Parental needs and nursing response following SUFE Surgery An interpretive descriptive study

by

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Abstract

The parental experience of caring for a child following the unexpected admission and surgery for a significant hip injury has largely been unexplored in the New Zealand (NZ) context. Slipped Upper Femoral Epiphysis (SUFE) is one of the most common orthopaedic hip disorders prevalent amongst children between the ages of nine to fifteen years. In New Zealand, Māori and Pacific children are the most vulnerable population at risk of this hip condition. Existing literature focuses on the demographic and epidemiological studies, including surgical treatment and management of SUFE; however, there is a dearth of research concerning SUFE that focuses on parents' experiences in the postoperative, discharge and rehabilitative phases of care and the nurses' experience of caring for these children and their families.

This qualitative study was undertaken at a large public hospital in New Zealand and interpretive descriptive methodology was utilised to examine the experiences of parents and nurses in caring for a child following invasive SUFE repair. As Māori and Pacific Island populations are highly represented in the SUFE statistics, most of the parents used in this study are from these socio-cultural backgrounds. Through transcribed semi-structured interviews with parents of five children who underwent SUFE repair, and five paediatric nurses caring for children and their families in the hospital ward, this study offers two perspectives of the journey for these parents following such an injury, from the child's hospitalisation to caring for these children once they are home. Following thematic analysis, these perspectives are presented and contrasted revealing, insights of the parents' ongoing need for support, information and planning for care and nurses' efforts to meet these needs. Implications of nursing practice and parental education include the need for improved information sharing and delivery to aid parents understanding of the SUFE condition and effective management of care during hospitalisation and at home following discharge. Recommendations are made to improve the parental experience to support their child's recovery following SUFE surgery.

Key Words:

SUFE, Parents and caregivers, Māori and Pacific populations, Nurses

Dedication

On behalf of my family, I dedicate this thesis to my loving parents, my father, the late Mr Maha Deo and my mother, the late Mrs Mari Deo. My success to date is due to your hard work and values that you had instilled and nurtured within me. No number of words will ever justify your commitment and dedication as parents in ensuring all your children were given quality education to become successful in life, survive hardship and ordeals. You both continue to shower your blessings upon us as our forever guardian angels.

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List of Abbreviations

ACNM	Associate Clinical Nurse Manager
COVID	Coronavirus Disease
CNM	Charge Nurse Manager
DHB	District Health Board
NZ	New Zealand
RN	Registered Nurse
SUFE	Slipped Upper Femoral Epiphysis
MDT	Multi-Disciplinary Team

Glossary

Glossary	Definition
Whanau	Māori word for family including extended family or community of families living together.
Non-Weight bearing	No weight is to be exerted through injured or operative limb.
Occupational Therapist (OT)	A health care professional who specialises in providing therapy and support to people who have limited ability to carry out everyday activities due to disability, injury, or surgery. In relation to SUFE care OTs advise and provide equipment to use and recommend changes to home environment to support recovery and rehabilitation.
Physiotherapist (PT)	A health care professional who specialises in supporting and treating the musculoskeletal functioning of the body in the presence of disease, injury, or deformity by passive and active physical movement and exercise. In relation to SUFE care, PTs assist with mobilization and the return to 'normal' functioning of the affected leg.
Weight bearing	Amount of weight an individual exerts through an injured or operative limb.

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Chapter one Introduction to the research

1.1 Introduction

The focus of this study is to explore and gain further insight into the experience/s of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE). Following SUFE surgery, the parents' role is significant in their child's postoperative care, and it is imperative that they leave the hospital feeling confident, supported, and engaged with the appropriate health care services to manage the child's recovery effectively. Parental experience, involvement and ongoing management of care following SUFE surgery is an area that has not been explored. Hence, this study offers both parental and nursing perspectives of the journey for these parents, following such an injury from admission to discharge and caring for these children once home. As New Zealand statistics reveal Māori and Pacific children have the highest prevalence rate of SUFE in the developed world (Navarre, 2020), their perspectives were sought to inform this study. The inclusion of nurses' perspectives in this study was undertaken to understand how the parents coped with their child's hospitalisation due to SUFE injury and gauge if any improvements could be offered to enhance ongoing care and rehabilitation.

Throughout this thesis, the words "parents" and "caregivers" are widely used. The study was open to recruiting both parents and caregivers of a child who had SUFE surgery. However, only parents consented to participate. This chapter outlines what SUFE is (including the clinical presentation, diagnosis, and treatment), provides the background and justification to the study, my personal and professional interest in the topic, the aim and objectives and concludes with an overview of the thesis.

1.2 Slipped Upper Femoral Epiphysis

Slipped Upper Femoral Epiphysis (SUFE) or Slipped Capital Femoral Epiphysis (SCFE) as it is often referred to in literature, is classified as one of the most common orthopaedic hip disorders, affecting 10-60 per 100,000 children and adolescents per year (Stott & Bidwell, 2003). SUFE occurs between the ages of eight to 15 years of age (Gholve, Cameron, & Millis, 2009; Loder, 2008) and is rated amongst the most missed diagnoses in children. The onset

of SUFE can develop gradually or it may occur acutely following an impact to the hip. For older children, this often happens during sports activities. This occurs when the femoral head is displaced at the growth plate (Appendix A), to a variable degree (Stott & Bidwell, 2003). The child will experience pain in the hip, groin, or knee, and have an altered gait and be limping (Gholve, Cameron, & Millis, 2009). Classification of SUFE is based on the stability of the physis (which is the cartilaginous growth plate at the head of the femur) and is dependent on the ability of the child to ambulate (Loder & Skopelja, 2011). "Stable SUFE" describes the ability of the child to ambulate, with or without the need for crutches, whilst an "unstable SUFE" is characterised by the child being unable to ambulate, with or without crutches (Peck et al., 2017). The aetiology of SUFE is multifactorial and occurs because of endocrine abnormalities such as hypothyroidism (deficiency of thyroid hormones), hypogonadism (deficiency in sex hormones) and hypopituitarism (insufficiency of the pituitary gland to make hormones), growth hormone supplementation and growth spurts (Gholve et al., 2009; Peck et al., 2017). Obesity is also implicated as a major risk factor for the development of SUFE (Manoff, Banffy & Winell, 2005; Murray & Wilson, 2008). A diagnosis of SUFE is confirmed by bilateral hip radiography.

Following the diagnosis of SUFE, the goal of treatment is to prevent further slip progression and avoid complications such as avascular necrosis (death of bone tissue due to lack of blood supply), chondrolysis (loss of articular cartilage) and femoroacetabular impingement (anatomical abnormalities of the hip joint, leading to compression of tissue) (Loder, 2008). The standard treatment of stable SUFE is an internal fixation with a single screw (Appendix A), (Katz, 2006; Loder, 2008). Unstable SUFE is considered a severe injury in comparison to stable SUFE, and although it still requires internal fixation, there are concerns about the timing of surgery and the value of correction (Abu et al., 2014). Therefore, a recommended treatment is Dunn's procedure. Dunn's procedure or osteotomy is an open alignment of the proximal femur through a surgical hip dislocation and open internal fixation with screws which restores normal hip anatomy at the slip site, preserves hip motion and prevents femoroacetabular impingement (Abu et al., 2014). The majority of patients who present with mild to moderate stable SUFE and are treated with internal screw fixation or Dunn's osteotomy procedure have shown commendable long-term outcomes (Gholve et al., 2009; Loder, 2008). The postoperative rehabilitation for patients following SUFE surgery varies depending on the type of surgery. Common for both surgeries described above is a period of rest, followed by mobilisation with ambulatory aids such as crutches. The patient progresses to mobilising without aids moderated with analgesia for pain (Peck et al., 2017). Strengthening and gradual increase in range of motion and exercise then occurs, with recovery being determined by full functional power, inclusive of daily functioning activities. Progression to athletic activities such as running and contact sports is dependent on the closure of the growth plate (Loder, 2008) and varies at the discretion of the orthopaedic surgeon, who also determines the length of time in each stage of recovery (Peck et al., 2017).

1.3 Background and justification of the study

In the New Zealand context, the prevalence of SUFE varies between different ethnic groups. However, children who are of Pacific or Māori descent are reported in research to have the highest prevalence in the world (Loder, 2008). This has been further endorsed by the findings of the NZ epidemiological study involving 211 children, undertaken between 1988 to 2000 at a leading children's hospital. This study reported that in comparison to NZ European children, Māori children had 4.2 times higher admission rates for SUFE, while children of Pacific descent had a 5.6 times higher rate (Stott & Bidwell, 2003).

A report produced by the New Zealand Child and Youth Epidemiology Service (NZCYES) during 2008-2012 provided findings of the distribution and trends of SUFE in New Zealand (Craig et al., 2013). The age distribution of SUFE admissions showed few presentations during early childhood, but this increased rapidly after eight years of age (Craig et al., 2013). Admission rates peaked at 11 years of age in females and 12 years of age in males, before declining in the early-mid teens (Craig et al., 2013). The findings indicated that there were no significant gender differences in hospital admission for SUFE. However, SUFE presentation was rated higher amongst Pacific children and Māori in comparison to Asian/Indian and European/Other ethnic groups and this aligns with the above study by Stott and Bidwell (2003), which correlates with the SUFE prevalence rates being highest amongst Māori and Pacific children.

There were 617 hospitalisations for children and young people with confirmed diagnoses of SUFE during this period, i.e., 2008 to 2012. Of this, the SUFE related admissions in the

Auckland and Northern District regions, between 2008 and 2012 were 40 Northland, 39 Waitemata, 47 Auckland and 118 at Counties Manukau. Interestingly from 2000 to 2012, SUFE admissions in the upper North Island of New Zealand were higher than the NZ rate (Craig et al., 2013). This was likely because there was a significantly higher Pacific and Māori population domiciled within these geographical locations in comparison to their population distribution amongst the rest of NZ. In comparison, children and young people being admitted to South Island District Health Boards (DHBs) with SUFE injuries totalled 90 patients. (10 Nelson Marlborough, 6 South Canterbury, 46 Canterbury, 12 Otago and 16 Southland). This lower presentation rate was influenced by the geographical zones of the individual DHBs and the smaller population numbers of the South Island, with no identification of different ethnic demographic presentation for comparison (Craig et al., 2013).

The District Health Board (DHB) where this research study is based is one of twenty DHBs established under the New Zealand Health and Disability Act 2000 (NZPHD Act 2000) responsible for the provision of personal health, public health, and disability support services to improve the health of the population within its geographical governance area. According to published statistics by the organisation, this DHB provided and funded health and disability services to an estimated 569,400 people in 2019 and is recognised as the fastest growing DHB population in New Zealand with a youthful and ageing population. The DHB's population demographics are diverse with New Zealand's second largest Māori population, and the largest population of Pacific peoples, as well as fast growing Asian communities. Within the DHB catchment, it is estimated to have over 123,000 children, with approximately 45% living in areas of high socioeconomic deprivation. It is projected that by 2029, the population growth within the DHB's geographical area is forecasted to be 16% Māori, 22% Pacific, 30% Asian and 32% NZ European/other ethnicity (Counties Manukau Health, 2019).

Moreover, statistical data supplied by this DHB confirms that SUFE patient volume by ethnicity presentation is highest amongst Pacific and Māori children (Counties Manukau Health, 2021). The data presented below was collated from 2018 to 2020, with the selected age range of between 5 to 18 years, which showed total the recorded events of 77 cases. Table 1 presents, the total presentation of SUFE admission by ethnicity between 2018 to

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2020 and Figure 1, shows a graph representation of SUFE events differentiated between ethnicity and calendar year to highlight the difference in the volume of cases per year.

Table 1:

SUFE presentation by ethnicity between 2018 to 2020

Ethnicity Group	Number of cases	%
Pacific Islander	40	52%
Māori	34	44%
Indian	1	1%
European	2	3%
Total	77	100%

Figure 1:

Presentation of SUFE events by ethnicity and calendar year: 2018 to 2020



Note: DHB Health Intelligence and Informatics (Counties Manukau Health, 2021).

In the context of this research, the above data from the DHB highlights that SUFE patient presentation within this DHB is the highest amongst Māori and Pacific populations in

comparison to other ethnic groups. Furthermore, the demographic population profile above highlights that the highest Māori and Pacific populations reside within the geographical area where this research study took place. The prevalence of SUFE amongst these ethnic groups is the highest in the country, which aligns with the prevalence rates described in New Zealand based SUFE studies (Navarre, 2020). Given this, the opportunity to focus on the parental experiences following their child's SUFE surgery is both warranted and timely. Consequently, this study sought to understand the parental hospitalisation journey from admission through to discharge, including the rehabilitative phase of care at home.

1.4 Personal and professional interest in this research

Every research has its significance and essence in contributing towards understanding the realities as it is experienced and perceived within the context it is based. My interest in this study stems from my personal experience, having witnessed a 14-year-old male cousin diagnosed with SUFE in the late 1990's in the Fiji Islands. My uncle and aunty had to endure ongoing challenges following surgical intervention in managing his care at home with no support network in place to ensure he was able to receive appropriate, safe, managed and reviewed ongoing follow up care. Understandably, Fiji does not have the same level of health care in comparison to the New Zealand health system. Therefore, their challenges following my cousin's SUFE surgery was painstakingly unimaginable, considering the financial, emotional, and psychological impact it had on the entire family.

In my twenty years of nursing as an NZ Registered Nurse (RN) working in the perioperative setting within a major public hospital in NZ, I have witnessed an increase in the presentation of children hospitalised for surgical intervention in the treatment and management of SUFE. This provided me with the opportunity to come face-to-face with parents and caregivers when they presented to the operating theatre for the child's SUFE surgery. From the discussions with the child and the parents, it was clear that the parents appeared to have very poor knowledge about the SUFE condition and the care that would be needed. This often brought back memories of the experiences and challenges my uncle and aunty had endured. Hence, I wanted this research to explore the experiences parents faced following their child's SUFE injury, during hospitalisation and once home, to identify if the care needed improving and to identify better practices.

1.5 Research question, aims and objectives

The primary aim of this research study is to explore the experiences and perceptions of parents and caregivers whose child underwent SUFE surgery, to understand what their needs were, how these were met and what changes could be improved in postoperative and discharge terms, and education needs in delivery of care.

The research question underpinning this investigation is two-fold:

a) "What are the parental and caregiver experiences of postoperative education and discharge planning needs following their child's hospitalisation and surgical journey as a result of a Slipped Upper Femoral Epiphysis?".

b) "What are the nurse's experiences of providing postoperative education and addressing the discharge planning needs of parents and caregivers following their child's hospitalisation and surgical journey as a result of a Slipped Upper Femoral Epiphysis?"

The research question was addressed through the following research objectives:

- a) To gain an understanding of parents' needs to support their child following SUFE surgery
- b) To identify improvements to assist health care professionals to work effectively with families whose children suffer from SUFE
- c) To identify where postoperative discharge practices were meeting the needs of these parents and children.

1.6 Organisation of the thesis

To meet the study's aims and objective, the thesis is organised into six chapters and as follows:

<u>Chapter One</u> provided a brief introduction to this thesis, a description of the SUFE condition and treatment options. Statistics are presented to illustrate the prevalence of SUFE and my personal and professional interest in this topic was presented. The chapter closes with an outline of the research aims and objectives. <u>Chapter Two</u> provides a review of the literature that creates framework for this study in relation to SUFE.

<u>Chapter Three</u> outlines the interpretive description methodology that informs how I approached the study. The research design elaborates on the data collection process, including the recruitment of participants and the semi-structured interview process. Data analysis in the form of thematic analysis is described and ethical and cultural considerations are presented.

<u>Chapter Four</u> presents the analysis of my research findings in the form of themes and subthemes that emerged from the parents' interview verbatim.

<u>Chapter Five</u> presents the analysis of my research findings in the form of themes and subthemes that emerged from the nurses' interview verbatim.

<u>Chapter Six</u> concludes my research and provides a discussion on my findings, limitations experienced during the study and recommendations based on the findings, including my suggestions for further research with a concluding statement to the thesis.

1.7 Conclusion

This chapter provides an introductory overview of the study. SUFE was shown to significantly affect New Zealand Māori and Pacific children 8 years and older, and this research aims to garner the experiences of parents whose child had SUFE surgery. To do this, both parents' and nurses' perspectives on parents' journey following hospitalisation for SUFE, is explored.

In the next chapter, the literature review will be presented and explored in relation to position this study and meet the aims and objectives.

Chapter Two Literature Review

2.1 Introduction

This chapter explores the literature about the postoperative needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE). Following an explanation of the search strategy, this chapter begins with an overview of International and NZ based SUFE studies before looking at the link between childhood obesity and SUFE. Following on from this, parental wellbeing, anxiety, and the influence on the child's hospitalisation are explored. The nurse's role in hospitalisation is examined including the communication between parents and healthcare providers in the presence of a language barrier. Lastly, parents' health literacy and discharge planning and preparedness will conclude the literature review.

The search strategy used for this literature review used keywords including: 'child', 'SUFE', 'parent experience', 'parent perspective' and 'parental perceptions', postoperative needs and 'postoperative education'. The electronic databases accessed included PubMed, Google Scholar, ProQuest Academic Complete, CINHAL, Medline and Cochrane. The articles reviewed were limited to publications in the English language only and appropriate articles and documents pertaining to the research aim were selected. In addition, 'grey literature' from the Ministry of Health and Counties Manukau Health was also explored to add a more localised overview of the topic.

The literature search revealed numerous research articles focusing on SUFE epidemiology, diagnosis, issues, risk factors, presentation, pathogenesis, incidence, and distribution. Less literature was found about parental experiences relating to a child's admission for SUFE through to the discharge home. These will be discussed beginning with what the International SUFE studies reveal.

2.2 International SUFE studies

The incidence of SUFE as a childhood hip disorder appears to be on the increase in New Zealand and worldwide. Studies on SUFE have been researched internationally and a few

studies discussed below from Sweden, America, Australia, and South Pacific are considered prior to looking at New Zealand based studies.

A population based epidemiological cohort study was undertaken in Sweden, which examined the total population of children treated with SUFE between 2007 and 2013. The conclusive results of this study identified the average annual incidence of SUFE to be 4.4 per 10,000 for girls and 5.7 per 10,000 for boys, between the age of 9 to 15 years old (Herngren et al., 2017). Overweight or obesity was considered as a major characteristic of these children and in hospitals where prophylactic surgery (surgery undertaken as a preventative measure) was not advocated, a regular radiographic screening follow up programme was recommended until the closure of the proximal femoral epiphysis was achieved (Herngren et al., 2017).

In American based research, the current incidence of SUFE presentation reported in research ranges from 0.33 in 100,000 to 24.58 in 100,000 children 8 to 15 years of age and is dependent on the sex of the child and ethnicity (Aprato et al., 2019). This research further highlights significant variability in terms of SUFE prevalence amongst different ethnic groups. In this study, the relative frequency in percentage for presentation rated at 1.0% for Caucasians, 3.9% for native African Americans, 2.5% for Hispanics and the highest was for Polynesians (another term for Pacific people) at 5.6% (Aprato et al., 2019). Moreover, also reported in literature through past studies is the variance of SUFE being highest amongst ethnic minorities in North America in comparison to the Caucasian population (Benson et al., 2008; Lehman et al., 2006). Overall, in terms of gender differences, SUFE is reported in the study to be more prevalent amongst males rather than females (Lehman et al., 2006; Fedorak et al., 2018) and the average age presentation for boys is 12 years and 11.2 years for girls, with earlier presentation observed amongst obese children in comparison to less obese children (Loder & Skopelja, 2011).

Closer to New Zealand, an epidemiological study undertaken between 2005 and 2014 at a paediatric hospital in the South Pacific Island nation of American Samoa explored whether the prevalence of SUFE amongst American Samoan children was like that identified in the children of Māori population in New Zealand (Fedorak et al., 2018). This was a retrospective

study that collected demographic, clinical and radiographic information during this study. The result of this study indicated that the incidence of SUFE in the 'at-risk' population the age group of 5 to 14 years old, was 53.1 per 100,000 between 2005 to 2014 (Fedorak et al., 2018). This study demonstrated that the American Samoan population were ranked as having the second highest incidence of SUFE worldwide. The mean weight and BMI of American Samoan SUFE patients were considerably higher in comparison to previously published reports (Fedorak et al., 2018). This statistic is similar to the New Zealand Pacific population, who generally have high BMIs and are leading in SUFE prevalence (Loder & Skopelja, 2011).

An older study done in South Australia over a 20-year period, investigated rising rates of SUFE with obesity and Aboriginality. This study was undertaken between January 1988 and December 2007 and included a total population of 244 patients: 154 males and 90 females. Data collected included age, ethnicity, and gender to obtain a profile of South Australian SUFE patients and this compared with the epidemiological data for South Australia's general adolescent population. The results of this study concluded that the incidence of both obesity and SUFE is increasing in Australian indigenous children compared to non-indigenous children. It was also highlighted that an indigenous child was three times more susceptible to developing SUFE than a non-indigenous child (Nguyen et al., 2011).

In conclusion, all the international studies indicate a close correlation between obesity and the prevalence of SUFE amongst certain ethnic groups. There has been no identified international research that examined the parental or caregivers' experiences of managing care following SUFE injury and surgery. Therefore, it can be strongly argued that this current study is warranted, which will provide insight into the experiences of parents and caregivers in the management of their child's care following SUFE surgery.

2.3 SUFE research in New Zealand

The studies undertaken about SUFE in New Zealand largely focus on the prevalence and treatment of the condition. A review of all New Zealand based research in relation to SUFE studies made a key finding, highlighting that the New Zealand Māori and Pacific ethnicities had the highest prevalence of SUFE worldwide (Navarre, 2020). This had earlier been found in 2003 when Stott and Bidwell (2003) examined the epidemiology of SUFE, finding that NZ

Maori and Pacific children were over-represented in the population group of those experiencing SUFE. A study from a public hospital in the Waikato region of New Zealand (2012) examined epidemiologic characteristics of 182 children of Māori ethnicity presenting with SUFE over a 10-year period (Phadnis, Phillips & Willoughby, 2012). The result of this study identified Maori patients as young as 6 years old presenting with SUFE, being at higher risk of bilateral SUFE at presentation, with obesity heavily associated with SUFE and with females presenting at a younger age and at higher risk of a future contralateral slip. Other researchers in this area covered SUFE in relation to surgical treatment (Gholve, Cameron & Mills, 2009), and pathogenesis (Novais & Millis, 2012). Dunbar and Goulding's (2001) research examined 28 children with 41 SUFE admissions over a 15-year period at the public hospital in Dunedin, New Zealand. The results highlighted the prevalence of SUFE linked to obesity. To date, most of the recent New Zealand studies have been examined from an orthopaedic clinician's lens, focusing on the treatment and management of SUFE. Some of these studies are discussed below: This included a study in 2011 undertaken at the children's hospital in Auckland which utilised imaging to ascertain joint penetration and complication from the positioning of the pinning screw (Senthi et al., 2011).

Furthermore, in 2012, a further study was undertaken on SUFE, utilising the data from the NZ National Joint Registry, which examined the early onset of total hip arthroplasty amongst SUFE patients in comparison with patients with osteoarthritis (Boyle, Frampton & Crawford, 2012). Moreover, another study undertaken at the Waikato DHB which was published in 2013 examined using a guide tool to accurately predict any future contralateral hip joint slips, thus supporting the need for prophylactic pinning in minimising morbidity and unwarranted surgeries (Phillips et al., 2013). This research proved significant, as the guide tool was identified, which was beneficial in preventing future slips amongst the Pacific and Māori populations who were at high risk for late presentation and maintaining attendance for follow up care (Phillips et al., 2013). The most recent published research in New Zealand was undertaken in 2019 at the Waikato DHB which evaluated the long-term hip function for patients following internal pinning for SUFE (Bond et al., 2019).

To conclude, the rationale for discussing these NZ based SUFE studies was to clearly highlight that all the research undertaken until now has been orthopaedic clinician led and

focused only on management and treatment of SUFE in the New Zealand population. The experiences of parents, caregivers or the child as the patient has not been explored or researched internationally or in New Zealand. Therefore, a gap or apparent absence exists from a clinical lens to examine and understand the experiences of these parents and caregivers on how they manage the care of their child following SUFE injury and surgery. Hence, undertaking research in this area will help to understand the needs of parents and caregivers and provide an insight on what matters to them and how they can be best supported to provide care to their child following SUFE surgery.

2.4 Childhood obesity: A significant risk factor for SUFE

The relationship between the incidence of SUFE and childhood obesity has not always been so clear. Only a few years ago, Stott and Bidwell (2003) argued that the relationship between increasing childhood obesity and the incidence of SUFE in New Zealand was not known but should be of concern. However, a number of more recent studies have made this connection a more reliable finding. For instance, an association between childhood obesity and SUFE was examined in an international cohort study undertaken in Scotland. This study utilised health examination screening data at the primary school entry age of 5- to 6-yearolds which was linked to a nationwide hospital admissions data with further screening examinations that were implemented at primary school exit age of 11 to 12 years old (Perry et al., 2018). The results of this cohort study identified a strong connection between childhood obesity and SUFE, with an increasing childhood Body Mass Index (BMI), both increasing the prevalence and susceptibility of the disease onset at an early age.

Body weight is closely correlated to the age at presentation of SUFE and may be the contributing factor in New Zealand's patient population (Loder, 2008). In the literature, obesity and overweight are defined as an abnormal or excess fat accumulation that has a detrimental impact on health status of children and adults. Body Mass Index (BMI) is a known method to determine the total amount of fat composition in an individual (Rabbitt & Coyne, 2012). A BMI is calculated by dividing weight in kilograms by height in meters squared (Berkowitz & Borchard, 2009). Within the New Zealand context, 21% of children between 2 to 14 years of age are classified as overweight, and a further 10% of the approximate 275,000 children as being obese (Ministry of Health, 2012). A child is

considered obese, when a child's BMI exceeds the cut off point for (limit at which BMI is no longer applicable) for his or her age (Hooker, 2010). A NZ Health Survey confirmed that 1 in 9 children aged 2 to 14 years are considered obese, 30% of Pacific children are obese with overall child obesity increased from 8% in 2006/2007 to 11% in 2014/2015 (Ministry of Health, 2016).

According to Statistics (2007a), Pacific children aged 2 to 14 years are expected to increase from 36,000 to 136,000 in population by the year 2021. In an earlier survey, the National Children's Nutrition Survey, confirmed 21 percent of NZ school children between the age of 5 to 15 years were overweight and 9.8 percent were obese, overweight and obesity rates were recorded highest in Pacific males (33%) and females (32.9%), Māori males (19.6%) and females (30.6%) and the lowest levels were recorded amongst NZ European males (18.4%) and females (18.8%) (Barnfather, 2004). All the childhood obesity studies undertaken in NZ subsequently have confirmed that obesity amongst children in NZ is considered the highest in comparison to other developed countries (Ministry of Health, 2016).

In conclusion, childhood obesity has been identified as a global concern and a significant contributor to lifelong morbidity. Long term effects of childhood obesity are often described in literature (Franks et al., 2010; Law, 2001). Of significance is the link between obesity and SUFE amongst younger New Zealanders. Therefore, it can be strongly argued that further studies in relation to obesity and SUFE prevalence are warranted, which will enable researchers to study the effects of obesity on SUFE and the appropriate measures that can be undertaken to minimise or reduce the risk factors. However, in this current study, the focus is only to explore parental and caregiver experiences following their child's SUFE surgery.

2.5 Parental wellbeing, anxiety, and influence on child's hospitalisation and recovery following SUFE surgery

As evidenced from above, parents' experience and needs following the hospital experience has not been researched in relation to SUFE. This section looks more broadly at literature about what is known about parents' experiences. This includes parental wellbeing, anxiety and influences on a child's hospitalisation and recovery following SUFE surgery. Parental psychosocial functioning is considered a significant factor in determining children's physical and mental wellbeing. As SUFE is prevalent amongst children between the age of eight to fifteen years, parents are involved in the direct care of their child or adolescent, promoting their health and providing access to health services. At the same time, parents model attitudes and behaviours that impact and influence their children's wellbeing. When a child is hospitalised, parents can become stressed by what is unknown, and with caring for their child whilst balancing other responsibilities including managing their household affairs, care of other children and attending to work duties. Fear and anxiety are not uncommon, with some parents and caregivers experiencing anxiety and depression during the period of hospitalisation (Oxley, 2015; Placencia & McCullough, 2012).

The parental attitude during a child's hospitalisation can have an immense influence on how a child responds to care. An experimental study involving children and parents concluded that when a parent has a high state of anxiety due to the child's high state of anxiety, this indirectly creates stress which hinders coping and healing in the postoperative recovery period (Li et al., 2007). Walker (2002) states that understanding a patient's fear is imperative to implement appropriate interventions regarding care and when working with the paediatric population, the parent and child partnership should be considered 'the patient'. Zuwala and Barber (2001) suggest that if parents' anxiety can be decreased, it will gradually lower the child's anxiety. Justus et al., (2006) suggests that parental involvement in their child's surgical preparation supports the child to be in control of the experience of the surgical journey to cope better with the stress.

Research that examines parental experience during inpatient paediatric care and postoperative pain management of children was also located and reviewed (Longard et al., 2016; Solheim & Garratt, 2013; Tait et al., 2008). This would prove useful to inform parts of the parents' experience, but it was not specific to the issues related to this orthopaedic injury or surgery, nor the age group or ethnic backgrounds of the NZ children most affected by SUFE. Additionally, no specific research was identified, which primarily focused on the postoperative discharge needs following SUFE surgery, not the transition to home. Therefore, my research study will address this gap and provide an understanding of the experience of parents and caregivers and their needs from the admission of their child through to the rehabilitation phase of care.

The parent's engagement and empowerment are fundamental in creating an atmosphere that supports healing for the child during the recovery period (Walker, 2002). Increased parental knowledge enables partnership and engagement in their child's care, thus giving a sense of control (Fisher, 2001; Hummerlinck & Pollock, 2005). To help reduce stressors, the health care team should focus on how to best address parental needs and include input from social workers and others to review their circumstances. This will ensure that they are offered support which will help reduce stress levels and anxiety to positively influence their child's recuperative phase of care (Doupnik et al., 2017). This literature shows that parents play a significant role in how their child responds to being hospitalised. Yet, little is known about the needs of parents in relation to children hospitalised for SUFE and nothing is published in relation to the needs of New Zealand parents in this situation.

2.6 The nurse's role in hospitalisation

The role of nurses is influential in SUFE care as nurses inform, support, guide, coach and provide education to parents on their child's health status, care plan and treatment (Miles & Brunssen, 2003). Support offered by nurses to parents during their child's hospitalisation contributes greatly onto their experiences (Miles & Brunssen, 2003). Often, nurses also provide bedside support to parents feeling overwhelmed, during times of distress and emotional stress. Miles and Brunssen (2003) states that parents have often identified the need for continued communication between nurses and themselves. The support provided by nurses affects the parent's ability to manage and cope with the child's health condition, enhances their parental role and their effective engagement and involvement in discharge preparation, and their ability to provide care after discharge. In a hospital setting, the nurses utilise teaching as a driving mechanism in preparing the patients and their families for discharge and enabling their safe transition to home (Smith & Daughtrey, 2000).

Postoperative education is an important part of a nurse's role. Patient education can be written or verbal instructions to patients, regarding information pertaining to their health to enhance their knowledge base (Jones, 2007). In the case of paediatric patients, parents required information and instruction. As reported in a research study undertaken by Lerrett (2009), one of the biggest predictors of parent readiness for discharge was the quality of education provided by the bedside nurse. Education and guidance from the health care

professionals, especially nurses, alleviates parental concerns, and supports parental acquisition of knowledge and skills to manage the child's care effectively at home upon discharge (Wayman et al., 2014). Effective communication is an essential skill nurses need to engage appropriately and effectively with patients whilst providing care and education (Jones, 2007). Throughout a child's hospitalisation, effective communication is needed between parents and healthcare professionals to enhance the parents' education and plan for discharge. A patient and family centred discharge planning process is considered integral.

To effectively care for a child at home following surgery, parents and caregivers must have thorough understanding of the discharge plan (Bhansali et al., 2016). Badarudeen and Sabharwal's (2010) research supports the value of written information because it reinforces the verbal education and teaching of patients. When nurses teach parents using a comprehensive parent education plan as part of discharge planning, the parents' confidence to safely care for their child's needs at home increases (Smith & Daughtrey, 2000). This increases parental satisfaction about their hospital experience (Marino & Marino, 2000).

Nurses play a significant role in assisting paediatric patients and their families to make a safe transition home, following hospitalisation (Staveski et al., 2015). In cases involving SUFE children, the nurse's role includes providing pre- and postoperative care, education and preparing the child, and parents and family for discharge. To do this well, the nurse needs to ensure the patient and parents' engagement and empowerment are maintained, so parents are prepared and independent in managing the care of their child when discharging home from the hospital setting.

2.7 Language and communication barriers

The essence of a child's hospitalisation is dependent on the parents' and health care providers' ability to interact and communicate effectively with each other. Communication not only fosters opportunities for an exchange of information (Jones, 2007), but develops, and maintains, relationships, and establishes trust and rapport (Espezel & Canam, 2003), critical for patients to receive safe and effective health care (Jones, 2007). Within a health care context, high quality, effective and efficient communication is considered essential for the management of patient care (Studdert et al., 2003). When poor communication exists,

this can create a conflict between the parents and the healthcare providers (Studdert et al., 2003). A study in an intensive care unit, involving 108 paediatric patients, highlighted that 48% of all conflict between the parents and healthcare providers was due to poor communication between the two parties (Studdert et al., 2003). Similarly, findings of a study endorsed by Moore and Kordick (2006) involving children battling with cancer highlighted that misinterpretation and poor communication between parents and healthcare providers contributed to conflict situations as a direct result of sharing too much or too little information. Parents expect honest, factual, and ongoing communication from health care professionals. This would provide a level of comfort and emotional support, thus enabling a sense of perception that communication is effective (Coyne & Cowley, 2006; Lam, Chang & Morrissey, 2006).

Communication between the parents and health care providers can become a challenge when language barriers exist, which impacts significantly on parental participation in the care of their child. Studies have shown that although the parents might be able to communicate in English, their stress levels are reduced when they are provided with an opportunity to converse in their indigenous language, especially when difficult information needs conveying and decision pertaining to the child's care needs addressing (Ali & Watson, 2018). Effective communication is also inhibited when health care professionals are not able to speak the same language as the parents, thus language becomes a major barrier in access to informed care (Mosavel et al., 2012). In a Swedish study, the healthcare professionals considered the inclusion of interpreters to communicate with the patients an excellent medium (Patriksson, Wigert, Berg & Nilsson, 2019). The role of healthcare professionals is significant in supporting parents to remain calm in stressful situations as well as building a trustful relationship between themselves and the parents (Patriksson et al., 2019).

In the New Zealand context, when language barriers exist, the inclusion of professional interpreters are utilised for patients with limited proficiency in English. The responsibility of professional interpreters is to safeguard and ensure the completeness and accuracy of information by providing a linguistic translation of the original meaning of the intended message from one language to another (Avery, 2001). For this research study, it is a legal

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and ethical requirement of the hospital to use interpreters when there is language barriers or limited English proficiency (Counties Manukau Health Board, 2015). This is because of an increasingly diverse New Zealand society. The use of interpreters supports a patient's cultural identity while bridging the language barrier between the patients, whanau and healthcare professionals allowing for effective communication (Counties Manukau Health Board, 2015). The lack of interpreter use not only ignores patients's consumer rights under the Code of Rights, but also compromises their health and safety. The use of interpreters ensures the Code of Health and Disability Services Consumer Rights are met. including, right 5, the right to effective communication; Right 6, the right to be fully informed and Right 7, the right to make informed choices and give informed consent is maintained.

The ability of healthcare professionals to provide safe, effective, and quality care to patients and their families is dependent on how well they can manage and overcome a triple threat to effective communication (Parnell, 2014). This triple threat consists of cultural barriers; low health literacy and inadequate proficiency in English (Parnell, 2014). In New Zealand, SUFE is most prevalent amongst Māori and Pacific populations. These populations may speak the dominant language of English however, there are many who speak their indigenous languages with limited proficiency of English. The inclusion of interpreters is determined when parents or caregivers are unable to converse in English to ensure understanding, to gain consent and to ensure education can be given to reduce anxiety and support positive health outcomes.

Hence, parental health literacy is discussed below considering the postoperative care needs and preparation in supporting their child's transition of care from hospital to a home environment.

2.8 Parental health literacy

In New Zealand, the Health Quality and Safety Commission (HQSC, 2015) defined health literacy as the degree to which individuals can "obtain, process and understand health information and the services they need to make appropriate health decisions" (Ministry of Health, 2010, p.3). All health consumers' health literacy constitutes reading, writing, listening, numeracy, verbal conversation and conceptual knowledge and the ability of health consumers to utilise and access health care services effectively (Ministry of Health, 2015; Nutbeam, 2000). Health literacy is a target for the New Zealand Ministry of Health (MOH) focused on creating health literate organisations that are responsive in meeting the health care needs of patients and families (Walsh, Shuker & Merry, 2015).

In 2006, the Adult Literacy and Life Skills survey undertaken in New Zealand showed that more than half of the adult NZ population had an insufficient or low level of health literacy skills to enable them to safely navigate their health literacy needs (HQSC, 2015). The survey design consisted of health-related questions across four domains: prose literacy, document literacy, numeracy and problem solving. As outlined in the Ministry of Health's 2010, *Korero Marama* report, four out of five Māori males, and three out of four Māori females, had low health literacy levels scores. Moreover, the results showed that other vulnerable groups who scored poorly in the health literacy survey were poor, elderly, rural, Māori in older and younger age groups, and almost 90% of Pacific adults.

The demand for health literacy exists within hospitals from the admission period through to the discharge transition phase of care, as it involves the diagnosis and treatment options of the medical conditions, the inclusion of different service providers and methods of communication styles (Koh et al., 2013). Making the transition from hospital to home can prove overwhelming for many caregivers (Solan et al., 2015) especially if parents and caregivers have limited literacy (Unaka et al., 2017). Factors such as inadequate education, communication failures, lack of caregiver confidence and coherence with postoperative discharge care plans significantly impact on smooth transitions and lead to adverse postoperative outcomes (Engel et al., 2012; Koh et al., 2013). These can be the result of inadequate health literacy.

A failure to competently address the pre-discharge needs of patients and their families may lead to problems after discharge. For instance, in the United States of America, 90 million of its population have limited health literacy and this contributes significantly to the provision of safe and quality care and is classified as a risk factor for readmission rates (Unaka et al., 2017). The concept of readability is considered to have a strong influence on the effectiveness of written materials. Readable discharge instructions enabling the caregivers' comprehension and ability to implement appropriate care plans upon discharge (Unaka et al., 2017) is a key component of the discharge process (Harlan et al., 2009; Lerret, 2009).

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Winslow (2001) suggests that healthcare professionals must review and update the information to support the level of understanding for patients.

Acknowledging the health literacy challenges in New Zealand; the Health Quality and Safety Commission (HQSC) has created initiatives to support health care professionals and paitents. The HSQC (2015) produced and implemented the "Three steps to better health literacy". This guide is for all health care professionals and is adaptable to multiple clinical settings and situations to be utilised in patient interactions (HQSC, 2015). The three steps are: Step 1: Checking consumer knowledge – enquiring what the people know. Step 2: Building health literacy skills and knowledge – linking back to what people already know, and Step 3: Checking or teach back – check the information provided was clear (and if not then go back to step 2). The inclusion of this 3-step model within daily interaction with patients is designed to ensure the needs and wants of individual patients are met and creates a two-way communication pathway between the health care professional and the patient. This goes someway to supporting the Code of Health and Disability Services Consumers Rights.

Additionally, the Health Quality and Safety Commission has also implemented a health literacy resource tool for patients. "Let's P.L.A.N for better care" supports and encourages patients to ask questions and get appropriate information to better understand their own health and the treatment that is available (HQSC, 2015). The acronym PLAN stands for: **P**repare for your visit, **L**isten and share, **A**sk questions and **N**ote down what you need to do next. Both initiatives have been implemented; however, an evaluation of the initiatives has not been done to establish the effectiveness of the same. Based on the demographics of children with SUFE and parents, health literacy is an area for further development.

2.8.1 Discharge planning and parental preparedness

A child's discharge from the hospital is observed as a significant period in the transition of care from the healthcare setting to the family home (Bhansali, Washofsky, Romrell, et al., 2016). The literature search was not able to isolate specific literature that informed a child's discharge home from hospital following SUFE surgery nor the needs of parents and caregivers in transitioning the care to their sole responsibility. Instead, paediatric, and orthopaedic literature are used to inform what is known more generally.

Discharge planning is the development and implementation of an individualised plan for transitioning the care of a patient from a healthcare or hospital facility to a different facility such as a long-term care facility or to the home setting (Goncalves-Bradley et al., 2016). The main goals of discharge planning are to improve patient outcomes, decrease any risk of readmission from postoperative complications and minimise unwarranted costs of rehospitalisation (Goncalves-Bradley et al., 2016). An organised and effective discharge planning enables discharge preparedness (Gaal, Blatz, Dix & Jennings, 2008). Literature highlights that planning from admission through to discharge is one of the significant components involved in discharge preparedness which extends to the confidence and independence of the caregiver at home, as well as accessibility to outpatient care (Gaal, Blatz, Dix & Jennings, 2008). Discharge planning and preparedness involving parents and caregivers in relation to SUFE surgery is not known or documented in literature. Therefore, this research is beneficial and timely in exploring a focused approach in improving the delivery of care through reviewing the current model of care and implementing processes that improve optimal patient outcome.

Parental readiness to enable a smooth transition of a child's discharge from the hospital is considered a pathway from transitioning care and recovery at home. Discharging a child from hospital is not an easy task and is viewed as a complex and multifaceted decisionmaking process for the health care team involved in the model of care. Several qualitative studies highlight that readiness for discharge is an important factor of the parental experience of transitioning from hospital to home (Bisell & Long, 2003; Smith & Daughtrey, 2000). Hence, that is the rationale behind my interest in examining the parental and caregiver preparation in the transition of care of their child following SUFE surgery from an inpatient hospital setting to a home setting. This has significant relevance to the aims and objectives of the understanding of parents and caregivers on parental readiness and preparedness leading up to discharge.

In ideal settings, the readiness of a child and family for discharge is based on the physiological status of the child and the ability of the parents to demonstrate knowledge and skills that they will best implement to undertake the child's continued care in the home setting. In relation to SUFE, parental support and needs following discharge, includes following post-operative instructions such as mobilisation assisted by non-weight bearing

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instructions with the use of crutches, dressing review, attending follow up clinic appointments and so forth (Van der Pal, et al., 2014; Wong et al., 2011). Discharge planning should be initiated from the first day a patient enters an inpatient or hospital setting or before if the admission is planned (Robeznieks, 2017).

The discharge planning process can include the involvement of multiple people such as the patient, family, nurse, physician, physiotherapist, and occupational therapist. This is a common approach in the discharge planning process for a child following SUFE surgery. Discharges that are rated as well-planned include the involvement of the patient and family, supported by a clear communication process with patient and parent education and a backup plan in case of any unprecedented event (Bankston-White & Birmingham, 2015).

In a literature review on parental discharge readiness Lerret (2009), four concepts were highlighted that significantly influences discharge planning. These were highlighted as being: parental support, identification of individual parent needs, sufficient knowledge about care management and effective communication with the healthcare team. Moreover, Griffin and Abraham (2006) proposed that family centred discharge should comprise: "Inclusion and involvement in caregiving and decision making throughout a child's hospitalisation, Individual discharge teaching, working in partnership with families to ascertain the priorities of care, and engaging parents to assist in care documentation" (p. 244).

The four concepts described above have significant relevance in this research study as they provide insight concerning what the postoperative discharge needs of parents could be following their child's SUFE surgery. Lewis and Noyes (2007) proposed that all healthcare professionals must have knowledge of community services and use a multi-disciplinary team approach to appropriately manage patient care. SUFE surgery is a specialised surgery performed under the orthopaedic service and includes a multi-disciplinary team approach in ensuring the child, the parents or caregiver are supported during the hospitalisation phase of care. In this research study, exploring the parents and caregivers expressed needs following discharge after their child's SUFE surgery could ensure that discharge practices are meeting their needs and supporting the positive health and wellbeing of their children.

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2.9 Conclusion

This chapter has explored the literature in understanding SUFE and treatment options, its prevalence around the world and in New Zealand, including childhood obesity as a significant risk factor. An overview of literature was presented from a parental and caregiver's perspective in understanding the needs in supporting the care of their child following hospitalisation and SUFE surgery. This included what is generally known about parental wellbeing, anxiety, the influence of the child's hospitalisation, the nurse's role in supporting parental and caregiver postoperative education and preparedness to discharge, parental and healthcare provider communication, language barrier, parental health literacy and discharge planning. The elements discussed in the literature review are significant components that influence and impact significantly on how well the parents and caregivers are supported in the postoperative phase of care, though this was somewhat limited in relation to SUFE specifically. By addressing the research aims and objectives, this study will go some way to provide insights into what is currently not known (and perhaps assumed) about parents' needs, following the hospitalisation of their child for SUFE repair.

The next chapter presents the research methodology and design employed in this thesis, including data collections and analyses. Ethical considerations are also presented.

Chapter Three Research Methodology and Methods

3.1 Introduction

This chapter discusses a qualitative methodology underpinning my research study, which aims to explore and gain further insight into the needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE). In the first part of the chapter, the qualitative methodology selected to guide this research study is presented. Interpretive Description is a methodology used to generate knowledge relevant to the clinical context. It explores the participants' experiences from within their naturalistic environment (Thorne, 2008). This qualitative methodology will be presented, and a justification of the research approach will be made. The second part of this chapter outlines and describes the research design, including the data collection processes. This includes participant recruitment, semi-structured individual interviews, limitations, and the challenges of the study. This section then concludes with the data management and analysis processes used.

The final section of this chapter explores and discusses the ethical considerations applied to this research study and includes a significant reference made to The Treaty of Waitangi, reciprocity, rigour, and trustworthiness.

3.2 Qualitative research

Qualitative research is a form of social enquiry that focuses on the way people make sense of their experiences and the world they live in (Holloway & Galvin, 2013). Essentially the primary aim of qualitative research is considered to promote an in-depth understanding of a selected phenomenon (Grbich, 2012). Guest, Namey and Mitchell (2013) describe qualitative research as a long standing chosen and preferred method for explaining human experiences. Furthermore, Grbich (2012) supports the notion that qualitative research provides detailed information and presents insights into people's individual experiences. Broussard (2006) suggests that qualitative research is the only method that enables an adequate recording of true human experiences as it supports a description of multifaceted experiences of people in their natural environments. Moreover, Bogdan and Biklen (2007), argue that qualitative research is a holistic approach, intended to describe the understandings of people's experiences, conceptions, and behavioural activities. Considering the lack of research and knowledge surrounding the experiences of parents and caregivers and their needs following their child's hospitalisation and SUFE surgery, this form of enquiry has considerable merits. Utilising the qualitative paradigm is fundamentally essential in this research study. This is because a qualitative methodology supports the exploration of the parents and caregivers' experiences and perceptions about their involvement, engagement and participation in their child's care following hospitalisation for SUFE. A qualitative research approach provides an appropriate and valid research option to ensure the voices of the participants are heard. Qualitative research captures the experiences that the participants describe. Therefore, qualitative methodology is applicable to respond to the aims of this research study.

3.2.1 Consideration of qualitative research approaches

Within the construct of qualitative research there are varying methodologies that can be implemented. Each methodology has different principles and focuses, meaning that some methodologies are not well suited to answer research aims and questions. Grounded theory, phenomenology, ethnography, and interpretive description are considered here and compared in light of this study's research questions. Interpretive description is identified as the methodology which should guide the processes undertaken in this research study and rationale is provided to support this.

Grounded theory was first introduced by Glaser and Strauss in 1967 as a qualitative research methodology that focuses on theory development derived from the context of the phenomenon being studied (Austin & Sutton, 2014). Grounded theory involves the collection and analysis of data. The theory is grounded in the actual data, which means the analysis and development happens after the data is collected (Austin & Sutton, 2014). When comparing grounded theory and interpretive description, it can be argued that both approaches utilise comparative methods for analysis (Oliver, 2012). However, there are certain distinctions utilising an interpretive description lens. Firstly, following field work, data analysis will be explored utilising the coding process and instead of performing specific line by line coding, which is a feature of grounded theory and as a researcher, I will be asking "broad questions" as part of data exploration and analysis (Hunt, 2009, p.1290). Secondly, using the interpretive description method, analysis occurs by interpreting the
descriptions, finding themes and patterns that correlate across participants. Lastly, in comparison to grounded theory, the interpretive description incorporates a shorter period for undertaking data collection and analysis (Oliver, 2012). Considering this study is exploratory in nature and aimed at exploring parental and caregivers' experiences, interpretive description provides an appropriate medium for investigation.

Ethnography is the study of culture and requires direct observation of the participants in their environment over time to reveal what occurs naturally within a setting. The researcher is usually unfamiliar with the setting. (Hammersley & Atkinson, 2007). Natural settings or environments are valued as important as ethnography looks to discover the influence of the environmental restriction and condition on human behaviours actions and interactions. This is done through a thick description of what is occurring (Hammersley & Atkinson, 2007). As the intention of this study is to explore the needs of parents whose child has been hospitalised for SUFE, ethnography as a methodology did not fit best.

Finally, phenomenology is a methodology which facilitates exploring how human beings make sense of their experience and the meaning they give to these experiences in the world (Austin & Sutton, 2014). Phenomenology provides researchers with a tool to understand the subjective experience of the participants (Austin & Sutton, 2014), to understand problems, ideas, and situations from the lens of common understanding and experience rather than differences (Austin & Sutton, 2014). Phenomenology may have been a methodology to consider. However, the aim and objectives of this study which focused on an aspect of healthcare and a clinical point of inquiry, steered the decision towards interpretive description.

3.2.2 Interpretive description

The qualitative methodology best suited for guiding this research study is Interpretive Description. It is an ideal approach, offering foundational underpinnings to explore people's experiences from within their natural context (Thorne, 2008), thus enabling the essence of exploring the parents'. caregivers' and nurses' experiences and the objective of understanding how to best meet their needs. Sally Thorne, an academic and scholar, was a pioneer who, along with her colleagues, developed 'Interpretive Description' as a non-categorical methodological approach to understand the clinical context or clinical

phenomenon (Hunt 2009; Thorne 2008). Interpretive Description is a methodological approach classified as an applied inductive research strategy with the aim of enhancing clinical practice (Thorne, 2016). Interpretive Description was developed on the perceived notion that there was a lack of methodological frameworks that could be applied in health disciplines such as nursing to answer research questions in clinical settings (Hunt, 2009; Thorne, 2008). As a relatively new research approach, Interpretive Description was developed to understand phenomena relative to nursing and other applied health professions. As a method, it is practice orientated health discipline specific and interpretive in its focus (Thorne, 2008). Interpretive Description being inductive means that an interpretive descriptive study does not commence based on an existing theory but creates ways of understanding human health and aspects related to the experience of a disease that may have consequences for the clinical context and practice in health. In other words, data is essential and required for justification to support the enquiry of the research. However, the data is critiqued, and codes or themes are developed and reviewed as the data analysis proceeds (Thorne, 2008).

In this research, the interpretive descriptive methodology was utilised because it aims to explore the parental and caregivers' experiences of a clinical event. Secondly, it aims to inform the best discharge practices that meets the needs of parents and caregivers. According to Thorne (2008), interpretive descriptive studies evolve or originate from a question that is evident from gaps existing in discipline-specific evidence and clinical practice. In this study, a gap was identified in New Zealand based research exploring the lived experiences of the parents and caregivers following hospitalisation of their child for SUFE surgery. It also enables the examination of nurses' accounts of their engagement, contribution, and involvement in supporting the parents and caregivers during the care of the child.

This methodology, therefore, enables the researcher to be truly engaged in the participants' (parents, caregivers, and nurses) views, own words, lived experiences, meaning of the experience and the overall understanding, interpretation, and perception of the experience. As described by Thorne (2008), interpretive description enables and guides a researcher to develop reflections, suggestions and plans of action to address the identified problems.

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Employing interpretive description methodology to explore participant experiences is warranted when phenomenology, grounded theory, or ethnography classified as traditional qualitative approaches are not ideal (Hunt, 2009). Interpretive description methodology does not stipulate or dictate how the study is undertaken but presents a methodological process in which the qualitative study is planned and implemented (Thorne, 2016). Therefore, this methodology is the most appropriate for this study,

The research question concentrates on the experiences of parents and caregivers, and interpretive description allows the discovery of patterns and themes and reveals underlying meanings (Thorne, 2008). It is this which may help us understand what the parents' needs are during hospitalisation and after they leave the hospital with their child. Thus, providing the organisation or the orthopaedic service insights on how to best meet the needs of these parents and children is beneficial. Moreover, the findings from this research study may contribute to the knowledge of health care professionals about the needs of parents and families whose children are admitted with SUFE.

In choosing Interpretive description methodology, the biggest challenge I encountered was a lack of literature supporting its succinct practical application of the methodology and the level of interpretation required to inform the aim and objective of this research study. However, the driving force that guided the degree of interpretation was a clinically focused approach and the core question underpinning the research study. Interpretive description enabled a clinically focused approach for this study and facilitated the research question being answered. It provided a platform in ensuring the voices of the participants were truly represented, whilst offering an interpretive insight into hidden deeper meanings of their words (Thorne, 2008).

3.2.3 Study design

The design of this study was informed by Interpretive description and involved interviewing parents and nurses about parents' experiences and needs following the admission of a child for SUFE surgery.

3.3 Ethics approval process

As my research study used human participants (parents, caregivers, and nurses), a scope of review form was submitted to the New Zealand Health and Disability Ethics Committees

(HDEC) on the 16th of July 2019 outlining the study. HDEC responded with a confirmation – Out of Scope Letter, dated the 22nd of July 2019, conclusive of my study meeting the student –led research exemption criteria.

Following this, ethics approval was sought prior to the commencement of the recruitment process. This research study was approved by the Victoria University of Wellington's Human Ethics Committee on the 17th of September 2019 (Appendix B), under the Ethics Application Number 0000027707. Furthermore, as part of the ethics application, locality approval was also secured from the organisational research committee, on the 4th of September 2019, under the Application Registration number 1044 (Appendix C). However, due to time delays in the recruitment of participants, a further extension was applied for from the organisational research committee and locality approval was extended until the 31st of August 2021.

3.4 Data collection

Data collection involves the collection of data to understand and explain the phenomenon that is being researched. Interpretive description has no limitations on the data collection methods that can be used to address the research question (Thorne, 2016). The data collection method in my qualitative interpretive description research consisted of face-toface semi-structured interviews (Bradshaw, Atkinson, & Moody, 2017). Semi-structured interviews with the use of guide questions offer flexibility to enable participants to share their accounts or experiences (DiCicco-Bloom & Craabtree, 2006). Stanley (2015) affirms that in qualitative description research, semi-structured in-depth interviews often provide the primary source of data collection; however, different data collection methods which can include interviews, focus groups, observation, or document review (Colorafi & Evans, 2016) were not overlooked in the early stages of this research.

As participants were the key source of their own experience, it was most appropriate to interview parents, caregivers, and nurses individually, rather than in a group. This was because it would allow each participant the freedom (without pressure from others) to relate anything that they found to be of meaning or relevance for them (Taitimu, 2007). Individual interviews also provided a platform for parents and caregivers, and nurses to speak freely without any hesitation, and without any feeling of discrimination,

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marginalisation or stereotyping. My rationale for choosing an interview paradigm as the most preferred and appropriate method of data collection for both groups of participants was the essence it provides in gathering in-depth information suited to answering the research question and is considered a safe medium for the sharing of information by the participants.

3.5 Participant Sampling

Sampling enables the decision-making process around the suitability of participants in the study. As the population focus is known for this interpretive description study, the most appropriate method to recruit participants was purposive sampling (Thorne, 2008). Purposive sampling provided the platform with the ability to recruit participants who had the required experience to address the objectives of the intended study (Thorne, 2008). The rationale for utilising purposive sampling in this study was justified, as it enabled learning of the experiences or viewpoints of the parents and caregivers and nurses to generate a clinically relevant finding that is aligned with the essence of the interpretive descriptive study. In this study, purposive sampling of participants added to the depth and richness of the data. This study is not intended to be generalisable or representative of a population per se, instead, the utilisation of the qualitative method tends to provide insights into the experiences and perceptions of parents, caregivers, and nurses to enhance the current delivery of care. The original recruitment target was ten participants in total. This was specified as being five participants from group 1, parents' and caregivers, and five participants from group 2, registered nurses. An equivalent number of participants was chosen from each group to ensure equal representation in the study. In terms of parental participation, both parents' participation would be ideal, however; this was not a mandatory requirement as part of the recruitment criteria.

3.5.1 Inclusion criteria

Participants for this study were sought from a locality catchment of a DHB in New Zealand. Locality approval was attained as part of the ethics approval to ensure the study met established ethical standards and organisational expectations. Establishing the inclusion or eligibility criteria was imperative in defining the key characteristics to identify the targeted population of my research study. **Parents:** The inclusion criteria for the research participants included parents and caregivers of children who presented with SUFE through a General Practice (GP) referral to the orthopaedic service, or who were admitted by a hospital's emergency department to the paediatric ward. The child had to have had surgical intervention for SUFE management for parents or caregivers to qualify as participants. The parents' and caregivers' ability to communicate in English was essential, to ensure they as participants, and myself as an English-speaking researcher, had a mutual communication medium to undertake the semi-structured interview sessions. The study sought to recruit parents and caregivers of children who were admitted and discharged following SUFE surgery between January 2020 and December 2021. However, during the study, the timeframe was extended to April 2021, due to the Covid-19 pandemic lockdown and alert level changes, as recruitment was stalled and required additional time.

Nurses: The inclusion criteria for the targeted nurse participants included a sample size of five nurses who had worked on the paediatric ward, which manages the care of SUFE patients. Additional requirements included the nurses being actively involved in the care of the SUFE patients and working alongside the parents or caregivers in providing and supporting the postoperative discharge and education needs following their child's SUFE surgery. Moreover, there was no restriction on whether the paediatric ward nurse was an enrolled or registered nurse, or their level of post-registration experience or level on the career pathway known as the Professional Development and Recognition Programme (PDRP). The eligibility of the targeted participants was justifiable on the basis that these population groups could provide rich descriptions and insights of their experience and perceptions of the phenomenon under study, as they had experienced the phenomenon.

There was no pre-determined ethnic population targeted as part of the recruitment strategy. Based on the statistical data provided by the organisation which approved the locality agreement, the SUFE patient volume by ethnicity presentation was highest amongst Pacific and Māori children. Therefore, the representation of parents or caregivers from these ethnic populations was likely, but not restricted to a particular population.

3.5.2 Exclusion criteria

Understanding the exclusion criteria was imperative to ascertain a common ground for the justification to meet the outcome or success of this interpretive descriptive study. To eliminate the possibility of undue influence or coercion, no potential participants received any direct care or management from me as the lead researcher.

Parents: Parents or caregivers of any children admitted for the removal of metal- ware (i.e., taking out screws from a healed bone) following recovery from SUFE surgery were excluded, as the surgery can take place as a day case surgery or overnight admission to the paediatric ward, thus nullifying their involvement, although these parents could have offered great insights into what should have been provided in the previous admission. However, their recollection of events could be affected, considering the removal of metal ware from the healed bone is often done months or a year after the initial SUFE surgery. Moreover, the exclusion of non-English speaking participants was a criterion of which I felt could be reasonably argued. However, as an English-speaking researcher, the rationales for exclusion of non-English-speaking parents or caregivers included the challenges and financial impracticality of interpreters, translators and transcribers and arranging their involvement in a timely manner to be part of this research study.

This was especially so when the problems of accompanying me to the parental and caregiver interview at a time convenient to all parties were also considered. Also, not being able to understand the spoken language of my participants during the interview session would have created challenges and barriers in gaining accurate data analysis. Furthermore, should the participants wish to review their transcribed verbatim and remove any section of the interview from being incorporated in the research thesis writing, this would have further created difficulty in editing and maintaining the essence of the data analysis. This was a self-funded research project and translation costs would be beyond my affordability as a first-time researcher.

Nurses: Any nurse with whom I have a supervisory role was excluded and not interviewed as a research participant in this study.

3.5.3 Participant recruitment procedures

Following the ethics approval, the recruitment strategy was two-fold:

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Nurses: Participant recruitment began, and the first approach included email correspondence with a clinical charge nurse manager (CNM) from the paediatric ward, describing my research, and the rationale for undertaking this specific research study and the need to recruit participants. Following the email correspondence, a face-to-face meeting was held with the CNM for approximately an hour, which provided a detailed overview of the specific requirements of the participant recruitment strategy. The CNM was the initial contact and recruitment lead for the recruitment of potential nurses who had the appropriate SUFE experience. At this meeting, recruitment flyers (Appendix D) and information sheet (Appendix E) for the nurses was offered to the CNM. The recruitment flyers were advertised in the paediatric ward. During ward staff meetings, the CNM had numerous discussions with her nursing team about my research study and the information sheet was circulated amongst the team.

After a month of waiting, the names of five Registered Nurses (RN's) were forwarded by the CNM. These were RNs working on the paediatric hospital ward who had voluntarily agreed to participate in my research. Upon receiving the nurses' names, individual emails were sent to all individuals with details regarding the research study. This was followed by emails at two-week intervals, advising them that I would be willing to meet at a time convenient to them for the interview. The CNM also reminded the nurses a few times that their participation was significant in making a difference in care provided to the SUFE patients. The delay in a response from the nurses was due to Christmas and New Year holidays as well as planned Annual Leave holiday breaks. Towards the end of January, all five nurses started engaging their interest through email correspondence and a date and time for each interview session was organised. All RN interviews were scheduled prior to or at the end of a work shift, upon mutual agreement and subject to convenience.

Parents: The nurses who were participants in my research study were instrumental in facilitating and supporting the recruitment of parents and caregivers for this research study. An electronic parent and caregiver flyer (Appendix F) and information sheet (Appendix G) was emailed to all participating nurses, including the ward CNM. Additionally, the orthopaedic consultants and registrars involved in the care and management of children who presented with SUFE were approached via email about assisting in recruitment for the study. They agreed to facilitate parental recruitment where possible and were sent the

electronic parent and caregiver flyer and the information sheet for parents. When a parent agreed to take part in the study, the clinician or nurses would send me an email confirming the parents' consent to take part in the study and their contact details. Following this, I would contact the parents and discuss a venue and timeframe that was mutually agreed upon for the interview.

3.5.4 Participant demographics

The table below provides information on parents' and nurses' demographics in relation to this study. Table 2 includes the parents who participated in this research and their relationship with the child, their ethnic background and the surgical approach undertaken for SUFE surgery. Table 3 includes the nurses who participated in this research, their gender, ethnicity, area of work and their level of practice in relation to experience post- registration. Please note all nurses who participated were from the same ward.

Table 2:

Participant	Relationship	Ethnicity	SUFE Surgical Approach
Parent 1	Mother	Tongan	Dunn's Osteotomy
Parent 2	Mother	Samoan	Internal Pinning
Parent 3	Father	Samoan	
Parent 4	Mother	Tongan	Internal Pinning
Parent 5	Mother	Samoan	Dunn's Osteotomy
Parent 6	Mother	Maori	Internal Pinning

Parents Demographics: Relationship, ethnicity and SUFE surgical approach

Table 3:

Nurses Demographics: Gender, ethnicity, area of work and level of practice

Participant	Gender	Ethnicity	Area of Work	Level of Practice
RN1	Female	European	Paediatric	2.5 years
			Ward	
RN2	Female	European	Paediatric	5 years
			Ward	
RN3	Female	European	Paediatric	2 years
			Ward	
RN4	Female	European	Paediatric	2 years
			Ward	
RN5	Male	Tongan	Paediatric	7 years
			Ward	

3.5.5 Interview Schedule

The interview for both groups of participants was conducted by myself as the lead researcher to ensure that I was fully engaged and was able to understand the participants' views and respond appropriately to any questions pertaining to the interview process.

The design of semi-structured interviews was initiated with a few open-ended questions to enable the researcher and participants to explore the topic under investigation in an exploratory fashion (DiCicco-Bloom & Crabtree, 2006). For parental and caregiver interviews, the presence of a cultural advisor where appropriate was considered. An interview prompt guide specific to both groups of participants (nurses, parents, and caregivers) was developed to ensure the interview could flow in an orderly fashion rather than being overly structured. The question guide was reviewed by the supervisors and amendments were incorporated to ensure the interview session would meet the aims and objective requirements of this research study.

The participation of participants was voluntary, and they were given time to read the information sheet prior to the interview, so they could familiarise themselves with the study and prepare themselves to participate during the interview session. This supported the principles of informed consent. Prior to any scheduled interview, a follow- up via telephone or email to answer any questions or re-confirm the timing of the interview was undertaken. Prior to commencing the interview, I reiterated to the participants that they have the option to ask for the interview to be terminated at any point without having any impact on health services that they were receiving currently or in future. The consent form (Appendix H) defined the research purpose, description of the procedures, risks, benefits, confidentiality, and rights as a research participant.

As previously noted, the participants were divided into two main groups. Group 1 were the parents and caregivers, and group 2 were the nurses.

Group 1: Parents and Caregivers

The semi-structured parent and caregiver interview was undertaken in the participant's home setting or a participant-nominated location with mutual agreement. Meeting in the participant's space reduced power differences between the participant and myself as the researcher (Taitimu, 2007). The semi-structured interview included questions such as their experience of hospitalisation, the surgical journey and discharge preparation, experience at home upon discharge, education as part of your preparation to be discharged home and any challenges that you encountered (Appendix I). Five of these interviews took place and were audio-recorded.

Group 2: Nurses

Five registered nurse (RN) interviews were conducted within the hospital premises outside of the nurse's paid employment, at a time mutually agreed with the participant. All RNs interviewed had experience of working alongside parents in supporting preoperative, postoperative and the discharge planning phase of care of a child who had been admitted on the paediatric ward and had SUFE surgery at the public hospital. All RN interviews were undertaken across two months just prior to the Covid-19 Pandemic Alert Level 4 lockdown in March 2020 in NZ. The nurses' semi-structured interview included questions around the support and education the parents or caregivers required during their child's hospitalisation, including discharge planning following SUFE surgery, involvement of whanau members, challenges encountered during the discharge planning phase and so forth (Appendix J). These were audio-recorded.

All ten interview audio recordings were transcribed verbatim by a professional transcription service. A signed transcriber confidentiality agreement was attained prior to audio files being exchanged (Appendix K). All transcriptions were returned in the form of electronic transcripts. Transcripts were then checked against audio recordings for accuracy. All audio recorded interview files along with printed transcriptions, were locked in a cabinet, while electronic digital files were stored in password -protected computer files.

3.6 Data analysis – thematic analysis

Qualitative data analysis, guided by interpretive description methodology, was undertaken to ensure the data collected through the interview process emerged to explain, understand, or interpret the people or situations under investigation (Sutton & Austin, 2015). Thematic analysis was used and is defined as "a method for identifying, analysing and reporting patterns within the data" (Braun & Clarke, 2006, p.79). It was an appropriate analysis tool whilst maintaining the essence of Interpretive Description (Thorne, 2008). By using thematic analysis, common themes or categories that emerged from the transcripts could be identified, defined, combined, and linked (Thomas, 2006).

Using Braun and Clarke's (2006) six clearly defined steps for thematic analysis enabled me sufficient clarity and rigour in the process of data analysis. These steps included:

- **3.6.1** Familiarisation with the data: Involved transcribing verbatim from the audiorecorded interviews, immersing myself in the data, and getting well versed with the content. I anticipated that I would transcribe the data myself to become familiar and understand the content accurately. However, due to time constraints and challenges external to the project, a professional transcriber was utilised. Once transcribed, the transcripts were cross-checked through reading and re-reading and listening to each interview recording multiple times. Employing this cross-checking technique enabled effective engagement with the data and supported the search for recurring core themes (Thorne, 2008). This was supported by preliminary note takings and identifying ideas for coding. Two interview transcripts were sent to the supervisors to ensure the integrity of the transcribed interviews was maintained.
- **3.6.2 Generating initial codes:** In this phase, the introduction of coding was established to organise the data into meaningful and systematic elements. The entire set of data transcripts were systematically reviewed, critically reflected upon and analysed. Initial codes were discussed with the supervisors to ensure accuracy was observed with interpretation from the data.
- **3.6.3** Searching for themes: In this phase, code analysis was undertaken, and codes were examined closely, with patterns identified amongst the codes and looking for the overarching themes. As a novice researcher, to help identify themes, hard copies of the transcripts were reviewed for common themes with the use of pens and highlighters. Attention was given to the identification of repeated themes to inform the most significant and appropriate theme as part of the research enquiry.
- 3.6.4 Reviewing the themes: During this phase, the themes were refined, to ensure the themes I had identified in step 3 were accurate representations of the data. Theme analysis, comparison and modification were implemented to ensure each

theme was distinct from the others. These were tested with my research supervisors to ensure I maintained accuracy, the essence of the thematic analysis and trustworthiness within the data content.

- **3.6.5 Defining the themes:** This phase is classified as the final stage in theme refinement, and the aim according to Braun and Clarke (2006) is to 'identify the essence of what each theme is about' (p.92). Furthermore, this phase is a final thematic mapping that illustrates the relationships between themes and that each theme was accurately described and supported by narrative accounts of the research participants.
- **3.6.6 Writing the report:** Having identified and confirmed themes, these were reported in two findings chapters within this master's thesis.

3.7 Ethical considerations

A researcher must address several ethical principles, prior to and throughout the research process to safeguard the participant as well as support the integrity of the study (Bradshaw, Atkinson & Doody, 2017). Ethical consideration is an imperative component of any research to ensure the research or researcher does not impose or create harmful conditions and to ensure the research is attained in a timely and appropriate manner (Creswell, 2007). Hence, prior to the commencement of this research study, ethical approval and consent were sought through an application to the New Zealand Health and Disability Ethics Committee, Victoria University of Wellington's Human Ethics Committee, and a District Health Board Ethics Approval Committee. Approval from the local research site was also secured. As the researcher, I have a responsibility to be sensitive, respectful and maintain participant confidentiality, whilst establishing trust and rapport between myself and the participants to comply with the principles of informed consent (Creswell, 2007). A written information sheet explaining the research was produced and offered to all potential participants. Participants were offered the opportunity to ask questions about the interview in order to feel that they were able to fully consent to participation. Consent forms were offered to all potential research participants and were signed before the interview began. Participants were assured confidentiality, and that they had the right to withdraw from the study without explanation, however, withdrawal from the study was not possible once the data had begun to be analysed. This was approximately a month after the interview session. This was explained in the information sheet and reinforced prior to the commencement of any interviews. The participant's confidentiality and privacy were maintained through the use of appropriate pseudonyms.

Furthermore, all interviews were audio recorded (and a digital file saved to a passwordprotected computer file and stored on the university's secure server system for five years. Participants were informed that the data collected from this research was to be used to compile a thesis submission with publication and conference presentations a likely possibility. All participants had the right to request a summary of the research findings which would either be emailed or sent via their postal address. This was discussed at the interview. In terms of data disposal, the proposed date for the destruction of the research data is set to be 31st of August 2025, as per Victoria University of Wellington's policy, and accessibility afforded during the conclusion of the research was restricted to me and my research supervisors.

The following principles maintain ethical conduct within my research study and are discussed below:

3.7.1 Minimisation of harm and risk management

Surgical intervention required for all children with a diagnosis of SUFE is undertaken within my clinical practice setting. However, in the capacity of my Associate Charge Nurse Manager role, I have not had any direct contact with any children, parents, or caregivers during their surgical journey through the perioperative phase of care. Having sound knowledge and clinical skills in my topic of research enquiry, I offered the opportunity for Group 1 participants (parents and caregivers) to be able to ask me relevant questions pertaining to SUFE surgery. If this went beyond my area of expertise, I referred participants to their respective clinicians.

Interviews can potentially arouse challenging emotions and unexpected feelings (Lowes & Paul, 2006). Therefore, Atkinson and McNamara (2017) advise that integral in the research design is making prior preparation to manage any potential consequences. The topic of my research posed a low risk of causing any distress; however, I was aware of the importance of managing sensitive information during interviews. Should the participants become upset or

find the recollection of events stressful, I planned to offer to stop or postpone the interview. As an RN, I have the knowledge and experience to support the participants during the stressful and challenging recollection of memories. I have worked closely with patients using therapeutic and holistic attributes in managing their child's care by supporting, coaching, empowering, and encouraging them to be active participants in their model of care.

Undertaking professional development programmes such as foundations of management in leadership and coaching and mentoring has provided me with toolkits to deescalate challenging situations during a crisis. In addition, I had specific information on-hand to gain support for each participant. This included information about Lifeline (0800 LIFELINE), Health line (0800611116), and offering the support of General Practitioners (GP). However, this was not required as the interviews occurred without noticeable nor verbally raised issues. I had planned that any sensitive information that might be disturbing for participants would be removed from the transcriptions at the participant's discretion. However, the consideration to delete any sensitive information from the audiotape recording was not implemented; this was due to the risk of accidental deletion of the entire interview.

Risk management strategies were used in regard to COVID-19. All parent interviews occurred following the April 2020 Covid-19 lockdown period therefore, and so public health practices of the time were maintained. Whilst engaging with participants, appropriate hand hygiene practices and social distancing were observed to minimise or mitigate any risk of Covid-19 virus transmission, especially for any interview sessions undertaken in participants' homes.

For Group 2 participants (the consenting nurses) I was a researcher who happened to work as a health professional within the same DHB, though in a different clinical setting. My contact with the registered nurse participants will continue beyond this research study due to the nature of our work. Because of this and as nursing practice is governed by the Nurse's Code of Ethics (NCNZ, 2011), any nurse with whom I have a supervisory role was excluded from participating in this study.

Participant confidentiality during the interview process, transcribing of interview verbatim and preparation of the thesis was diligently observed, and a high degree of caution was observed in maintaining sensitivity with their beliefs, cultural practices, and traditions.

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3.7.2 Researcher safety protocol

A researcher safety protocol was implemented in my study to ensure the research was conducted to safeguard both participants and myself and a cultural support liaison person when any parent or caregiver interview was undertaken, especially when in the participants' homes (See Appendix L). In terms of interviewer safety, I ensured my research supervisor was informed of the venue for the interview, the time of interview and the expected duration of the interview. This was communicated via email or mobile text to both research supervisors. Upon the conclusion of the interview, both the supervisors were informed. At all times, a fully charged personal cell phone was carried and sufficient data was loaded prior to the interview day.

3.7.3 Confidentiality

In this interpretive descriptive research study, maintaining participant confidentiality was a priority. To protect participants' identities from being known by others, several steps were taken. Pseudonyms were used during the transcription of the interviews. The professional transcriber signed an ethics approved confidentiality agreement to maintain confidentiality and anonymity of the research participants. This was completed by the professional transcriber prior to commencing transcription. Moreover, an ethically approved agreement document was used when engaging a cultural liaison support person (Appendix M). This document provided an agreement that should there be an inclusion of a cultural support liaison during the interview session, that this person would safeguard the privacy and confidentiality of the participants in signing this, and that the cultural support person agreed not to discuss or disclose any information shared by the participants. The inclusion of a cultural support liaison was only subject to parent and caregiver consent.

3.7.4 Social and cultural sensitivity (The Treaty of Waitangi)

Sensitivity and respect were afforded to each research participant. The research process recognised and honoured the importance of integrity, cultural awareness, sensitivity and cultural traditional beliefs of all Māori and non-Māori participants under Te Tiriti O Waitangi/Treaty of Waitangi. The inclusion of partnership, participation and protection underpins my dedication and commitment to practice in a culturally safe manner, and

practice in compliance with the Treaty of Waitangi. I am aware that cultural safety, the Treaty of Waitangi and Māori health are aspects of nursing practice that are reflected in the Nursing Council of New Zealand's standards and competencies. For the inclusion of any parents of Māori descent, I had considered the following and included as applicable and appropriate to initiate and engage Tikanga Māori. This included using a karakia (prayer) prior to commencing any interviews, as this is a common cultural practice in the Māori culture, and is essential in protecting and maintaining their spiritual, mental, emotional and physical wellbeing. I also considered the concept of whānau (family) representation during the interview process, considering whānau is fundamentally important to Māori. I also offered "kai" (food), which is an important aspect of Māori culture that signifies hospitality when people gather to share knowledge.

An initial consultation with the Māori and Pacific Development team within the DHB was secured as part of the ethics application submission. Having attended Tikanga Māori practice workshops fostered my understanding of culturally appropriate practice guidelines and provided tools to engage effectively with Māori patients and their whanau to provide culturally safe nursing care. From a perioperative perspective, whilst in the role of a registered nurse, the skills I have developed through education and training have proven beneficial in supporting parents and caregivers of Māori children who have presented to the theatre department for SUFE surgery. Moreover, being from a Pacific Island, I am confident in my skills and knowledge to engage safely with participants that are of Pacific descent. I have completed postgraduate studies in Pacific health through the Aniva Programme, facilitated by Pacific Perspectives, sponsored through the Ministry of Health and this has helped inform my understanding of the nuances of Pacific customs and practices.

3.7.5 Trustworthiness and rigour

It is imperative that the knowledge generated from research is profoundly trustworthy and reliable (Morse, 2015). In all approaches, to be able to research the ability to demonstrate quality in the research process and data collection is critical (Bradshaw, Atkinson & Doody, 2017). In my qualitative research study, trustworthiness was a significant and integral component, warranting transparent and robust processes. In qualitative research, 'Rigour' is defined as the way the researcher establishes the trustworthiness of the findings (Morse,

2015). As a researcher, my ability to strictly follow the qualitative research process consistently reflects and determines how well the research study was implemented and the richness of the findings. Moreover, as part of ensuring rigour in any research study is the mitigating of bias (Squires & Dorsen, 2018). Mitigating bias is an integral component during the analysis process of qualitative data (Squires & Dorsen, 2018) to maintain objectivity and avoid bias. Considering that this study utilised a qualitative lens, it was essential that I was mindful of maintaining objectivity during the interview process. This meant being aware of leading questions or imposing my views during interviews. Checking my analysis and themes with supervisors also contributed to mitigating bias with data sources being checked for alternative explanations (Squires & Dorsen, 2018). In this qualitative interpretive descriptive study, the criteria that are best suited to justify trustworthiness is derived from Lincoln and Guba's (1985) four criteria to explore the reliability and rigour in qualitative studies, these being credibility, transferability, dependability, and conformability.

These criteria are elaborated in-depth below:

Credibility refers to the confidence in the truth of the findings (Lincoln & Guba, 1985), which was established in my study through cross checking of the transcription with the audio recorded interview session listened to multiple times. This was warranted, considering the interviews were transcribed verbatim by a professional transcriber. The thematic analysis provided emerging themes that described the experiences of the participants. The findings from interviews were presented in a systematic manner that met the requirements structure of result dissemination of a thesis that was easily conceived and comprehended by the readers.

Transferability refers to whether the findings from a qualitative study can be transferred to another context or study and still preserve meanings or interpretations (Lincoln & Guba, 1985). The research process is explained thoroughly, and the inclusion of forms developed to support the study are included as appendices. The findings of my research have the potential to provide guidance to other researchers in leading research that utilises a qualitative paradigm and involves parents, caregivers, and nurses to explore a phenomenon that is relative to my findings.

Dependability is an evaluation of the quality of the integrated processes to obtain the findings, interpretation, and recommendations of the study (Lincoln & Guba, 1985). In my

study, dependability was ensured from the outset. This included undertaking participant interviews by myself and using audio recording to capture the experiences of the parents, caregivers, and nurses. Transcription was conducted by a professional transcriber and reviewed entirely by me to ascertain accuracy. Participant interviews were designed and structured with an interview guide for the semi-structured interviews to ensure the same key questions were asked of participants. Analysis checks in the coding and development of themes were done with supervisors. Informed consent, confidentiality and anonymity were fundamental and established from an ethical perspective.

Confirmability refers to the process of examining data and findings with each participant to ensure that their contribution remains confirmed throughout the study (Lincoln & Guba, 1985). It is fundamental in qualitative research that an individual's experience is truthfully demonstrated, and that the researcher validates a truthful representation of the participant's voice and experience (Bradshaw, Atkinson & Doody, 2017).

All participants who had taken part in this research study were assured that confidentiality and privacy were maintained through the use of pseudonyms and were made aware that all interviews were audio-recorded (and that a digital file would be saved to a passwordprotected computer file in a locked cabinet) and stored on the university's secure server system for five years. Thematic analysis using Braun and Clarke's (2006) six step framework for analysis provided the critical lens for data interpretation and formation of themes. Both my supervisors reviewed one transcript each independently and their identified themes were compared with mine and a collaborative decision making was undertaken to choose the best and most appropriate theme that reflected the true interpretation of the participants 'voices.

3.7.6 Reciprocity

Reciprocity is defined as a socially constructed expectation which demands mutual action of giving and taking (Tamasese, Parsons, &Waldegrave, 2014). According to Tamasese, Parsons, and Waldegrave (2014), reciprocity is an expression of respect, generosity and fulfilment of duty. Reciprocity from an interpretive description methodology perspective is not known. However, considering the participants in this study were from Pacific and Māori ethnic backgrounds, reciprocity was included whilst engaging with them during the interview process. Reciprocity is an integral principle in their cultural practice, which

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symbolises dignity and self-respect through a means of gift-giving. Reciprocity from the worldview of Tikanga Māori values is seen as "Manaakitanga" (hospitality).

Similarly, reciprocity from a Pacific worldview is the basis for maintaining balance and harmony through "give and take' (reciprocal) obligations, honesty in all things and the exchange of gifts or goods and services. To honour and respect the integrity of reciprocity, all research participants (parents, caregivers, and nurses) were provided with a "Koha" (gift or donation), in the form of a \$50 dollar Countdown voucher. This was my contribution and a token of appreciation for their time and effort as participants in this research study. The inclusion of reciprocity within my interactions with participants acknowledges my understanding, valuing and mindfulness of cultural and traditional practices.

The research participants devoted their time, effort, experiences, and wisdom to provide rich data that informs the aims and objectives and shapes the research findings. As a researcher, I contributed the relevant skills, knowledge, resources, understanding and awareness to the interaction. Hence, our researcher and participant relationship was reciprocal and there is the existence of reciprocity. Moreover, reciprocity will be demonstrated through the sharing of my overall findings of this research with participants following the submission of the thesis. Reciprocity, therefore, enables researchers to demonstrate cultural competency.

3.8 Conclusion

The methodology which underpins this study was presented and discussed in this chapter. When compared to three other qualitative methodologies, Interpretive Description was chosen as the most appropriate methodology, as the study aims to explore parents' experiences and needs following their child's admission to the hospital for SUFE surgery. Interpretive description generates new knowledge which is relevant to clinical situations and contexts. Knowing the parents' experiences and needs is fundamental to ensuring clinical care following SUFE surgery, meets parent's needs. The participants' recruitment procedures, data collection and ethical considerations were presented. The analysis of the data by thematic analysis was argued and the steps for this process were outlined. The observance of social and cultural sensitivity, including the inclusion of Te Tiriti O Waitangi/Treaty of Waitangi within the research design, was discussed. Finally, rigour and trustworthiness in this study are addressed, to inform the quality of the research process. Reciprocity was also discussed as a significant cultural and traditional practice and its relevance in this study.

Having outlined the research methodology and processes, the next chapter presents the findings of this study, describing the parents' experiences and needs. This is done by presenting the themes and subthemes that arose through the analysis process. These findings highlight parents' descriptions of events and their needs in supporting their child following SUFE injury and surgery. Following this, findings from the nurses are presented.

Chapter 4 Parental experiences following SUFE surgery

4.1 Introduction

The parental role in caring for a child during hospitalisation following SUFE surgery is significant. It is imperative that whilst the parents are dealing with their child's surgery, treatment, and rehabilitative phase of care, they are supported, guided, and educated to manage their child's recovery effectively. Parents as primary caregivers are exposed to varying degrees of challenges and difficulties which greatly influence and impact their wellbeing as they navigate through the child's postoperative and post-discharge care. An understanding of the parents' experiences provides insight on how they provided the care, what support they required or needed, what challenges they faced and what more can be done to improve their postoperative and discharge planning needs to support future parents whose children present with SUFE.

During the parental interviews, the key prompts that guided the structure of the interview process involved a) asking the parents what their experiences were as part of hospital admission; b) their understanding of the SUFE diagnosis and surgical intervention; c) their preparations for a discharge from hospital with their child following SUFE surgery; d) what they experienced when they were allowed to go home with their child; and e) what their challenges were in the long term, i.e. during the ongoing rehabilitation of their child, key needs and information that they needed to safely manage their child's care at home. Themes and subthemes derived from a thematic data analysis of the parents' interview data were therefore explored in line with the chosen interpretive description methodology.

Figure 3 below describes the themes and subthemes that emerged after the analysis of data. The main themes centred upon the parents' *unpreparedness and being overcome* with the SUFE diagnosis, and the care management required; parents needing support through reassurance and information during hospitalisation and beyond; and the parents facing the unknown of ongoing challenges upon discharge, along with the impact of social influences postoperatively for both the child and the parents.

Figure 2

Parental themes and subthemes

Theme 1: Being unprepared and overcome.

- Initial injury and clinical encounters
- Emotional uncertainty, feeling of loneliness
- Appreciation of the healthcare professional's role diversity and contributions to the child's care

Theme 2: Parents needing support.

- Expectations of reassurance and guidance
- Needing information

Theme 3: Facing the unknown after discharge.

- Initial challenges experienced at home.
- Ongoing caring challenges

Theme 4: Responding to social needs.

- Restriction on daily activities, social and sporting activities
- Social isolation home bound

4.2 Theme 1: Being unprepared and overcome.

An acute paediatric admission to the hospital brings logistical and emotional challenges for parents. Impending surgery and recovery issues add to these challenges. From the parental interviews, feelings of discomfort, unpreparedness, and a sense of being overcome frequently emerged from the data. For instance, some parents discussed having experienced high levels of anxiety, stress, and feelings of being overwhelmed after receiving their child's SUFE diagnosis and the imminent need for surgery as advocated by the health care professionals. This was especially the case when the orthopaedic clinicians advised surgery as the most appropriate form of treatment to maintain hip stability and mobilisation. Being informed that without surgical intervention the child will experience ongoing pain issues and mobility impairment contributed to the parents feeling anxious, unprepared, and overcome by the situation. These feelings were associated with the following sub-themes.

4.2.1 Initial injury and clinical encounters

Entering the world of hospitals and health services is a 'foreign' experience for many parents and their children. "Clinical encounters" emerged as a subtheme, as it depicts the parents' experiences in this clinical world. It describes parental engagement with the primary and tertiary services such as the medical centres, the hospital system, healthcare professionals and other multi-disciplinary team members to care for their child. The specific clinical encounters between the parents, child and healthcare professionals were often complex considering the multiple staff involved. This meant that the processes and communications to ensure clinical assessment, informed consent, diagnostic assessment and tests, parental education, and discharge preparation all had to be negotiated, and delays were often encountered.

All parents highlighted the contributions of different roles of the health care team in providing care for their children. It was evident that all of the six parental participants who presented with their child to the hospital came either through the General Practitioners (GP's) referral or independently through acute admission to the emergency department. All of the parents stated that the onset of SUFE was precipitated by a sporting injury at school, although there was often a delay between the original injury and initial diagnosis before treatment. For instance, one parent stated that her son's diagnosis was delayed for over six months between the GP's presentation and referral to a physiotherapist and was further delayed by her son attending boarding school. In this instance, witnessing the ongoing pain and limping and having an experience of nursing in Tonga enabled the mother to request a specialist referral. She talked about what she asked her GP to do by saying: *"Can you refer my son to a specialist because we have done X-ray, ultrasound and we have been through so many physio appointments, there is no change, and it has been too long"*. The request by this parent for a specialist referral was valid and necessary, considering there was no improvement in her son's injury. It was only then that the specialist review of the X-ray

imaging prompted immediate admission into the public hospital through the emergency department, and the boy received an assessment and surgical intervention.

Another interview (that included both the mother and father) also indicated a significant delay between injury and treatment, i.e., they stated that their son was limping for months after the cross-country sports day. The mother stated, *"The limping started to get worse, so we knew he had to be taken into the GP clinic"*. At the GP clinic, the recommendation was to do an X- ray and so a referral to the emergency department was made. Once the X-ray was done and reviewed by the clinicians, the diagnosis of SUFE was confirmed. She stated that SUFE was described to them *"As being like a scoop of ice cream slipping off a cone"*. In a similar fashion, yet another parent stated that her daughter sustained SUFE injury in both the hips, the first-time during rugby season, and she too was limping for about four months. She stated:

The rugby season had finished, when she walked you could tell one leg was shorter than the other, and I would say to my daughter, try to walk properly because in the future you are going to grow up limping whilst walking (Parent Four).

When the daughter kept complaining of knee pain saying: *"No mum it still hurts"* and progressively the pain got worse. This prompted the mother to take her into the GP clinic and a referral was made to the hospital. The second episode of SUFE resulted from breakdance practice at school and having the prior experience of observing a significant limp, the mother immediately took her daughter to be seen by the GP. Following the assessment of an X-ray, an urgent referral was made to the hospital. Having lived experience of SUFE from a parental perspective before provided this mother with the relevant knowledge to seek immediate help.

Yet another participant (Parent Five) stated that her son sustained a SUFE injury following a rugby game. It was her partner who suggested, *"We might need to ask the doctor about his leg, the way he is walking, they are not balanced".* The partner's concern prompted the mother to get her son assessed at the GP clinic. The son was referred to the emergency department for an X-ray and assessment, and a diagnosis of SUFE was confirmed in the hospital. Parent Six said her son's SUFE diagnosis was confirmed on the second day following a rugby event at school. She stated:

He came back from school complaining about a sore hip, I thought it was just to do with the rheumatic fever; that he will have rest, and, in the morning, he might be fine, but when he woke up the next morning, he couldn't move (Parent Six).

Hence, she took him to the GP clinic, which made an instant referral to the hospital and following the X-ray imaging and assessment, a SUFE diagnosis was confirmed.

The main aim of presenting each case here like this is to highlight similarities experienced in the clinical encounters for these parents. There were similarities in the experiences of SUFE resulting from trauma (sporting injury), pain and limping as observed symptoms by parents, GP presentation, a referral to the emergency department for X-rays and diagnostic assessments, and surgical intervention for SUFE injury repair. This initial phase was therefore the cause of early anxiety and uncertainty for the parents which then continued for some time after the child's admission.

4.2.2 Emotional uncertainty

Parents whose child undergoes SUFE surgery, face a very unpredictable and uncertain period of time from admission through to discharge. All six parents described the initial shock of the SUFE diagnosis, and the time needed to adjust so they could make decisions regarding surgery. All parents during the interviews were asked to elaborate further on the emotional impacts of the admission and subsequent surgery. One parent described feelings of emotional unease as follows. Upon arriving at the emergency department, X-ray imaging was undertaken, and they were in the waiting room of the emergency department when the clinicians came and informed them that their son had SUFE and required admission to the hospital. He stated:

We were still in a bit of a state of shock at the time. We weren't feeling too comfortable when we got the news. We had no idea until someone came in to talk to us, I don't think it really registered (Parent Three).

Parents Two and Three were in a state of shock as this was a condition they had never heard of. Reading the brochure on SUFE provided them with knowledge and understanding of the condition including that being prevalent in their child's age group and was the result of the child being (over)weight and experiencing a sporting injury. Parent Four described being emotionally challenged twice given that her daughter was having experienced bilateral SUFE injuries at different times which required surgery on both occasions. Parent Four reported that the first time was the most challenging. She reported:

The first time I was nervous because I was told that there will be a screw that's connecting your daughter's hip and I felt very emotional seeing her and taking her to the operation room. I came back and cried the whole time. I guess that time taking her to have operation, I was felt I was supposed to talk to someone else or someone to just come and talk about what's going on or at least talk about what's going on in my daughter's hip. I was just there in the room, crying and thinking of her, how she is and whether she could be able to walk properly (Parent Four).

The degree of high emotional distress for the parents upon hearing the diagnosis and proposed treatment is therefore quite apparent here. However, this participant went on to describe that when her daughter had the SUFE injury requiring surgery on the second hip, she was prepared and knew what was happening and did not feel overwhelmed. From the parent's statement, it was indicative that when the SUFE diagnosis was confirmed a second time, she was not as stressed, emotionally challenged, or disturbed. She felt she was prepared and knew how to act promptly when her daughter was observed to be limping and complained of hip pain following dance practice at school. The importance of parental awareness and accessing appropriate medical care in a timely manner was therefore displayed by this parent.

Another parent, when questioned about her emotional status after being informed that her son had SUFE condition and required surgery, reported:

It was quite a shock, but this is the first time that he had surgery. The past few years, he hadn't done anything like that before". Before he went in for surgery, I am just standing there, and looked at him and felt scared, like something would happen when they do the operation, but something was telling me don't worry, they are going to look after him (Parent Five).

Yet, regardless of the shock of the situation, she further added that she felt quite strong and did not require support as nurses and doctors said they were going to look after her son. It was evident in this interview, that the mother felt reassured knowing the healthcare

professionals were looking after her son. This gave her a sense of comfort and reinforced her child's safety. This too, suggests that parents appreciate the care offered by various health professionals, especially when offered early and with the consideration of emotional distress.

Hence, from the parent interview statements above, it can be concluded that all parents encounter some degree of emotional discomfort, anxiety, and uncertainty when their child's health status is affected by injury, and surgery is advised as the only option for treatment. The next sub theme highlights the parent's appreciation of the contribution of healthcare professionals in managing the care of a child presented for SUFE surgery.

4.2.3 Appreciation of multiple healthcare professional roles contributing to the child's care

In this subtheme, the role of healthcare professionals contributing to the care of a child who has undergone SUFE surgery is explored from the parental lens. The multiple healthcare professionals involved in the care of children who underwent SUFE surgery was viewed by parents as reassuring, as they showed a willingness to support the parents in the care of their child. Each member of the multidisciplinary team was responsible for contributing their expertise in supporting, guiding, coaching, and educating the parents. However, it was the nurses and physiotherapists who were perceived by parents to play the main roles in the children's care, i.e., they were the ones most involved. The parents' statements below were therefore selected to highlight the vital roles of nurses and physiotherapist contributed to progressing along the hospital journey following SUFE surgery.

One parent participant mentioned how the nurses provided support and guidance in managing her son's care. She stated:

The nurses, they were every time doing observation and they told him, don't move or do heavy lifting activities at home. They are helping guide me on how to look after him and how to limit his movement and his activity when he is discharged and how I was caring. I already got more guidelines and more information from the nurses (Parent One). The participant's statement indicated that the nurses played an active role in educating her on how to best meet her needs to support her child's inpatient care as well as beyond hospitalisation. Similarly, another parent (the mother) indicated a positive response about how a nurse's discussion around home assessment and coaching tips helped her enormously to manage her son's ongoing care. She stated:

There was a nurse who came and had a conversation with me, regarding how our home looks like and how we go in and out. She really helped and showed me a few things that would help my son, like stool his using for showering as well as the toilet seat and the crutches (Parent Two).

Parent Three (the father) added that the value of guidance from an experienced nurse in their delivery of care was greatly appreciated. He stated, *"You could tell the experienced ones from the new ones"* indicating that the experienced nurses had better engagement, shared information, and helped parents relax and lower their anxiety levels. Hence, this quote indicates that the involvement of experienced nurses boosts parents' confidence and willingness to be fully engaged in their child's care. Moreover, it suggests an empathetic approach in working with the parents.

Parents also stated the involvement and the contribution of physiotherapist in supporting mobilisation following SUFE surgery, for instance:

The physio did some exercises, I was just shocked that the exercises were done immediately the day after surgery. Before the first exercise I didn't ask her about why the exercise was done so fast, but the second time, I asked and the physio said, it's not really a concern for them to do some exercises after, but I was still worried as a mother (Parent Two).

In the above statement, the parent displayed a sense of shock and worry when she observed the physiotherapist doing exercises with her son the day after surgery. This highlights the fact that when healthcare professionals are involved in children's care, they must involve parents and provide them with specific information pertaining to the child's care plan, so they are aware of what is required and are prepared and able to support the child. Moreover, another parent (whose child had Dunn's procedure, as part of SUFE surgery) was similarly supported by an encounter with a physiotherapist who helped her to understand the weight bearing and non-weight bearing status reasonably well with the use of crutches. She stated:

They told him to think he has one leg to hold up his weight and forget about that his having a left one, always think his having one leg that he is using to do his walking and holding his body weight. Don't think that his having two legs. Otherwise, he will end up walking with the leg he had surgery and it will get worse and maybe come back for another surgery (Parent One).

In comparison to this participant, another parent (Parent Five) commented that her child also had Dunn's procedure; however, when she was interviewed her son had only had surgery a week prior and was on bed restrictions. She too maintained that they were well looked after by different individual teams such as nurses and the physiotherapist. She stated, *"They came into the room, and we were well looked after, we were happy because they helped out a lot".* On the contrary, Parent Five stated they were being well looked after, but when questioned on how the healthcare professionals were teaching, educating, and supporting her in preparation for going home with her son, she stated that they were providing good care, but she was still waiting to receive all the information for caring for her child at home. Upon probing further, it became clear that her child had a Dunn's procedure which has a longer recovery period and restricted mobility, and bed rest is recommended for several weeks before any weight-bearing mobilisation is implemented in the care. Hence, it is important that parents receive a full explanation of the ramifications of different surgical procedures in good time.

From the parental responses, it was indicative that the healthcare professionals, nurses, and physiotherapists played a significant and critical role in managing the care of the children who had SUFE surgery, and in keeping their parents fully informed. It was obvious that many parents valued and respected their contribution in ensuring they were supported during the child's hospitalisation, and later. Also, it is apparent that the roles of different personnel involved in the child's care, and the information shared with the parents in the form of education and explanation, facilitated a reduction of the parents' feelings of uncertainty in the world of clinical encounters.

4.3 Theme 2: Parents needing support

As previously noted, a key theme that emerged from the analysis was that parents (as the child's primary carers) needed support through their child's hospitalisation and discharge planning phase of care, as well as once at home. The hospital setting is an environment that challenges the parental role as parents become heavily dependent on health care professionals for information pertaining to their child's condition and treatment. Without such information, an already stressful and challenging admission is complicated by not knowing what is happening. As maintained earlier, a significant challenge for any parent whose child undergoes SUFE surgery is ensuring they are providing safe and appropriate care to their child whether in a hospital setting or when they are discharged home. In the parents' interviews, the need for additional support to manage the care of their child in the hospital and at home was frequently raised. The parents said they needed reassurance and information to support them in caring for their child. These two important findings are discussed in the subthemes that now follow.

4.3.1 Expectations of reassurance and guidance

The subtheme, "expectations of reassurance and guidance" emerged from the parents' interviews. There was an acknowledgement from the parents that they had expectations that they would be offered reassurance from the healthcare professionals around the care and treatment offered to their child during hospitalisation, as well as in the discharge planning phase, and transition of care into their home setting. Most parents interviewed related a significant need for reassurance, advice, guidance, and more information to understand the SUFE condition, treatment and ongoing care management.

Two participants (mother and father) both mentioned that when their son was admitted into the emergency department and a diagnosis of SUFE condition was confirmed, they were asked a lot of questions in the initial consultation by the clinicians. However, they struggled to understand what SUFE was, underlying risk factors which led to SUFE injury in her son. As the mother reported:

All they did was ask me, if there was an accident, did he fall? Then, I just explained the sports day event. Then, nothing else after that, and then I just had to do my own research on Google. They mentioned weight could be the reason, but then I still needed more information. I also wanted them to tell and reassure me why surgery was the only alternative to his condition. They had just said, he has to go to surgery. I didn't have time to evaluate any of that information (Parent Two).

In the above statement, it was clear that both parents had no prior knowledge of the SUFE condition, and the treatment and care management required for their child. Yet, they had expectations from the healthcare professionals that they would be offered reassurance, guidance, and informed consent on the SUFE condition.

Furthermore, another parent said that the whole time she was in the hospital with her child, she was thinking about what might happen later, i.e., about the possibility of follow up visits to her home setting by someone who could review and reassess her son's rehabilitation. She stated:

If someone is coming to follow up the SUFE kids at home and have more advice for the parents, maybe we can limit the kids from doing certain activities or maybe we are going to have a guideline at home to limit the kids from doing dangerous activities at home (Parent One).

The reason for the parents above statement was related to her concern that whilst in hospital she was being taught by doctors, physiotherapists, and nurses how to assist with her son's rehabilitation. However, she realized that when they are discharged home, she would be the one teaching the rest of the family how they needed to support her son's recovery. She felt that if a healthcare professional (such as a district health nurse) did home visits, then, they could assess and advise if the care at home was being done in a safe manner. However, this is not the current service delivery model within the DHB where this study is based.

Another parent (Parent Six) was a single parent looking after her son following surgery. She said that before discharge, her need for reassurance and guidance would have been better facilitated or supported through a better explanation of the condition and things the parents needed to support the child. She made this comment based on the fear of her son experiencing SUFE on the other hip and getting admitted for further surgery. This mother demonstrated genuine concern in wanting the best care for her son, and most certainly in the need for receiving more appropriate information.

4.3.2 Needing more information

The need for more information was evident in the accounts of most parent interviews. All of the parents who were interviewed had questions about the condition and the recovery trajectory. To understand the needs of this group of parents, they were asked what support they needed when they were in the hospital to prepare to safely manage their child's care at home. Four of the parent participants were interviewed following hospitalisation and discharge, hence having a better insight in describing what additional information they required to provide effective support for their child. For instance, as this parent stated:

We basically needed more information right from the beginning. It was all new to us and it was all sudden as well. We were only meant to go in for an X-ray on that day and then we just got told that he needed to have surgery, so it was all quick for us (Parent Two).

She stated that it was the first ever admission for their child into the hospital for surgery. Therefore, it clearly highlights that this parent needed clear explanations about the SUFE condition, how it occurred, the underlying causes or risk factors for SUFE, what they can do to minimise any further risk of SUFE injury with the other hip as well as avoiding any complications following surgery and discharge.

When all the parents interviewed were asked how the postoperative education was supported and offered in preparation for home discharge, the responses were mixed. For instance:

We were just given papers and told just a little bit of this is what you do, that's what you do and not to do. It wasn't really explained. It was more or less papers given and when the doctors come back, they were that busy and they have got that many patients, so it was just a quick visit, and they were gone (Parent Six).

However, there were exceptions to this problem, i.e., when one parent was asked about the nurse's input into the information sharing with her, she reported: *"We had a few nurses for his care, but there was one nurse in particular who was very nice, and she was explaining things really good and the physio lady was good too"* (Parent Six). She further added in her

statement, "I would have liked more explanation on the condition that he was going through".

In the above statement, all of the nurses offered information and education, as in other examples, but this parent still felt more information needed to be offered. From her statement, it can be noted that the nurse and/or other healthcare professionals, such as the physiotherapist, did not ensure that the parent understood all the information that was being delivered. Their approach gave the parent the impression that they were busy and lacked time to be fully engaged.

Parents also felt they needed information about exercises that the child could do at home. The need for exercise was brought up by parents, due to the child being on restrictive mobility following the surgery and cessation of sporting activities for several months, which for children in their teens was very challenging indeed. The parents felt getting advice on some alternative forms of exercise would foster their child's recovery and wellbeing, as in this example:

I think some advice about exercises at home would be good, because every day I just told her to get up and do something. I do not want her to lay down the whole day, the whole two weeks, three weeks, or four weeks. I was just trying to make her move instead of just laying straight there for how many weeks or just stand up and hop around on one leg (Parent Four).

Parents also talked about being alerted to the need for a healthy eating plan as part of the discharge planning phase of care. The rationale for including this was because SUFE presentation was mostly due to a child being overweight and having a high body mass index (BMI). As discussed in the literature review, childhood obesity is a significant risk factor for SUFE presentation. For instance, one parent, whose daughter had bilateral SUFE surgery, mentioned that nurses and doctors should be prepared to discuss a healthy eating plan more fully during the discharge planning to guide and support the parents. She reported: *"I have been trying to get more healthy living with my family and this resulted my daughter losing weight and my husband and son trying to be more active, going to the gym"*. She further added that following the experience and challenges of having her daughter

experience bilateral SUFE hip condition, she had ideas on how to help her younger children as well.

The above parent, having undergone SUFE experience twice with her daughter on two separate occasions, demonstrated a greater awareness and confidence in managing her daughter's recovery. She had also learned how important it was to improve the health of the entire family because of this experience. Subsequently, she also mentioned that raising community awareness and advocating amongst church members on the SUFE condition is important to ensure parents are aware of what symptoms to look out for, so their child can access appropriate healthcare in a timely manner. She suggested:

Maybe they can do little posters and put them around the clinics, or you know who they have the video inside running. They can play some videos there and explain about it, because maybe some kids feel the pain in the hip, but they think about something else, so it's something that needs to be brought up to the parent's attention, so they know more about it (Parent Four).

Here, there may be seen some basic but useful possibilities regarding health education among various communities. In relation to a healthy eating plan, another parent also highlighted the need for its inclusion at least in discharge planning. She stated:

I would have liked help on the health side of things, particularly an eating plan during the discharge planning phase of care to ensure the weight management of my son could be managed and risk of SUFE with the other hip minimised (Parent Six).

It can be concluded that the parents have demonstrated understanding of the SUFE condition and identify areas of further support (such as ambulation and dietary considerations) that are needed in terms of information sharing by the nurses and doctors to support, guide and educate them to manage the care of their child's recovery both in hospital and whilst back at home. This latter aspect worried several participants considerably.

4.4 Theme 3: Facing the unknown

The third theme that emerged from the analysis was parents facing ongoing challenges not only whilst the child is in hospital, but also when they are discharged home following SUFE surgery. Upon discharge the parental responsibilities obviously increase as they must balance their role as a parent and caregiver to care for their child who has had SUFE surgery, but at the same time manage home affairs, employment, care of other children and more. This can be an overwhelming and frightening experience for many parents. With the increased need for parental responsibility, the demand of the parental role increases and the parents start facing ongoing challenges. This major theme therefore represents the ongoing challenges parents faced including the immediate challenges once home with their child and the caring challenges that were found to contain two significant sub-themes.

4.4.1 Initial challenges experienced at home

When a child is discharged from the hospital following SUFE surgery, parents obviously continue to care for their child at home. Yet despite being given information to prepare for the discharge, parents found that they experienced challenges once home which were due to the inexperience of parents, having limited knowledge on the SUFE condition and the requirements of managing ongoing care at home. Parents identified some of these challenges. For instance, one parent thought that she would be able to manage the challenge of caring for her child at home, only because she felt reassured that upon discharge she would be relying on her son's grandmother, who was living with the family. She stated that if they were not living with her: *"I think we were going to have a bit of struggle because we (she and her husband) are both working, but because she is at home, she is helping us too" (Parent One)*. The above statement indicates the value of extended family members or whanau contributing to the care of the child. It provided the parents with the much-needed support to care for their child as well as the opportunity to maintain employment and sustain financial support for the entire family.

On the other hand, a major challenge upon discharge faced by at least two of the parents was identified as financial challenges in sustaining living costs and managing the care of their child. For instance, both participants Five and Six were solo parents, and financial sustainability was a major cause of concern following discharge from the hospital. This was because they were solely responsible for their child's care at home, and their inability to work whilst caring for their child at home meant reduced income to meet the cost of daily living. Indeed, effects on the main carers income through employment disruption was a
concern for some parents, i.e. when another parent was asked who would look after her son at home upon discharge, she mentioned it was going to be her and she stated: *"I already talked to my employment, so I can take more months to stay home and look after him"*, but then she furthermore stated that her biggest worry was managing rent and bills, *"I think the only worry about me is the rent. If I do not get enough income, then I don't know what I am going to do, what bills to pay and other bills not to pay"* (Parent 5).

When she was asked if she had communicated her concern to the nurses or doctors and asked for a social worker for support, she said: *"No, I have already spoken to the case manager from Work and Income"*. She felt content that the case manager had increased her allowance and she would be okay, as she was returning to work in two months. Hence, from this mother's statements, it was clearly indicated that financial management following the discharge was amongst her biggest concern.

Aside from the single parents, the other parents did not mention facing any direct financial hardship, e.g., one parent mentioned that living with the grandmother who stayed home, enabled her and her husband to work. Another parent mentioned that she was a stay-at-home mother, and her husband was employed full-time and was able to work while she was at home. Yet another parent mentioned that she was also staying at home to manage the care of her children which enabled her husband to work full time and provide financial support for the family. Nevertheless, all parents clearly faced ongoing caring challenges once their child was discharged home.

4.4.2 Ongoing caring challenges

Significant caring challenges were experienced by most parents following a child's discharge after SUFE surgery. This is because the caregiving tasks faced by parents are often beyond their expertise in terms of managing postoperative rehabilitative care in a home setting, especially with pain management, dressing care, activities of daily living and more. Indeed, at least three out of the six parents recruited as research participants had experienced major caring challenges at home upon discharge from the hospital. For instance, concern around the care of the wound dressing was frequently described in the data. As the researcher, I asked the parents if there was a discussion on how to care for the incisions or the dressings should they get wet, i.e. were they given additional dressings to take home? Most participants had plenty to say about the above issue, e.g., one parent mentioned that she had to ask for information regarding dressing care as it was not provided in the first instance. She further stated:

"I had to ask those things, as I like to make sure. Like today, in the clinic, I asked what if these dressings or the new plaster they are putting on, what if they come off. What do I do"? (Parent Two).

Here, the concern around the incision and wound dressing care elicited by this mother related directly to her not having the appropriate knowledge provided by the healthcare professionals, particularly nurses. Her concern was therefore that she felt unable to act appropriately to safely care for her child to avoid unwarranted complications or the risk of infection.

When another parent was asked if the doctors or nurses had explained what she should do when the dressing becomes wet, she stated, "they said this plaster we put on, it lasts long, and water doesn't get inside" (Parent Four). The parent went on to explain that she understood the explanation by the nurses but feared that the suture used to secure the incision line would come out, as the dressing was wet and not changed. She further stated that her biggest concern was around dressing care when her daughter had her first SUFE hip surgery, as she was informed that the dressing had to stay on for two weeks, until a follow up visit was made to the doctors. However, getting the wound dressing wet during showering and waiting for two weeks for a change of dressing made her daughter most uncomfortable. When she visited the doctor, he stated that she should have brought her daughter for a dressing change as it was supposed to be changed in a few days and not two weeks. In response, the mother commented, "the hospital said two weeks and we could tell it was needed to be opened to air and to heal properly". The parent's statement indicated a lack of clarity around wound care management and receiving mixed messages from different health care professionals.

Also frequently mentioned during the interviews was the challenge with activities of daily living such as showering and toileting. As a single mother, Parent Six waited on the support of her older sons to return home from work to enable the younger son to shower. This was due to the layout of the shower. She stated, *"It's a bit of lift, so I just had to wait until my* sons to get home to shower him". She also mentioned that toileting and showering were the most challenging for about two weeks following discharge, after which she started getting more confident. Furthermore, in relation to showering and toileting challenges, another parent mentioned that during the discussion around home assessment with the occupational therapist, physiotherapist, and nurses, she included the type of house she resided in. She stated:

The house being a double storey house, but the problem is all the bedrooms are upstairs and the toilet is downstairs. The problem would arise when he wants to go to bathroom. Plus, he is heavy, so we can't lift him up and take him straight to the bathroom. We need something like a wheelchair or crutches (Parent Five).

These additional aids were not given, and so it was obvious from the interview sessions that whilst some parents had a wider support network, there were still challenges in coordinating everyone to be available to help with the care of the child. For single parents the challenges with managing some cares became extra challenging as they became dependent on support from wider whanau to assist with the child's care. The need for greater support within the family and the community became even more obvious when parents talked about trying to meet the child's social needs in the weeks after discharge.

4.5 Theme 4: Responding to social needs

Responding to social needs for both the parents and the child was identified as a main theme because it was a common issue that was identified by *all* the parent participants. As indicated earlier, this is because when a child is discharged home following the SUFE surgery from the hospital, the parents were faced with challenges with balancing personal life, work, and care of other children, including other daily family activities. This potentially placed them at higher risk of experiencing distress, considering the child required at least six weeks of progressive rehabilitation and follow up clinic appointments for assessments and review. As part of the rehabilitation phase of care, the duration of the child's rehabilitation was restricted to their home environment until they were able to bear weight and the need for walking aids such as crutches was eliminated. The subthemes below, therefore, discuss the parental experiences with restrictions on social activities such as sporting activity for their child, as well as social isolation from loved ones during the Covid 19 lockdown.

4.5.1 Restrictions on daily activities - social/sporting

For a child who is active in sporting and social events, as many adolescent children are, restrictions on their participation and involvement in any social or sporting activity following SUFE surgery was deemed challenging and distressing for not only the child, but also the parents. For instance, several parents voiced concerns about not knowing how to manage sporting and exercise restrictions with their children, along with restricting other activities until their bones healed. For instance, one parent stated this was "*a tough call*", considering her child enjoyed sports and they enabled her child to remain active and therefore, continue with a major activity that enhanced social contact, so necessary for adolescents at their stage of development. Another parent emphasised this point:

I know he was advising my son to do small activities, but what activities at home? It is really good to have a guideline to go home with. I heard the doctor saying rugby was not allowed for a year, however, there was no mention about other small activities. What activities he can do, what activities his not allowed to do and how long I am going to stop him from sports? (Parent One).

This parent felt there was no clear description of what small activities her child could undertake and there was a need for the development of a clear guideline or list which specified the activity restriction, versus activities that the child could participate in. Another parent mentioned that at six weeks, her daughter was reviewed at the orthopaedic clinic and when they went to see the doctor, both her hips were checked and the doctor's statement was: *"There is screws in both the hips, she's all good, but she would have to stop sports until she is fourteen"* (Parent Four). This parent felt that the clinician did not offer any degree of comfort for her daughter as a restriction was placed on sports, which at her age happened to be her favourite social activity. The parent felt the clinician needed to provide a clear rationale for why sports were restricted and offer suggestions on what she could pursue as an alternative. The parent felt it was a disheartening and challenging experience for them as parents because it caused sadness for her daughter, considering her love for sports as well as being the best player in the team. She stated that she said to her daughter:

You are not going to play sport anymore, but you still must be active and exercise and do other things and look for something else. You are going to play piano or something because of how your hips are (Parent Four). This parent felt that some advice about exercises that could be done at home would have been good. She did not like the idea of her daughter lying down for the whole day during the weeks she was home following discharge. It was evident from the interview, that having experienced her daughter undergo bilateral SUFE surgeries on separate occasions; this parent sought better support and guidance from the health professionals.

Moreover, continuing the theme of restriction of activities following SUFE surgery, another participant was asked about some of the other challenges that she encountered, and stated: *"Being around his cousins, seeing them play rugby was a bit of a disappointment for him because he couldn't get involved and play with the other children"* (Parent Six). Not being able to interact and play with his cousins was seen by the mother as a psychological restriction and a challenge placed on her child, based on his restriction on physical activity. She further stated that the doctors mentioned a restriction on sporting activities for four years and this would pose a challenge for her child. Once again, this scenario indicated a lack of clarity on timeframes for exercise restrictions between different children and advice given to parents from the clinicians, and the socially isolating effect that this may produce for the child.

In regard to continuing social interactions for the child, it can be concluded that parents and children both needed a collaborative approach from the clinicians on being informative on reasons for the restrictions, the options that can be explored to be active, and some written form of guide that the parents could utilise to care for their child. The parents understood the reason for the restriction on sporting activities, but it was not clear if the clinicians offered a sound explanation. However, at the time of this research project, there was one other significant event that reduced the child's and the parents' social interactions and support groups even more severely.

4.5.2 Parental social isolation due to Covid-19 Alert changes

Parents have voiced concern that they all have experienced some degree of social isolation due to their child's mobility restriction. For some parents, this was made worse due to the Covid-19 lockdown and alert level changes. Being exposed to social isolation and movement restriction was highlighted by all parents, but especially so since the beginning of the Covid-19 pandemic lockdown and alert level changes. For instance, the interview of one parent took place during the last phase of discharge planning, and the parent (mum) had requested the interview be carried out in the hospital setting. However, from the time of admission until her son was going to be discharged, they were both in hospital for almost a month. This occurred when the whole of New Zealand was in Alert Level 3 lockdown. When the mother was asked if it was difficult to be away from the rest of her children (boys aged twelve and five years of age), and her husband and whanau members, she responded by saying that the only correspondence she had with them was through FaceTime from the day she and her son were dropped off at the emergency department. She stated:

My husband dropped us here before seven o clock on Thursday morning and then he left as he was unable to stay on with us. I am the only one here after the surgery and they aren't able to come and see him (Parent One).

During this phase of the interview session, the mother became emotional as she had not seen her two boys in person nor the rest of her family, due to being isolated in the hospital with restrictions on visitor entry into the hospital due to Covid-19 alert level changes.

Another parent reported that her daughter was diagnosed with SUFE and had surgery during the second lockdown in the region. Her husband and the rest of the children were not able to come into the hospital, however, separation from them was not a concern at all as they were able to video call, and they were discharged from the hospital three days following surgery. It was noted during the interview that the mother had reservations about bringing her daughter into hospital for surgery due to the Covid lockdown. She stated:

I was concerned to take my daughter into the hospital for surgery. I was afraid she would contact coronavirus, although the virus was contained at that stage. But, at the same time we were thinking that this must be done for her because the pain was getting worse (Parent Four).

Considering this statement, the mother's concern was valid, but she and her husband made the decision to seek medical attention to ensure the daughter received treatment and care in a timely manner. Having experienced SUFE previously, their daughter's safety and health was their primary focus, even though this was now obviously confounded by Covid-19 concerns. Other parents had similar issues, e.g., Parent Six had to remain in the hospital for four days following her child's surgery due to Covid-19 alert level changes and visitor restrictions. During this conversation, the son intervened and stated that whilst in hospital they were not able to have family members, visit which was hard and considering what they were going through, he felt more 'love' from having people around would have been good. Listening to the son who recognised the need for more love, it was clearly obvious that being isolated and not having close family members visit the hospital and at home due to Covid could have a significant psychological impact on the health and wellbeing of a child, including the parent/s. Hence, from the parents' descriptions at interviews, it was clear that the impact of isolation from the Covid-19 pandemic lockdown was huge. Being in the ward setting and at home following discharge during the lockdown period created barriers between the parents, child, and the whanau. Love, care, and affection with the greater family network were identified as missing during the alert level changes.

4.5 Conclusion

This chapter reveals the findings of the parents' data analysis. The parents of five children who underwent SUFE surgery, shared the experiences that they encountered on their journey during their children's hospitalisation, surgery, preparation for discharge and experiences of providing care at home following discharge. At times, the themes and subthemes identified using the interpretive methodology highlighted areas that are of concern. However, many of these concerns can be reasonably simply addressed to further enhance the work of the parents as primary carers as long as they are provided with adequate information, support, guidance and resources so they feel equipped and confident to care for their child in the hospital and crucially at home following discharge. It is evident from data that all parents were genuinely concerned for the health and wellbeing of their child and provided their insights on how the care can be improved to support future parents and caregivers. The next chapter will therefore discuss the nurses' interviews and their perceptions of their roles in caring for both children and parents following SUFE surgery.

Chapter 5 Nurses' perspectives

5.1 Introduction

As noted in the last chapter, the role of a nurse in caring, educating, supporting, coaching, and guiding parents from admission through to discharge is pivotal during the surgical journey of their child, following a SUFE injury. The main purpose of this research study was to explore the postoperative education and discharge needs of parents following their child's SUFE surgery, but to do so, it was considered highly useful to explore the central role of nurses in this undertaking. The following section therefore presents the nurses' perspectives.

From a researcher's perspective, interviewing nurses as participants provided a muchneeded platform from which to understand how parents are supported and prepared to care for their child following SUFE surgery. An understanding of the nurses' perspectives provides an insight on how the parents' and caregivers' needs were met or not, and what more can be improved as part of the postoperative and discharge planning needs to support future parents whose child presents with SUFE. Thus, during the nurses' interviews, key prompts involved asking the nurse participants how they supported the parents and caregivers during their child's hospitalisation because of SUFE injury. Furthermore, because these nurses work as part of a bigger team, the collaborative healthcare team's approach in addressing the needs of the child and parents in postoperative care was also discussed. Challenges that were encountered, and the support services offered to the parents and caregivers, including the education and preparation to make a safe transition of care into a home setting, were also explored. Themes and subthemes derived from the thematic data analysis of the nurse's interview data were then obtained using the interpretive description methodology.

Two main themes were identified in the nurses' interview data. Figure 3 below outlines these themes and their subthemes. The first theme is about how nurses navigated parental needs. This included engaging with parents and offering reassurance, dealing with parents' emotional distress, assessing the level of parental understanding of their child's rehabilitation, and responding to challenges in discharge information delivery and language

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barrier difficulties. The second theme, "Collaborating with professional colleagues", shows how nurses worked with colleagues to support parental needs. This included the collaborative approach with other healthcare teams in supporting parental education and discharge needs and examining the care or clinical pathway in improving the delivery of care is discussed.

Figure 3:

Nurses' themes and subthemes

Theme 1: Navigating parental needs

- Engaging with parents and offering reassurance
- Dealing with parental emotional distress caused by pain
- Assessing the level of parental understanding and responding to language challenges
- Responding to parental understanding of the child's rehabilitation
- Discharge information delivery

Theme 2: Collaborating with professional colleagues

- Negotiating the care and clinical pathway
- Working within the professional team

5.2 Theme 1: Navigating parental needs

This main theme revolves around the exploration of the postoperative journey for parents and the experiences of nurses as they interacted with parents. Nursing involvements with the parents of the admitted child commenced immediately at the admission procedure, where parents had needs that required consideration and to be included in the care provided by the healthcare team. This is because the role of parents or caregivers following a child's SUFE surgery is highly significant as primary caregivers to ensure that the parents are well equipped to support the child whilst in hospital and when the transition of care is made into a home setting. This aspect of nurse-parent interactions will be covered in greater detail later, but in the initial phase, the nurses' roles concentrated on identifying and responding to the parent's immediate needs, i.e., they needed to engage with parents and offer reassurance. This began from the point of admission. The nurse participants also maintained that they had to manage any emotional distress amongst parents, how to respond to parental understanding in the child's rehabilitation, how to assess the level of parental understanding on postoperative discharge information, and how to overcome challenges in language barrier difficulties and discharge information delivery. These four commonly seen findings are now discussed as subthemes.

5.2.1 Engaging with parents and offering reassurance

Nursing engagement with parents commences at the point of admission and continues until the child is discharged from the hospital. Engaging with parents and offering reassurance was identified in the data supplied by the nurses' interview sessions as being of considerable significance. This is because nurses commonly regard the establishment of a therapeutic relationship with the child and their parents as the key to ensuring good therapeutic outcomes. Establishing a relationship with the child and their parents is the key to ensuring therapeutic outcomes.

The nurses' role in engaging effectively with the parents and including them in their child's individualised care plan was therefore seen as imperative. For instance, engaging adequately with the parents ensured that they were active participants in their child's care, and were educated, informed, and prepared appropriately during the hospitalisation of their child because of SUFE injury. Reassurance was required when parents showed reluctance of their child undergoing surgery. Hence, the nurses maintained that they encouraged adequate communication with the parents and the child in preparation for surgery. One of the registered nurses (RNs) commented that although parents probably required a lot of reassurance in preparation for surgery, some parents seemed less concerned about the surgery, but more concerned about later stages:

I normally just reassure, give lots of reassurance that they are going to be okay. I know you are supposed to say, "we have done this many times", but to be honest, I haven't really seen a lot of parents distressed with going up to theatre for SUFES. It's more the fact that they are going to be able to walk again at some point and that this is what they need to have. There are some families who are very against surgery,

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and they don't want to have it, so that can be a huge difficult task to try and get them to understand that they need to have the surgery because they physically cannot walk (RN2).

Another nurse indicated that the period where the most reassurance is required is preoperatively, prior to the child going for surgery. She stated:

With the parents, I suppose it's the preop period that we have with them when reassurance is required. It could be a full SUFE that they have to have the osteotomy done or it could be just a pinning. So, I guess it depends on the extent of the surgery that they (child) are having. We prepare them for theatre (child) and obviously the parents are or should be aware of what's happening through the doctors most of the time and we update them as much as we can (RN3).

Here it may be seen that although the nurse participant recognises the need for a considerable amount of reassurance for the parents, she also notes that this reassurance is sometimes not as simple as it may seem because it can be complicated by the parental resistance to the surgery, i.e., "a huge difficult task".

Yet, it was often the case that even greater parental reassurance was needed not before, but after the surgery had been performed. The nurses identified that following the surgical intervention, the parent's required ongoing support and reassurance in the management of their child's care. This was especially needed when the child was on strict bed restrictions, experiencing pain on mobilisation and learning weight-bearing and non-weight bearing techniques with the safe use of crutches. Nurses identified that pain and discomfort after SUFE surgery were common and expected and that this aspect obviously caused some parents further anxiety or concern. Hence, the role of nurses in managing pain relief for a child who has had SUFE surgery was seen as critical. Nurses, therefore, spent time ensuring that analgesia was appropriately administered to reduce pain and to support parents anxious at witnessing their child experiencing discomfort and pain, especially when mobilising. One of the nurses commented that, in his experience, the parental reassurance, support and negotiation of the child's care is most required following Dunn's procedure. This is because following a Dunn's procedure; children are often in a great deal of pain. He maintained:

In terms of Dunn's, I would say there would be a lot more pain involved, a lot more difficult to turn and having that consistent and parents becoming more anxious about the pain, not wanting us to turn, but then having to educate them a bit more about pressure area cares and then trying to negotiate certain things... (RN5).

The above statement clearly highlights that the before surgery preparation is slightly different for the parents of children having just the orthopaedic pins as opposed to the Dunn's because the pain issue is not so much a concern for a child who has had only a pinning fixation. However, the option for pinning fixation only versus Dunn's procedure (which includes osteotomy of the hip bone, plus pinning fixation) is not known by the nurses until after the child returns from the operating theatre.

Nevertheless, this nurse participant also reported how he engaged, communicated, explained, and reassured parents on the analgesic regime when he witnessed parents getting distressed seeing their child in pain. He stated:

I just try to reassure them as much as possible; [I] try to just let them know that we know that their child is going to be in pain. It is not a lie and just being upfront and honest, but then also telling them about how we plan to manage this pain, usually that we should have morphine. We pretty much lay out the meds in front of them and tell them this is what we are going to plan to do (RN5).

The nurses' statement above highlights the significant role a nurse plays in reassuring parents and supporting pain management in a child following SUFE surgery. A clear explanation of options with different analgesic medications provides parents with reassurance that their child's pain will be managed. Yet another participant nurse commented on how she engages with the parents to reassure them that their child's pain will be managed. She reported:

I just try to obviously explain why they(child) are in pain and that we will first and foremost give them pain relief, that we will call the doctor and see if there's maybe anything else we can do, get a PCA (Patient-controlled analgesia) pump sorted. I suppose l'm just reassuring them (RN 3).

This nurse demonstrated skills in engaging, communicating, and supporting and providing reassurance to parents. This initiates a positive nurse, child, and parent relationship for ongoing care management.

To conclude this important sub-theme, it seems that parental reassurance during a child's hospitalisation and surgical journey is dependent on how effectively the healthcare professionals, especially nurses in a ward setting, can work effectively with the parents. The nurses' ability in caring for a child, and reassuring the parents of the child, therefore clearly influences how the parents cope with the situation.

5.2.2 Dealing with parental emotional distress

The nurses in this study talked about dealing with the parents' emotional distress as a significant factor in the post-operative phase. From the nurses' perspectives in the transcripts, parents mostly displayed increased emotional distress in the period following surgery. The role of nurses was therefore seen by the participants as a pivotal one in supporting and working in partnership and collaboration with the parents when they are faced with emotional distress following their child's SUFE surgery. As previously indicated, postoperative pain for children can be a major cause of concern for the nurses as well as the parents because any nursing actions that might seem to increase the child's pain is perceived as a major cause of ongoing distress for the parents. As one participant noted:

I think what can be overwhelming is when they first come back from surgery, especially with our Dunn's osteotomy, because they come back with a catheter and an epidural. That requires two-hourly observation, four hourly turns and then when we stop the epidural and they become in a lot more pain, that can be quite hard to deal with, because the family are so used to them being relaxed and not in pain and then all of a sudden, you stop this (RN2).

Here, it is made clear that the nurse feels uneasy about any action that may appear to the parents at least to be one that temporarily increases the child's pain rather than decreasing it. Thus, a nurse may be concerned by any practice that increases any distress for either the child patient or their parent/s.

Similarly, another participant offered the following observation about the difficulties in managing nursing care among children who undergo Dunn's procedure as part of SUFE surgery. She reported:

I can tell you right now, their pain. Some come back, depending on the type of surgery, a pinning and all that's fine, but if it's an osteotomy some come back with Patient Controlled Analgesia (PCA) and some don't. The ones that don't, they can be in so much pain and the parents are so frustrated, because they are like, I thought they were going to have a PCA. We are trying to turn them, and they have had this massive surgery on their hip. Then, we have to move them onto an air mattress and then we have to put them on a bed pan. That's all really sore for them and we are trying to give all this morphine and the parents get pretty distressed (RN3).

Once again, any action that adds to the child's distress adds it to that of the parents, thus increasing their anxiety levels. Clearly, the nurse participants' statements above indicate inconsistency with pain management options prescribed for postoperative SUFE patients which impacts significantly on parental anxiety and emotional distress. However, as one of the nurses commented, there are additional options when managing emotional distress amongst parents. The organisation also has a support service, identified as the Psyche Consultant Liaison Team (PCLT), which offers support to the parents to alleviate their anxiety levels and emotional distress. The inclusion of this service is based on the consent of the parents and referrals are made accordingly. The participant stated:

We can offer our PCLT (Psyche consultant liaison team). They could come in and discuss or if they are more concerned with other things maybe a social worker. Otherwise, cultural support is available as well, but we do not tend to use them very often. It's more PCLT and social work (RN1).

In the above statement, it is indicative that nurse's ability to assess the parents' anxiety and distress levels and make a call for integration of specialist support ensures they are working in the best interest of the parents to provide additional help, but note also the comment concerning the underuse of 'cultural support'.

From the excerpts provided by the nurses, and following a full analysis of the given data, it is indicative in this subtheme that analgesic options following Dunn's osteotomy procedure as part of SUFE surgery urgently needs reviewing. Dunn's osteotomy being an extensive procedure, requires appropriate analgesic prescriptions to allow the ward nurses to manage the pain levels appropriately amongst children who have had SUFE surgery. If a child's pain level is managed appropriately, emotional distress amongst parents would then hopefully be of lesser concern. In any event, it became quite apparent when analysing the nurses' data that the parental understanding of the nurses' actions was of considerable importance.

5.2.3 Assessing the level of parental understanding and responding to language challenges

An analysis of the data gathered by the nurses' interviews revealed that all participants shared some concerns about parental understanding of what had happened to their child, and what to expect next, and in the future. It became clear that assessing the understanding of the parents ensured that the nurses (and other healthcare professionals within the multidisciplinary team) could modify their approach in meeting the targeted needs of parents and the child to reflect the concept for quality patient care. The nurse participants talked about how they ensured the information offered to the parents was understood by them. Once the information regarding safe management in the postoperative care period, including immediate rehabilitation needs and later, was shared with the parents, all the nurse participants felt they needed confirmation that the parents had understood the information provided. Hence, they incorporated the technique of getting the parents to repeat information back. It was maintained by some of the participants that the inclusion of this technique enhanced nursing practice, highlighting that they were supporting health literacy, patient advocacy and the NZ Code of Health and Disability Services Consumers' Rights (1996). Asking the parents to repeat the information that was provided to them was therefore seen as an imperative by one of the participants. She stated:

I like to ask if they can explain it back to me. If they can explain it back to me, then obviously they have been able to process it and understand what the plan is, in their own words (RN1).

Hence, it seems that it is a common practice for nurses in this area of nursing to spend a considerable amount of time ensuring that parents (who are quite often those where English is a second language) have understood what is required for their child's ongoing

welfare. Moreover, one of the participants mentioned that knowing the parents have understood the information provided to them reassures her that the discharge information provided will be best utilised by the parents to safely manage their child's rehabilitative care at home, where of course the parents are responsible for the child's continuing rehabilitation. She reported:

By them repeating to me and telling me what they understand. I always go through the discharge planning with them, or the doctors do it. Today, I went over the discharge papers with a particular family and said that his for three weeks of nonweight bear and then after three weeks, he can go to touch weight-bear (RN2).

This emphasis on the child's later care and rehabilitation needs, i.e., after discharge, is clearly regarded by this participant at least as being of paramount importance during the time that the child and parent/s are on the ward. This was reflected in other interviews where it was clear that the nurses interviewed were assessing the parent's level of understanding to ensure they were informed and felt safe enough in the transition of their child's care from the hospital setting to the home setting.

The nurses were asked to further explain any challenges that they encountered whilst providing education to parents as part of the discharge planning phase of care. All five nurse participants stated that parents who did not have English as their first language struggled with understanding all the information shared. The nurses reported that in their observations, parents from different Pacific backgrounds encountered language barriers the most and this impacted their effective engagement with the multi-disciplinary team. Other participants identified language barriers as a major challenge not only in their nurse-parent interaction, but also with the wider multi-disciplinary team.

The use of interpreters has been widely discussed as an enabling factor; however, they also mentioned that getting an interpreter had proven to be a challenge at times when the hospital interpreters were booked for other services. The hospital interpreters where this research study is based are normally booked on an hourly basis only, thus making more comprehensive communications more difficult to achieve. Furthermore, as one of the participants indicated, the challenges she faced in getting an interpreter was dependent on

the language that the parents spoke and engaging all the MDT to be present at the same time when the interpreter was available also needed planning and organising. She stated:

Getting an interpreter can be quite tricky sometimes, depending on what language they have. Say, if you have booked an interpreter for the doctors for the ward rounds and then it's making sure we need to get in there quickly, so that we can actually talk to them as well, so they do understand what the plan is. Maybe you want the physio to be in there as well, so that's probably the hardest thing (RN 1).

Similarly, another participant indicated that following the confirmation of an interpreter, they work in collaboration with MDT to ensure all parties are involved within the hour that the interpreter is on the ward to support the parents with interpretation and translation. She reported:

Interpreting, we get an interpreter and once you have that interpreter, you try and do everything you can with that one hour that they're there. We always try and get an interpreter for doctors' rounds, for physios' education and for our education (RN2).

This reveals the strengths of the careful uses of an interpreter to ensure that good communication is maintained. Another participant even discussed the importance of including the interpreters in the model of care to ensure the information shared with parents are understood appropriately, thereby reinforcing the notion that such people are essential in this situation. She stated: *"So, I believe sometimes they don't actually understand what's going on. We get interpreters, but that is not as easy as it is"* (RN3). Furthermore, another participant identified time being the essence in ensuring all MDT can work in partnership during the time the interpreter is present on the ward to support the parents. She stated: *"It depends on how bad the language is. We tend to use interpreters a lot here. We try to do a time that's good for the doctors, the physios and us as well"* (RN 2).

In the statements above, the nurses clearly highlighted that the language barrier impacts significantly on the delivery of care in supporting the parents whose child has had SUFE surgery. Using the interpreters to communicate with the parents facilitates their understanding and ensures they are appropriately equipped with information to care for their child whilst in hospital and when they get discharged home.

To conclude this important subtheme, assessing the level of parental understanding is essential to ensure they understand the information that is being offered to them as part of their child's care. The inclusion of professional interpreters where a language barrier is experienced, allows nurses and other healthcare professionals to create a medium of communication with the parents. This allows both parties to communicate in a manner that ensures the parents are getting the relevant information to support the child's care. However, another highly important challenge to a child's full recovery concerns the longerterm understandings of the parents, i.e., when the child goes home. This is therefore a related but separate issue.

5.2.4 Responding to parental understanding of the child's rehabilitation

The sub-theme: 'Responding to parental understanding of the child's rehabilitation' following SUFE surgery strongly emerged from the nurses' interviews. Parents have a significant role and responsibility in managing and supporting the care of their child during hospitalisation and most certainly when they are discharged home. The active involvement and integration of the parents in the daily care of their child therefore determines how well they are educated and informed to provide the best care at home upon discharge. All five nurses who were interviewed mentioned the importance of fostering parents' understanding to ensure they have the knowledge and information to safely care for their child.

One of the nurses commented on how she found the parental knowledge to be in relation to the SUFE condition that the child presented with when admitted onto the ward. She reported:

From what I have noticed, they don't seem to be extremely concerned. I feel like they do understand what they have come in with. A lot of the time, I don't think they are supposed to be doing it or not, but I know some of the doctors will show them x-rays, explain to them what's wrong with the child and what they are going to do to fix it. The majority of the parents don't really ask us that many questions. If you ask them if they are happy with the plan, they understand what's going on; they seem to know (RN1).

From the above statement, it is indicative that some parents at least do not ask questions and appear to trust the health professionals that the information provided is adequate, but often the degree of the parents' understanding is not really known. Considering the majority of the parents interviewed were from the Pacific population, it has been generally observed that people from the Pacific communities are very trusting of the healthcare professionals and do not question as much about their healthcare. This is viewed as the cultural norm of showing respect, but it therefore presents the possibility that in fact, the parents do not fully comprehend what is required of them in the future. Hence, as another participant maintained, regardless of whether the parents seemed to understand or not, she found it necessary to emphasise the need to often repeat already delivered information. She reported:

I usually ask them if everything's okay. I guess sometimes you just have to keep repeating everything, especially on discharge. You tell them before they get their papers and then with their papers, you go in, and you explain it all again. Usually I do whole, and ask, do you understand? Are there any questions? (RN4).

Similarly, another nurse, when asked what she felt that the parents required in terms of their understanding with information in relation to their child's care following SUFE surgery, answered:

I think it's more understanding the fact that they (child) have to be on bed rest for so long. I think most people don't understand that that's a big part of the post op healing stage and that its three weeks in bed in hospital, not going home on bed rest. I think that's a big that that shocks a lot of people, but if it's just like a SUFE which involves pinning, that's different, because then they just come in, but it's all about the weight bear status that confuses a lot of families. If you try and tell a ten-yearold, what's a touch weight bear? do you know how to touch weight bear? No one knows what 'touch weight bear' is. I think that throws a lot of families (RN2). Thus, it may be seen that it is not only commonly used English terms and idioms that may be misunderstood by the parents (especially those whose English is a second language), but clearly several medical terms too. For instance, it is clearly indicative from the nurses that the critical importance of parents on understanding the "weight-bearing" and "non-weight bearing" status was amongst one of the key postoperative care plan goals as part of the restrictive mobilisation plan. It is therefore highly likely that this problem may well be confounded for parents for whom English is a second language.

This subtheme highlights the importance of parental understanding of the information pertaining to the care of their child following SUFE surgery. Having the knowledge about their child's care provides parents with the confidence to remain focused to support their child. However, as maintained earlier, the difficult aspect of nursing care and communication in cases involving SUFE surgery among children is to be found in the vitally important aftercare and ongoing rehabilitation at home that is to be offered not by the nurses, but by the parents.

5.2.5 Discharge information delivery

When a child is discharged following SUFE surgery, their rehabilitation phase of care is predominantly supported by their parents or caregivers in their home environment. Yet parental preparedness and readiness for discharge are only possible if parents are actively involved and are working alongside the health care professionals to be fully informed about their child's future care requirements. For the parents to care for their child, they must be educated with relevant post-operative discharge information and equipped with resources to safely manage their child's care at home. For them to achieve this, their presence with the child and involvement in bedside care is imperative. Yet analysis of the data gathered by the nurses' interviews revealed that there were moments when some parents were always not available during their child's hospitalisation to ensure they were educated and provided with all relevant information to assist in the caring of their child at home after discharge. As one of the nurse participants noted:

We have just had a twelve-year-old, who I have just sent home and he barely had a caregiver. Sometimes his cousin came in, sometimes his brother came in. the parents were his to pick him up today and that's the first I have seen them. Some families

really struggle. They can't get work off, so you just do what you can for the family to help them through their surgery process (RN2).

This problem, i.e., that of the scarcity of adequate support from the parents for a variety of often valid reasons, is therefore an issue for nurses looking after the child, who desire to prepare parents for home care after discharge. The absence of parents therefore impacts the appropriate delivery of information for discharge as well as their lack of understanding of how to manage their child's care at home. This then raises the question of how health care professionals, particularly nurses, ensure the information is provided to the parents.

Another nurse participant maintained (when asked about parental presence, with the child throughout the hospitalisation following surgery) that some parents simply could not stay on the ward with their child for long periods but did then rely on other (extended) family members: "...sometimes they are [the child] here for so long that the parents have to go home and look after the other kids. They may not be able to stay every night and then there's other family members that will come and stay" (RN3). With the inclusion of other family members in the child's care, the nurse was asked whether she had to provide additional education to them. She responded that the education is delivered to the child and whoever else is present:

Sometimes, it depends how involved they are or look, but a lot of the time, we don't, and it's just the basic things that we'll remind them. Make sure they are staying in their bed or make sure they are using their crutches and that sort of things, but I guess they are really all given the same education (RN3).

Furthermore, in relation to parental involvement during hospitalisation and the discharge preparation phase of care, there is receiving education and information on managing the care of their child. One of the nurse participants shared his opinion on the input of parents' involvement when asked if Mum, Dad, or both were actively involved in the child's care. He reported:

Mum, Dad, or both, it's case by case. It depends on who's the main caregiver. To think off the top of my head and the people that I have seen, it's always Mum that tends to be there. For the working families, usually the men that are at work and Mums in the hospital (RN5). From the above statements, it may be seen that parents obviously attempt to be with their child in the hospital ward, and it is often the mother who seems to fulfil this role. However, other parents are often forced to compromise, often sending other family members along instead. They may present difficulties for nurses if and when they wish to communicate important information to the parents.

To conclude, theme one presents the nurses' perspectives on key aspects that matter whilst navigating parental needs through their child's hospitalisation and discharge phase of care. The hospitalisation of children requires the establishment of engagement, involvement and communication with the parents, including the provision of appropriate information to support the child's care. The next theme will explore how the healthcare professionals worked collaboratively with other colleagues to support the parents to care for their child following SUFE surgery.

5.3 Theme 2: Collaborating with professional colleagues

The second major theme that emerged from the analysis of nurses' perspectives was: "Collaborating with professional colleagues". In a hospital setting, the care of all patients is navigated through a collaborative team approach which involves the inclusion of healthcare professionals from various disciplines. In relation to the care of a child who has had SUFE surgery, the multi-disciplinary team (MDT) approach included orthopaedic clinicians, nurses, occupational therapists, physiotherapists, social workers and play specialists. The roles of every healthcare professional were considered pivotal in ensuring the contribution they make in a child's rehabilitation phase of care ensures the parents are supported and educated on how to provide safe and optimal care at home after discharge. As suggested earlier, the role of nurses is equally important to lead, liaise and collaborate with the MDT to ensure an appropriate level of care is incorporated in the postoperative and discharge phase. This enables the parents (as the child's primary care) to be prepared and as confident as possible in executing care at home without too many difficulties. Hence, team collaboration is dependent on having a focused team approach to ensure parents are well educated and their discharge needs are met accordingly. Two subthemes emerged that contribute to "collaborating with professional colleagues". These include negotiating the care and clinical pathway and working within the professional team.

5.3.1 Negotiating the care and clinical pathway

The participant nurses identified care processes and the clinical pathway as an area that affected both the children's and parents' experience following SUFE surgery, and interestingly, they also highlighted certain differences in the nurses' roles within that pathway (see next sub-theme). The common care processes and clinical pathway involves the admission of the child onto the paediatric surgical ward via the emergency department, preparation for surgery, surgical intervention, post-surgery care, preparation of the rehabilitation phase of care, the inclusion of different healthcare professionals to assist with rehabilitation, daily review by the orthopaedic surgical team, daily review of the plan of care, discharge planning preparation and education, discharge clearance by a different MDT, discharge from hospital and continuation of rehabilitation at home. Post discharge, the ongoing continuity of care is maintained and monitored by the orthopaedic team through outpatient clinic follow ups.

However, one theme tended to reoccur again and again during the interviews, namely that nurses identified care processes that were not standardised practice in managing the care of a child following SUFE surgery. These commentaries tended to emerge in various ways in all the interviews, and this issue is certainly not unknown in surgical areas, i.e., where different types of aftercare are required that are not necessarily following any standard plan but do sometimes follow surgeons' various instructions (see next chapter for further discussion). For instance, nurses mentioned that there was no protocol, checklist, or specific discharge planning guide in terms of the specific care regime for a child who undergoes pinning versus Dunn's osteotomy for SUFE surgery. One of the participants identified this as an improvement requirement from the organisation or the orthopaedic service. She reported: *"I reckon we should have a SUFE guideline, a Dunn's osteotomy guideline, and you should also have a discharge planning checklist "*(RN2). These requirements seem obvious ones perhaps, and it was surprising to find that no such guidelines or checklists were in common use in the ward.

Similarly, another participant also highlighted the need to have a checklist as an additional tool in supporting the parents to be actively involved and to be engaged in managing their child's care discharge. She stated:

If we follow a guideline, I think that would be amazing, if we had some set tasks and different points that we have to discuss with them, to make sure they understand before they are discharged. That would probably be a great support to have (RN1).

Yet another participant shared her perspective on the need for guidelines and a checklist for improving the level of care offered to SUFE patients and their families, particularly the parents. She suggested:

It would definitely be helpful and good if there was some sort of checklist or plan around SUFE with pinning and Dunn's osteotomies. I know all of the surgeries are different, but maybe if it was clearly written, like the bed rest that they need, and then that can be ticked off that bed rest is done, now they need physiotherapist input. ...Then, we can also tell the parents and the child, because the child gets confused a lot of the time as well...We don't actually have that clear information (RN3).

The above statement highlights the importance and significance of having either very clear instructions or a written checklist or guide to provide a plan for nurses to manage the care of the child appropriately and safely. A written checklist would ensure the postoperative care plan for pinning fixation and Dunn's osteotomy is followed as per any agreed protocol. This would ensure nurses cover all key points to facilitate the recovery and provide education to parents, so they have an understanding of how they can actively participate and support care at home for successful recovery. Yet another participant talked about clear guidelines and discharge care plans as an adjunct for a cohesive team approach in managing the care of a SUFE patient and supporting the parents. She suggested:

I think having a clear guideline and maybe a discharge care plan would be good for specific type of patients, like our SUFE pinning's and Dunn osteotomy, that we can check off and say, we have done this education, do they understand? (RN4).

Clearly, differences in postoperative care plans existed between different clinicians and healthcare teams must follow them as per the individualised care plan, but this often proves challenging for them in supporting the most appropriate care plan. This also was challenging for parents to understand, support and follow to support the health care team to care for their child.

Considering that many parents experienced language barriers as one of the challenges during hospitalisation, the nurses were asked if there was written information in different languages as part of the discharge planning, which explained some of the key discharge points that the parents needed to follow. The nurses mentioned that the only educational tool available was a pamphlet on SUFE which was written in English and was not appropriate for parents or caregivers who experienced language difficulties. One of the participants commented that having the pamphlet in different languages would provide parents and caregivers with a reference guide to refer to as required for clarity, especially when they were discharged and at home. He stated:

It's always good to have something in writing, so that people can refer to, whether they look at it or not, at least you know it's there and that if you go through it with somebody, at least they have got something to go back to or if they have got any questions or doubts, they are at home (RN5).

As noted earlier in the chapter, the involvement of interpreters has been instrumental in providing a medium to engage with the parents. Hence, having information in different languages on SUFE and the care required after surgery and beyond, could be utilised by the interpreters to read, discuss, and help the parents and caregivers understand what is required and involved in managing care following SUFE surgery. Moreover, the value of written guidelines, pamphlets or brochures adds a significant resource tool both at the hospital and even more importantly at home when parents are alone caring for their child.

Similarly, another participant discussed the importance of having pamphlets in English and in other languages. However, in future, they felt that the parents should be given the option to choose the pamphlet in the language they preferred to ensure cultural sensitivity is maintained. However, she suggested that this may not always be as simple as it first seems: "...some person from the organisation has gone in and started speaking in their language and they got quite offended and they are like, do you not think we speak English properly?" (RN4).

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The statement above highlights the importance of cultural awareness and respecting the cultural identity of different ethnic populations and practicing in a manner that is considered acceptable and safe by the patients, in particular parents in relation to SUFE care. Considering the essence of cultural safety, especially when the majority of children presented with SUFE are from Māori and Pacific cultural backgrounds, it is imperative to address needs related to access and the use of appropriate resources to support their care.

Furthermore, most of the nurses had also highlighted, as part of discharge information, the importance of health education pertaining to a healthy eating lifestyle and weight loss. Nurses suggested a focused approach was required to address the significant risk factor for SUFE identified as obesity. Consequently, complications and risk of screw displacement in the operative hip and SUFE in the unaffected hip can occur. As highlighted in the literature review, obesity is prevalent amongst children from Pacific and Māori communities, and they are overrepresented in SUFE statistics to have the highest rate in NZ and the DHB where this study is based. Hence, parental education around preventive measures with weight loss and healthy options for their diet is considered by nurses as an area that needs further development and inclusion within the discharge plan. One of the participants, when asked if she discussed with parents during the discharge planning phase of care, their thoughts on reducing their child's weight and healthy options for diet. She commented: *"I think sometimes, it is touched on, but we probably don't educate around that as much as we should, so not a huge amount... I think that's probably something that we should be doing more of (RN1).*

Another participant agreed about incorporating education around weight loss and healthy eating but had faced challenges at times. These challenges may arise from both children, and sometimes from parents, i.e., "We had a girl recently; she was thirteen and she weighed 130 kilograms. You could give her hospital food, you could give her healthy food, and she would throw the biggest tantrum until she got what she wanted..." (RN2). The nurse participant further commented that parents also faced challenges in getting the child to eat healthy whilst in hospital but struggled. She reported that "...parents when they are in hospital are already upset that they are in here. They just give them what they want" (RN2). From this statement, it is obvious that nurses face a tremendous task of educating around healthy eating and weight loss, and it is a challenge that probably cannot be won alone in the hospital setting. Nurses can educate the parents and offer a wealth of information on a healthy eating diet and include a dietitian if the parents need additional support, but it is only the parents who can really change the eating habits of the child and maintain continuity at home.

However, regarding a set plan or policy, one of the participants commented that he does include healthy eating choices in his nurse-parent engagement; although he feels that it is not ingrained within the discharge planning preparation:

Most of the kids with SUFEs are overweight; I do try and touch on the healthy eating. I suppose I don't go in depth with health eating practices. I know we have in the past, tried to refer everyone to dietitian, but I don't think they believe it's under their scope (RN5).

He also mentioned that he felt the parents understood weight being a risk factor for SUFE presentation, but their commitment to and engagement with healthy food choices may lapse after a while. This is because they tend to provide food choices that are convenient and preferred by the child. This highlights a significant issue that a healthy eating lifestyle can only be achieved if the entire family is focussed and engaged. The parents' efforts alone will not be sufficient in implementing healthy eating choices for the children who present with SUFE as a result of their high BMI.

From the excerpts provided by the nurses, and following a full analysis of the given data, it is indicative that parental education on aspects of care pertaining to postoperative and discharge needs is dependent on a collaborative, cohesive healthcare professional team approach. However, there is also the need for standardising processes of care that will support the parents further and the health care professional team to improve the delivery of care received by a child who has had SUFE hip injury and surgery.

In this theme, the collaborative professional team approach is discussed on how postoperative care and discharge planning is undertaken to provide individualised care to the child and the parents. Nurses also provided their perspective on how the care of clinical pathways can be improved to support the care of future children who experience SUFE and their parents as primary caregivers. However, for the nurse participants, it became apparent

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in the interviews and subsequent analysis of data that when offering care to SUFE children and their parents, it was of equal, if not greater importance to them, that they worked effectively within 'the professional team.'

5.3.2 Working within the professional team

The nurse participants generally confirmed that within the healthcare professional team, nurses are considered an integral link as leaders in providing patient care and taking leadership in demonstrating effective nursing care. The nurses use their clinical leadership skills at the bedside to provide, facilitate and promote the best possible care of a SUFE child and their parents. The nurses collaborate with the physiotherapist, occupational therapist, medical teams, social worker, dieticians, pharmacists, and acute pain service through face-to-face discussions, referrals, phone calls, implementing a daily care plan, established by following surgical ward rounds and reading progress update clinical notes from the MDT.

Managing the care of the SUFE child and supporting measures with the parents requires a team-based approach to ensure all MDTs were delivering postoperative and discharge information with consistency, continuity, and coordination. Each healthcare professional was responsible for contributing towards the care of the SUFE child and providing necessary information, enabling the transition of care from the hospital setting to the home setting upon discharge. However, it was the nurses who were co-ordinating this process.

One of the nurse participants commented that mobilisation was a key discharge need and an area of focus for education which involved the parents and the child supported by the physiotherapist and the occupational therapist. She stated:

Physios and Occupational therapist do a lot of discharge education with the SUFE patients. We do not do as much as them. It is mainly just getting up, pain relief, especially some of them have been on bed rest for three weeks, and they have been up for one day and then they are going home, so using all of that (RN3).

The above statement from this nurse participant indicates that the physiotherapist and occupational therapist are doing much of the rehabilitation (and later discharge) education in relation to SUFE. However, as previously indicated, the role of the nurses is important in ensuring they are providing a more holistic approach in which the child and the parents are

kept informed, comfortable, and as free from any additional stress as possible to remain engaged in the rehabilitation phase of care.

Another nurse stated that in terms of the parents understanding touch weight-bear and non-weight bear, physiotherapists have a key role in ensuring the parents and the child can fully understand the difference through physical demonstration with the use of crutches and giving a thorough one-to-one consultation until the parents and child has grasped the message. She stated:

I think the biggest education need is the weight-bear status, so whether they are touch weight bear or non-weight bear. Physios normally go over that, but I think it's more the fact that they understand what one is because quite often, they get confused with the touch weight-bear and non-weight bear (RN2).

This confusion is quite understandable, and the difficulties in enabling the parents to fully understand the differences between these commonly used orthopaedic terms is now obvious. However, the above quote suggests that nurses may not always be a part of this procedure, and this may therefore be an issue in overall parental guidance and reassurance. Yet, the same nurse participant also stated that the physiotherapist's assessment on mobilisation is essential and required prior to the child getting discharged home. She highlighted:

The physios prepare, and they do a one-to-one, so they [the child patients] have to be what we call cleared by physio. They have to be able to use crutches safely, they have to be able to do what the doctors want, whether it's non-weight bear or touch weight bear, and they also have to use stairs. You have to be successful in using stairs on the crutches safely (RN2).

Moreover, from a nursing perspective, she mentioned that her role as a nurse was to support mobilisation, but not necessarily to lead the process, i.e., just to encourage it when possible. This split between the roles of the physiotherapist and the nurses is therefore of interest because it suggests at least that the coordinating role of the nurse is sometimes less than comprehensive. As the same participant noted:

With the whole mobility side of things, whereas we just encourage it when we see it, and we make sure that the family know that this is what's expected and what they need to do when they go home (RN2).

The above statement from the nurse indicates that following SUFE surgery, the role of the physiotherapist and occupational therapist is important and that nurses may sometimes mainly leave that to the physiotherapists (i.e., "we just encourage it when we see it"). Hence, the physiotherapists guide, coach and impart knowledge to the child and the parents with mobilisation, to ensure the child can achieve full functional capacity and the full range of motions with the operative limb, and postoperative complications are minimised, but the nurse's role can be a greater or a lesser one in this regard.

On the other hand, the role of the occupational therapist was noted by the participants to include liaising, assessing, assisting, and working with the parents, in ensuring the child can transition into the home setting in a safe manner. One of the nurses commented on how the occupational therapists meet the needs of the parents with the availability of appropriate equipment which facilitates mobility, independence, and rehabilitation. She reported: "A lot of the needs, I find for the parents, are more occupational therapy type things, so making sure they have got the right equipment for home" (RN1).

However, perhaps as important as the physiotherapists and occupational therapists was the role of the social worker. The nurse participants also talked at some lengths about the inclusion of social workers in the care of the SUFE child following surgery. The social workers engaged with the parents with the aim to minimise any negative impacts for parents of the hospitalised child and the recovery and rehabilitation time required. The role of hospital based social workers was to provide services in meeting the needs of parents and enhance social and emotional functioning through targeted interventions and co-ordination of services and resources to support the wellbeing of the child and the parents. One of the nurses highlighted the contribution that a social worker adds in supporting the parents and the caregivers to meet social needs in terms of financial assistance and other needs. He stated:

The social workers are usually pretty good, and they usually have a pretty in-depth assessment. You can see it through the note writing or the notes that they have taken

from them and directing them to whatever services are available to them at that point of time. There is a good social work support. It also depends on what the parents are eligible for at the same time. A lot of time, they end up just being directed to Work and Income New Zealand (WINZ) as well for support (RN5).

It may therefore be perceived that social worker are generally considered to be essential members of the MDT and are appreciated by the nurses and used extensively whilst the child patient is on the ward.

It can be concluded that a team-based approach with the inclusion of different healthcare professionals enabled a collaborative care approach for the child and their parents as primary caregivers. Different healthcare professionals played a central and critical role in meeting specific postoperative and discharge support needs to optimise health outcomes. In all of these instances, it was apparent that some nurses may have a greater or a lesser involvement in the professional team approach within the care and clinical pathway according to a variety of different factors.

5.4 Conclusion

This chapter reveals the findings of the study that focuses on five paediatric ward nurses' experiences of caring for children who have had SUFE surgery, and their families. From the nurses' perspective, the primary focus has been on understanding the parents' postoperative and discharge needs following SUFE surgery. The two main themes that emerged from the nurse's interview data analysis were navigating parental needs and collaborating with professional colleagues, both of which provided the platform for in depth discussion involving understanding the postoperative care and discharge needs of both child and parents. The nurses in this study, having gained experience from bedside nursing and working alongside the parents and the child (as the patient) provided their insights on how the delivery of care following SUFE surgery can be improved or standardised to support future parents and caregivers. Discussions on the findings in relation to this study are presented in the next chapter, including the limitations and recommendations for future research.

Chapter Six Discussion

6.1 Introduction

The findings of this interpretive descriptive study stems from interviews with parents of five children who underwent SUFE surgery, and five paediatric ward nurses caring for children and their families in the hospital ward. Hence, this study offers both parental and nursing perspectives of the journey for these parents following such an injury, the admission to hospital, the treatment period, preparation for discharge and the experiences of caring for these children once home. This is in alignment with the aims and objectives in this research study which were to explore parental and caregiver experiences and perceptions of parents whose child underwent SUFE surgery, to understand what their discharge needs were, how they were met, and what needed to be improved within the service delivery model. The nurses in this study provided a much-needed medium to understand how the parents coped with the child's hospitalisation from their SUFE injury, and what could be improved from their perspective to enhance a supportive and cohesive multidisciplinary planned approach to ongoing care and rehabilitation.

Because the available literature indicates the overrepresentation of SUFE amongst Māori and Pacific children, most of the parents who were recruited as participants in this research study were from these socio-cultural backgrounds. Arguably, within the New Zealand context, this study adds significant value in capturing the parents' experience in managing the care of their child following SUFE surgery. These findings, therefore, provide a better understanding of both the nurses' experiences of caring for children and their families, and the parents' experiences in the postoperative period, including discharge and rehabilitative phases of care.

This chapter will discuss the key findings and the significant issues that stood out from these findings and offer a contrasting picture of the key elements from both parental and nursing perspectives.

This chapter will also provide closure to the thesis by discussing implications for practice and offering recommendations for future work and research related activities.

6.2 Parents 'main themes

The first main parents' theme: *Being unprepared and overcome*, provided an insight into parents' experiences and journey from GPs clinics to the emergency department, and into a hospital environment. It involved engagement with various multidisciplinary teams and how the work of various members was appreciated by the parents when they communicated with them and managed their child's care and treatment. Subsequently, the parents provided their views on the contributions of different healthcare professionals in supporting the care of their child from admission through to discharge.

When treating any disease or injury in children, parents play a key role during the whole process of treatment; thus, their perceptions, beliefs, and behaviour patterns should be taken into consideration by health care staff (Sofu, et al., 2015). Indeed, one of the most important findings from the first theme is that the parents had expectations that they would be supported and reassured by the healthcare professionals, concerning **on** the specific care that their child would require pertaining to SUFE surgery.

In this study, it became obvious that considerable amounts of reassurance were needed by parents at the time of diagnosis and during hospitalisation, and in some cases, there remained a degree of emotional uncertainty and occasionally, even feelings of loneliness. That is, parents needed to be fully supported by healthcare professionals, including culturally to create a collaborative engagement between them which would facilitate positive interactions during all phases of care, and especially just before discharge. To achieve this, the orthopaedic clinicians sometimes simplified their communication, e.g., by describing SUFE as imagining an ice-cream falling off a cone. The parents found other examples like this to be helpful communication tools that provided them with visual references to more easily understand the SUFE condition.

As previously alluded to in Chapter Two, many of the parents whose children have had SUFE surgery were either from the Pacific or Māori populations, and so meeting the health literacy needs of this group was clearly essential in supporting their understanding to be actively involved in their children's care. As discussed in Chapter Two, health literacy plays a vital role in the ability of a caregiver to navigate the healthcare systems, understand and undertake a course of action to implement care plans (Unaka et al., 2017; Sa'u Lilo, Tautolo

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& Smith, 2020). Limited levels of literacy have a significant impact on the ability of health consumers to communicate and engage effectively with health care professionals (Sa'u Lilo, Tautolo & Smith, 2020). With SUFE prevalence observed as being highest amongst the Pacific population in New Zealand, it is the responsibility of health care professionals to ensure the relevant health information pertaining to the child's postoperative and discharge needs is delivered appropriately, comprehended, and understood (Sa'u Lilo, Tautolo & Smith, 2020), by the parents and caregivers prior to discharge. A New Zealand based study undertaken by Sa'u Lilo, Tautolo and Smith (2020) has confirmed that in order to support Pacific peoples to understand health messages, improve behaviours and health status, healthcare practitioners need to implement effective communication. This can only be achieved through a culturally and ethnic focused approach.

The second main theme was found to be: *Parents needing support*. The essence of this theme is acknowledging and accepting that parents in a hospital setting, who are supporting the care of their child, have needs that must be met for them to be comfortable and engaged in their child's care. One of the key findings in this study was parents identifying the need for more information in relation to the SUFE condition, surgical treatment, postoperative recovery, and ongoing care requirements following discharge. For example, a suggestion by some of the parents was made about the possibility of home visits or follow-up of care upon discharge by healthcare professionals such as a district nurse. This would provide parents with reassurance that they were supporting the rehabilitation phase of care and offer the opportunity for any further questions or challenges to be addressed.

The parents also highlighted the need to include appropriate exercise regime options in the discharge planning phase of care. They felt this would ensure the child was able to remain active whilst at home, especially while being on restrictive mobility. Moreover, the need for exercise regime options was identified by parents as a need, due to advice from the orthopaedic clinicians on the cessation of sporting activities for an unknown timeframe following SUFE surgery. As previously discussed in the literature review and reported in the findings from the parents' interviews, sporting injuries were one of the precipitating factors for the onset of SUFE injury (Peck et al., 2017; Phadnis et al., 2012).

Furthermore, parents also highlighted their interest in including a healthy eating plan within the discharge planning, considering that the child being overweight was explained to the parents as a risk factor for SUFE. In literature, obesity or being overweight has been implicated as a known risk factor for the development of SUFE (Perry et al., 2018; Teevale et al., 2015). As discussed previously in the literature, SUFE prevalence is identified to be highest amongst Māori and Pacific children (Navare, 2020) in New Zealand. Notably, the DHB where this study is based has the highest Māori and Pacific population domiciled within its geographical governance area and voluntary parental participant in this study was from these ethnic groups. Interestingly, childhood obesity is reported in research to be increasing within the Auckland region and is considered a concern for NZ Māori and Pacific Island children in comparison to NZ European children (Tyrell et al., 2001).

The third main theme: *Facing the unknown after discharge* discussed the challenges experienced by the parents upon discharge from the hospital. With the discharge of the child following SUFE surgery, the parental responsibility increased significantly from managing the care of the child to managing daily activities of life such as caring for other family members, employment and maintaining house chores. Discharge from an inpatient of greater social worker input hospital setting is therefore identified as a highly important transitional phase of care where responsibility from the inpatient healthcare team is transferred entirely to the patient, family, and the primary care physician (Ruth et al., 2011).

Yet, caring challenges identified by parents following discharge were often in relation to managing wound dressing care, i.e., a specific problem that required forethought rather than post-discharge consideration. In this regard, the parents felt they did not have the appropriate knowledge to care for dressings when wet or were given mixed messages from different healthcare professionals on when the dressing wound needed to be changed. Hence, the timing of dressing changes was identified as a pressing concern for the parents. Moreover, some parents also identified challenges with activities of daily living such as showering and toileting, considering the weight concerns of their child and the layout of their home proving challenging with restrictive mobility aided by the use of crutches. Financial sustainability was also raised as a challenge for single parents who were the sole care provider for their child following SUFE surgery and discharge, and this suggests greater involvement of social workers either before or after this stage.

The fourth main theme: *Responding to social needs*, relates to the challenges experienced by the parents in relation to the child's recovery restricted to their home environment with only progressive recovery and followup clinic appointments for reviews and assessments. A key concern raised by most parents in this theme was the socially orientated aspects of ongoing rehabilitation, e.g., the sporting restriction placed on their child for an unknown timeframe by the orthopaedic clinicians. The parents felt that the orthopaedic clinicians at discharge should have advised of alternative activity options to ensure the child remained active and had some degree of exercise. Hence, the parents highlighted that they understood the need to restrict sporting activities but felt a sound explanation was not offered and plans to maintain activity and fitness were not offered.

Furthermore, in this theme, social isolation for the parents and the child was highlighted. During this study, most parents who were interviewed had experienced some degree of social isolation, which was mostly in response to Covid-19 lockdowns and alert level changes. Recently published literature highlights that the Covid-19 pandemic has had a significant impact on the daily lives of humanity, considering the aim is to preserve individual health (Araujo et al., 2020; Jackson et al., 2021). Studies indicate that social restrictions, shutdowns, and school closures have a contributory factor in causing stress amongst parents and children, which could be detrimental to child growth and development (Araujo et al., 2020). A study published in 2021 looked at the adolescents' mental health and wellbeing during the Covid-19 pandemic with participation in outdoor activities (Jackson et al., 2021).

Results from this study highlighted that outdoor activity participation improves the adolescents' resilience from stressors impacted due to Covid-19 pandemic (Jackson et al., 2021). Furthermore, it is highlighted that with adults providing children with a constant feeling of security and affection through support and appropriate care, the child's body can return to physiological functioning in a more expedient period (Condon et al., 2019). Being confined to the hospital setting with visitor restrictions or home-bound and unable to engage with wider family members or whanau was deemed to have a significant psychological impact in this study. Love, care, and affection were considered an integral part of the health and wellbeing of the child and the parents. Additional care support was
raised as an important factor for consideration, especially for single parents during the discharge planning phase of care.

Lastly, a key finding which was significant in relation to this study was patient and whanau centred care. As previously discussed, SUFE is prevalent amongst the Maori and Pacific populations (Navarre, 2020) in New Zealand. Within these population groups, family involvement is considered an integral component during a child's hospitalisation, hence, the entire family is affected (Shields, Pratt & Hunter, 2006). The parental role as primary caregivers in a child's hospitalisation following SUFE injury and surgery required active involvement and participation in the transition of care from admission through to discharge.

A family-centred approach is considered an integral component in paediatric nursing, and it is essential that all aspects of the child and family experience of hospitalisation are included in the model of care (Shields, Pratt & Hunter, 2006). The inclusion of families and their participation in a child's care created a degree of normality in terms of routines of the child's life within the confinement of the hospital setting, thus reducing emotional stress experienced by the child (Hopia et al., 2005; Newton, 2000).

In respect of this study, the ability of healthcare professionals to work collaboratively with the patient being the child and the whanau being the parents, caregivers or the extended families ensured their input in the child's care was incorporated and valued. The patient and whanau centred care enabled a collaborative healthcare focused approach on meeting the needs, values, and desired outcomes of individuals and whanau at the same time according to dignity and respect, informed consent of information and opportunity to participate in care and decision making.

6.3 Nurses' themes (with references to key parental themes)

The first main nurse participant theme: *Navigating Parental Needs* defines the nurses' perspectives of their experiences, involvement, participation in care of a SUFE child, and support that they offered to their parents during hospitalisation. This includes from the time of admission of the child onto the ward preoperatively, postoperatively following surgical intervention, and until discharge planning needs are achieved and the child and parents are ready to make the transition of care into their home setting. Preoperatively, when the child is admitted onto the ward, the nurses' maintained that the parents required a lot of

reassurance, support and comfort in preparation for the child's surgery. Because SUFE was unknown and foreign for the parents and being told by the clinicians that surgical intervention was the only option for treatment, clearly raised parental anxiety and their needs for reassurance.

Anxiety is often experienced by parents when engaging and communicating with healthcare professionals and consulting about their children's health (Duggan & Petronio, 2009). This would be due to the fear of the unknown, a determinant factor when providing education of any substance to any patient or parent (Walker, 2002). It is strongly argued that parents' emotional states and high levels of anxiety due to fear of the unknown and uncertainty with surgery can limit their ability to process information, think and comprehend, as also maintained by (Walker, 2002). Parents have a critical role in their involvement in children's surgery and children are dependent on parents for support and guidance. Additionally, it was found that it is important to consider that the effectiveness of some parents in supporting their children can be compromised, considering their emotional involvement as a parent (Duggan & Petronio, 2009; Doupnik et al., 2017). The nurse participants also talked a great deal about heightened emotional distress displayed by the parents postoperatively on the ward, which was mainly due to pain experienced by the child, and which required the nurses to engage effectively with the parents to manage the child's pain experience. Literature highlights that inadequacy with pain management exists in many clinical settings (Matthews, 2011; Scarborough & Smith, 2018). The nurses also highlighted that the increased pain levels experienced by the children following surgery were mostly due to Dunn's procedure, which is a more extensive surgery option as opposed to pinning fixation. Subsequently, pain concerns in a child who has had pinning fixation were more easily managed and controlled by oral analgesia, although the nurse participants also noted that pain management following a Dunn's procedure was not an issue when the child returned from theatre with an epidural analgesia insitu. This was because this delivered a concentrated volume of analgesia that enabled satisfactory pain management.

The benefits of epidural analgesia with the Dunn's procedure for SUFE surgery, therefore, aided in pain management, patient satisfaction and gaining functional recuperation. A study

by Walker (2015) looked at the safety and efficacy of postoperative analgesia in children following surgery. The result of this study highlighted that pain management should not only be restricted to the immediate perioperative period for children, but also considered following discharge after ambulatory surgery literature, which indicates that in postoperative care, pain management can become a major concern, but when pain treatment is adequate, it facilitates quality of life, minimises complications and improves recovery (Rabbitts et al., 2015). This also serves to reduce parental anxiety. Moreover, a study undertaken by Levy, Mills and Rockett (2019), looked at post-surgical pain management with the use of opioids.

The results from this study highlighted that optimal pain relief should be our primary aim to support functional goals and promote recovery, but at the same time, the clinicians need to be aware of significant complications that are associated with long-term use. Therefore, practice modification is recommended to minimise any significant impact on the patients' quality of life (Levy, Mills & Rockett, 2019).

Hence, because the pain after surgery was so strongly indicated as a cause of considerable concern by both nurses *and* parents, this study highlights a need to review or explore the option of standardising pain management following SUFE surgery, especially a Dunn's procedure. I was not able to identify any literature on specific pain management options for managing pain in children following SUFE surgery. Nevertheless, a study conducted by Rabbitts et al., (2015) evaluated postoperative pain experiences amongst 15 parents and adolescents following spinal surgery, pectus repair and hip osteotomy. The evaluation was undertaken through an interview format and the results of this study highlighted that adolescent patients and their parents were unprepared for surgery and the pain experienced by the adolescents contributed towards a challenging recovery at home (Rabbitts et al., 2015).

Moreover, the nurses' participants in this study emphasised that the language barrier was a significant challenge experienced whilst engaging with the parents to offer education and discharge planning information. The language barrier was mostly experienced with parents from the Pacific ethnic background. As discussed previously in Chapter Two, SUFE is

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overrepresented amongst the Pacific and Māori communities in New Zealand (Navarre, 2020).

Also, as noted in Chapter Two, to ensure the parents of this study had a sound understanding of the postoperative and discharge instructions, professional interpreters were sometimes employed during ward rounds and critical moments during the involvement of the physiotherapist, occupational therapist, and orthopaedic clinicians (consultant and registrar). However, the nurses highlighted that at times accessing an interpreter for specific languages (such as a Tongan interpreter) had proven challenging; as a result, and so at times, family members who had a good command of English were utilised instead. However, this occurred only in exceptional circumstances and was not an ingrained practice within the DHB this study is based in. The use of interpreters facilitated the delivery of information to parents pertaining to their needs following surgery and in preparation for discharge home.

Moreover, parental education on SUFE was identified by the nurses (and by the parents) as being insufficient for parental preparation for the discharge and transition of care into a home setting. There is clearly a need for an education tool such as pamphlets on SUFE, or a guide that can be used by the parents as an education aid or a reference guide to support their role as a caregiver at home upon discharge. On the discharge day, the parents are advised that, whilst caring for their child at home should they encounter any problems such as extreme pain, bleeding, high fever or wound site swelling and so forth, they need to contact their regular GP or bring their child to the hospital's emergency department. From this, it may be concluded that essentially parents are basically alone in managing the care of their child following discharge.

The responsibility of the parents to identify any complications or cause for concern could therefore be challenging to make the appropriate call for review of the child's health status. Furthermore, considering the child's ambulatory status is limited after discharge, there needs to be a healthcare professional review or follow-up in the home setting, at least a week after discharge. This would ensure the child's recovery status and review on how the parents are managing the care in the home setting is assessed appropriately.

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As revealed in this study, during a child's hospitalisation, good communication increases parental satisfaction on the level of care received and creates a trustful relationship with the healthcare providers, thus reducing the tension (Patricksson, Nilsson & Wigert, 2019). However, as also quite apparent from the parental and nursing interviews, in the presence of language barriers, health care outcomes are greatly impacted because the parents' satisfaction is dependent on the ability of the health care professionals to meet their communication needs (Squires, 2017).

Both this study and other literature highlights that healthcare professionals experience frustration when they are unable to communicate effectively with the parents and their intended message is not delivered or understood appropriately by the parents (Squires, 2017; Patriksson et al., 2017). This is the reason why in such circumstances, Squires (2017) suggests the use of the services of interpreters or bilingual health care professionals to ensure the delivery of the message, parental understanding and parental satisfaction is achieved.

In the second main theme: *Collaborating with Professional Colleagues*, the nurse participants discussed the multidisciplinary team approach by working in collaboration with the wider healthcare professional team. This was a standard practice in managing the care of the child who had SUFE surgery. They maintained that working in collaboration with the multidisciplinary team facilitated parental preparedness for discharge. They also seemed quite aware that the role of the orthopaedic clinicians (consultant and registrar) was fundamental in being the lead carer in assessing, diagnosing, treatment management, planning and evaluating postoperative care and amendment in care, including finalising readiness for discharge and ongoing continuity of care following discharge. Other professional members of staff, such as physiotherapists, occupational therapists and social workers also clearly supported the parents in the various ways noted earlier in this thesis.

Of major significance in the necessary care following SUFE surgery, the nurses highlighted that mobilisation was a key discharge preparation need for the child. It was apparent from the study findings that physiotherapists played an integral and independent role in educating and training the child and the parents with mobilisation. It was obvious that the nurses were totally dependent on the physiotherapists to provide mobilisation training for the child and parents, and that that the nurses' active participation with physical coaching, guiding, supporting, and observing the child with mobilisation was generally minimal within the care. This aspect too raises certain observations, i.e., the possibility that nurses should work more closely with physiotherapists when ambulating a child after SUFE surgery. However, overall, the study revealed that within the multidisciplinary team approach, the role of the nurses was a highly significant one. They were involved in the crucially important aspects of liaison with the parents and other members of staff, and in the educational support, guidance, and coaching of the parents regarding how to safely care for the child upon discharge.

It is also important to note that the nurses in this study raised concerns of variation in postoperative care plans between different orthopaedic surgical teams, which created an inconsistency in maintaining the model of care. They described this as being an issue in terms of sustaining the same level of care of all SUFE patients, and in response to parental anxiety and concern. For instance, some nurse participants indicated that having a guideline to care for a child who has had pinning versus a Dunn's procedure would enable them to provide care to the child more consistently. A separate guideline between the two surgical procedure options would capture extended bed rest and inpatient hospitalisation of a child following Dunn's procedure.

Furthermore, nurses also identified the need to have a discharge checklist specific to SUFE surgery, which would act as a reference tool or guide to ensure nurses are consistent in preparing the parents and the child for discharge. The checklist would enable nurses to cross check that all specific discharge needs have been covered in the discharge planning phase of care to assist the parents in making a safe transition to the home setting. The importance of a discharge checklist has been highlighted to be useful in improving patient safety in various clinical settings by fostering compliance with guideline implementation, enhancing human factors, and minimising adverse events (Berry et al., 2014; Levy et al., 2012).

An overview of what may be concluded from the thematic analysis of the parents and nurses' data is that the parents had an ultimate focus which was *child-centred care focus* whereas the nurse's focus was twofold, i.e., *parent and child-centred care focus*. For both

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the groups to achieve their focus, they have to consider certain steps which are illustrated, as ideal perspectives from Parents and Nurses perspectives can be implemented (See Appendix P).

6.4 Limitations and challenges

There were several limitations and challenges in undertaking this research project.

Firstly, when the Whakaari White Island volcano erupted, no one was to know the impact it might have beyond the immediate victims and rescuers, but it had a huge impact on my ability to recruit participants. In my managerial and leadership role as an Associate Clinical Nurse Manager, I had to work extra hours to support patients with unprecedented burn injuries from this tragedy.

The DHB which approved the locality approval for this research study is the national burns centre for New Zealand, which provided care to all patients with significant burn injuries. Overall, the impact of this tragedy affected the organisation's surgical services' delivery of care with elective and acute patient presentation. Hence, the recruitment of nurses and parents and caregivers was stalled as I was responsible for overseeing and supporting theatre cases. Secondly, the recruitment of paediatric ward nurses was further delayed due to Christmas and New Year holidays as well as planned annual leave holiday breaks.

Parental and caregiver recruitment was the third significant challenge in this research study. The following challenges impacted the recruitment process:

- a) The language barrier was a significant limitation in the recruitment of potential parent and caregiver participants. Many parents whose children presented for SUFE surgery required interpreter involvement for preoperative consent and the postoperative discharge plan. Therefore, as per the exclusion criteria and challenges specified in the exclusion criteria, these parents and caregivers were not suitable as participants.
- b) The Covid-19 global pandemic and its impact in New Zealand added another degree of challenges, as the number of children presenting with SUFE decreased under the national Alert Level 4, where lockdown was implemented for four weeks and Alert Level 3, which required restricted movement for two weeks (MOH, 2020). During this lockdown period, outpatient follow up clinics were closed for about six weeks which further delayed the recruitment of any potential participants.

c) The follow-up clinic recruitment was primarily going to be supported by the clinicians. From April through to June 2020, only one parental participant was recruited and interviewed successfully, and recruitment stalled due to no patient presenting with the diagnosis of SUFE under Level 3 and Level 4 lockdown. However, perseverance paid off and further participants were eventually recruited.

During the entire course of this study there were many challenges faced. However, through continued perseverance, commitment and dedication, the research study was completed offering parental and nursing perspectives of the journey experienced by parents when their child had SUFE injury.

6.5 Recommendations for future research and work practices

The recommendations for future research and work practices follow from the findings of the research that used an interpretive descriptive methodology as a highly useful tool for an analysis of parents' and nurses' perspectives within the clinical context of this study.

The findings from this study highlight areas for further research, i.e., further studies are needed to enhance better understanding and clinical practices in the following areas: a few suggested objectives for such studies are now offered,

• To further investigate the prevalence and overrepresentation of SUFE amongst children from Pacific and Māori socio-ethnic backgrounds and challenges experienced by parents as primary carers.

• To adequately respond to the need to raise awareness amongst the Pacific and Māori communities on SUFE hip condition and educate parents on risk factors leading to SUFE and identifying symptoms to access healthcare in a timely manner.

• To gain the patient's voice to complete the triad between the parents (as primary caregivers), the child (as the patient) and the nurses (healthcare professional).

• Supporting GPs in recognising symptoms of SUFE hip conditions to minimise any risk of misdiagnosis or delayed diagnosis when a child presents at the GP clinic with hip/knee pain and a limp.

The findings of the study also enabled the eventual construction of the following points to improve the delivery and management of care for SUFE patients and their parents and whanau members:

- A standardised protocol/policy/guideline for healthcare professionals, particularly nurses to enhance consistency in the delivery of care to SUFE patients and parents or caregivers as primary carers.
- A differential care pathway for a child who receives pinning versus Dunn's osteotomy fixation for SUFE surgery.
- A written document in different languages on the SUFE condition, surgical intervention, postoperative care, and discharge information, particularly for Pacific parents who encounter a language barrier.
- A checklist created for parents, caregivers, and whanau to utilise prior to discharge to ensure they understand information relating to care following discharge (Appendix N).
- A checklist created for nurses on the ward to actively use when discharging SUFE patients (Appendix O).
- The inclusion of healthy eating or a diet plan within the discharge planning need for parents.
- The inclusion of a dietitian within the discharge planning phase of care to support parents with a healthy eating plan.
- Ongoing nursing support for parents or children following discharge, the possibility of district nurse follow-up.
- A phone follow-up 5 days post discharge by the service to enquire how the parents are coping and managing the care of their child.

6.6 Conclusion

This research aimed to explore the parental experiences of postoperative and discharge planning needs of their child following SUFE surgery. This study has therefore provided the parents with a voice by providing them with the opportunity and a platform to share their expressed views, perspectives, and experiences in relation to managing the care of their child after an unexpected admission and surgery for SUFE injury. However, the findings of the study have not only shed light on understanding the parents' experiences, but also nurses' perspectives in navigating parental care, discharge needs, gaps in discharge practices and education support.

Most importantly, the themes that emerged through the parents and nurses' interviews provided two different viewpoints of parents and nurses' experiences and their perceptions in managing the care of a child following SUFE surgery. Furthermore, the interpretive description methodology chosen for the research was found to be most sufficient and highly appropriate when addressing the aims and objectives of this research study. This approach enabled the generation of knowledge to improve the delivery of care through the valuable data that was supplied by parents and healthcare professionals, particularly nurses. It enabled a specific inquiry into an area of the clinical context, i.e., postoperative management, education, and discharge planning needs of parents whose child had SUFE surgery, which previously, as indicated in the literature, has not been well researched at all.

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Appendices

Appendix A: Illustration of SUFE

Figure 1: Illustration of SUFE



The patient's left hip (arrow) shows that the femoral head has shifted slightly downward off the neck of the bone through the growth plate.

Source: John Killian, 2020 Slipped Capital Femoral Epiphysis, Orthoinofo



Figure 2: Illustration of SUFE Screw Fixation

A Single screw is inserted to prevent any further slip of the femoral head through the growth plate.

Source: John Killian, 2020 Slipped Capital Femoral Epiphysis, Orthoinofo

Appendix B: Victoria University of Wellington Ethics Approval



Phone 0-4-463 6028 Email judith.loveridge@vuw.ac.nz

MEMORANDUM

то	Lalesh Deo				
FROM	Dr Judith Loveridge, Convenor, Human Ethics Committee				
DATE 17 September 2019					
PAGES	1				
SUBJECT	Ethics Approval Number: 0000027707 Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery from Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative Study				

Thank you for your application for ethical approval, which has now been considered by the Human Ethics Committee.

Your application has been approved from the above date and this approval is valid for three years. If your data collection is not completed by this date you should apply to the Human Ethics Committee for an extension to this approval.

Best wishes with the research.

Kind regards,

J. A. honeidge

Appendix C: Counties Manukau Health Locality Approval



Research & Evaluation Office Level 1, Ko Awatea, Middlemore Hospital 100 Hospital Road, Otahuhu; Private Bag 93311, Auckland – 1640 cmdhb.org.nz – koawatea.co.nz

03 March 2020

For the attention of: Lalash Deo

Thank you for the information you have supplied to the CM Health Research Office regarding an extension to the timeline of this ongoing research project:

CM Health Research Registration Number: 1044

Research Project Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery For Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative Study

I am pleased to inform you that the CM Health Research Office has received all the required service lead approvals for the requested extension.

This CM Health locality approval is now valid until 31 August 2021, which is the Final Reporting Date specified on your registration information.

All external reporting requirements must be adhered to. Please note that failure to notify us of any further amendments, and/or submit copies of annual Progress Reports and annual Ethics renewal letters may result in the withdrawal of ethical and CM Health organisational approval.

FINAL REPORT: It is a requirement of the CM Health Research Policy that all research and audit projects conducted within CM Health should complete the CM Health Final Report Template and submit no later than 3 months following completion of the study. This report is to be uploaded to your study file on the Registry and is viewable by CMDHB staff. Contact us for the report template or download it from the Registry.

Yours sincerely

Dernett

Angela Bennett Research Coordinator Counties Manukau Health Under delegated authority from CM Health Research Committee and the Chief Medical Officer

Appendix D: Recruitment Flyer: Nurses



Appendix E: Paticipant Information Sheet for Nurses

VICTORIA

Participant Information Sheet for Nurses

Date information Sheet Produced:

22nd May 2019

Research Project Title

Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative study.

An invitation to take part in my project

My name is Lalesh Deo. I am of Fijian Indian descent and I am working in the role of Associate Clinical Nurse Manager in the operating theatres at Middlemore Hospital. I am undertaking this research study to fulfil a Masters in Healthcare Research degree through the Graduate School of Nursing & Health (GSNMH) at Victoria University of Wellington.

I am wanting to understand the needs of parents and caregivers of children discharged following surgery for SUFE, so that we can improve the delivery of health care services to support the wellbeing of everyone in the whānau (family). Your role as a nurse in supporting, coaching, guiding and educating the parents and caregivers in caring for their child following SUFE surgery is very important, but much is not known or researched about how to provide the best care to the parents, caregivers and their child once they are discharged home after surgery. As a nurse, your perspective is vital to support the discharge practices and your insights will be invaluable. This research will provide us information about your experience and perceptions of the postoperative discharge needs of parents and caregiver as you provided care to their child following SUFE surgery.

This is an invitation, asking you to take part in this research project. It will involve being interviewed about your experiences and perceptions of working alongside parents and care givers of a child who had admission and surgery from Slipped Upper Femoral Epiphysis (SUFE) as they transitioned into discharge planning phase of care

If you would like to take part in this research study, I will arrange a time to meet you for an interview. During the interview, I will ask you about your experiences with parents

and care givers during postoperative and recovery period in preparation for their child's discharge home following surgery from hospital.

Your participation in this research study is voluntary, and you may withdraw from the study at any time, before 1st of December 2019, without being disadvantaged in any way. Taking part in this study will not affect your employment with Counties Manukau Health or your duty of care towards a child who has had SUFE surgery or any that is under your immediate care.

How was I identified and why am I being invited to participate in this research?

You are invited to take part in this study, because you have had some degree of contact in providing support to parents and caregivers of a child who had SUFE Hip surgery at Middlemore Hospital, either admitted on the Kids 1st ward postoperatively or engaged in the postoperative follow up care in the orthopaedic clinics and you are employed within Counties Manukau Health DHB.

What will happen in this research?

If you decide to take part in this study, information about your experience will be gained from you in an interview. The interview can be held at a place that we both agree on, at a time that works for you. The interview will take approximately 40-60 minutes. The interviews will be audio recorded with your permission, to ensure key points discussed in the interview are captured accurately. Notes may be taken as necessary. After the interview, the audio recording will be transcribed and, then I will use the audio and typed transcripts to consider and analyse the discussions in the interview. When I have completed this study, I will write a paper in the form of master's thesis and submit it to the university. I will publish the research in an academic journal. The results of the study will also inform discharge planning processes at the hospital. You will be able to receive a short report to read on what I found out if you would like to

What are the benefits of the study for participants?

There will be no direct benefit to you taking part in this research; however, it is hoped that by sharing your experiences as a nurse working with the parents and caregivers during the postoperative recuperative and discharge phase of care of their child following SUFE surgery, you will shed light into how to best meet the discharge needs of parents and caregivers. Moreover, if you had any involvement in the children's follow up care following discharge, you would be able to inform the challenges or barriers if any that has been encountered by the parents. The information received from you will enable us to review and improve our health care services for the children, parents, care givers and the whole whānau within the Counties Manukau community.

How will my privacy be protected?

Consent will be gained from you, should you wish to take part in my study. No information that could personally identify you will be used in any reports of this study. The information from the interview will only be accessed by myself as the lead researcher, my two academic supervisors, and the person who will help with transcribing the audio recordings. The transcriber will sign a form stating that he or she will not talk or share the information you have shared with anyone. Quotations from the interviews

will have all identifying information removed and will be used in the final written thesis of this study.

All information from the study will be stored securely in the Graduate School of Nursing & Health (GSNMH) at Victoria University of Wellington and Counties Manukau Health DHB for five years after the study ends.

If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation if you don't want to. If you do decide to participate, you have the right to:

- choose not to answer any question;
- · ask for the recorder to be turned off at any time during the interview
- withdraw from the study before 1st of December 2019
- ask any questions about the study at any time;
- receive a copy of your interview recording, subject to your request
- receive a copy of your interview transcript, subject to your request
- read over and comment on a written summary of your interview, subject to your request
- be able to read any reports of this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact my supervisor or me: Our Contact Details is below:

Student: Name: Lalesh Deo University email address: Phone: 021-837659 Email: deolale@vuw.ac.nz

Supervisor:

Name: Natalie Lindsay Role: Nursing Lecturer School: Graduate School of Nursing & Health (GSNMH), Victoria University of Wellington Phone: 04 463 6651 Email: natalie.lindsay@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

Appendix F: Recruitment Flyer: Parents and Caregivers

VICTORIA

Recruitment Flyer: Parents and Caregivers

Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation for Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative study.



"Your Participation in This Study Is Completely Voluntary"

| Lalesh Deo
deolale@vuw.ac.nz |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 021 837659 | 021 837659 | 021 837659 | 021 837659 | 021 837659 |
| Research Student Victoria |
| University of Wellington |

Appendix G: Participant Information Sheet Parents and Caregivers

VICTORIA

Participant Information Sheet Parents and Caregivers

Date information Sheet Produced:

22nd May 2019

Research Project Title

Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative study.

An invitation to take part in my project

My name is Lalesh Deo. I am of Fijian Indian descent and I am working in the role of Associate Clinical Nurse Manager in the operating theatres at Middlemore Hospital. I am undertaking this research study to fulfil a Masters in Healthcare Research degree through the Graduate School of Nursing & Health (GSNMH) at Victoria University of Wellington.

I am wanting to understand the needs of parents and caregivers of children discharged following surgery for SUFE, so that we can improve the delivery of health care services to support the wellbeing of everyone in the whānau (family). Your role in caring for a child following orthopaedic surgery is very important, but we do not know enough about how to provide the best care once you go home after surgery. Exploring your needs and those of other parents and caregivers following discharge, will inform our discharge practices to better meet the needs of parents and children having SUFE surgery.

This is an invitation, asking you to take part in this research project. It will involve being interviewed about your experiences following your child's admission and surgery for Slipped Upper Femoral Epiphysis (SUFE). If you would like to take part in this research study, I will arrange a time to meet you for an interview. During the interview, I will ask you about your experiences prior to and following discharge from the hospital.

Your participation in this research study is voluntary, and you may withdraw from the study at any time before 1 December 2019, without being disadvantaged in any way. Taking part in this study will not affect any health care that you, or your child receive.

How was I identified and why am I being invited to participate in this research?

You are invited to take part in this study as you have a child who had SUFE Hip surgery at Middlemore Hospital, admitted on the Kids 1st ward and you live in the Counties Manukau area.

What will happen in this research?

If you decide to take part in this study, information about your experience will be gained from you in an interview. The interview can be held at place that we both agree on, at a time that works for you and your family. The interview will take approximately 40-60 minutes. The interviews will be audio recorded with your permission, to ensure key points discussed in the interview are captured accurately. Notes may be taken as necessary. After the interview, the audio recording will be transcribed and, then I will use the audio and typed transcripts to consider and analyse the discussions in the interview.

When I have completed this study, I will write a paper in the form of master's thesis and submit it to the university. I will publish the research in an academic journal. The results of the study will also inform discharge planning processes at the hospital. You will be able to receive a short report to read on what I found out if you would like to.

What are the benefits of the study for participants?

There will be no direct benefit to taking part in this research; however, it is hoped that by sharing your experiences hospital staff can make the experience better for future families whose children require surgery for SUFE. The information received from you will inform development in improving our health care services for the children, parents, care givers and the whole whānau (family) in general within the Counties Manukau community.

How will my privacy be protected?

Consent will be gained from you, should you wish to take part in my study. No information that could personally identify you or your child will be used in any reports of this study. The information from the interview will only be accessed by myself as the lead researcher, my two academic supervisors, and the person who will help with transcribing the audio recordings. The transcriber will sign a form stating that he/she will not talk or share the information you have shared with anyone. Quotations from the interviews will have all identifying information removed and will be used in the final written thesis of this study.

All information from the study will be stored securely in the Graduate School of Nursing & Health (GSNMH) at Victoria University of Wellington and Counties Manukau Health DHB for five years after the study ends.

If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation if you don't want to. If you do decide to participate, you have the right to:

- choose not to answer any question;
- ask for the recorder to be turned off at any time during the interview

- withdraw from the study before 1st of December 2019
- ask any questions about the study at any time;
- · receive a copy of your interview recording, subject to your request
- receive a copy of your interview transcript, subject to your request
- read over and comment on a written summary of your interview, subject to your request
- be able to read any reports of this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact my supervisor or me: Our Contact Details is below:

Student:

Name: Lalesh Deo University email address: Phone: 021-837659 Email: deolale@vuw.ac.nz

Supervisor:

Name: Natalie Lindsay Role: Nursing Lecturer School: Graduate School of Nursing & Health (GSNMH), Victoria University of Wellington Phone: 04 463 6651 Email: natalie.lindsay@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research, you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-4636028.

Appendix H: Consent Form

VICTORIA

Consent Form

Project Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery for *Slipped Upper Femoral Epiphysis (SUFE)*, within an acute hospital setting in New Zealand: A Qualitative Study.

Project Supervisor: Natalie Lindsay

in the research study mentioned above.

Researcher: Lalesh Deo

I___

_____ (full name) give my permission to participate

In respect of my permission, I acknowledge the following:

- 1) I have read and understood the Participants Information Sheet for provided about this research to participate.
- I have been provided the opportunity to ask questions pertaining to this research project by principal researcher, Lalesh Deo and the questions that I have about the project have been explained to my satisfaction.
- I understand that notes will be taken during the interviews and that they will also be audiorecorded and transcribed.
- 4) I am aware that phrases from the interviews may be included in this thesis or publications from this research study. Quotations from the interviews will have all identifying information removed and will be used in the final written thesis of this study.
- 5) I understand that my involvement in this study is strictly confidential and no information will be used in any ways that can reveal my true identity as a participant throughout the study.
- I understand that I may withdraw myself from this study at any time prior 31st of December 2019, without being disadvantaged in any way.
- If I withdraw, I understand that all relevant information including audio-recordings and transcripts, or parts thereof, will be destroyed.
- 8) I wish to receive a summary of the research findings: Yes or No
 - i) If yes, please provide an email here_____

Researcher Contact Details: Lalesh Deo C/O Counties Manukau Health

deolale@vuw.ac.nz

021 837659Research Student Victoria University of Wellington

Appendix I: Interview Schedule and Prompt for Parents and Caregivers


Appendix J: Interview Schedule and Question Prompts for Nurses

Interview Schedule and Question Prompts for Nurses

1. Introduction

VICTORIA

Self-introductions

Discuss aims and objectives of the study with the participant Discuss the process entailed with the interview, including consent, brief overview of the contents of the information sheet and use of audio tape recording

The questions below will enable me as the lead researcher to semi-structure the interview session

2. Postoperative Discharge plan and Education

Please discuss what some of the key discharge needs were and information you offered the parents and caregivers as part of their discharge planning and education needs of parents and caregivers to safely manage your child's care at home?

Interview Prompts

- What kind of support or education did the parents and caregivers required in relation to discharge planning for their child after SUFE surgery?
- Were you involved in working with the extended (whanau) family in as part of the child's discharge planning needs?
- How did you ensure that the education offered during the discharge planning phase of care was understood by parents and caregivers?
- Were there any challenges that you were aware of when supporting the parents and caregivers following discharge related to caring for the child following SUFE surgery?
- What are the support services the parents and caregivers could contact should they require any help following discharge?
- Can you talk about the information you provided to parents and caregivers on how the hospital will follow up on their child's care following discharge?
- Did you require any additional support to ensuring the parents and caregivers were actively involved and engaged in managing care of their child once they left hospital?

Appendix K: Confidentiality Agreement for Transciber



Confidentiality Agreement for Transcriber

Project Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative Study

Project Supervisors: Associate Professor Dr Karen McBride-Henry and Natalie Lindsay Principal Researcher: Lalesh Deo

I agree to ensure that the audiotapes I transcribe will remain confidential to Lalesh Deo, his research supervisors and myself. I agree to take the following precautions:

- I will ensure that no person, other than Lalesh Deo and his research supervisors, hears the recording.
- o I will ensure that no other person has access to my computer and device.
- I will delete the files from my computer and device once the transcription has been completed.
- o I will not discuss any aspect of the recording with anyone except Lalesh Deo.

Transcriber's Contact Details:

Date:

Supervisors Contact Details:

Natalie Lindsay Graduate School of Nursing & Health (GSNMH) Victoria University of Wellington Email: natalie.lindsay@vuw.ac.nz Phone: 04 463 6651

Appendix L: Researcher Safety Protocol

VICTORIA

Researcher Safety Protocol

Project Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery from Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative study.

Project Supervisors: Associate Professor Dr Karen McBride-Henry and Natalie Lindsay Researcher: Lalesh Deo, Masters Student

This protocol will be implemented when the primary researcher is conducting interviews in a potentially risky location, away from Middlemore Hospital, for example at the participants home. The researcher will be compliant with the policies and procedures identified below to ensure personal and the cultural support personnel's safety is prioritised.

Policies

- If possible, the researcher will arrange to complete interviews in a safe public location, for example at Middlemore Hospital.
- The interview location and time will be mutually agreed by the participants and the researcher.
- The researcher will always carry his personal cell phone, ensuring the cell phone is fully charged and data for cell phone usage available.
- Both research supervisors will be notified via email of the exact date, time and location of the interview prior to the interview taking place.

Procedures

- Prior to the day of the interview taking place, the researcher will inform both his supervisors of the time and location of the interview. One of the supervisors will indicate that they are available to be contacted on the day of the interview.
- On the day of the interview, the researcher will contact the nominated supervisor via text message or phone call to indicate the meeting with the interviewee will take place.
- Immediately following the interview, the researcher will contact the nominated supervisor by text message or phone call to indicate that the interview has concluded.
- 4. During the course of the interview, if the researcher is uncomfortable, he will cease the interview and leave the environment with the support person. He will immediately notify the supervisor, or, if required call emergency services using his personal cell phone to protect his and the support persons safety.

Appendix M: Cultural Support Person



Cultural Support Liaison Agreement

Project Title: Exploring the postoperative discharge needs of parents and caregivers of children following hospitalisation and surgery for Slipped Upper Femoral Epiphysis (SUFE), within an acute hospital setting in New Zealand: A Qualitative Study

Project Supervisors: Associate Professor Dr Karen McBride-Henry and Natalie Lindsay Principal Researcher: Lalesh Deo

I agree to ensure that my role as a cultural support liaison in the interview session will be primarily for the benefit of the interviewees (parents and caregivers) and Interviewer, Lalesh Deo.

I agree to take the following precautions:

- I will maintain and observe culturally appropriate behaviour and respect for both the parties during the interview session.
- I will engage, communicate, translate and interpret as culturally appropriate as required for both the parties during the interview session.
- I will ensure the privacy and confidentiality of the parents and caregivers are maintained at all times and will not discuss or disclose any information shared by the parents and caregivers during the interview session_{ex}
- o I will not discuss any aspect of the interview with anyone except Lalesh Deo.

Cultural Support Persons Name: Signature: Date:

Supervisors Contact Details:

Natalie Lindsay Graduate School of Nursing & Health (GSNMH) Victoria University of Wellington Email: natalie.lindsay@vuw.ac.nz Phone: 04 463 6651

Appendix N: Proposed SUFE Discharge Checklist - Parents



SUFE DISCHARGE CHECKLIST- PARENTS

UNDERSTANDING MY CHILD'S CONDITION

- I have had a discussion with my hospital care team & understand the condition of my child following SUFE surgery:
 - Information on SUFE has been explained
 - What I can expect in future
 - □ The changes needed in my child's daily life
 - What I can do to help my child get better at home
 - Any restrictions that we need to observe at home after discharge

RECOVERY FOLLOW UP & SUPPORT NEEDS

I had a discussion with my hospital care team for

Recovery, follow-up, and support needs:

- Follow up clinic appointment dates and X ray requirement
- Any special equipment we will need, such as crutches, toilet chair or shower chair
- Wound care and dressing change at home or GP clinic
- Written summary from hospital on procedure and tests done
- Safety and Support plan at home has been discussed, including:
- Arranging any help my child may need with things like, showering, dressing, getting to doctor appointments, or household chores
- Having a plan for reorganizing our home, if necessary, for example, making space for equipment to help with daily cares, removing tripping hazards such as electric cords. or rugs.
- I have talked to the hospital social worker and occupational therapist for any additional support that can be provided
- I have talked to the Dietician or nutritionist for healthy eating support at home
- I have talked about any exercise that will be safe for my child to do at home

SIGNS TO WATCH AND WHOM TO CONTACT

- I am aware of the signs and symptoms to watch for:
 - Excessive Bleeding
 - Extreme pain
 - Wound site swelling, smelly, leaky
 - □ High fever

□ I will contact my GP or bring my child to emergency department.





Appendix O: Proposed SUFE Discharge Checklist for nurses

SUFE Discharge Checklist For nurses			
Patient	Name	Hospital Number	Ward :
	Discha Physic Physic S S S S S S S S S S S S S S S S S S S	arge plan discussed with parents, cian notes reflecting readiness fo otherapist notes reflecting readir status of mobilisation confirmed weight bearing status confirmed Non-weight bearing status confi	, caregivers or family or discharge ness for discharge rmed
	mobili Please	sation and ADL's support.	g equipment for
	Social specify	Worker input – Required or Not	Required: Please
	Surgic Advice	al site wound care and dressing a on surgical site care discussed w	assessment completed vith parents
	Reviev Any ac whana	v of pain medication requirement ditional support required by par au members following discharge	t following discharge ents, caregivers or discussed
	The pa Date Clini	atient has a follow up plan for clir	nic review discussed

PLEASE FILE IN THE PATIENT NOTES AFTER COMPLETION

Appendix P: Proposed Parents/Nurses Perspective (Ideal)

Parents Perspective (Ideal)



Nurses Perspective (Ideal)

