

Mary was an 84-year-old woman who lived on her own. She had felt unwell the previous evening and had a disturbed night. She had got up during the night and was sick. She

went to the kitchen to make herself a cup of tea but felt dizzy so attempted to walk back into the living room but passed out. When she came round she was unable to move. A while later her carer arrived with a key so she could get in and then phoned for an ambulance. The ambulance took about 5 hours to arrive and when the paramedics tried to sit her up she kept fainting as her blood pressure was low and latterly found out she was anaemic. Mary's recollection of the emergency department was varied. She remembered several doctors coming in and needing to have several x-rays and scans but was not able to remember what type they were. Eventually she was taken to the ward and went to theatre the next day to have her hip repaired. She was unable to recollect what happened on the ward on the day of the operation but was able to remember getting out of bed for the first time. She was worried but said it was not as bad as she had thought it would be. The physiotherapists had used a clever thing with a pad on it for her knees [a Rotastand] which helped.

Whilst on the ward she recalled sitting in a chair that was too tall for her, so the staff put a box under her feet. The toilet in her side room was also not working so she sometimes had to have a commode. She did not mind this but was worried at night. When she wanted to get to the toilet she had to ring her call bell for someone to come but said she often had to wait as there were few people around at night.

Mary had an air mattress during her stay which she thought was very comfortable and was disappointed when the nurses took it away and replaced it with a normal mattress. She was not aware what it was for but voiced that she was happy to leave all the decisions to the experts during her stay.

## Molly

Molly was an 86-year-old woman who lived with her son. She was on her way to bed one night and walked over to close the curtains. As she reached up she lost her balance and fell. She was close enough to the bed and was able to move her toes so thought nothing was broken and went to bed to sleep. During the night she needed the toilet and managed to get to the bathroom next door to her bedroom. After struggling back, she realised she needed an ambulance so was able to wake her son who called them. They arrived after two hours and took her to hospital. She was seen quickly but could not recall the details. She was transferred to the ward around breakfast time but was not allowed to eat or drink anything. However, by 4pm the hospital said they could not operate that day. The same thing happened the following day too, but Molly said it was a bank holiday so said that they were busy. Her pain was well controlled unless she moved around but said the air mattress helped. She knew it was to help prevent bedsores.

Molly was frustrated that she had fallen in the first place despite taking precautions at home and having rails installed. Once she had the operation she was determined to get moving but was again frustrated at some of the hospital equipment. The chair next to her bed was too big for her and her feet dangled, and she could not touch the floor. This made it painful to sit out all day and she recalled a conversation with the charge nurse

who asked why she was back in bed one afternoon. Nevertheless, she was aware she needed to keep moving. She had been in the Air Raid Precautions (ARP) after the war and said they were taught about bed sores. She had also been in hospital previously and witnessed another patient deteriorate and die because she did not move around and got an embolism. Molly also suffered with slight urinary incontinence and was often unable to wait until the nurses could come and take her to the toilet so managed to get herself out of bed and to the toilet. One night this involved her adapting her dressing gown cord and use it to loop around her foot to swing her leg out of bed. The toilet seat in the bathroom was broken which annoyed Molly but there was a raised toilet frame there, so she used that which did make it easier for her to get on and off the toilet.

### Phyliss

Phyliss was an 80-year-old woman who had been very active until the last few months. She had suffered a stroke but was making good progress and managing to walk around at home without needing her walking frame and had been able to get back out in the garden and even able to mow the lawn. Her granddaughter had purchased a mini pedal exercise bike to help her strengthen her legs after the stroke but one day she was in the dining room and tripped over it and fell. As there was not one at home she lay on the floor cursing herself. Her husband returned home an hour later and raised the alarm. He was unable to help Phyliss up, so he called their daughter to come and then an ambulance.

Her recollection of the emergency department was vague, but she knew she was in a great deal of pain. Nevertheless, she was surprised at the amount of pain killers they gave her which included morphine. During the interview she kept calling herself stupid for falling. She hated being incapacitated but was terrified about getting out of bed because she thought she would fall again. One evening during her recovery she wanted a bedpan. The nursing sister told her she needed to walk to the bathroom as the physios had written on the board above her bed, but Phyliss was tired and frightened of falling. She was really upset and felt they were pushing her too quickly. The nurse on the ward had openly told her they needed her bed, but Phyliss was adamant that she was not going to be forced out until she felt ready in her own body. It was a healthcare support who was more understanding that evening and got a bedpan for her. Phyliss was a very independent person but at that point needed someone to take over and care for her. The fall had caused her to lose her confidence which she openly admitted. Even when she left hospital she was still struggling to recover from the stroke and the hip fracture. She felt that other people including her family thought she was still superwoman and riding her bike, but she said she was not that person anymore.

### Reg

Reg was a 69-year-old man who fractured his hip whilst out in the garden of his bungalow. He lived alone but was expecting his neighbour round that evening so had gone down the

garden to put the light on. He turned missed his footing and fell. He lay on the ground for two hours before anyone came. When his neighbours arrived they called an ambulance, Reg's son and a friend from down the road also came to see if he could help. He was able to recall the events in the ED and that they had told him they would not be able to operate on his hip until Tuesday, but he was taken to theatre the following day, so the fracture was repaired quickly. On the first day after his surgery, he reported feeling stiff, but he got out of bed and managed to walk halfway down the ward with the physiotherapists. Once the stiffness subsided he was able to get himself to the toilet unaided. He progressed very quickly and put this down to the fact he was very strong-minded and had been in the army. He set himself targets that he told the physiotherapist about these too. However, since he got home he has wanted to get out in the garden but had told the consultant that he was not going to until he was 100% confident to do so. The fall had been a wake-up call for him.

He disliked the air mattress he was initially nursed on because he could not move in the bed very easily but once they changed the mattress he was much happier. He thought the mattress was to help patients to relax but he said it did not help him much. He was not at all concerned about pressure ulcers and let the nurses do what they needed to do.

#### Rhoda

Rhoda was a 90-year-old woman who lived with her son and two cats. She is partially sighted and was about the watch *Strictly Come Dancing* but decided to go out to the kitchen to make some sandwiches. On her way back whilst carrying the sandwiches she remembers feeling pain shoot down her leg and being taken off balance and falling. During her recollection of the fall, she wished she had got it on film she said it was comical. Her son heard her fall and came running downstairs and called an ambulance. The ambulance arrived 90 minutes later. Rhoda said how good the paramedics were and that they gave her pain relief, got her on a stretcher and took her to the emergency department. She remembers having a catheter put in and her son talking to the staff but could not remember what else happened there but remembered going to the ward around 4am.

The next morning the consultant came around and was discussing with her about a repair or completely new hip. She told them that she was not worried and that she was in their hands and to do what was necessary. She had her operation later that morning and the following day the staff assisted her out of bed. She recalls having liquid morphine to help with the pain but that it was painful. Nevertheless, she was grateful to sit up and the out in a chair. Despite the pain she said she was determined and said the staff called her *Speedy Gonzales*. She said her involvement in her care was about right and she appreciated the encouragement she received.

During her life, Rhoda had looked after a neighbour who had a pressure ulcer. She provided a great deal of care (including personal care) for the neighbour. She was one of the few participants who were aware of the cause of pressure ulcers and was able to

state that it was due problems with the blood flow and the tissue dying. She was aware that they could be caused by not moving but when asked if she had considered this herself when she was in hospital she said she had not thought of that. She was aware at times when the nurses were checking her skin. She was not embarrassed and accepted whatever they needed to do. This included being washed in the initial acute phase of her recovery. She did not like it be accepted this but knew as soon as she could do this herself she would.

One night she pressed her buzzer because she was afraid of being incontinent. The nurses were very strict about calling them when she wanted to go to the bathroom and insisted she had someone with her until she was able to do this herself completely. Despite saying the care, she received was excellent she was glad to come home to her two cats.

## Rupert

Rupert was a 90-year-old man who fell outside his flat on his way to the shop. He said the road is busy and was conscious of needing to look both ways when he stuck his foot down a pothole. He knew he had done something serious as he could feel it grinding. The area was busy with people including a bank nurse from the local hospital who stopped to help and called the ambulance. The paramedics arrived within 10 minutes, and he was taken to the hospital. He could not remember having an x-ray but said he must have had one for them to know it was broken. From the emergency department he was transferred to the ward and then went to theatre the following day. He remembered how well the surgeon and his assistant put him at ease laughing and joking between the three of them.

After his surgery he was nursed in a side room for two days and then in one of the 5 bedded bays before being transferred to another hospital to continue his rehabilitation. Whilst in the acute hospital he said the food was good but that he just could not eat initially. He needed help for the first few days to get to the bathroom as his leg was very stiff and he found it difficult to lift it from the bed. He was accepting of help at that time and knew the staff where there to help if he needed them but he perfected new ways of doing this so he could regain independence where possible.

He regained independence with getting to the toilet and washing himself very quickly but struggled to get his underwear and trousers on because it was difficult to get down to his feet. For him this was not due to his hip but the pre-existing rheumatoid arthritis he had in his knee. At night if he wanted to go to the toilet he would use the walking frame and get himself there.

Prior to his wife passing away he had nursed her, and she had suffered with pressure ulcers and so did his brother who was wounded in the war. Rupert said that they were caused by being in bed for too long. Whilst in hospital he felt well looked after but was not aware of when the nurses carried out pressure ulcer prevention tasks.

## Sheila

Sheila was an 80-year-old woman who broke her hip falling on her uneven driveway one day when she returned home. A passer-by stopped to help and then a friend from up the road arrived. Sheila could not remember how long it took for the ambulance to arrive but said it was not long. When I asked about what happened in the emergency department she said I wish you had not asked. This was not because it was bad but because she could not remember. She had never been in hospital before, so it was all new. She went to the ward initially and was then operated on the next day.

The worst thing for Sheila about being in hospital was that she was frustrated with herself and not being able to do things like walking. She was aware of patients calling out at night and felt sorry for the patients with dementia. During her stay she was moved into a 5 bedded bay with other patients she could talk to. She said they had a few laughs. She found the ward routine challenging at times especially being woken up early.

## Vera

Vera was an 82-year-old woman who fell in her kitchen at home. She was cleaning the gas stove when she turned and went down onto the floor. She lives alone and was unable to get up. She dragged herself across the floor and pulled the phone down from the side to call her daughter. Her daughter phoned for an ambulance and then made her way to her mother's house. The ambulance arrived about 10 mins later. The paramedics gave her some medication so the journey to the hospital was not too bad. She was unable to remember, what happened in the emergency department but knew she went to the ward first as she had to wait 48 hours before she could have surgery due to being on blood thinning tablets. She was initially nursed in a side room and for the first few days had no appetite despite having homemade food delivered by her daughter. Every day she was offered laxatives that she did not need which she found annoying. Initially the nurses washed her. She knew it had to be done and accepted this. Vera had fractured her hip and her arm which made getting moving after the surgery and even greater challenge. She said all the staff were so good but due to her arm had to use a special gutter frame which she said was horrendous. This was not because of the pain but because it was so awkward to use. Vera had no confidence using the frame and although she was deemed medically fit by the hospital after the end of the first week, her and her daughter refused discharge. The confidence eventually increased once she was given a crutch which she found much better and then she was happy to come home. Although she was aware of being nursed on a mattress to prevent bed sores and that the nurses had checked her skin she did not think much about them until she was interviewed.

## Wilf

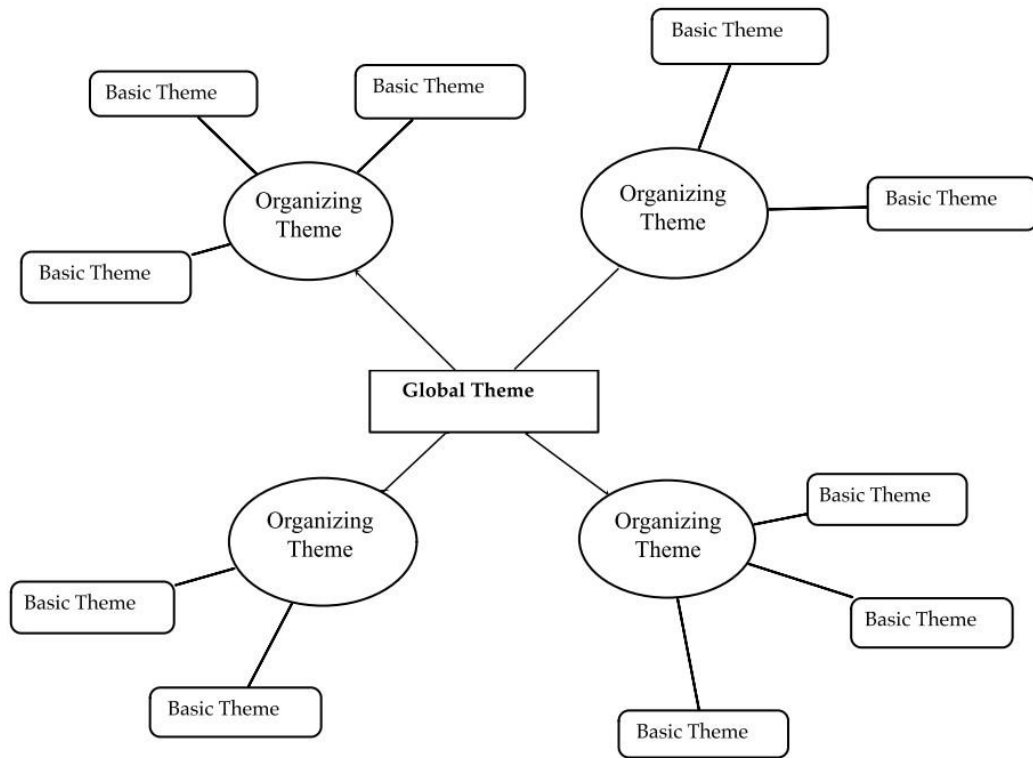
Wilf was a 67-year-old man who lived with his wife. It was late in the evening, and he was rushing around when he tripped on a step in the hallway and fell. His wife heard him and called an ambulance. The paramedics arrived and administered analgesia before transporting him to the hospital. He remembered waiting sometime in the emergency department but could not recall much else from that time. He remembers going to the ward and then to theatre a couple of days later. Following the surgery Wilf suffered with post-operative delirium. He could not remember very much in those initial few days but remembered having terrifying nightmares. During that time, he was fully dependent on the nurses and the parts that he can remember were distressing to him. The nurses had put an incontinence pad on him which he found humiliating. Even during the interview Wilf remained traumatized by his experience of delirium and even if he had wanted to be involved he was unable. As soon as he was able to engage in his care he sat out in the chair. He found the chair incredibly uncomfortable but put it down to the hospital using NHS approved chairs which he felt the people who ordered them should sit in for 3-4 hours before they purchased them to check they would be suitable. He had no interest in pressure ulcer prevention and stated this very clearly.

## William

William was a 69-year-old man who lived with his son. He got up during the night to go to the toilet. His son was asleep in the next room. He reached across the landing to turn on the light, missed the switch and slipped and fell down the stairs. His son jumped up and called an ambulance. It was New Year, and the ambulance took two hours to arrive. William had never been in hospital and was frightened. In the emergency department there were people shouting, drunk. Although he had been given analgesia by the paramedics he had a good recollection of what happened in the emergency department and was comfortable as his pain was controlled. He had surgery to his hip to following day and was then nursed back on the ward in a 5 bedded bay. He said he had never experienced anything like it before. He hardly got any sleep at all due to other patients shouting and screaming out at night.

He was exhausted but managed to get out of bed with help on the first day and said it was because he was determined. His mother had had bed sores towards the end of her life, so he was aware of them and understood why the nurses had put him on a special mattress because they told him it was to prevent sores. He thought they were obsessed with his heels as they checked them regularly.

## Appendix 14 – Thematic Network



(Attride-Stirling, 2001).

## Appendix 15 – Codebook

<b>Becoming an inpatient</b>
Admission to the ward
Theatre or ward initially
<b>Getting to hospital</b>
Going to hospital by car
The ambulance journey
Waiting for the paramedics
When the paramedics arrived
<b>How you broke hip</b>
<b>The emergency department</b>
Recollections of the emergency department
X-ray
Waiting in the emergency department
<b>Dependence independence continuum</b>
<b>Dependence</b>
Leaving it to the professionals
In their hands
Power dynamics
They're the experts
They're there to help
<b>Loss of control</b>
Being incapacitated
Having to rely on others

Lack of control over situation
<b>No choice but to accept help</b>
Acceptance of help
Being bedbound
Feeling unphased
Happy for nurses to do things for me
It's good for you, for your own benefit
Necessary evil
<b>Fear of incontinence</b>
<b>Barriers and enablers of continence</b>
Being close to the toilet
Cotsides
Escorted to the toilet
Felt safe
Getting to toilet
Incontinence
Nurses ensuring safety for patients when mobilising
Taking risks
Waiting ages for nurses to come
<b>Toileting anxiety</b>
Bedpan

Bowels
Commode
Embarrassment
Humiliation
Laxatives
Privacy and dignity
<b>Level of information and involvement</b>
<b>Information</b>
Information overload
Kept me informed
Lack of information or communication
Not being listened to
<b>Involvement in care</b>
Involvement in care delivery
Too unwell to be involved
<b>Making sense of the situation</b>
<b>Not remembering the fog amnesia</b>
Confused
The Fog
When you got to ED
<b>The aftermath</b>
Realisation of situation
Relief that all over
Self-chastisement
Shock

Speed of injury
Thankful for being alive
Wakeup call
Thoughts and feelings in the early stages
Feeling helpless
Feeling tired
Loss of previous self and ability
Never been in hospital before
Unprepared
Mobilising and regaining independence
Concreting confidence
Confidence
Encouraging rehab
Getting out of bed
Reassurance
Fear
Bed pressures
Feeling vulnerable
Not ready to come home
Need for support and reassurance
Difficulty mobilising
Fear
Fear of falling again
Staff not helping
The need for independence

Goal setting and the need to make progress
Adapting
Determination
Frustration
Getting back to normal
Motivation
Need for progress
Onus on themselves to get better
Regaining independence
Motivational drivers
Missing home and loved ones and pets
Need to be independent
Not wanting to be a burden
Reason for self-motivation
The need to get home
Toileting as a need to be independent
Worst thing about fracturing hip
Me apologising for poor experience
Not wanting to go to hospital
Patient experience of pressure ulcer prevention
Attitudes and behaviour
Behaviour and actions

Knowing about pressure ulcers did change actions
Knowing about pu did not change actions
Pressure ulcer prevention is not a patient priority
Lack of awareness of pup
Lack of interest in pu
Lacking awareness of seriousness
Other priorities
Nurse control of involvement in pressure ulcer prevention
Information and involvement in pressure ulcer prevention
Involvement in pup
Not told why mattress was for or why changed
Nurses told them what air mattress was for
Verbal information
Written information
Patient perceptions of what nurses did to prevent pressure ulcers
Repositioning
Skin checks

What did nurses do to stop you getting a pu
Pressure ulcer knowledge and understanding
Causes of pressure ulcers
Causes of pu
Friction
Immobility
Pressure
Surface
Sweat
Urine and faeces
Patient perceptions of pressure ulcer prevention and treatment
Can pressure ulcers be prevented
Cream
Knew what air mattress was for from own knowledge
Knowledge of pressure ulcers
Patient understanding of pu
Perceived treatment for pu
Perceptions about the mattress
Personal experience of pressure ulcers

Have you or anyone you know ever had a pressure ulcer
Memories of pu
Personal experience of pu
Recovery
Barriers and enablers of progress
Comfort as a priority
Bedpans are uncomfortable
Chairs
Comfort as an important priority
Did you have an air mattress
Disliked air mattress
Liked air mattress
Poor Sleep
Uncomfortable
Wrong size of chair
Eating
Hospital food
Lack of appetite
Interpersonal relationships with staff
Banter with staff
Support and care from staff
Medical problems

Comorbidities and challenges
Compounding factors for recovery
Delirium
Distress
Pain
Pain controlled
Physical environment
Bedded bay
Camaraderie and support from other patients
Compassion for other patients
Felt sorry for the nurses
Life in the 5 bedded bay
Other patients calling out
Patients with dementia
Sleep being disturbed
Side room prison
Isolated
Need for human contact
Side room
Side room sanctuary
Own room
The care environment and culture

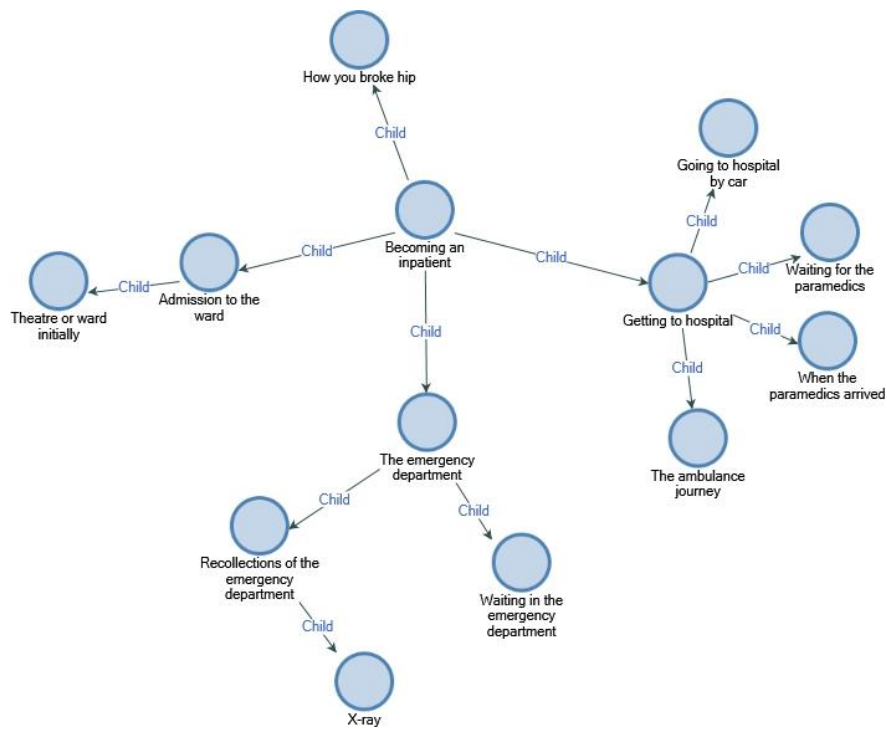
Good nursing care
Feet wash
Felt at home
Felt cared for
Praise for staff
Well looked after
Incorrect or broken equipment
Broken bed controller
Broken shower seat
Broken toilet
Not enough pillows
Patients experience of NHS pressures
Busyness of ward
Having to fall in with ward routine
Not seeing nurses often
Nurses under pressure



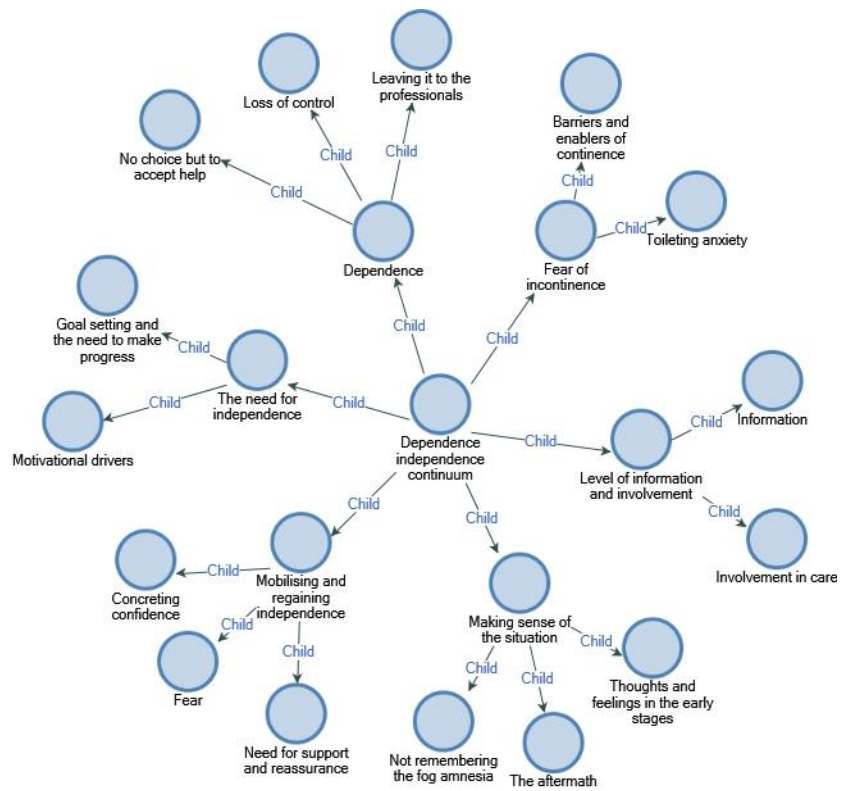
## Appendix 17 – Analysis Grid

		Barbara	Bert	Betty	Charlie	Christine	David	Elizabeth	Freda	Helen	James	Joyce	Mary	Molly	Phylliss	Reg	Rhoda	Rupert	Sheila	Vera	Wif	William
Negative aspects	Who had comorbidities		*	*		*		*					*	*	*		*	*				
	Who was frightened?			*				*	*	*		*	*		*		*			*	*	
	Experienced physical barriers to recovery		*	*	*			*		*	*			*	*			*		*		
	Experienced psychological barriers to recovery									*					*		*			*	*	*
	Experienced organisational barriers to recovery				*		*				*		*	*	*	*					*	*
	Frail			*	*								*	*			*					
	Age over 80			*	*	*	*	*	*			*	*	*	*		*	*	*	*	*	
		0	2	5	4	2	2	4	2	3	2	2	5	5	6	0	5	3	1	4	3	2
Protective aspects	Active prior to injury	*	*				*		*	*	*	*			*	*			*	*	*	*
	Who was driven, set goals						*			*		*				*						
	Social support at home, spouse, son, daughter	*		*		*	*	*	*	*				*	*		*			*	*	*
		-2	1	4	4	1	-1	3	1	0	1	1	5	4	4	-2	4	3	0	4	1	0
	Who knew about PU?		*		*					*		*		*			*	*		*		
Conceptual variants	BD	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Extended BD										*				*					*	*	
	Flow/continuity	*					*		*			*				*					*	*
	Accommodation			*	*			*		*	*									*		
	Reconstruction		*			*		*			*		*	*			*	*	*			
	Repair/abruption			*	*										*							

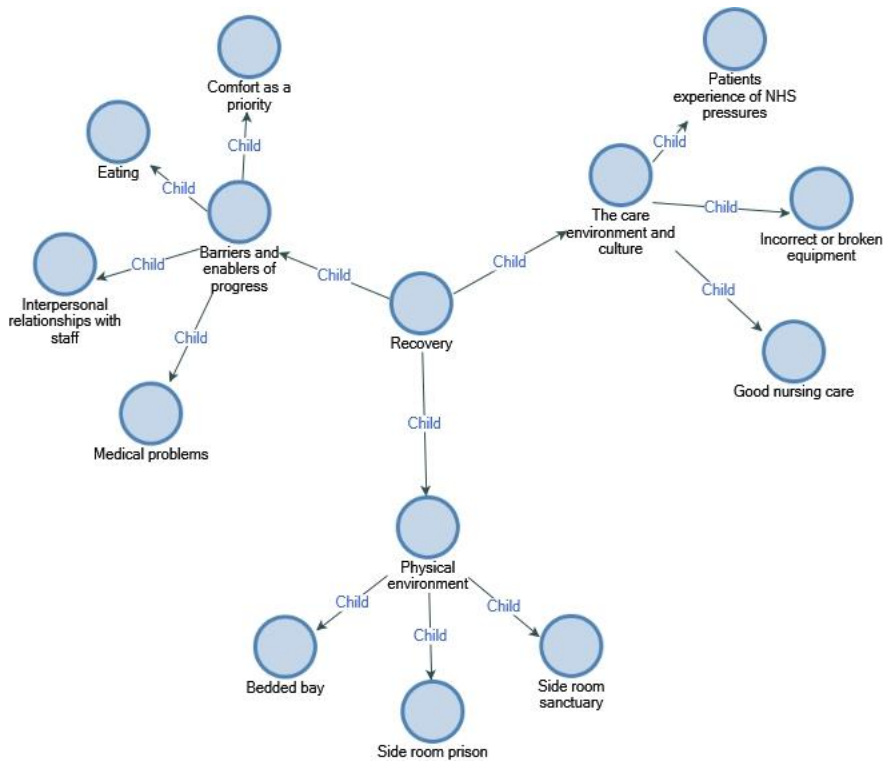
## Appendix 18 – Thematic Networks



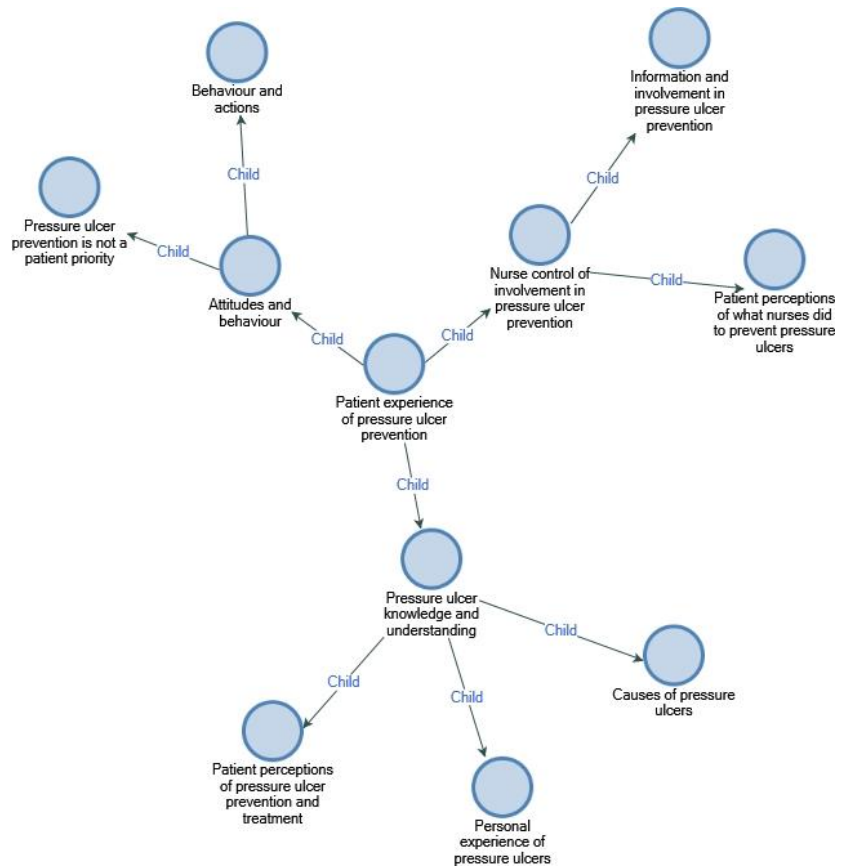
Thematic network - Becoming an inpatient



Thematic network – Dependence independence continuum

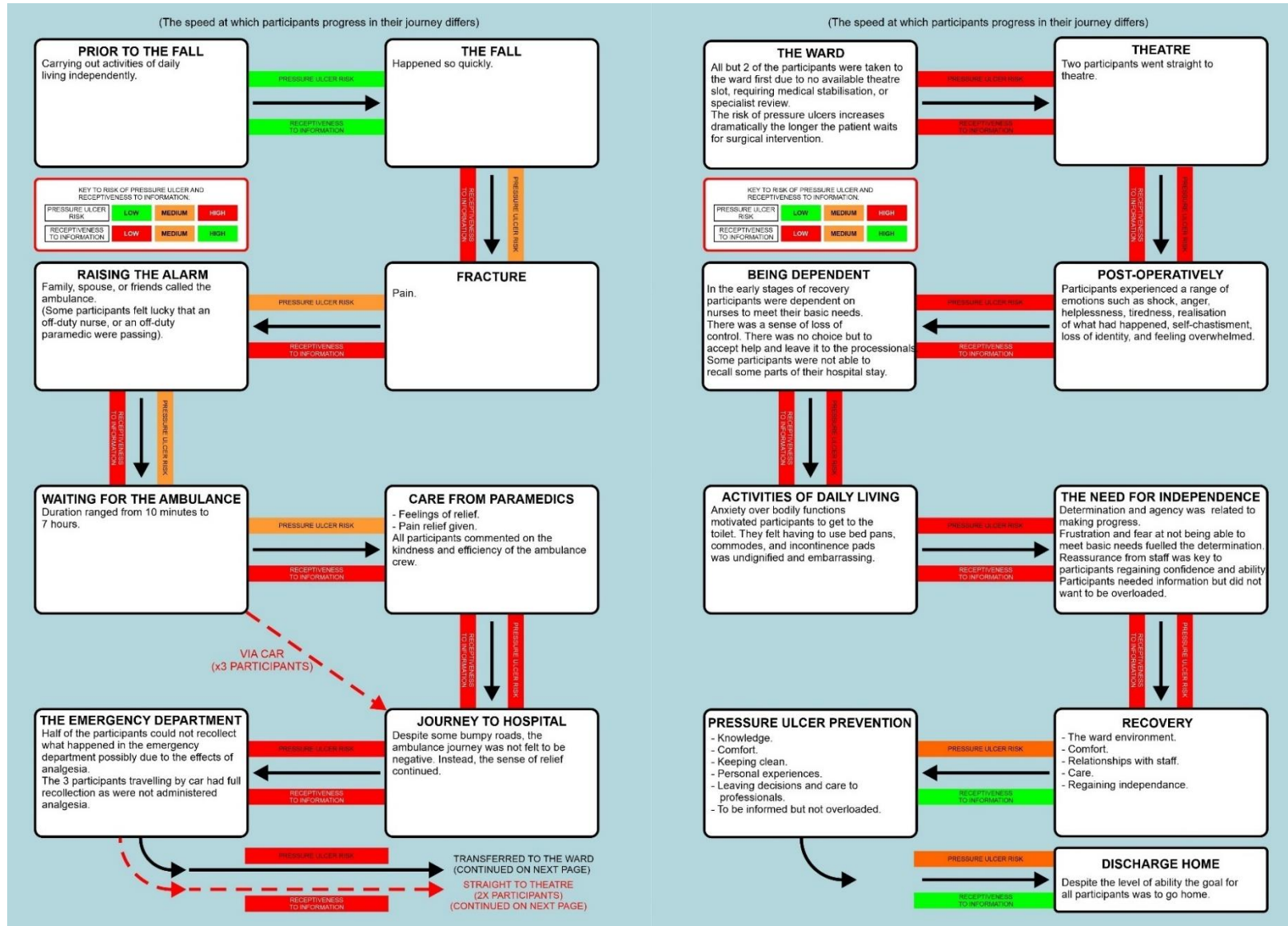


Thematic network – Recovery



Thematic network – Pressure ulcer prevention

## Appendix 19 – Patient Storyline



Appendix 20 - Pictorial representation of the patient journey experience through biographical disruption and its variants

Recovery			
Time	→		
William	Biographical Disruption	Flow / Continuity	
Wilf	Biographical Disruption	Extended Biographical Disruption	Flow / Continuity
Vera	Biographical Disruption	Extended Biographical Disruption	Accommodation
Sheila	Biographical Disruption	Reconstruction	
Rupert	Biographical Disruption	Reconstruction	
Rhoda	Biographical Disruption	Reconstruction	
Reg	Biographical Disruption	Flow / Continuity	
Phyliss	Biographical Disruption	Extended Biographical Disruption	Repair / Abruption
Molly	Biographical Disruption	Reconstruction	
Mary	Biographical Disruption	Reconstruction	
Joyce	Biographical Disruption	Flow / Continuity	
James	Biographical Disruption	Extended Biographical Disruption	Accommodation Reconstruction
Helen	Biographical Disruption	Accommodation	
Freda	Biographical Disruption	Flow / Continuity	
Elizabeth	Biographical Disruption	Accommodation	Reconstruction
David	Biographical Disruption	Flow / Continuity	
Christine	Biographical Disruption	Reconstruction	
Charlie	Biographical Disruption	Accommodation	Repair / Abruption
Betty	Biographical Disruption	Accommodation	Repair / Abruption
Bert	Biographical Disruption	Reconstruction	
Barbara	Biographical Disruption	Flow / Continuity	