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# Patient journey mapping: the experience of patients receiving hand-injury care services in Gauteng

Tsakane Sono

A Dissertation submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Science in Occupational Therapy

Johannesburg, September 2024

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

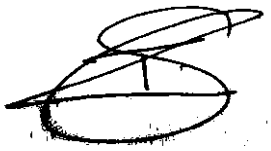
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## Dedication

To anyone who may have given up on education. This is a gentle reminder that there is power in education and educating oneself will never be in vain. In a society that no longer blows a trumpet on the power of education, may this dissertation be a reminder that education is a gift that can never be compared to any other. Knowledge gives us the ability to see further than where we are, to understand life better, to speak with confidence and conviction and to be pioneers of change in our society. There is power in education and may we never take the gift of education for granted.

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# Presentations arising from this study

| | Title | Authors | Meeting |
|---|---|---|---|
| 1. | Patient journey mapping: the experience of patients receiving hand injury care services in Gauteng | Tsakane Sono, Kirsty van Stormbroek | SASHT-Wits Consensus Development Conference, 24 February 2023, Pretoria |
| 2. | Patient journey mapping: the experience of patients receiving hand injury care services in Gauteng | Tsakane Sono, Kirsty van Stormbroek | 52nd Annual Congress of the South African Society for Hand Surgery. Cape Town, South Africa. September 2023 |

# Abstract

Introduction

Understanding the experiences of hand-injured patients accessing care is key to supporting care that is responsive to patients' needs and achieving favourable outcomes. This study aimed to describe the journey of hand-injured patients using journey mapping to enable an in-depth understanding of patients' experience of accessing hand-injury care services in Gauteng, South Africa.

Methods

A qualitative descriptive design was used. Data collection was undertaken at one private and one public healthcare facility in Gauteng. Twelve adult patients who had sustained traumatic hand injuries were recruited. Three data collection techniques were employed: a review of patients' clinical notes, a patient journey mapping exercise, and in-depth interviews. Reflexive thematic analysis (RTA) was used, and rigour was pursued using a reflexive journal, data source triangulation, and dense description within reporting.

Results

Five themes were generated from the analysis: *Spectrum of Satisfaction* captured participants' varying levels of satisfaction with the care they received influenced by the experience for some of medical mismanagement, inhospitable care, and the influences of COVID-19. Some participants chose to 'turn a blind eye' to sub-optimal features of care to focus on their recovery and some experienced the principles espoused by Batho Pele. *An Emotional Journey* describes the trauma associated with the hand injury, the emotional impact of the injury and loss and the need to come to terms with these. The arduous nature of long periods of healing was articulated as fatigue and the need to fight. *Now everything has stopped* capturing that life-changing nature of hand-injury that included a sense of dependence or aloneness, role inadequacy, caregiver or family burden, and pain. *The Cost* included medical and travel expenses, the role of the temporary disability grant, and the cost to the family. Finally, *The Occupational Therapist* captured participants' experience of the occupational therapist as trainer and cheerleader, as well as their experience of genuine care.

Conclusion

Opportunities should be available for generalist occupational therapists to develop the necessary clinical competencies to respond to the needs of patients. Similar studies in other provinces are recommended. It is also recommended that all healthcare professionals offering hand-injury care services consider the psychological impact of a hand injury and refer patients for psychosocial support.

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*"Never doubt God's mighty power to work in you and accomplish all this. He will achieve infinitely more than your greatest request, your most unbelievable dream, and exceed your wildest imagination! He will outdo them all, for His miraculous power constantly energizes you. Now we offer up to God all the glorious praise…through Jesus Christ"*

*Ephesians 3 verses 20-21 (TPT version)*

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# Nomenclature

### Patient-centered care

Patient-centered care is an intervention that takes into consideration the unique attributes that make a patient who they are. [1] It is based on an intervention that is founded on respect towards the patient's consideration of their perspective when offering intervention. [1] The patient becomes an active member in decision-making regarding their health and their wishes are considered throughout the process, this empowers the patient as they take on an active role in their health journey. [1]

### Journey mapping

Journey mapping is an evolving concept in healthcare that is being used to review patient experiences and is a clinically appropriate tool to audit patient experiences. [2] Journey maps focus on the overall healthcare experience of a patient and the various interactions they had along the way, these interactions are referred to as "touchpoints". [3] Journey maps enable us to understand the experiences of the patients at these various touchpoints. [2]

# Chapter 1: Introduction

## 1.1. Background and need for study

At the heart of South Africa's National Patient's Rights Charter and the Batho Pele ("People first") Principles for Public Sector Services, is the ethos of patient-centered care. Person-centered care (or client-centered care) [4] has been articulated as timeous access to reliable healthcare advice, trusted health professionals who provide effective treatment, care continuity, appropriate involvement of carer and family, information and communication that supports patient self-management, respect for patient preferences and shared decision making, respectful empathy and support, and attendance to physical and environmental needs.[5]

Literature that is available on the experiences of patients within the healthcare system is limited, [6] including the experiences of patients with hand injuries. Available data is typically quantitative rather than qualitative and tends to focus on measuring pain, range of motion and hand function outcomes following a hand injury. [7] Some researchers have, however, attended to psychosocial issues that arise as a result of hand injuries, these factors include how patients cope with the loss of function and how their loss of function affects their relationships and confidence. [8]

Clinicians, scholars and patients themselves are increasingly becoming aware of the importance of patient-centered care. [9] Understanding patient experiences and exploring their perceptions of health service provision is essential to pursuing patient-centered care. [4] The burden of hand injuries in South Africa is substantial due to the high incidence of interpersonal violence, road accidents and work-related injuries. [10-12] Most hand-injured patients (around 80%) are dependent on the public health system for hand-injury care services. [13] No published literature on the experience of hand-injured patients accessing hand-injury care in the South African public sector could be found.

Although it is important to understand psychosocial and physical issues that arise from hand injuries, it is also necessary to understand the phenomenology, or "lived experience" of a hand injury, as well as the experience of accessing hand injury care services specifically to inform patient-centered services. It is reasonable to assume that patients' experiences of hand-injury care services interact with their physical and psychosocial outcomes. [8] For example,

experiencing services that are inappropriate or incomplete may lead to a patient not regaining hand functioning and experiencing psychosocial co-morbidities. [8] It is therefore important to explore patient experiences.

Although Ridder emphasized the importance of understanding patients' experiences, [5] there is limited literature that explores healthcare intervention from the patient's viewpoint. Most literature that analyses how healthcare intervention is perceived focuses on the healthcare providers' perspective and experience, this in turn can have detrimental effects on service delivery in healthcare. [15] Patients are on the receiving end of healthcare services therefore, their experiences and opinions of the services they are experiencing must be valued enough to be understood and considered for service development and reform.

While exploring patient perspectives in hand injury care services, it is also important to consider the overall context in which these services are being offered. The South African healthcare context exists within a socio-political climate with a history of inequality on various scales including racial, socio-economic and access to resources. [1]The history of inequality in South Africa led to the public healthcare system being overburdened as these are the services that majority of underprivileged South Africans were accessing. [2] It is still the same even today, this is an important aspect to be aware of the healthcare context in which hand injuries are occurring.

## 1.2. Problem statement

Evidence of patient hand-injury care experience is needed to inform patient-centered services in South Africa. The literature largely focuses on the experiences of healthcare providers regarding healthcare services while patient experiences are overlooked or forgotten, [6] potentially compromising patient-centered care and affecting the delivery of healthcare services as patient-centered care is also often misunderstood. [16] To ensure that patient-centered care continues to be pursued in the delivery of services it is important to consider patient experiences. [4] Hand injuries are common in South Africa and as the burden of injuries grows, the demand for hand-injury care is continuously increasing. [17] Some of the common causes of these injuries have been found to include the lack of use of protective gloves, limited training on the use of equipment. [17] Young men in South Africa often enter the manual labour market at an early age with a lack of training which further contributes to the high rate of hand injuries. [17] This specific research project will contribute to the developing body of knowledge that seeks to explore the experiences of patients receiving healthcare services, particularly in hand therapy. This is an important study because more insight was gained into the patients' experiences and how they perceive healthcare services for hand

injuries. This will allow for service delivery to increasingly be aligned to patient needs.

## 1.3. Research question

What is the experience of hand-injured adults receiving hand-injury care services in Gauteng?

## 1.4. Aim and objectives of the study

The study aimed to describe the experience of hand-injured adults accessing hand-injury care services in Gauteng

The objectives of the study were:

- To map the journey of hand-injured patients through the healthcare system.
- To describe the experience of accessing hand-injury care services in Gauteng.
- To describe the experience of accessing occupational therapy intervention for a hand injury.

## 1.5. Significance of the study

This study is worthy of attention because understanding patients experiencing accessing hand injury care in Gauteng has the potential to impact education, practice, and policy and inform future research agendas to ensure that the patient perspective is given as much consideration as the healthcare provider's perspective. The study will also inform healthcare professionals of the value of considering the patient perspective in service delivery which will in turn improve patient care

# Chapter 2: Literature Review

## 2.1. Introduction

In this chapter, literature pertinent to this project is reviewed. A review of the literature was conducted at intervals between February 2021 and February 2024. Search engines used to review literature related to the topic include Google Scholar, Elsevier, Wits LibGuide and Clinical Key. Some search terms used are ‘hand injury’, ‘patient experience’, causes of hand injury in South Africa’, ‘causes of hand injury’, ‘impact of hand injury’, ‘psychological impact of hand injury’

The chapter will commence with a description of the healthcare context in South Africa (2.2), and within Gauteng Province specifically (2.3). An overview of hand injuries and hand injury care services in South Africa will follow (2.4). The concept of patient-centered care on a general scale is reviewed (2.5) and then explored specifically in occupational therapy (2.6.) followed by an exploration of the value of patient experience (2.7). What is currently known about patient experience of hand-injury care is outlined (2.8). Finally, patient journey mapping as a technique to develop insight into patient experiences is reviewed (2.9).

## 2.2. Healthcare in South Africa

When looking at healthcare services rendered in South Africa, one cannot do so without taking into consideration the socio-political history of the country and its impact on overall healthcare. South Africa’s history of segregation according to age, race and gender had a significant impact on social life and overall access to basic healthcare services with those that are black, coloured and Indian being the most disadvantaged. [18] Although health policies and health systems have changed post-1994 to be more inclusive of those that were previously disadvantaged, the effects of apartheid are still evident in the lack of resources in the public health sector. [7]

South Africa has one of the largest disparities in the world with regards to access to resources and healthcare access is not exempt from this disparity. [19] The history of South African healthcare and its hallmark of racially segregated health facilities meant that the public and private sectors were not on a balanced scale in terms of resources and quality of healthcare. [18] The vast differences in resources in the private and public sectors mean that patients within the public system have limited access to resources or the quality of service received is considered to be below par in comparison to services rendered in the private sector due to limited resources in the public sector. [19]

In a study conducted in South Africa, it was found that 46% of healthcare resources were being spent on private medical schemes but only less than 15% of the South African population access these services. [21] This statistic is particularly concerning since the majority of the South African population uses public facilities but less finances are being allocated to the advancement of public health services.

The large disparities in healthcare are also mainly due to the differences in lifestyle where the poorest are more vulnerable to illness but have limited access to healthcare resources owing to some factors that include distance travelled to access healthcare services and the cost implications of that distance. [19] It is important to be aware of the resource limitations that exist in the South African context as they affect the kind of resources that patients have access to.

To further understand disparities in healthcare in South Africa, one can also draw from international studies developed in contextual circumstances similar to those in South Africa. In a study done in Australia by Levesque et al., [20] access to healthcare can be better understood in light of five dimensions- affordability, acceptability, availability and accommodation, approachability and appropriateness. The dimension of affordability relates to access to enough resources and time to spend on accessing healthcare services. [21]

In a study conducted in rural North Queensland Australia,15 patients were recruited and asked to give their experience of receiving hand-injury care services after a traumatic injury; the themes that were prominent in the results focused on the cost of travel to access services, knowledge of practitioners, the use of technology and the experience of rehabilitation therapists. [14] The participants in the study found it difficult to access services due to distance and cost implications, they also reported that it took time for their injuries to be treated which in turn affected their livelihood and once they received the intervention, there was a lack of input from allied health professionals. [14]

One of the major areas of concern in a South African context when looking at affordability is the distance often travelled by patients to access healthcare resources and the cost implications related to this. Although the South African health system offers free access to various healthcare services, many are unable to access these resources or remain compliant with treatment due to the costs incurred to access these resources. [19] Those of a lower socio-economic status tend to be situated furthest away due to the history of land segregation in South Africa. [22] Due to the already existing impact of poverty, people are unable to bear the strain of travel costs and thus are unable to access more quality healthcare. [22]

However, despite limitations in resources, South Africa is perceived to be a good training ground for healthcare professionals who are motivated, goal-orientated and adaptable even in the face of working under resource constraints. Although there are still significant differences in private and public healthcare, it is important to acknowledge the progress that was made post-1994 to integrate services and develop more healthcare facilities in more impoverished communities. [7]

This study was conducted in two different settings. One part of the study was conducted in a public healthcare facility and the other in a private facility to understand the differences or lack thereof in services rendered in both settings. The contribution made by this study will add to the existing body of knowledge about resource availability and overall quality of healthcare in both the public and private sectors concerning hand injury care services. The pronounced issue of costs often incurred to access healthcare services will also be explored in this study to contribute to the limited existing research about the costs of accessing healthcare in South Africa.

## 2.3. Healthcare in Gauteng Province

To understand hand injury care services in Gauteng and patient experiences related to that, it is important to understand overall healthcare services in Gauteng. A study conducted to look at the use of healthcare services in Gauteng found that the public sector needs to improve its service delivery. [23] The poor quality of healthcare services led 75% of participants in this study to report that they do not access public healthcare services in Gauteng. [23] Another study looking at the performance of public hospitals in Gauteng found performance to be poor compared to private health facilities in the province. [24] This was partly due to poor use and allocation of resources and poor decision-making within the healthcare system. [24]

In the same study, researchers found a 76% level of dissatisfaction with healthcare service among the participants. [24] This is different to what was found in a study conducted in the Tshwane region in Gauteng where participants mostly expressed satisfaction with healthcare services in the area. [25] The participants in this study were also found to be mostly able to easily access healthcare facilities in the area as they were within a 5 km radius of the healthcare facility. [25] The most common modes of transport used to access services were walking and public transport, particularly, the use of a taxi. [25]

In another study conducted in Gauteng to determine health seeking behaviours between patients in the private sector compared to the public sector, patients in the public sector reported high levels of dissatisfaction with services rendered compared to higher levels of

satisfaction reported by patients in the private sector. [3] Of all negative comments reported in the study, 73% came from patients in the public sector and 63% of all positive comments were reported by patients in the private sector. [3] This is important to be aware of in order to understand the patient experience that already exists in the context in which this study will be conducted.

When looking at the stark contrasts between the public and private sector, it is important to always remember the high cost of accessing private healthcare which leads to most South Africans opting to access public healthcare. [4] However, more research is needed to analyse the differences between public and private healthcare services in Gauteng to better understand services offered, and patient experiences and improve them to enhance patient-centered care within the province.

## 2.4. Hand injury and hand-injury care services in South Africa

Hand injuries in South Africa

Of all injuries suffered by the body, hand injuries are the most frequently occurring. [26] Globally it has also been found that the most common cause for reporting to an emergency or accident department is a hand injury. [27] This was also found to be true in a study conducted by Ootes et al in the United States in 2011. [28] Of all the cases traumatic cases reported of the upper limb, it was found that injury to the finger accounted for 38% of the reported cases. [28] In South Africa, traumatic hand injuries are also a common cause for reporting to emergency departments in hospitals with occupational injuries being the most occurring traumatic hand injuries. [29] In another study, it was found that hand injuries account for one-third of traumatic injuries reported to hospitals in South Africa which is a significantly high number of injuries. [29]

Due to the alarming rate of hand injuries reported in South Africa, it is important to understand the causes of these injuries and the experiences of the patients suffering these injuries to adjust the services rendered to suit this population of patients. Understanding the causes of these injuries will also enable better strategies to be put in place to prevent such injuries. [27]

In most studies conducted recently, there has been a notable increase in the number of occupation-based hand injuries with assault being the second most common cause for hand injuries. [27] In a study conducted in the UK in a trauma center, it was found that although reported hand injuries declined during COVID-19, of the reported injuries, there was an increase in injuries related to machine operation. [30] It can also be noted that injuries caused by improper machine operation also largely contribute to reported hand injuries globally and in South Africa. [26 29]

In South Africa, it was found that the most common cause of injuries related to work is the use of power tools. [29] It is interesting to note that the majority of these injuries were not a result of machine failure but rather mistakes made by the machine operator. [29] This further emphasizes the importance of putting injury prevention strategies in place for manual labourers and machine operators.

In looking at hand injuries, one cannot ignore the great financial implications that arise from sustaining a hand injury, especially in a context like South Africa where the unemployment rate is incredibly high. [29] It is interesting to note that the demographics of the population sustaining traumatic hand injuries are similar across several studies conducted in countries similar in context to South Africa. In a study conducted in Kenya, most of the incidents reported of traumatic work-related hand injuries were of males with a low level of education who had to be breadwinners from an early age due to dire living conditions. [27] This is no different in South Africa where statistics gathered at a state hospital show that most injuries were sustained by young males with limited education and training and one or dependents that they were supporting. [29]

As studies have shown that most people who suffer a hand injury are breadwinners, it is important to understand what the implications of an injury are on their families and their overall livelihood. Loss of income is one of the most devastating impacts of sustaining a hand injury due to the injury itself, hospital costs, travel costs and loss of wages as a result of taking time off work and attending regular appointments. [31] After suffering a hand injury, the impact of the injury on everyday function and ability to return to work is still felt even after undergoing rehabilitation.

It is important to ensure that overall patient experience of hand injury is considered and that services available to patients are thoroughly understood to fully grasp what their experiences of hand injury are. These services must also be analysed and understood clearly from the patient's perspective to grasp patient experience. This research will contribute to this body of knowledge. This study will also give further insight into the cause of hand injuries as the causes of hand injury of participants in this study are explored and compared to the general causes of hand injury reported in the literature explored above.

Occupational Therapy Concerning Hand Injuries in South Africa

Occupational therapists are vital in the recovery process of a hand injury. [31] Of all conditions treated by occupational therapists, hand trauma is known to be one of the most common conditions in the patient population treated by occupational therapists. [32] Early referral to

occupational therapy or physiotherapy after a hand injury is important to prevent severe impact on hand function or a decrease in quality of life. [33] Early referral to occupational therapy, physiotherapy and other related hand injury practitioners increases the chances of seeing an overall improvement in function after a hand injury. [33]

Hand injuries occur often in South Africa and they are the cause for a significant amount of time being off from work. [17] Occupational therapists thus play a vital role in the recovery process and facilitation of returning to work after a hand injury. In a study conducted to determine the strategies South African occupational therapists adopt to treat hand injuries, it was found that more than 90% of therapists prescribed home programs and focused on improving performance in daily tasks. [34] Early referral to occupational therapy, physiotherapy and other related hand injury practitioners increases the chances of seeing an overall improvement in function after a hand injury. [33]

Occupational therapists thus play a vital role in the recovery process and facilitation of returning to work after a hand injury. In a study conducted to determine the strategies South African occupational therapists adopt to treat hand injuries, it was found that more than 90% of therapists prescribed home programs and focused on improving performance in daily tasks. [34] The same study also found that all therapists provide psychoeducation as part of treatment while 91.7% of therapists dealt with the emotional support required as part of grief due to the injury. [34] Observing participants in their work environment carrying out their daily work tasks, performing work site visits and carrying out trials at work were some of the least used strategies. [34]

Integration of various frames of reference, while being anchored to an occupational therapy perspective is the foundation of true occupation-based hand therapy. [35] This involves integrating aspects such as a biomechanical approach with an occupation-based approach to intervention. [35] This is to emphasize the importance of the two being used in practice as dependents rather than as two mutually exclusive aspects of intervention. [35] Hand therapy services in South Africa are offered in different settings, including public and private settings ranging from hospitals to community health facilities. [35] While occupational therapists practice in various settings, it is interesting to note that concerning workplace rehabilitation, South African occupational therapists were found to rarely render services in the workplace. [36] This includes offering support at the place of employment or offering coaching. [36]

It is important to be aware that various barriers and challenges may arise for occupational therapists that are not exposed to multiple settings of occupational therapy practice. One of the barriers faced by occupational therapists in South Africa concerning workplace

rehabilitation is the fact that in the workplace, physiotherapy is more valued and better understood than the role of occupational therapy. [36] Another barrier includes the prolonged period generally required to carry out an occupational therapy assessment, particularly in a work setting. [36] Furthermore, decreased motivation to return to work due to workers in South Africa often depending on their family members to care for them can also be a great hindrance or barrier to successful work-related occupational therapy intervention. [36]

Barriers and challenges also exist to carrying out occupation-based hand therapy in South Africa. These barriers include the time constraints that exist for occupational therapists in practice which lead to therapists focusing on issues of body functions and less focus being placed on exploring all environmental issues related to patient experiences after a hand injury.[35] Financial constraints can cause issues for patients in South Africa which affects the affordability of transport and thus difficulty being compliant or consistent with follow-up appointments. [35] The expectation of doctors for occupational therapists to focus on body functions rather than holistic occupation-based occupational therapy intervention can be a barrier as doctors often discharge patients when some improvement is seen in body functions.[35]

However, this means patients are often discharged with overall poor occupational performance as it was not addressed due to doctors' expectations of intervention. [35] The physical environment in which therapy is being carried out can also be a barrier to occupation-based hand therapy intervention. [35] In the South African context, therapists can sometimes face the challenge of not having spaces that can be conducive to occupation-based hand therapy due to a lack of equipment or the space being too small. [35]

Due to hand injuries occurring often in South Africa as mentioned above and occupational therapists being an integral part of treatment, it is important to be aware of their readiness or competence in dealing with hand-injured patients. This readiness stems from the training the therapist has received and overall experience treating hand-injured patients. In a study looking to explore how well community service occupational therapists are equipped to deal with hand injuries in occupational therapy practice, 33% felt somewhat equipped to treat hand injuries. [37] When looking at how confident therapists feel about treating upper limb conditions, 32.3% felt unconfident while 53.3% felt confident. [37]

Literature shows the value of occupational therapy in hand therapy in South Africa. It is clear that there are barriers to holistic occupational therapy intervention in South Africa and these barriers affect patient intervention. It is therefore important to seek to understand the patient's experiences of these services to close the gaps in practice based on what patients feel would

be of benefit to them and not just based on what healthcare professionals assume would work. This particular study seeks to take a step towards giving a voice to patients to share their experiences of healthcare services received in the South African context, including occupational therapy services.

## 2.5. Patient-centered care

Patient-centered care is an intervention that takes into consideration the unique attributes that make a patient who they are. [1] It is based on an intervention that is founded on respect towards the patient's consideration of their perspective when offering intervention. [1] The patient becomes an active member in decision-making regarding their health and their wishes are considered throughout the process, this empowers the patient as they take on an active role in their health journey. [1]

Patient-centered care can be overlooked and more focus can be placed on developing more technical skills and knowledge related to this. [38] This can cause healthcare practitioners to be less skilled and lack in-depth training in offering patient-centered practice as it is less considered. [38] Opportunities that enable the development of client-centered practice and thinking need to be part of the basic training all healthcare professionals receive and be offered as courses in continued professional development. [39]

Various barriers and facilitators have been identified in offering patient-centered practice. One of the barriers identified is the difficulty of getting an appointment with a specialist while receiving treatment. [40] One of the facilitators of patient-centered practice identified is the patient treating the healthcare professional with respect and being transparent with information related to their health. [40] A request was made by participants regarding waiting times, asking that the amount of time they wait for appointments be reasonable, this was an important aspect of patient-centered care in their perception. [40]

Understanding patient perspectives of patient-centered practice is important and a study looking at the perspectives of Danish patients found that patients found therapy more meaningful when they were involved in decision-making. [41] The patients also expressed that being well-informed about their conditions was an integral part of understanding the situation they find themselves in with a hand-related disorder. [41] Emotional support being offered by healthcare professionals and considering the patient's perspective of the outcome of therapy were some of the domains that were also found to be valuable in offering patient-centered care.[41] It is also important to be aware that patient-centeredness can also be achieved by ensuring that the treatment offered fits within the patient's current lifestyle and activities. [38]

In South Africa, two key policies were previously developed to promote patient-centered care: The Batho Pele Principles and the Patient Rights Charter. [42] The Patient Rights Charter states the patient ought to always be an active participant in decision-making for their own health. [43] It also states that patients should always be given information concerning any treatment they will be receiving so that they understand all consequences related to treatment to make an informed decision. [43]

The Batho Pele principles are established to encourage healthcare providers to offer quality services and perform well to promote quality patient-centered care [44]. One of the principles commonly referred to is the one of courtesy which explains that patients should always be treated with a positive attitude. [44] The value of access to information described in The Patients' Rights Charter is also echoed in the Batho Pele Principles stating that service users should always have full information regarding the services they are receiving. [44] The other principles are consultation, service standards, access, information, openness and transparency, redress and value for money. [45]

Although these two policies were developed to promote patient-centered care, issues such as poor infrastructure of health facilities, minimal funds and poor management continue to make it difficult to operate fully under the patient-centered care framework. [42] Some healthcare providers have also found it difficult to implement client-centered treatment in everyday practice due to limited human resources in healthcare facilities. [39] It is evident that client-centered practice is valuable in all patient interventions to ensure quality healthcare is being delivered however, it will be met by challenges in practice.

A study exploring patient-centeredd care in the nursing context describes patient-centereddness as acknowledging the uniqueness and individuality of a patient while taking into consideration their wishes and involving them in every step of their health journey. This describes the two main themes that emerged from this study with the first theme emphasizing the importance of creating room for patients' individuality and who they are to be part of the treatment process.
[46] The second theme focuses on the importance of ensuring patient's wishes are taken into account throughout the treatment process as this makes them feel important and that they matter. [46]

Patient-centeredd care can also be evident in patients being allowed a sufficient amount of time to share their experiences and being allowed to speak about "everything" relating to their condition. [47] In-depth communication and building a good therapeutic relationship with a patient often leads to the buy-in of the patient and thus enhances patient-centeredd care. [47]

The uniqueness and individuality of a patient always need to be acknowledged in intervention as this also plays a major role in ensuring patient-centered care. [47]

It is clear from the literature that patient-centered care will always be the anchor of impactful, therapeutic and holistic intervention. Patient-centered care ensures that patient needs are taken into account and continuously met throughout intervention. Outcomes of intervention are reviewed in collaboration with the patient and adapted accordingly based on what the patient desires to achieve. Literature has also highlighted that it is important for client-centered care to be incorporated more into basic education and studies to ensure that all healthcare professionals have a clear understanding of client-centered intervention at the early stages of practice. It is important to note that patient-centered care requires mutual respect and understanding between the healthcare provider and the patient to ensure the patient is comfortable enough to share their story. This particular study will add to the body of knowledge that exists regarding the value of patients sharing their stories to enhance patient-centered care.

### 2.6. Patient-centered care in occupational therapy

"Client-centered occupational therapy is a partnership between the client and the therapist that empowers the client to engage in functional performance and fulfil his or her occupational roles in a variety of environments. The client participates actively in negotiating goals which are given priority and are at the center of assessment, intervention and evaluation." [48]

One of the founding concepts of client-centered practice is autonomy which emphasizes that the one living with a disability is the one truly knowledgeable about their disability. [49] In client-centered practice, the experience of the patient is acknowledged, and valued and the patient is viewed as being an integral part of decision-making in their own health. [50] The patient needs to be considered as an equal part of guiding therapeutic intervention rather than just a receiver of the services. [50]

Client-centered practice implies that diversity and open-mindedness are central to decision-making and the therapists' thoughts and views are not imposed on patients. [49] This means that the patient plays a role in determining the objectives of treatment as they are an active role player and decision maker in the treatment process. [51] Client-centered practice also requires therapists to reflect on their views that some occupations may be more important than others whereas the patient may have a different view as the one whose occupations are

affected. [50] The occupations most important to the patient become the center of therapy intervention. [50]

In occupational therapy, client-centered practice can also be defined as a way of providing occupational therapy services that are founded on principles of respect and collaboration with the person receiving the services. [49] Throughout a client-centered occupational therapy intervention process, the client's values are at the center of decision-making regarding intervention. [48] The client is treated with respect and throughout treatment, intervention methods are adapted and given room to evolve to ensure that the client's needs are always met. [48] Patients have also expressed that treatment needs to occur in an environment that offers support and is accepting of their needs, thoughts and views for occupational therapy intervention to be client centered.[52] This kind of environment is perceived as offering support and leaving enough room for the client to explore what works or does not work for them in terms of intervention. [52] It is also an environment that is driven by the goals and needs of the patient as an individual. [52]

By allowing outcomes of treatment to be determined jointly by the patient and the therapist, the likelihood of adherence to the therapy program increases. [51] While collaborating with the patient, it is also important to view the patient as a leader in their healthcare and follow their lead in terms of giving information. [39] Following the patient's lead when giving information always ensures that the information given or explained is at a level suitable to the patient's understanding and ensures compliance. [51]

While client-centered practice is important in ensuring holistic care is delivered to patients, some factors can hamper the execution of client-centered care. In a study conducted to determine the views of Danish occupational therapists regarding patient-centered care, they expressed that time constraints, such as being limited to a set time for a patient session and only being able to see a patient a certain number of times, were the greatest issues related to patient-centered care. [50] These therapists also found that factors such as patients lacking knowledge about their conditions and being demotivated to participate in intervention affected the implementation of successful client-centered care.[50]

A study was conducted to determine the depth of knowledge about patient-centered care that is taught to occupational therapists, physiotherapists, nurses and medical practitioners. It was found that it is not very clear how much of the curriculum of study involves patient-centered care as an area of training in all healthcare professions in Sweden.[53] While the healthcare sector and social care are making strides in ensuring the implementation of patient-centered care, the education sphere has not fully caught up to the value of including patient-

centered care in syllabi. [53]

In practice, it is important for occupational therapists to not get caught up in treating anatomical structures or body functions that they forget to consider the occupational needs of each patient.[54] Offering treatment that is founded on addressing both physical dysfunction and the occupations affected as a result of injury ensures that occupational therapists do not lose their identity as occupation-based healthcare professionals. [54] Patients have also expressed that they would prefer for therapists not to provide treatment based only on formulas in textbooks or prescriptive outcomes but rather assist in exploring occupations and provide guidance in that aspect. [52]

It is clear from the literature that client-centered practice is one of the foundational aspects of holistic occupational therapy intervention. The field of occupational therapy is known for being client-centered but has been made clear that therapists still have quite a way to go in being more client-centered. While efforts may be made to be client-centered, it is important to be aware that practitioners still face challenges that make it difficult to always practice in a client-centered approach. However, therapists need to find ways to overcome these challenges to offer client- centered practice. This research will support the importance and value of being client-centered and will also offer insight into how patients perceive the kind of treatment they receive from therapists.

### 2.7. Patient experience of hand-injury

Physical and emotional impact of a hand injury

The hand is a part of the body that holds significant value due to its functional ability to enable participation in life activities relating to self-care, work and social life amongst other activities. [8] The impact of a hand injury on daily function can be partly due to the stiffness and loss of function that develop as a result of trauma to the hand. [14] It has also been documented that the greater the trauma to the hand, the greater the impact on overall functional performance.[14]

One of the physical factors that has been found to affect functional performance is cold sensitivity that occurs after a hand injury. Cold sensitivity is not only the most frequent issue reported after a hand injury, but it is also the most long-lasting symptom after a hand injury. [55] It limits engagement in occupations at work, home and at school especially when cold conditions are perceived by the patient. [55] Cold sensitivity is also the most common complaint occurring in hand injuries related to amputations and replantation.[55]

However, amputations after a hand injury not only cause issues of cold sensitivity but great levels of depression which have been noted in patients with amputations due to the emotional acceptance and grief associated with losing a limb or part of a limb.[56] Psychological preparation is often not given to the patients before amputation due to the hurried nature in which amputations occur as a result of injuries requiring amputation being emergency injuries. [56]

Therefore, it is important to note that the impact of a hand injury extends beyond physical function but also involves the social and psychological function of the injured person.[8] Literature also documents the effects that hand injury has on how an individual interacts within their environment.[2] It is therefore important for hand therapists to take a holistic approach in treating hand injuries to ensure all factors affecting hand injury are considered.[57]

Self-worth can be greatly impacted by a hand injury due to the hands playing a role in enabling participation in functional tasks. [58] In a study conducted to determine the psychological impact of hand injuries, it was found that 94% of people with hand injuries were determined to struggle with depression, anxiety or pain syndromes. [56] Another study looking at emotional distress that develops after a hand injury found that within the first few weeks of sustaining a hand injury, one-third of participants showed signs and symptoms of emotional distress.[57] It is therefore always important to take into account the patient's view and experience of their injury. [57]

While physical dysfunction may be the focus of early hand therapy intervention, psychosocial factors need to be treated simultaneously with physical factors as they are often the prohibition of adjustment after a hand injury. [8] It is also important to be aware of the coping strategies patients adopt in dealing with a hand injury to be able to advise them on adopting appropriate and more effective coping strategies. [58] Some people cope with a hand injury by not looking at the injured hand and therapists need to be aware of such responses to take note of early signs of psychosocial distress. [56]

It is important to monitor how a hand injury affects a patient's emotional and psychological well-being as patients report experiencing significant changes in how they view themselves and the world post-traumatic injury. [3] In a study conducted to observe the effect of hand injury on psychological function, it was found that ninety-four per cent of the patients experienced psychological issues that persisted for longer than months after intervention. [3, 7] These symptoms included nightmares, problems with concentration, depression and insecurities about physical appearance. Over time some symptoms declined while others, such as

nightmares, persisted. [3, 7]

Flashbacks are known to be one of the most common symptoms of psychosocial distress after a hand injury. [56] Different types of flashbacks have been reported with three being the most common, *replay flashback* where a person relives the accident with amplified details, *projected flashback* where a person visualises things that did not happen and appraisal when a person gets a visual image of the hand immediately after injury when all anatomical structures were exposed. [8]

Flashbacks not only cause emotional distress but they also affect adjustment to everyday life after an injury including return to work. Another type of flashback that was discovered to mainly affect return to work is called an *appraisal projected flashback* where the belief of the workplace as being dangerous is magnified due to feelings of having no control over the occurrence of the injury at work. [8] It is important to be aware of these issues to address them early in hand therapy intervention. Early participation in activities also needs to be encouraged as it helps to preserve roles that are important to the patient and this in turn has a positive impact on self-esteem and self-image. [8]

It is clear that patients have their own physical and psychosocial experiences of hand injury and it is important to be cognizant of these experiences when making decisions related to the intervention. There is no doubt that a hand injury can have a devastating impact on the emotional and psychological well-being of a person who has been injured. And while it is important to restore physical functioning, literature shows the importance of restoring psychosocial well-being. However, it is important to note that there is a gap in literature about patient experiences in Gauteng in this regard and this study will add to the existing body of knowledge.

### 2.8. Patient experiences of hand-injury care

A search of literature to explore patient experiences of hand injury care reveals that there is a lack of literature that delves into patient experiences of hand injury care services that they receive. Disability can occur as a result of a hand injury, quality of life can be reduced and overall functioning of the hand can be impaired. [59] Most literature focuses on this aspect of hand injury and there is less literature looking at how patients experience hand injury care services that address these issues.

In a study conducted to look at the experience of hand-injured patients in rural Australia, it was found that participants struggled to trust foreign doctors due to their unwillingness to immerse themselves in local culture and understand life in a rural area. [14] A lack of cultural

appropriateness from the side of a healthcare professional who is treating a patient can have a negative impact on the overall patient experience of hand-injury care. Participants in the same study expressed a level of concern about the depth of the knowledge of the hand injury practitioners who were treating them. [14]

Another study looking at the experience of patients receiving hand injury services through telehealth services during COVID-19 found that most participants were fairly pleased with the service they received.[60] The participants felt that receiving hand injury services via telehealth was also more convenient in regards to having appointment times that fit their schedules, spending less on transport costs and experiencing decreased levels of stress surrounding attending hand therapy in person.[60]

Patients receiving hand injury care services have expressed the need for hand rehabilitation services to be specific to their individual needs and suited to the type of person that they are.[41] They also expressed that is important for the services they receive to work towards helping them achieve successful participation in their daily occupations. [41] Objective factors have been used to determine the outcome of intervention, these include range of motion and muscle strength.[61] However, patient satisfaction with hand injury services has been noted to be determined by factors such as pain, function in daily activities and aesthetics of the hand being addressed.[61]

Occupational therapists use various modes of treatment to improve the hand function of those with hand injuries. This includes the use of wrist support splinting which can help to provide rest, support and stability for the wrist. [62] However, patients have reported splints to affect their ability to function in some cases or affect their engagement in wet activities. [62] In this case, splints are discontinued to ensure functionality is not affected. [62] Some patients receiving hand injury care services have reported that to not lose functionality, all information related to their condition must be given to them by healthcare professionals. [41]

Through a search of the literature, it is clear that there are gaps in the research related to how patients experience healthcare services. This gap is specifically clear about hand injury care services. Although some literature exists that attempts to give insight into this topic, it is either not in-depth or encompassing all the factors that affect the experience of patients receiving hand injury care services. This study seeks to delve into the experiences of patient receiving hand injury care services, from the first point of contact they had when accessing healthcare initially to their reintegration back into their daily lives after injury.

### 2.9. Patient Journey mapping

Patient intervention involves the development of a story that is hopefully developed with contributions from both the patient and the therapist. These patient stores play a vital role in better understanding overall patient experience and human experience. These stories also help to attach meaning to the overall human experience and this was found in a study exploring patients' perspectives of therapeutic relationships.

All patients go through certain experiences in accessing healthcare services and these experiences can be referred to as 'patient journeys'.[6] These same experiences can be reviewed in various ways and one of the most effective ways is the use of 'patient journey mapping'.[6] Journey mapping is an evolving concept in healthcare that is being used to review patient experiences and is a clinically appropriate tool to audit patient experiences.[2] Journey maps focus on the overall healthcare experience of a patient and the various interactions they had along the way, these interactions are referred to as "touchpoints".[3] Journey maps enable us to understand the experiences of the patients at these various touchpoints.[2]

In other contexts, journey maps, also referred to as "user story maps" are used to outline customer or consumer experiences and evaluate the relationship between the consumer and parties involved in the consumer experience.[63] User maps are also used to develop processes that offer consumers more positive experiences as well as experiences that are centered on their needs.[63] In the same way, journey maps are used in healthcare to understand the experiences of patients and develop more patient-centered care services.[3]

Various benefits have been identified in adopting user journey maps to understand customer experience and these benefits include, being able to visualize and identify issues that exist in user experiences and the interviewer being able to ask more probing questions based on what has been identified in the map.[63] User maps are also a helpful tool to understand experiences as they detail all customer experiences as well as people involved in influencing these experiences.[63]

User maps allow for better processes to be put in place for customers to improve customer experience and outcomes.[63] This also meant that more customer-centered experiences could be developed to ensure that the customer receives the best experience.[63] This correlates with the use of journey mapping in healthcare to develop more patient-centered experiences.

Journey maps have been found to be a useful tool in exploring the overall patient experience of services received in healthcare as it allows the researcher to gain broader insight into the patient experience details that may not be easily shared by patients.[4] Not only do they help

in understanding patient experiences but they have also been found to help identify gaps that may exist in healthcare services and identify and address existing barriers in care.[2]

Patient journey maps are a valuable tool because they are not only about focusing on a patient's interaction with a healthcare provider but rather incorporating everything that happens before and after that interaction.[64] This includes but is not limited to factors such as making an appointment and waiting periods which impact the overall patient experience.[64]

Journey mapping is a useful tool in healthcare as it does not only demonstrate services received by a patient but it also describes the relationship between the patient and the services they have received.[5] Patient journey mapping is also a useful tool to visualise the patient experience and empathise with how the patient has experienced the services that they have received.[5] Being able to visualise the patient journey and experiences was found to make it simpler to identify gaps existing in care as well as enable patients to also better review their own experiences.[2]

Patient journey mapping is also a valuable tool in contributing to researching and understanding more patient-centered experiences.[2] This is true as with journey mapping, patients are the main focus of the research and their experiences hold weight.[65] Journey mapping is also beneficial because it offers insight into the holistic patient experience rather than focusing on one incident that affected healthcare.[65]

Although journey mapping has proven to be a very useful tool, one of its limitations is the lack of clarity that exists in the literature on the exact methodology to follow to draft a journey map thus hampering the use of the tool by healthcare professionals.[64] The lack of standardization of patient journey mapping leads to variability in the methods adopted by healthcare professionals.[65]

This study also seeks to go in depth with patient experiences related to receiving hand injury care services and journey maps will be used as a tool to describe these experiences. Literature has proven the use of journey maps to be a useful tool to encompass all aspects of the patient experience while analysing how each touchpoint or contact point impacted the patient in their recovery journey.

### 2.10. Conclusion

This chapter began with a review of healthcare services in South Africa and Gauteng province specifically. The burden of hand injuries in South Africa and services to respond to this need are outlined in the review as healthcare services in South Africa are explored and reviewed.

The availability, cost and accessibility of services in South Africa were reviewed according to what is presented in the literature. Healthcare in South Africa has points of improvement, especially regarding accessibility of services in the aspect of waiting times and affordability of patients to travel to access healthcare services. The healthcare services in Gauteng have not been vastly explored in the literature however, it has been shown that patients are overall satisfied with the services they receive even though waiting times and limited resources also proved to be an issue.

Hand injuries are some of the injuries that place a major burden on the South African healthcare system and due to the nature of violence and poor safety/precaution measures in the workplace in South Africa, hand injuries present commonly. For injuries that occur commonly in South Africa, there is limited literature available regarding how they are managed and treated overall. This is the same for occupational therapy which plays a major role in the intervention of hand injuries. Although some literature is available regarding occupational therapy intervention in South Africa, it is limited. The available literature shows the role of occupational therapy in restoring the function of the hand and helping patients return to participation in life roles and activities.

Patient-centered care plays a vital role in ensuring that patients improve in function and overall health. It is clear that patient-centered care is explored in the overall healthcare system however; it needs to be explored more in relation to hand injury care. This involves the need to explore patient experiences for care to truly be patient-centered. Literature has shown that a hand injury is not only a physical event that affects a person's physical ability to engage in tasks but it has an impact on psychological well-being and functioning. When treating hand injuries, hand practitioners need to consider the impact of an injury on psychosocial well-being. This involves ensuring that treatment is not only focused on restoring the function of the hand but also on supporting the emotional and psychological needs of the patient.

Patient experience of hand injury care is limited in the literature. More literature exists reporting on the overall experience of care from patient perspectives but less specifically on hand injury care. The literature that does exist shows that patient-centered is valued by patients and it allows for holistic intervention to occur. More research that explores the experiences of patients receiving hand injury care services is needed.

Lastly, journey mapping is a valuable tool for exploring customer/user experiences and in this case, patient experiences. Journey mapping allows for in-depth exploration of the patient experience from who the patient was in contact with, how they made them feel and the overall

outcome and experience of intervention received. It allows for a broader perspective to be gained and informs the decisions made by practitioners to ensure that patient care is client-centered.

All literature explored has shown that there is a need for patient experiences to be explored. Where they have been explored, there is a need for them to be explored in more depth to ensure that patients are constantly at the center of all healthcare intervention processes. This study seeks to add to the existing body of literature regarding patient experiences while filling in the gaps that exist concerning patient experiences and overall hand injury care services and improvements that need to be made.

# Chapter 3: Methodology

## 3.1. Study Design

This research employed a descriptive qualitative design as it sought to describe the experiences of patients receiving hand-injury care services in Gauteng in the city of Johannesburg. The exploration of experiences and journeys of participants was typical of qualitative research as the focus was on gaining an in-depth understanding of the way that individuals experience society. [66] Finlay [67] further describes qualitative research as a journey of discovery to be enlightened to the themes that will arise from the research without any expectations or hypotheses from the researcher. Therefore, the focus on the patient perspective is carefully considered without bias. [67]

A qualitative descriptive approach was the most appropriate as it gave the researcher in-depth data to fully understand patients' journeys and their experiences with hand-injury care services. The data collection methods that were used to carry out the research also further depict those of qualitative research as interviews were one of the methods used to gain in-depth insight into the patient's experiences. [68] The use of thematic analysis is also a tool that is found in qualitative research to interpret the research findings. [69] The themes that arose from this study directed the conclusions of the research regarding patient experiences with hand-injury care services.

## 3.2. Data collection/generation

### 3.2.1. Research context

The research settings included one private practice hand therapy (occupational therapy) practice in Johannesburg and the other was a public Community Healthcare Centre in a township in Johannesburg Gauteng that offered occupational therapy services. The student-researcher's position in these contexts was that of a researcher.

### 3.2.2. Research population

The research population included patients who had sustained a traumatic hand injury or injuries to one or both hands and had received hand-injury care services (including occupational therapy) in Johannesburg, Gauteng for at least six months.

### 3.2.3. Sampling method and eligibility criteria

This study is a qualitative descriptive study, therefore, the criteria that were used to select the sample were used to achieve homogeneity and ensure that the sample will have the necessary hand-injury care experience and information that is required for the research. Thus, a purposive sampling method was used as it involves selecting participants whose life experiences reflect those being researched, in this case, those who had experience receiving hand-injury care services. [70]

### 3.2.4. Recruitment

A total of twelve participants were recruited for the study- six from private practice and another six from a public facility in Johannesburg. The participants at the private practice were recruited through the owner of the practice. The owner was approached with the purpose of the research and the criteria for participants. The participants in the public sector were recruited by attaining permission from the CEO of the facility and then contacting the therapist in the rehab department. Both therapists were given information sheets explaining the purpose of the study (Appendix A). The therapists extended the research invitation to suitable patients. Patients who were interested in participating were referred to the researcher who made telephonic contact with them to provide detailed study information. Patients were also told that they were permitted to decline participation in the research project.

### 3.2.5. Methods/instruments and procedures for data collection

Three data collection techniques were utilized for triangulation purposes: individual semi-structured interviews, a journey mapping activity during each interview, and a review of participants' clinical notes. Before data was collected, the patients were given an information sheet (Appendix B) explaining the purpose of the research and a consent form (Appendix C and D) was also attached for the patients to sign before participating in the interviews and journey mapping activities.

Journey mapping was used to track the participants' journey from the onset of injury and their access to hand-injury care services. This included all the participants' points of contact and how they experienced these various contacts.[6]

*Journey mapping* used by Manchaiah, Stephens and Meredith [6] was adapted and used for this study during the interview stages. Facilitated by the student researcher, participants were given one empty timeline on an A4 poster which they could fill in with details about their

experiences before, during and after acquiring the hand injury.[6] Initially, the aim was for the participants to fill in the maps however, due to their injuries, the researcher ended up filling in the maps based on the information that was given. The following three aspects were covered: *touch points* that are clinical and non-clinical; experiences at each touchpoint and brief descriptions of events and influences that affected experiences at each touchpoint, both internal and external influences. [21]

*Interviews* were another tool that was used. The in-depth interviews enabled the student researcher to explore the depth of participants' lived experiences of hand injuries and accessing hand injury care services. The knowledge gained from the journey mapping was used to guide the interview and gain more in-depth information. A short demographic questionnaire was included in the interview. The interview questions were posed based on an interview guide (Appendix F) leading towards gaining further understanding of how the participants have experienced hand-injury care services and why they responded the way they did in the journey mapping activity.

The final data collection tool that was used is the *clinical notes (Appendix G)* in the participants' files. This tool was used to gather existing information from the files and get a broader understanding of the services that the participants have received and the progress that they have made throughout their journey. The notes also provided the necessary collateral information that was required to get more insight into the kinds of services the participants received. This was compared to the information that had already been provided by the participants.

### 3.2.6. Data management

The data collected from the interviews was audio-recorded and stored on the researcher's phone which is a password-protected device. The data that was collected from the interviews through the journey maps was scanned and stored on the researcher's password-protected laptop to ensure confidentiality. The participants kept the original copies of the information sheets. Any information or data gathered from the participants' files was not photocopied or replicated in any way. Notes that were made were stored with the scanned documents that the participants completed in the interviews and journey maps. All the transcribed interviews were also kept on a password-protected device.

### 3.2.7. Data analysis and interpretation

Thematic analysis was used as the approach of analysis as it is the foundation of the analysis methods to be used in qualitative research.[71] The research aimed to gain information-rich data that could be used to draw conclusions regarding patient experience and to do so, themes were developed based on the information received from the interview and the journey mapping activity.

Various approaches may be adopted in thematic analysis- inductive or deductive based on the purpose of the research; in this study, an inductive approach was adopted.[71] This approach was used to ensure that all the data received from the participants is considered and the themes that were identified emerge from the data itself rather than trying to force the data to fit the research question.[71] The interviews were transcribed word for word and a commercial transcription service was used for which funding was provided in the research budget.

The steps that were used to analyse the data are the six steps provided by Braun and Clarke [72] on how to analyse data using thematic analysis. The first step is data *familiarisation*, this was done by listening to the audio from interviews several times as well as reading the transcribed data from the interviews, the journey maps and patient notes.

The second step involved *generating codes* based on the participants' responses. The transcripts from the interviews were printed and the researcher read through them to generate codes based on common responses from the participants. The third step involved grouping and *combining the codes* such that they reflect any patterns that exist in the participants' experiences and from this themes were developed.

The fourth step was a *review of the themes* that were found and whether they all correlated with the generated codes and the overall data set. The fifth step involved the themes being named and *defining the significance of the themes* to ensure they are a true reflection of the participants' experiences. These themes were then further divided into sub-themes that reported on the findings in the dissertation. The final step was the conclusion of the research project in the form of a dissertation through *reporting of the findings.*

The researcher also reviewed the data constantly and analysed the findings throughout the data collection process. The constant analysis of the data helped the researcher determine if there were any necessary changes in the data collection going forward to ensure the richness of the data.[73]

## 3.3. Rigour of research

Researchers in qualitative studies have struggled to give in-depth descriptions of the methods adopted to analyse data, causing qualitative analysis to be viewed as biased and unscientific.[74] Therefore, qualitative data analysis has been questioned for several years and Krefting is one of the seminal authors to describe that trustworthiness is a model that can be used to display that qualitative data analysis is scientific.[75] The following four components of trustworthiness were implemented to ensure the viability of the research: credibility, transferability, dependability and confirmability.[66, 75]

***Table 3. 1. Four components of trustworthiness***

| | **Actions that were taken to ensure this** |
|---|---|
| Credibility<br>● Reflexivity<br>● Triangulation | ● A reflexive journal was used to record all personal views, interests and biases during data collection and personal reflections. This was used after each day of interviews for the researcher to also reflect on her overall feelings after each interview and be more aware of how the interviews affected her.<br>● Three data collection sources were used- interviews, journey mapping and review of clinical notes |
| Transferability<br>● Nominated sample<br>● Dense description | ● In-depth descriptions were be given of the collected data. This was in the form of in-depth interviews, journey maps and in-depth data analysis. |
| Dependability<br>● Dense description of methods | Steps that can be replicated were followed in the data collection and data analysis process. |
| Confirmability<br>● Triangulation<br>● Reflexivity | ● Three different data sources<br>● Reflexivity journal |

## 3.4. Ethical considerations

Ethical approval was obtained from the University of the Witwatersrand Human Research Ethics Committee (HREC) with the following number: *M220415* (see Appendix H). Ethical clearance was also received from the Research Committee of Johannesburg Health District Ethics as well as the CEO/Facility managers/Medical Managers of the facilities with the following reference number: *NHRD GP_202202_036*

Autonomy and informed consent: Participation was completely voluntary and detailed information on the study was provided for participants to make an informed decision. This information was provided in English but verbal translation into the patient's home language was facilitated if necessary (see Appendix B, C and D). Participants had the right to withdraw from the study at any point. For the interviews, all participants were required to sign consent forms. Information sheets and consent forms provided specific details of how data will be used to inform participants of consent in line with POPIA.

Confidentiality and de-identification: Participants were assigned pseudonyms by the researcher. Facilities were also not identified in the data analysis process.

Beneficence and non-maleficence: The benefits and risks of participation were comprehensively explained to participants in the study information sheet (See Appendix B). No direct benefits or risks are involved in participation. However, if the sharing of their experiences triggered distress in participants, they were referred to the South African National Depression and Anxiety Group for support or assistance even those that were not triggered. (Email: office@ anxiety.org.za / Toll-free telephone number: 0800 323 323 or SMS 31393.

# Chapter 4: Results

The study aimed to describe the experiences of patients receiving hand-injury care services with the following objectives. The objectives were to map the journey of hand-injured patients; describe the experience of accessing hand-injury care services in Gauteng; describe the experience of receiving occupational therapy services in Gauteng and describe the experience of having a hand injury. The results obtained from the analysis of the participant responses are presented in three parts. First, an overview of participant features is presented in a demographics section. This is followed by the twelve journey maps of participants accompanied by a summary of their journey. The themes and sub-themes generated from the thematic analysis of interview transcripts are then presented.

## 4.1. Demographics

Half of participants (n=6) were male and half (n=6) were female. Six participants received hand-injury care services in the public sector and six from the private sector. Eleven of the participants sustained traumatic injuries and one of the participants initially sought help for inflammation but sustained an injury at a later stage. Work injuries (n=6) were most common followed by falls at home (n=4). One participant's injury was due to a car accident and the final participant initially sought hand-injury care for an inflammatory condition and sustained a fall at a later stage. Pseudonyms were assigned to each of the participants to maintain confidentiality.

***Table 4. 1. Participant demographics***

| Participant | Age | Occupation | Mechanism of injury | Surgeries | Type of injury | Private/public sector | Gender |
|---|---|---|---|---|---|---|---|
| Claudia | 61 | Accounts clerk | Fall at home | 5 | Fracture: right elbow | Private | Female |
| Thato | 31 | Machine operator | Work injury | 2 | Fracture: left index finger | Private | Male |
| Katlego | 45 | Machine operator | Work injury | 1 | Amputation: right index finger, palmer laceration | Private | Male |
| Boitumelo | 40 | Accounts administrator | Car accident | 2 | Fracture: left middle finger | Private | Female |
| Kim | 45 | Retail supervisor | Fall at work | 4 | Soft tissue injury: right wrist, pre-existing DeQT & CTS | Private | Female |
| Steven | 32 | Artisan | Work injury | 3 | Fractures: left radius and ulnar, left metacarpals | Private | Male |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Joseph | 46 | Handyman | Work injury | 1 | Fracture: right index finger | Public | Male |
| Ayanda | 42 | Woodcutter | Work injury | 2 | Flexor tendon injury: right index finger | Public | Male |
| Mpumi | 63 | Electrician | Work injury | 1 | Amputation: left middle finger | Public | Male |
| Ntando | 63 | Home executive | Fall at home | 1 | Fractures: right distal radius & hip* | Public | Female |
| Jessica | 50 | Teacher | Inflammation | n/a | *Thumb tendonitis* | Public | Female |
| Sihle | 25 | Student | Fall at home | 2 | Fracture: left little finger | Public | Female |

## 4.2. Journey maps

### 4.2.1. Claudia

Claudia, a 61-year-old lady, sustained a complicated right elbow fracture after falling at home. She received surgery the following day, but some injuries were missed, which contributed to severe complications, four additional surgical procedures and restricted functional outcomes. Her experience of hospital staff and care was good, and she experienced occupational therapy very positively. Various events and personal factors interplayed with Claudia's experience of accessing care and her recovery process including pre-morbid depression, challenges associated with living alone, and the passing of her sister.

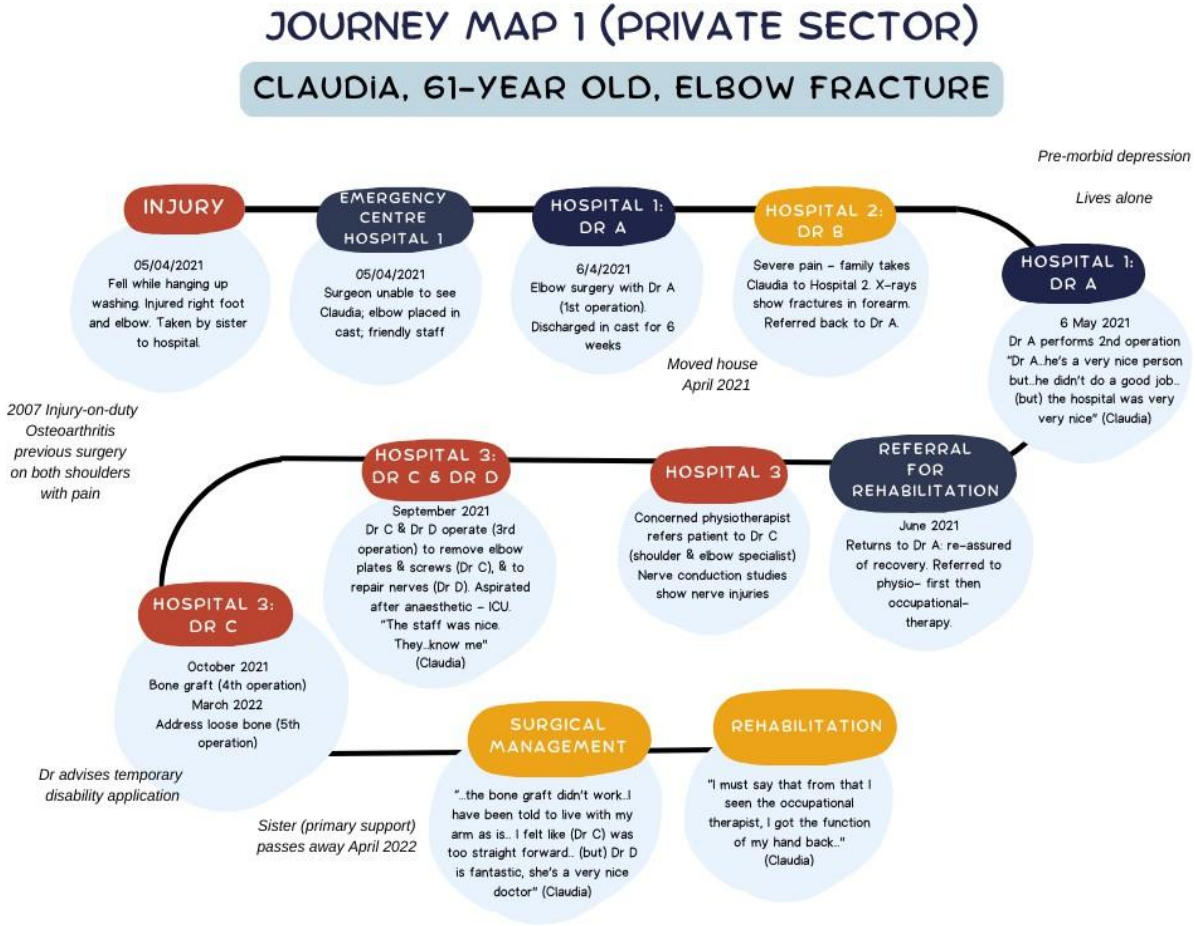



***Figure 4. 1. Claudia's Journey Map***

### 4.2.2. Thato

Thato, a 31-year-old male, sustained a left index finger fracture while operating a machine at work. Surgery to insert a plate was performed on the same day of the injury and he was referred to occupational therapy. Thato had an overall unpleasant experience because he finds hospitals unpleasant, and he had a prolonged stay due to COVID-19 delaying surgeries. His injury made it difficult for him to be independent again in his everyday tasks and he relied on the support of his partner which caused him frustration as he was used to being independent. He had no difficulties accessing care but his experience of pain from the injury made his journey a difficult one.

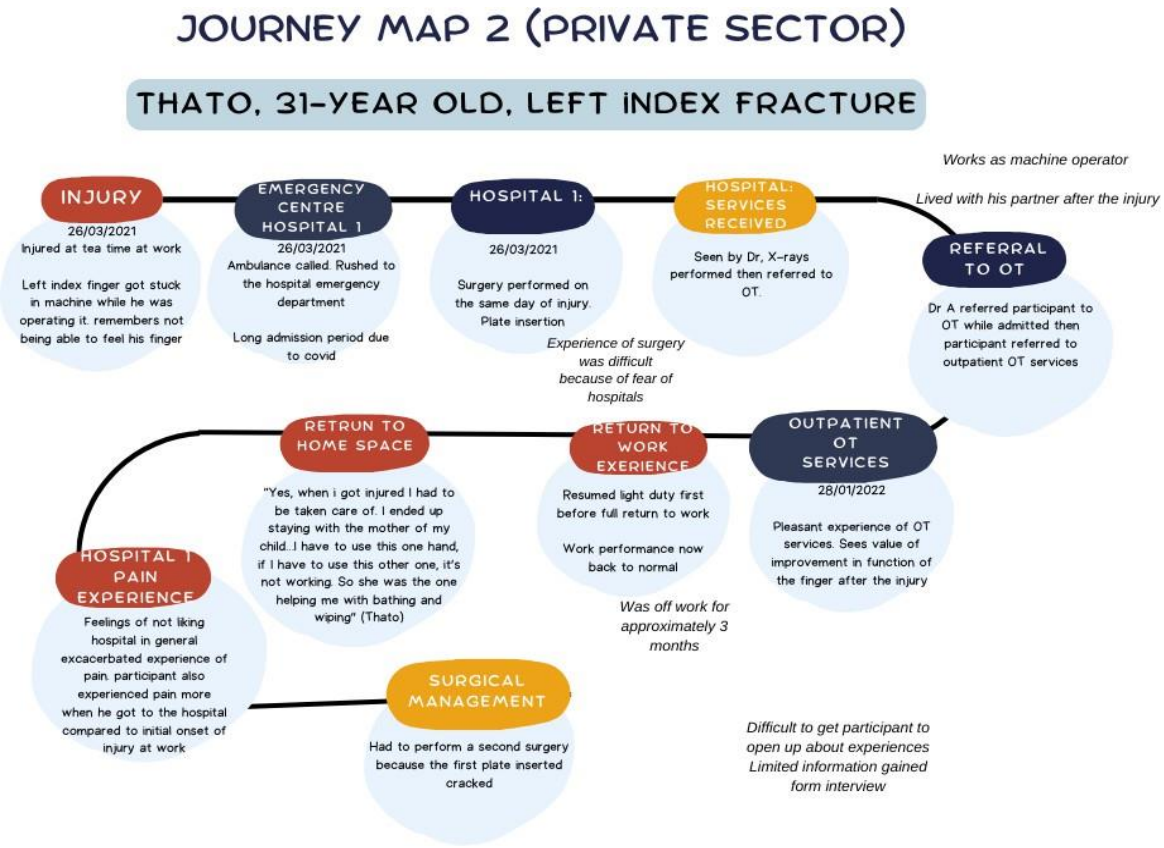



***Figure 4. 2. Thato's Journey Map***

### 4.2.3. Katlego

Katlego, a 45-year-old male, sustained an injury to his right index finger while operating a wood-cutting machine at work. He was rushed to hospital immediately and later had an amputation of the finger. His amputation has affected his participation in premorbid tasks, especially social activities, as he feels self-conscious about his hand. The welcoming nature of the staff in the hospital and their willingness to explain everything to him made his overall experience a positive one. He resumed light duty at work three months after injury and is back to being independent in all daily activities.

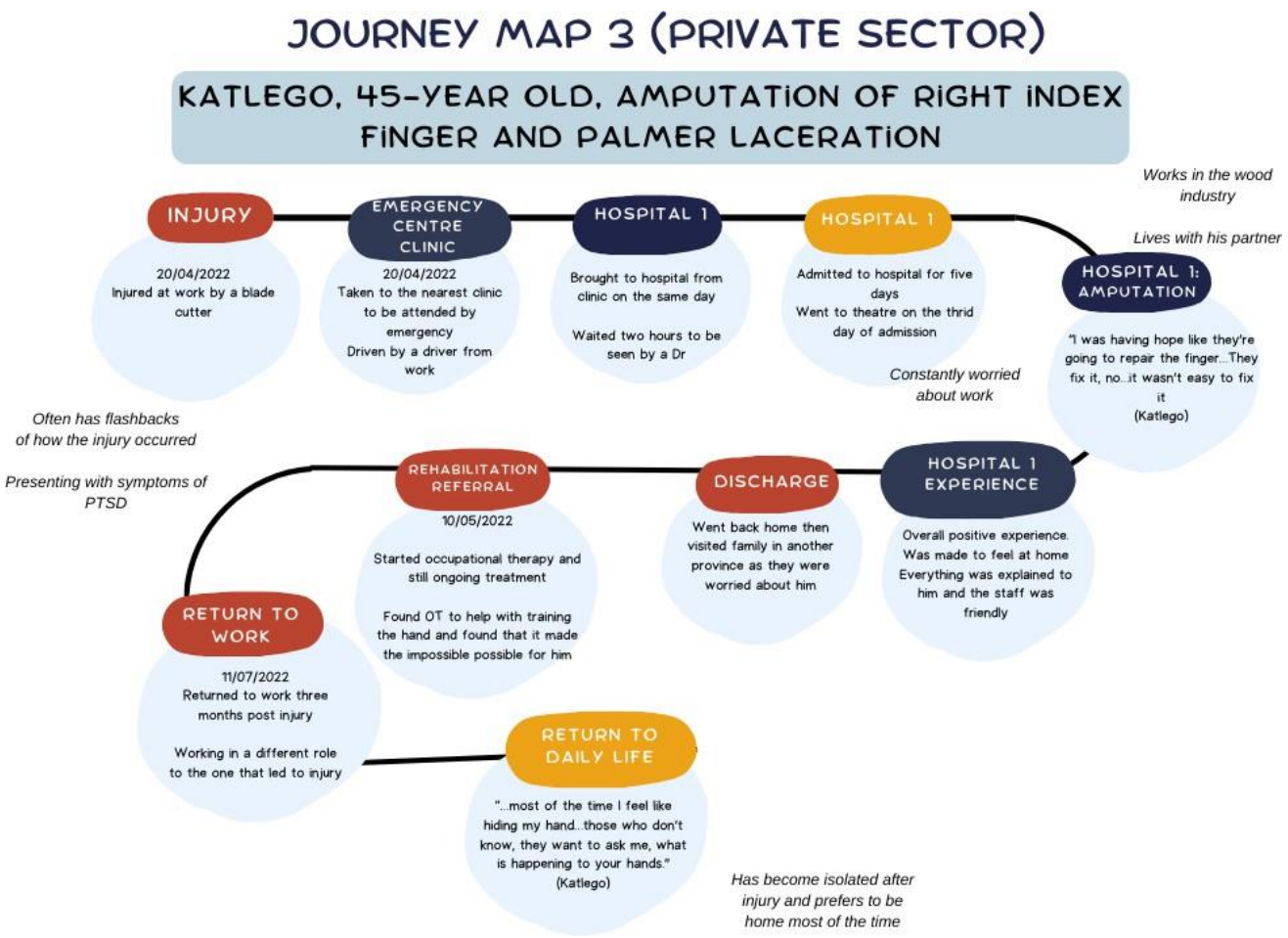



***Figure 4. 3. Katlego's Journey Map***

### 4.2.4. Boitumelo

Boitumelo, a 40-year-old lady was involved in a car accident with her husband which subsequently led to her left leg being injured and her left middle finger which was fractured. She reported to the emergency department of a hospital and received poor treatment where she was sent home with injuries. She found a second hospital where she was later admitted and had two surgeries performed. Her experience of overall care and hospitality of the staff was good. The lack of independence she experienced due to the injury led to her relying on her 10-year-old daughter for multiple self-care and home management tasks which caused her pain as a mother to watch her child grow up sooner than expected. Due to extended time being taken off work, she felt the financial burden of the injury but has now returned to work under the same role.

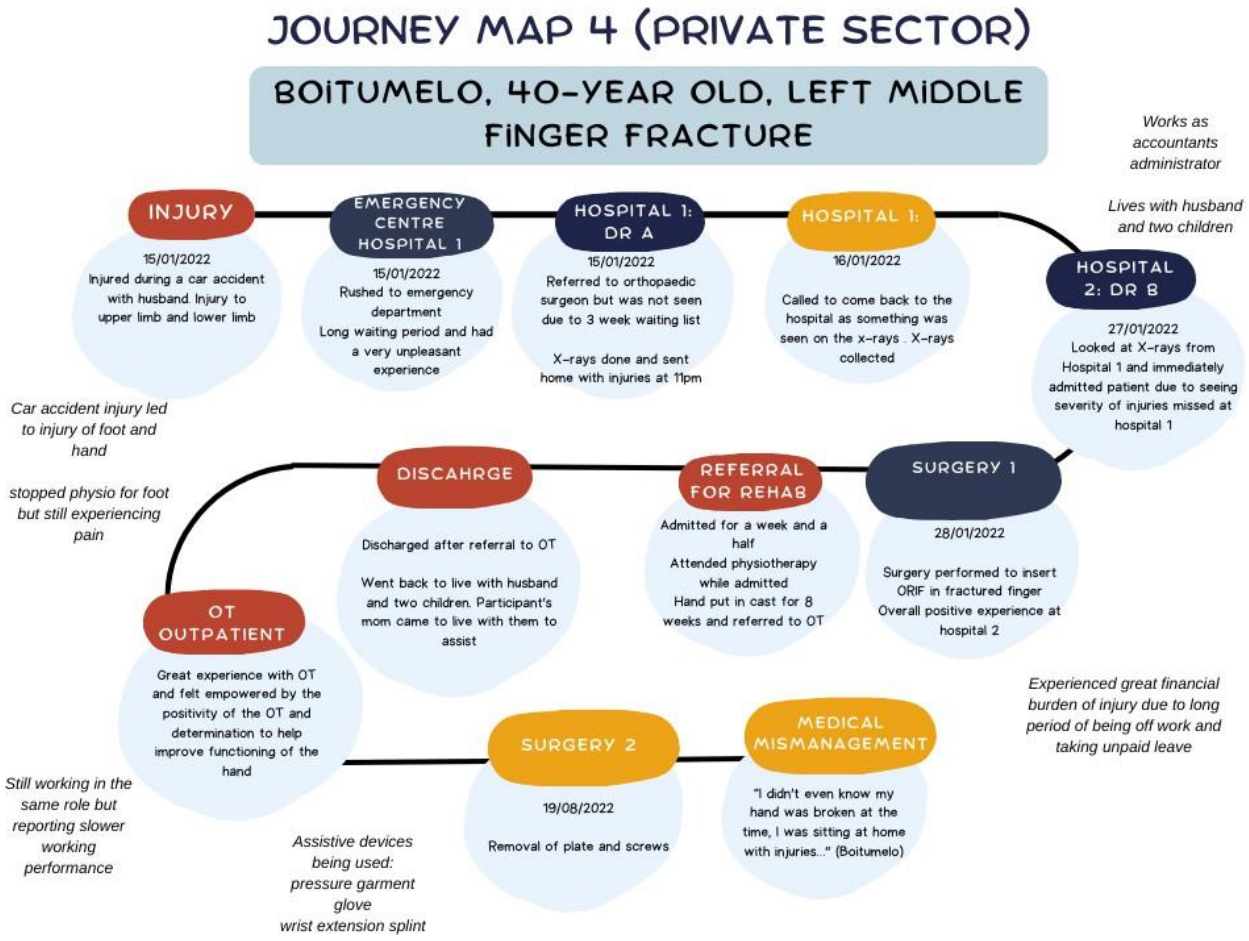



***Figure 4. 4. Boitumelo's Journey Map***

### 4.2.5. Kim

Kim, a 45-year-old female sustained a soft tissue injury to her right hand due to a fall at work while trying to help her colleague. She took an Uber from work to the hospital and was admitted on the same day. Her experience with the hospital staff and her two surgeries was positive as she felt the staff was friendly and knowledgeable which put her mind at ease. It was not easy for Kim to adjust to life after the injury due to the loss of independence in daily tasks and a slower rate of performance at work. She often experienced feelings of hopelessness, frustration and emotional pain because of the injury. She enjoyed her experience of occupational therapy and found that it helped to also address some of the emotional pain of sustaining an injury.

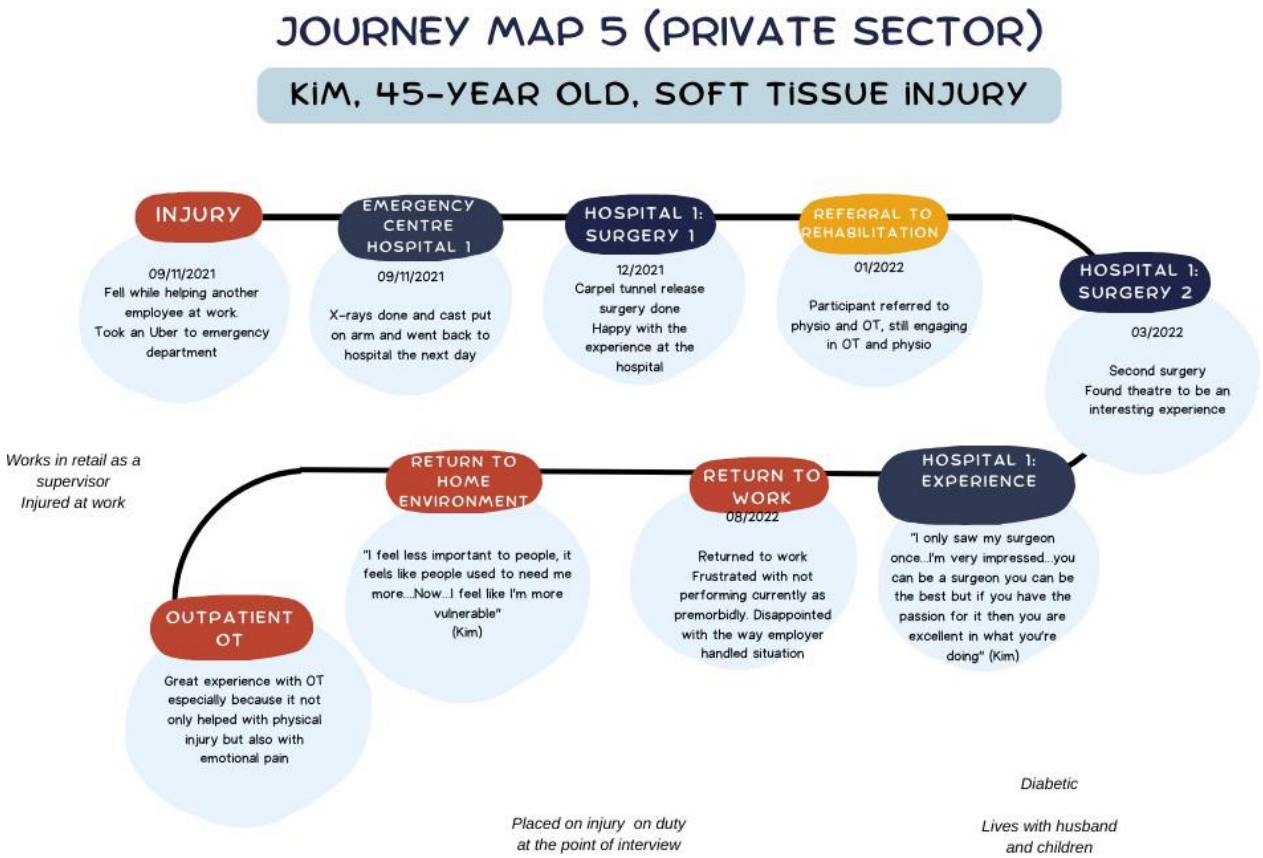



***Figure 4. 5. Kim's Journey Map***

### 4.2.6. Steven

Steven, a 32-year-old male, sustained an injury to the left radius, ulnar and metacarpals due to his hand getting stuck in a machine at work. He was admitted to hospital on the same day. He has had three surgeries in total and had an overall positive experience with the hospital and the hospital staff. Steven was doubtful of occupational therapy at first and later found it to be very helpful in his healing journey and regaining the function of his hand. His injury has had an impact on his premorbid activities as he no longer spends time fixing cars as he previously enjoyed on weekends. He is also not as social as before because he is hand injury has made him more self-conscious.

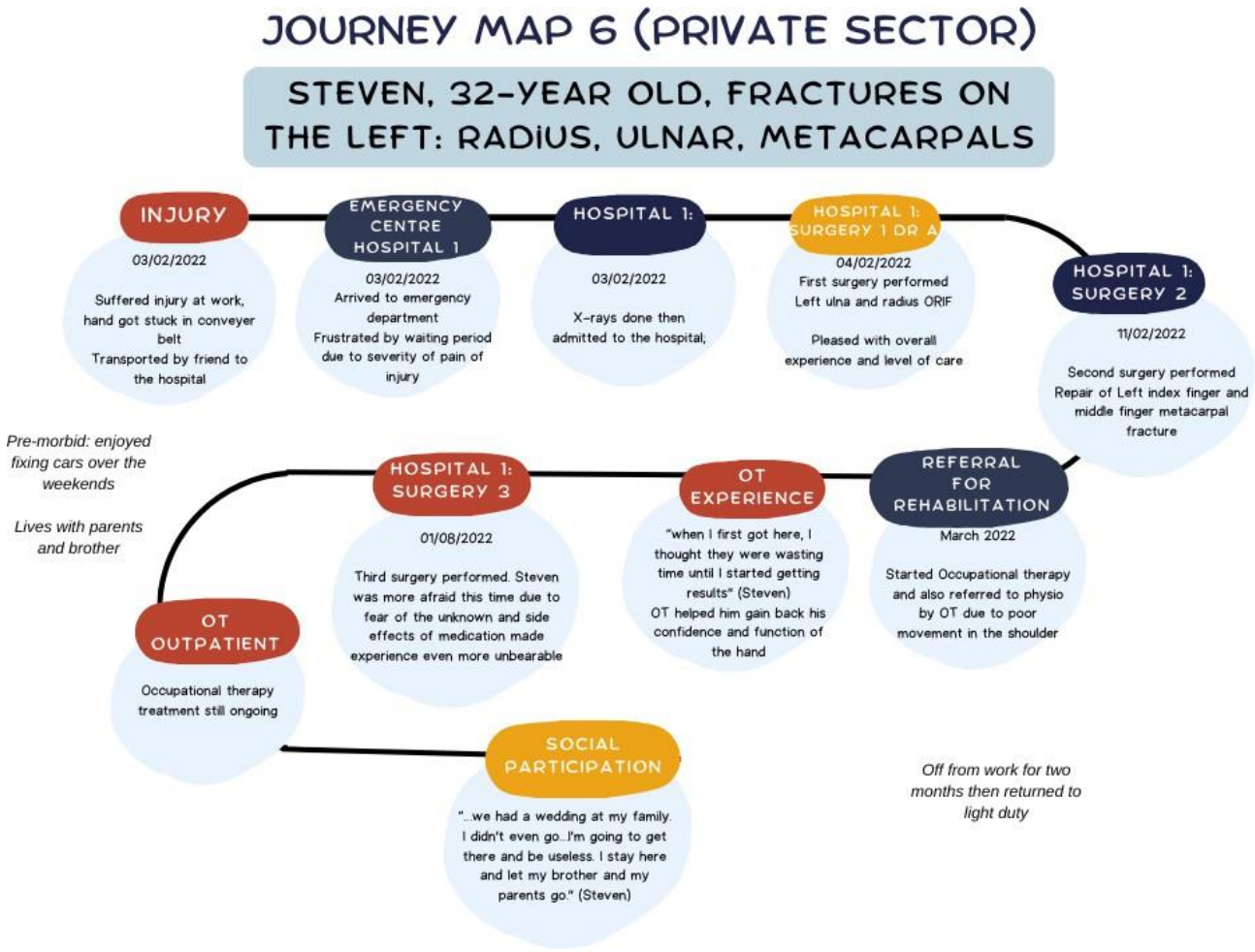



***Figure 4. 6. Steven's Journey Map***

### 4.2.7. Joseph

Joseph, a 46-year-old male fractured his right index finger due to a ladder falling on his finger while he was working. He sought help a few days after the injury and was admitted to the hospital where he waited two weeks for surgery. The long surgery waiting-period made his experience a negative one because he is the provider for his family and he was unable to do so for a prolonged period. The extent of his injury has also meant that he is still unable to work which causes feelings of helplessness and frustration as he is still unable to provide for his family and make payments at the hospital. His overall journey has not only been marked by physical pain but mostly by emotional pain.

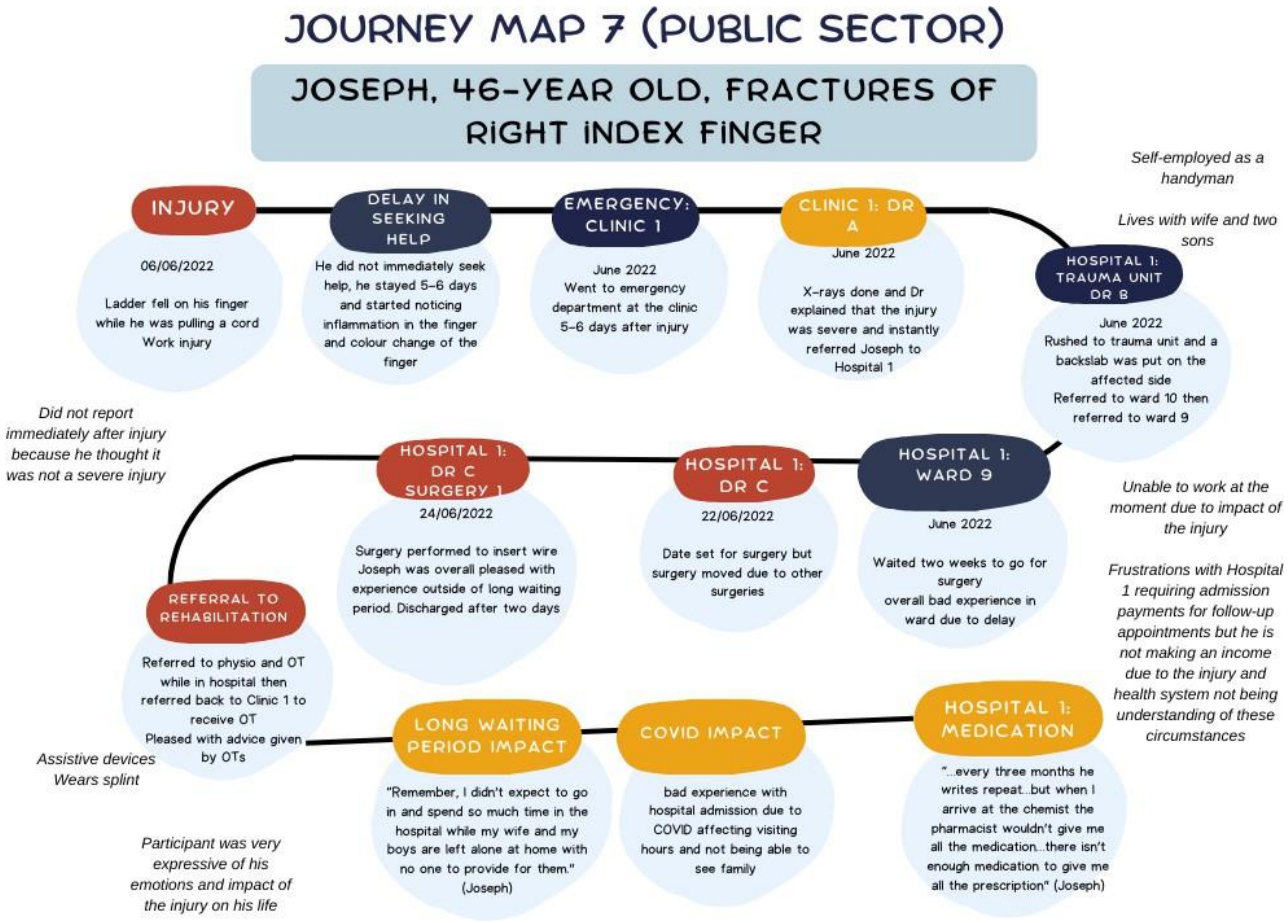



***Figure 4. 7. Joseph's Journey Map***

### 4.2.8. Ayanda

Ayanda, a 34-year-old male, suffered a flexor tendon injury which also affected his right index finger. His injury occurred while he was assisting another colleague with a wood-cutting machine. He was rushed to the hospital on the same day and reports an overall bad and unpleasant experience due to sitting for hours for assistance with admission while he was in severe pain and covered in blood. His right ring and middle fingers were amputated and he was discharged five days later. He lives alone and is still independent in all tasks. He did not focus much on the overall experience as he was constantly worried about the recovery of his hand.

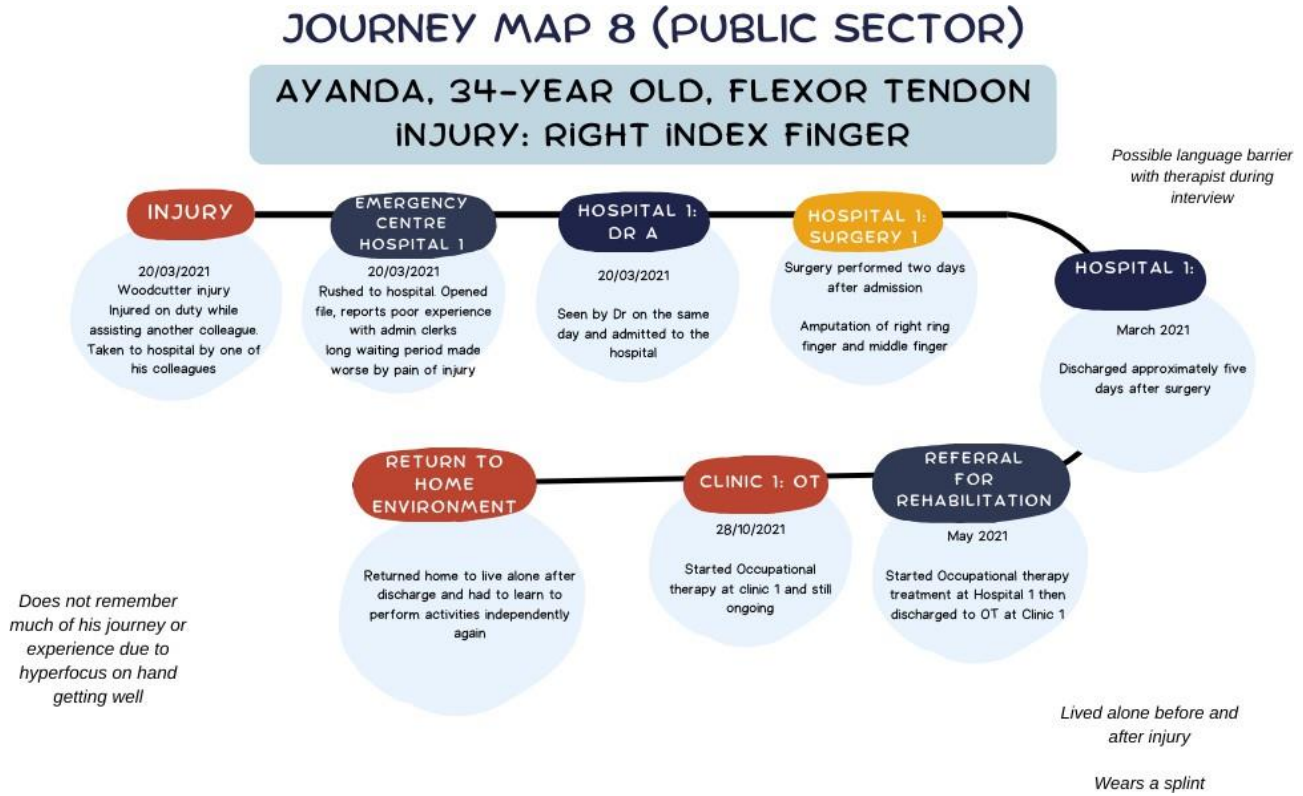



***Figure 4. 8. Ayanda's Journey Map***

### 4.2.9. Mpumi

Mpumi, a 53-year-old male was injured by a grinder at work and was rushed to the hospital immediately. His experience at this hospital was unpleasant due to the long waiting period to be assisted at admissions and he was sitting with severe pain, his hand covered in a plastic bag full of blood that went to be cleaned and put back on while waiting. He was overall not pleased with the services rendered by the doctors and admin clerks at the hospital. His left middle finger was amputated and he returned home to a supportive wife. He is still working and ongoing occupational therapy, which he finds to be very helpful and the therapists are friendly and welcoming. He emphasised the importance of healthcare professionals taking into consideration the emotional impact of an injury.

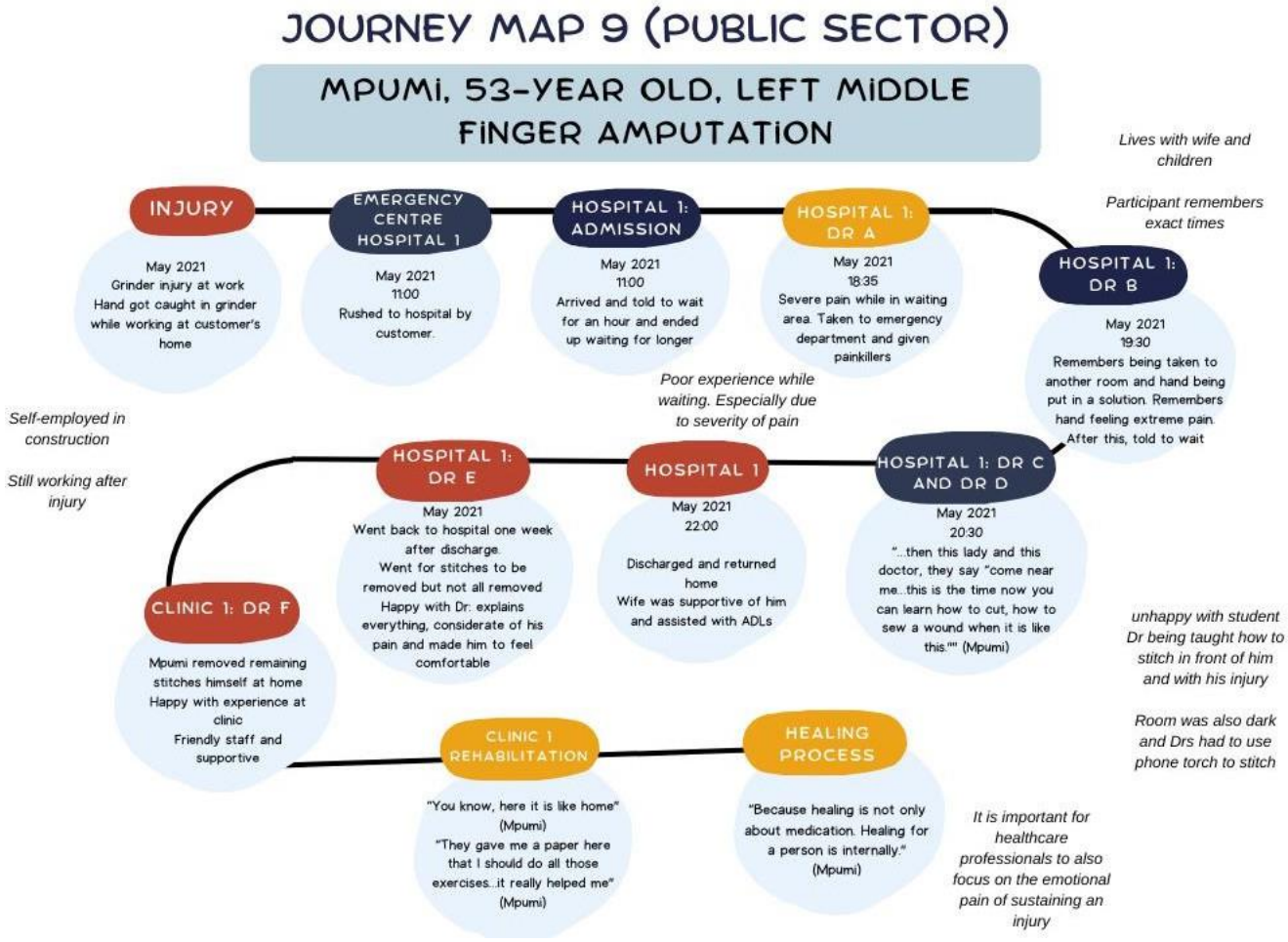



***Figure 4. 9. Mpumi's Journey Map***

### 4.2.10. Ntando

Ntando, a 63-year-old female home execute fell at home and suffered a hip injury and right distal radius fracture. She went to a clinic emergency department and then later went to the hospital where she was admitted a cast was put on her arm for six weeks and also underwent hip surgery. Ntando decided to turn a blind eye to most of the unpleasant experiences and services at the hospital while admitted as she felt it was better to focus on getting better so she could leave as soon as possible. She had a positive experience at the clinic found occupational therapy helpful and saw improvement in the function of her hand. The emotional impact of the injury is evident in her poor sleeping patterns due to continuous stress about the functioning of the hand. Her children hired a helper to assist her with household tasks but Ntando is determined to return to complete independence.

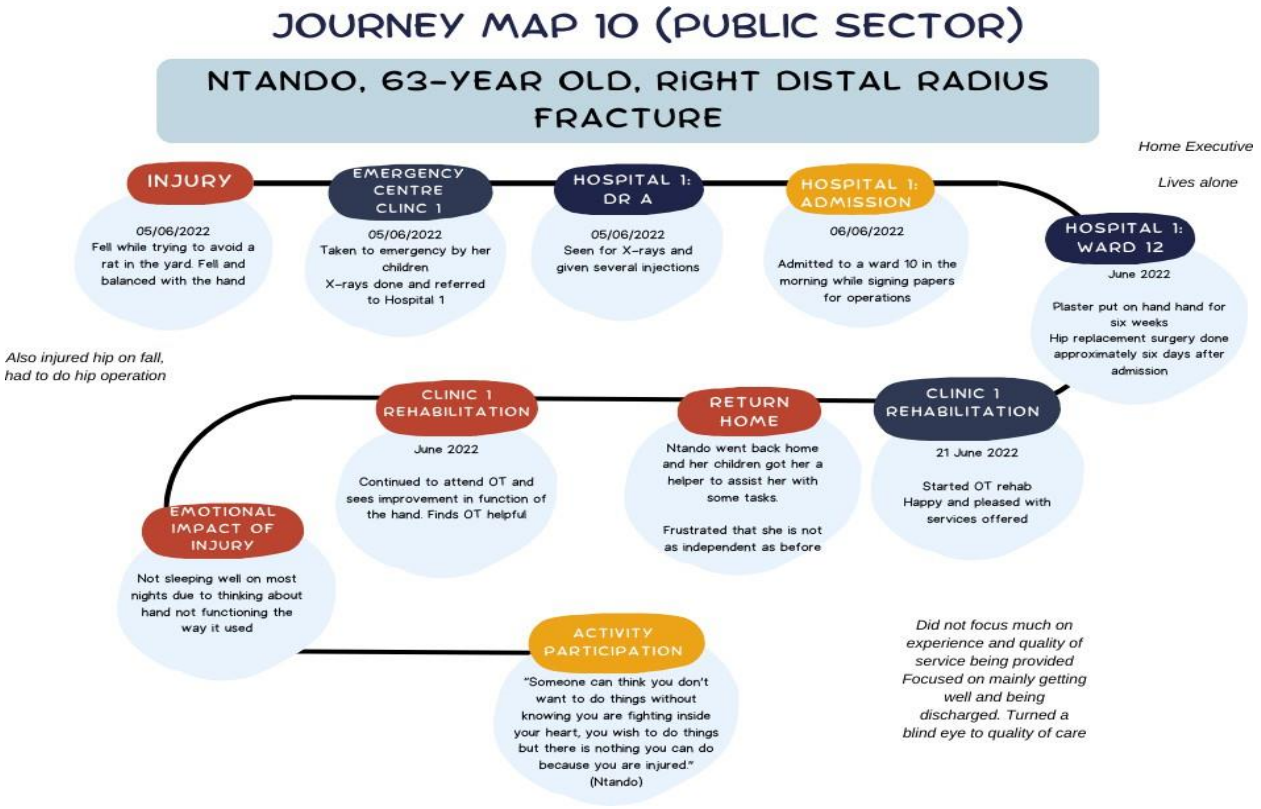



***Figure 4. 10. Ntando's Journey Map***

### 4.2.11. Jessica

Jessica, a 50-year-old female works as a Grade R teacher and woke up one day with pain and inflammation in her left thumb. She went to the clinic and was instantly referred to occupational therapy which she has found to be helpful over time. Her journey is a relatively short one and she was mostly pleased with the services rendered by healthcare providers involved. She is still working and independent in all daily tasks.

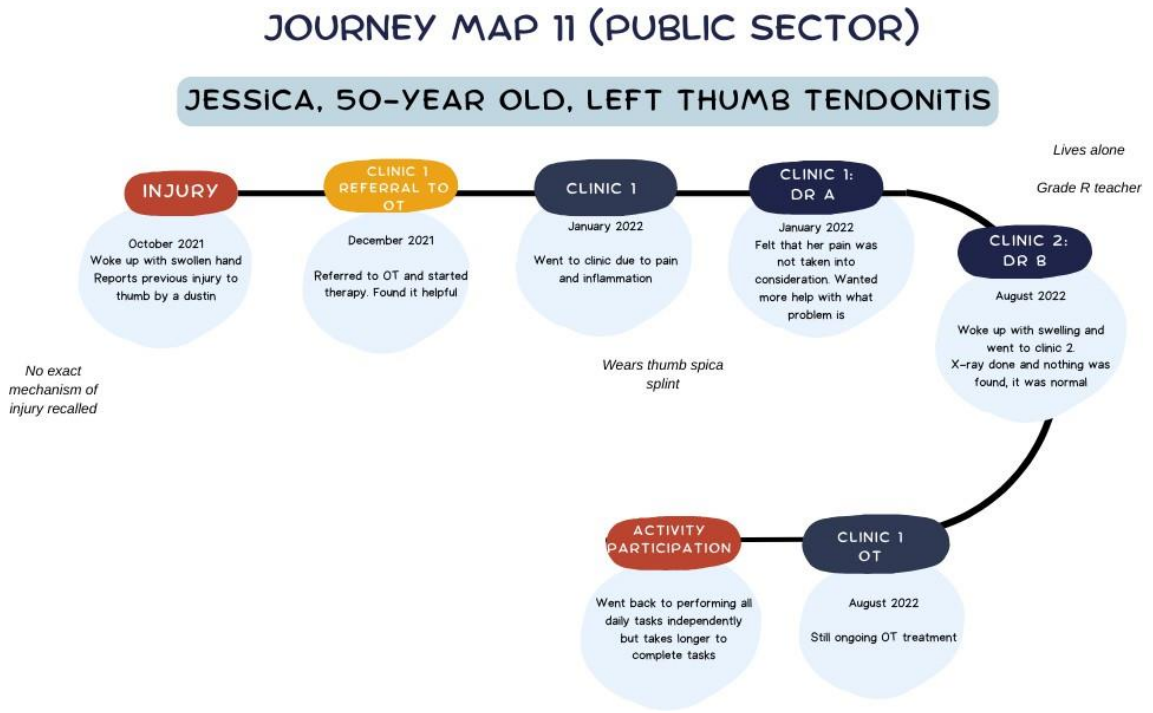



***Figure 4. 11. Jessica's Journey Map***

### 4.2.12. Sihle

Sihle, a 25-year-old student fractured her left little finger. Her journey is interesting in that her injury occurred when she was five years old, she was treated accordingly for it and an operation was done. However, due to apparent medical mismanagement, she started having pain and inflammation in her finger years later until it was found that a wire that was meant to be removed from her operation at five years old was never removed. This caused her to be displeased with the care she received about the operation. She is pleased with the treatment offered at occupational therapy and the improvement she is seeing in her hand. Her pain and difficulty using her hand made her journey a sad one and led to insecurity around the way her hand looks but she has improved in her overall emotional wellbeing.

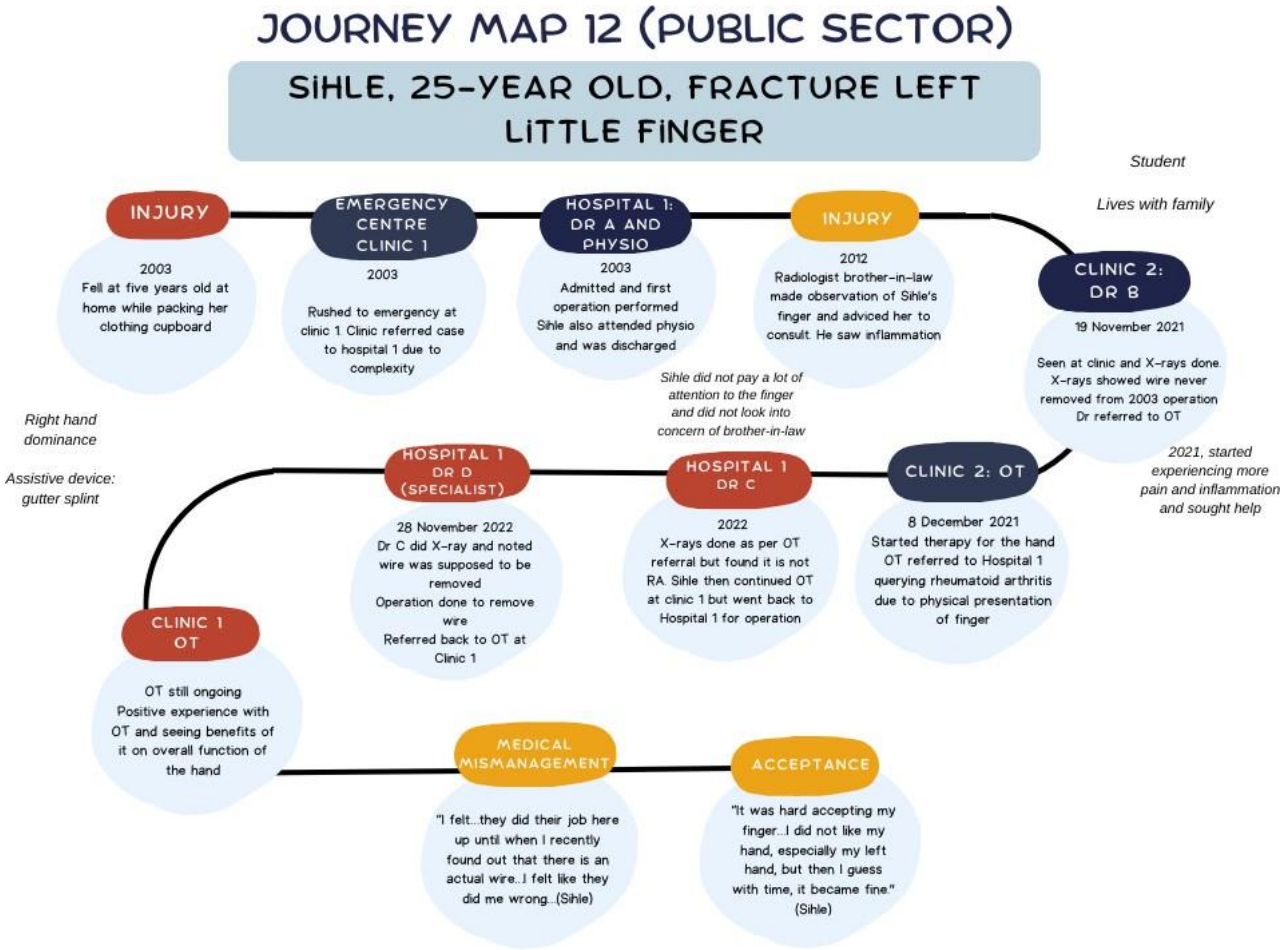



***Figure 4. 12. Sihle's Journey Map***

## 4.3. Themes

Five themes and several sub-themes were generated from the analysis, as depicted in Figure 4.13. Each of the themes is described below.

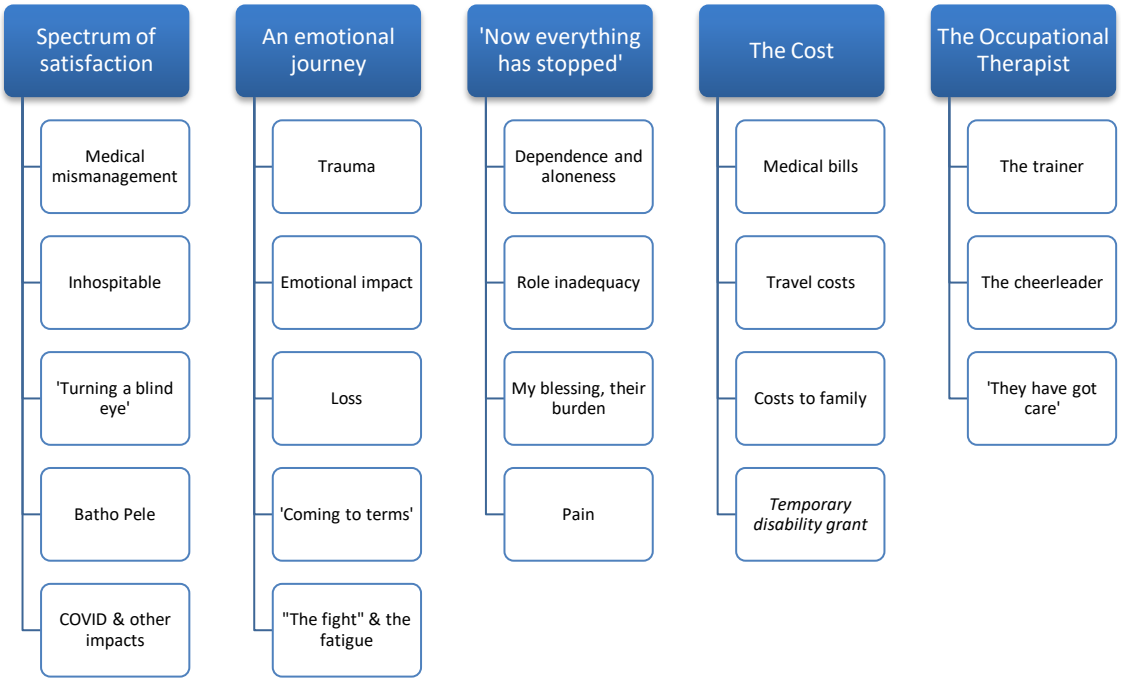



***Figure 4. 13. Themes***

The themes generated from the data collection process are as follows:

### 4.3.11. Theme 1: Spectrum of satisfaction

The first theme generated from the analysis captured participants' varying levels of satisfaction with the healthcare that they received. Participants' experience of satisfaction, or dissatisfaction with the services, played a major role in their overall experience of sustaining a hand injury.

4.3.1.1 Medical mismanagement

The first sub-theme reflects several participants' experiences of mismanagement. Several participants had injuries that were missed. Others felt that their cases were poorly handled and managed by staff. The mismanagement encompassed some participants having to undergo several operations due to injuries that were missed. One of the participants explained:

*"My hand was completely dead…like a rubber hand…and he just told me, 'Yes, it will get better in time'… The physiotherapist suggested I phone (a different doctor) …they done a nerve test …and found that I had two nerves…that were completely dead…it will take 18-24 months for this nerves to heal…I will apparently never have 100% function back"*

*Claudia, 61 years old, right elbow radius fracture*

Another participant expressed the same sentiments about injuries not being attended to while at the hospital:

*"I think we arrived around nine, we were discharged in the morning at about two AM in the morning from the emergency room and then we were sent home with our injuries…"*

*Boitumelo, 40-year-old, fractured of left little finger.*

A similar experience with poor management after surgery was relayed by Mpumi:

*"Stitches. And he took them but, unfortunately, he did not take them all. He left something like two or three inside… He left some of those things inside. Or he left them knowingly or unknowingly. I do not know."*

*Mpumi, 53-year-old, left middle finger fracture and amputation*

4.3.1.2. Inhospitable

Several participants experienced *inhospitable* care either due to how they were treated by healthcare professionals or their experience of the overall services rendered. Several participants, especially in the public sector felt that the nature of their injuries was treated poorly, especially in the admission facility, one participant reported:

*"I went to the line…the blood is coming…and that (terrible) pain and I said, 'Hey, please help me.' They said, 'No, we cannot help you…just go sit there. Wait for these people here…' They they were moving slowly slowly…taking their tea…that one just playing with the books…another one is doing whatsoever on the phone. When you are here…having that pain…no one is helping you…I've been here for…almost five hours…Each*

*and every person has got this dignity in him or her…(but) They are rough…they talk like you are a small kid"*

*Mpumi, 53-year-old, left middle finger fracture and amputation*

As noted above, how participants were spoken to was not the only concern but long waiting periods also made the services rendered inhospitable. Long waiting periods were an occurring factor in waiting for surgery and long admission waiting periods which were made worse by the pain. One of the participants reported:

*"So, when I asked, "Why is it taking so long?" They just gave me an explanation that the problem is there are too many emergencies…of which as a person I understand, yes, because they are people who get involved in accidents and stuff, so they need urgent attention before they can lose their lives. So, I stayed until my day arrived that we go to theatre to be operated on… It was very bad, but because I needed that help..."*

*Joseph,46-year-old, right index finger fracture*

4.3.1.3. 'Turning a blind eye'

This sub-theme captures a coping mechanism some participants adopted to not be overwhelmed by medical mismanagement and inhospitable practices experienced in the healthcare system. Some participants chose to not focus on the services rendered but rather focus on recovery:

*"You know what? As a person even if you are seeing things but if you want to be alive you have to pretend like you are not seeing anything. Yes there were others that were not talking nicely but I told myself that it's a hospital. They are working. If you want attention too much you will end up getting wrong things so you must be patient"*

*Ntando, 63 years old, hand/wrist fracture*

Another participant reiterated the same sentiment. When asked about his view of the services he received, he mainly said that he did not see something wrong with the services because his focus was not on that, wanted to focus on the recovery of his hand

*"I can't say, I see something because only…just want my hands must be right."*

*Ayanda, 34-year-old, flexor tendon injury to right index finger*

4.3.1.4 Batho Pele ('People First')

This sub-theme was named *Batho Pele* as it highlighted positive participant experiences of healthcare professionals who espoused Batho Pele principles; when they showed courtesy, explained everything that was being done, and showed timeous responses to emergencies. When healthcare professionals were kind, patient, and understanding and expressed genuine care and empathy, it improved patients' experience. One participant said:

> *"I will explain it again, because the nicer they treat you … You do not even feel the pain that you are having, because the conversation that what you are having at that particular time; it feels you are nice. It kills the pain that is in you."*

*Mpumi, 53-year-old, left middle finger fracture and amputation*

Another participant expressed that:

> *"This lady…it is when I started feeling like she was having that feeling that I am a human being, and feeling pain. She was like very patient with me saying, 'No, you will be okay…it is healing.' I do not know if she was a doctor but she seemed like a well-qualified doctor for how she was treating me…she was taking my pain to be be in here…we were both feeling it…she was also making me feel comfortable…very humble…I will explain…the nicer they treat you…you do not even feel the pain you are having"*

*Joseph, 46-year-old, open fractured right index finger*

4.3.1.5. COVID and other impacts

This sub-theme focuses on other factors related to patient experience that have an impact on patient satisfaction. Most of the participants' injuries occurred during COVID which meant that they were receiving care at a time when the healthcare system was under strain due to COVID. This had an impact on waiting times for operations as well as overall experience as COVID cases may have been a priority which meant hand injuries may have not been a priority.

`

### 4.3.12. Theme 2: An emotional journey

An emotional journey speaks to how sustaining a hand injury proved to be an event that comes with a large impact on one's emotional functioning. The impact of the injury on everyday life proved to be severe for some and to some extent, the emotional pain exacerbated the physical pain of having an injury.

4.3.2.1. Trauma

Most participants experienced trauma either associated with the actual occurrence of the injury or trauma that developed as a result of the impact of the injury on daily functioning and activity participation. Some participants experienced flashbacks or fear of using the same machinery that caused the injury. One participant said:

> *"Sometimes it's also calm, like how do I injure that because I saw…how it happened…I feel scared like I'm still there, but I'm not there and I'm at work like now with that machine is there."*
>
> *Katlego, 45-years-old, amputation: right index finger*

4.3.2.2. Emotional impact

This sub-theme captures the experience of dealing with the emotional impact of sustaining a hand injury. Most participants expressed that the emotional pain of having a hand injury sometimes surpassed the physical pain and when the emotional pain/impact was addressed, the physical pain became more bearable. One of the participants expressed:

> *"…The pain goes straight to the heart. That's all that is troubling me that its hard for me to do whatever and you call the kids and they ran away, they are tired. I'm used to doing things on my own. I don't have peace in my heart because of the hand"*
>
> *Ntando, 63-years-old, right distal radius fracture*

Another participant expressed the emotional pain of not being able to provide for your family due to the injury:

> *"And you have got that pain; you have got that problem you are having. You are sick. Nothing is coming inside your house food-wise, and usually*

*we work hand-to-mouth. So, when you work hand-to-mouth; you are depending on your hands…It is like someone has imprisoned you…that feeling also kills you internally."*

*Mpumi, 53-year-old, amputation: left middle finger*

Some participants also expressed the depression that would develop as a result of the emotional pain of not being independent in tasks anymore. One of the participants said:

*"It was very depressing, remember it's not nice being unable to bath yourself, to hold a toothbrush to brush your teeth, to wring a facecloth to wipe your face"*

*Joseph, 46-years-old, fracture: right index finger*

4.3.2.3. Loss

Several participants shared experiences and feelings of loss due to their injury. The loss occurred on a spectrum where some participants experienced pain due to loss of independence, loss of a social life or loss of functionality amongst others. One participant expressed that she has lost most of her social life due to the injury and isolating herself:

*"I told people not to come visit me. I deactivated my WhatsApp you know and eventually two months better when I came back like my friends know we go out a lot we socialise but thinking I have to go out in public with this thing… I didn't want to be around people, because they would stare, they would ask, they would ask you know so I would stay at home."*

*Boitumelo, 40-years-old, fracture: left little finger*

Another participant expressed her frustration with experiencing a different kind of loss, the loss of her independence when that is valuable to her:

*"…my independence is being taken…I need to rely on people and that is not me"*

*Kim, 45-years-old, soft tissue injury (right)*

Another participant expressed the pain of loss of independence and how others may misinterpret the poor hand function as using the injury as an excuse to not do anything:

> *"Someone can think that you don't want to do things without knowing that you are fighting inside your heart, you wish to do things but there is nothing you can do because your hand is injured."*
>
> *Ntando, 53-years-old, fracture: right distal radius*

4.3.2.4. 'Coming to terms'

This sub-theme explores the journey the participants had to go through to come to terms with their injury and its impact on all spheres of their lives. Some participants expressed their difficulties coming to terms with how their hands now look, and coming to terms with the impact of the injury on their function and overall occupational performance. One participant expressed what it was like having to come to terms with allowing others to help her with some tasks:

> *"To rely on people that is the hardest thing I am a very independent woman I don't like handouts but then I had to learn to accept when I can't. It was the biggest thing in my whole life I couldn't even if someone had to make for me a cup of tea I had to think twice…"*

*Kim, 45-years-old, right soft tissue injury*

*Another participant said:*

> *"at the end in all the questions that I had to myself I ended up comforting myself and telling myself, that well I am in this situation, there's nothing that I can change. All I need to do is accept and be strong and anticipate what is good to happen"*

*Joseph, 46-years-old, fracture: right index finger*

4.3.2.5. 'The fight' and the fatigue

This sub-theme looks at the emotional tug of war experienced by participants which corresponds with the sub-theme of 'coming to terms' as it involves deciding whether

to keep fighting to expect healing or give in to the fatigue that comes as a result of fighting. One of the participants expressed the fatigue that comes with seeking help for a long period:

> *"Yes. It's frustrating not to be able to use my hand the way I used to. And I get depressed most of the time because…the journey's been too long, I think it's time for me to now to accept."*
>
> *Boitumelo, 40-years-old, fracture: left little finger*

### 4.3.13. Theme 3: 'Now everything has stopped'

The life-changing event of having a hand injury left most participants feeling that the life they once lived would no longer be the same and the impact of the injury on their occupational performance was too severe. They felt as though their lives came to a halt in one or more areas.

4.3.3.1. Dependence and aloneness

Feelings of aloneness were experienced by some participants due to living with a hand injury. This was also accompanied by having to deal with dependence on others to complete tasks that one could previously perform independently. One participant spoke about how he had to depend on his partner for certain tasks:

> *"Yes, when I got injured I had to be taken care of. I ended up staying with the mother of my child…she is the one who came to stay with me. To help me with what I need because even bathing, because we bath in a dish so I have to use this one hand if I have to use this other one it's not working. So she was the one who was helping me with bathing and wiping"*
>
> *Thato, 31-years-old, fracture: left index finger*

Another participant expressed the difficulty of having to reintegrate back into one daily task alone after an injury:

> *"And that's the hard part, when you're on your own, especially after this accident. It was a very hard time for me to get dressed, to shower. I can't even cook for myself, I still can't. I battle to cook for myself"*

*Claudia, 61-years-old, elbow fracture*

Another participant spoke about how she had to depend on her daughter for some tasks as she was unable to use her injured hand:

> *"my daughter helped me because my hand was bandaged so she helped me with taking a bath, put lotion on me, helped me with a bra, everything else. She basically helped me with everything that had to do with personal care.'*

*Boitumelo, 40-years-old, fracture: left little finger*

4.3.3.2. Role inadequacy

All participants occupy various roles in their lives such as parent, employee, partner and friend. This sub-theme explores how these roles of been affected due to the participants' hand injuries. The common role that was significantly affected for most participants is that of being a provider, as most participants are either breadwinners or contribute to the upkeep of their households one of the participants said:

> *"I didn't expect to go in and spend so much time in the hospital whilst my boys and my wife are left alone at home with no one to provide for them, so, that was the bad part…actually it's very bad, not nice, it's a very bad experience and it has impacted very negatively in my life and also in my role of being the provider."*

*Joseph, 46-years-old, fracture: right index finger*

Another participant who took pride in playing an active role as a father in his child's life expressed his feelings about not being able to be as physically involved as he used to be:

> *"There was a time I couldn't even lift my child. It was something else."*
>
> *Steven, 32-years-old, fractures: left radius, ulnar and metacarpals*

Another participant expressed her frustrations with feeling inadequate to perform her roles at home and work as she did before her injury:

*"I feel less important to people, it feels like people used to need me all the time I was in charge, and I felt like I was in charge of helping people always. Now you feel like how I can say it, I don't like pity, but it looks like the word oh shame, I hate it, but I feel like I'm so more vulnerable"*

*Kim, 45-years-old, right soft tissue injury*

4.3.3.3. My blessing, their burden

This sub-theme looks at the impact of a hand injury on the immediate support structure of the participants. While it was a blessing for most participants to have a family that was supportive and helpful after an injury, over time, it would become a burden on the family. One of the participants said:

*"So, it was now a burden to my eldest son and he had very little time because remember he was doing Grade 12 and he needed much time to study not to do things in the house. Even himself, I was doing his washing, I used to wash for him I used to do everything for him, polish his school shoes, iron, do everything for him because all what he needed was to stay in his books as he was preparing to write his Grade 12 exams. And that affected him too, myself being injured"*

*Joseph, 46-years-old, fracture: right index finger*

Another participant saw the impact that her injury had on her son:

*"My son sixteen in grade ten, his got a lot on his plate. His got school, his got rugby, his got extra maths lessons, his got church, he is a server in church so they have to be in church every Saturday and Sunday. So sometimes I could pick up that his frustrated now because I had to call on them for every little thing, every little thing. So, I could tell that when he hears me call him you know his frustrated. Sometimes I could catch a look maybe if I'm sitting in the lounge or in the kitchen, I could see his body language and his facial expression, like you know what, this is a lot you know yes. So that kind of hurt me a bit as well. I could see his tired."*

*Boitumelo, 40-years-old, fracture: left little finger*

4.3.3.4. Pain

All participants experienced pain in varying degrees, particularly the physical pain of having to sustain a hand injury. This sub-theme explores the participants' experiences of pain and how they wish their pain would have been addressed at healthcare facilities. Most participants would complain of extreme pain upon admission to emergency departments and expressed how it would have helped to have been given something to subside the pain while they waited to be assisted. One of the participants in the public sector said this about how his pain was addressed upon admission:

> *"…it take time just to open my file…I waited first…it was difficult for me because…it was too bad…the pain because here it was too much pain now…the blood when it's coming out, I start now feeling."*
>
> *Ayanda, 34-years-old, flexor tendon injury: right index finger*

Another participant in the public sector expressed this about pain not being addressed upon admission and having to wait a long time to be assisted:

> *"And still with me the blood is coming, and that type of pain and I stood and went to the window…they were just moving like slowly-slowly…Nothing. Completely nothing even pills, or an injection, or painkiller. Nothing."*
>
> *Mpumi, 53-years-old, amputation: left middle finger*

There are vast differences in treatment between the public and private sectors, participants in the private sector would find that their pain would be attended to sooner rather than later:

> *"so they put me some strong medication to lower the pain, yes and then put a bandage again and some drip and then I'd been admitted."*
>
> *Katlego, 45-years-old, amputation: right index finger*

### 4.3.14. Theme 4: The cost

Sustaining a hand injury proved to be costly for all participants. Not only was it costly due to the expenses of transport for regular checks but the cost of not being able to return to work immediately was very high. This theme explores the cost of sustaining a hand injury, the medical bills incurred, and the cost to the family among other costs involved with a hand injury.

4.3.4.1. Medical Bills

Sustaining an injury comes with the difficulty of having to deal with medical bills. Some participants struggled with the costs of medical bills due to having to take prolonged periods off from work which affected their source of income. The cost of medical bills was not only incurred by participants in private healthcare but those in public were also affected. One of the participants receiving private healthcare services said:

> *"Now I'm even more stressed because now I'm in more debt. Medical bills, debit orders didn't go back, didn't go off in March. It's basically a mess now because of that March salary so my financial situation is just a mess. So even here the medical aid doesn't pay for these things, they pay for my consultation yes, my exercise and stuff but every time something needs to be used, so I've got a bill here of just over six thousand rand. So at least they are understanding. I signed a AOD"*
>
> *Boitumelo, 40-years-old, fracture: left little finger*

A participant receiving services in public healthcare said:

> *"Every time when I attend the clerks, the sisters who are checking files there is this one sister who always tells me, "Don't you know that when you come into hospital you must pay, you must bring money, when are you paying? Do you know that it is money, this is the amount that you are owing the hospital, it's escalating." I was going to pay if I had money, but now, I'm in a very bad situation...it's a challenge…Now, I am no longer able to work like I used to work, where am I going to pay…The sister said it's for bed and for medication and I must pay…I remember she said R800.00 and something, then I told her politely I'm not working for now but the day when I get money, I will bring it and pay the hospital"*
>
> *Joseph, 46-years-old, fracture: right index finger*

4.3.4.2. Travel costs

This sub-theme captures the cost implications in terms of travelling to access healthcare services. Due to the loss of income as a result of injury for most participants, travel costs

became an issue however most participants lived close to the health facilities they needed to access. One of the participants expressed the difficulty surrounding travel costs:

> *"Ja, it was cost too much when you go there by Bara, because if you have to wake up in the morning and then you go to taxi and then it's too far to get a taxi to hospital. so, you have to walk to another place just to get a taxi, but here, still here I'm walking but it's too far but it's not like it's difficult. He can wake up early just to finish everything and then walk straight to here, it's not like you have hospital you see. If you don't have money to get a taxi, now you are going to suffer"*
>
> *Ayanda,34-years-old, flexor tendon injury: right index finger*

4.3.4.3. Costs to family

This sub-theme captures the cost of an injury to the family. Participants' family members experienced the burden and cost of the injury sustained by the participants. The cost to the family involves issues such as family members having to take time off work, having to take on the responsibility of caring for another person and the emotional cost of caring for a family member who is no longer independent in daily tasks. Some participants needed family members to take them to appointments which meant that those family members incurred travel costs. Other participants' family members had to not only sacrifice work but also parts of their social lives and this highlights the ripple effect of a hand injury.

4.3.4.4. Temporary Disability Grant

Due to taking time off work, some participants also had to take time off from work for prolonged periods which meant that they had no source of income and struggled to provide for themselves and their families. Temporary disability grants were an option for some participants while they were unable to work but for most participants, especially those who were not formally employed but rather self-employed, it was not something they knew was an option for them.

### 4.3.15. Theme 5: The Occupational Therapist

Occupational Therapy was not only a great source of help for improving overall function post-injury for all participants, it also proved to be a great psychosocial support as treatment

was client-centered and holistic. Participants often viewed occupational therapy as a 'light at the end of the tunnel'. This theme captures the value of occupational therapy to the participants and their experiences of occupational therapy services.

4.3.5.1. The trainer

This sub-theme captures the experience most participants had with occupational therapy as 'the trainer'. When asked about the role of occupational therapy in their recovery, most participants alluded to the exercises for the hand that they would do with the occupational therapists. This was about helping them regain the strength and function of the hand. One of the participants said:

> *"They gave me a paper here that I should do all those exercises, myself like this, ten times. All those type of exercise. I got them here. And this is OT…And it really helped me"*

*Mpumi, 53-years-old, amputation: left finger*

Another participant said this about the exercises done with the occupational therapist:

> *"I done the exercises, I had to do it three times a day, I actually done it and she could every time see the improvement because they make notes on my file. You can see the improvement from the day I started here until now because I try to do all the exercises"*

*Claudia, 61-years-old, fracture: right radius and ulnar*

When asked about the purpose of attending occupational therapy, another participant said this about the role of occupational therapy based on the intervention he received:

> *"it was just to show me how to train my hand"*

*Joseph, 46-years-old, fracture: right index finger*

Another participant said this about occupational therapy as the trainer:

> *"OT is more mind setting how to make the baby walk again it's like for me it's not walking it's how you touch and how you feel how you work with your hands. That is what they do here for me and the advice you will*

*never know that other people can give you better advice than your own advice*
*Kim, 45-years-old, right soft tissue injury*

4.3.5.2. The cheerleader

This sub-theme highlights the value the participants found in occupational therapy and how they viewed occupational therapists as cheerleaders and sources of encouragement and support for their hand injury recovery journey. Most participants found that occupational therapy not only helped with recovering function in the hand but occupational therapy was optimistic and exuded a positive energy which made the participants feel like they could recover and become as independent as possible even with an injury. One of the participants said:

*"I'm quite happy with her and impressed and she's very committed and she gets excited with the little changes you know. In fact, she's more excited about my progress than I am. We've come very far."*

*Boitumelo, 40-years-old, fracture: left little finger*

4.3.5.3. 'They have got care'

All participants expressed that recovering and healing from a hand injury is not just a physical process but often more emotional than it is physical. The occupational therapist's consideration of the participant's emotional pain made participants feel that occupational therapists are caring and look at recovery holistically. It was not only in the consideration of the emotional pain of the injury but for most participants, the care from the occupational therapists came out in the way that they would speak to them. Overall, the occupational therapists made them feel at home. One of the participants expressed that:

*"You know here, it is like home"*

*Mpumi, 53-years-old, amputation: left finger*

Another participant experienced the care from occupational therapy in the way the occupational therapist would speak to her and explain things:

*“just the way they talk to me while we doing the exercises, showing me things, both of them were fantastic. I won’t change it. I still come here while I have to because they actually help me emotionally and physically, put it that way”*

*Claudia, 61 years old, fracture: right radius and ulnar*

Overall, it was evident that the experience of having a hand injury changed had a physical and an emotional impact on the lives of the participants and their support structures. Participants often felt that the recovery process would be somewhat easier if more attention was given to the emotional pain of an injury rather than healthcare professionals focusing purely on the hand.

# Chapter 5: Discussion

## 5.1. Introduction

In this study, the journey patients follow to access services in Gauteng was analysed to better understand patient experiences concerning receiving hand-injury care services. The purpose of this was to understand ways in which services reflect patient-centered care and identify areas where improvement is required. Patient experiences relating to the emotional, physical and psychological impact of a hand injury were also taken into account given that these factors likely interact with patients' experience of hand-injury care. Five themes were constructed from the data: *Spectrum of satisfaction*, *An emotional journey*, *"Now everything has stopped"*, *The cost,* and "The Occupational Therapist". These themes will be discussed in the existing literature to better understand the experience of receiving hand injury care services.

## 5.2. Demographics

The demographics of participants in this study were compared to other studies in literature in terms of gender, cause and mechanism of hand injury, and ability to return to work. Most studies have found that males more commonly sustain hand injuries.[76-78] Males are more likely to sustain hand injuries due to them performing more manual labour in comparison to females.[79] In contrast, in this study there was an equal number of males compared to females that sustained hand injuries, this is in keeping with one study that noted an equal proportion of injuries between males and females. [80] Greater hesitancy by males to participate in research was considered as a possible reason for the gender representation in the sample, however, a review of the literature did not support this hypothesis.

Most hand injuries are due to work-related injury and use of work-related machinery/power tools especially among men.[81] This correlates with this study as all males in this study sustained injuries at work due to work machinery. The mechanism of injury among four of the six females in this study was due to falls at home. Literature has found this to be the common cause of hand injuries among women in the older population [80] and this aligns with the results as most three out of four of the females that sustained hand injuries due to a fall were older.

A study conducted in North India found that the cause of these fractures and other hand injuries is commonly assault.[76] It is interesting to note that in this study, none of the injuries were due to any form of assault or interpersonal violence. A study conducted at an acute hospital in South Africa displayed the same types of results with 31 out of 35 injuries being related to the use of work-related tools and machinery.[17]

Most of the participants in the study were able to return to work within an average time frame of three months post-injury as reflected in the journey maps. This aligns with the study that found that most people were able to return to work within 150 days (five months) post-injury. [82] However, evidence suggests that females often take longer to return to work after a hand injury compared to their male counterparts with similar injuries.[82] The females in this study who were working did take longer than the males to return to work with a return to work time frame of six to nine months compared to the males who returned within three months.

The right hand was found to be the most commonly injured hand in injuries in several studies [81] [76]. Most participants in this study sustained injuries to the right hand which was also mostly the dominant hand. Fractures to the fingers were the most common type of injury in this study and this is common even in literature relating to hand injuries. In a study conducted at a university hospital, it was found that fractures are the most common type of hand reported and occur more frequently.[83]

### 5.3. Theme 1: Spectrum of satisfaction

Satisfaction with services rendered occurred on a spectrum for all participants. The spectrum of satisfaction ranged from satisfied to dissatisfied based on how they were treated by healthcare professionals during their hand injury journey. This also involved satisfaction with the overall healthcare system and the overall impact of the injury on their daily lives and occupational performance

Primary healthcare services in South Africa are often the first point of contact for patients needing to access health services however, there is a dearth of literature and research conducted about patient satisfaction in these spaces.[84] It is important to understand patient satisfaction because while health facilities exist to improve the health of those accessing them, patient satisfaction with services is the main goal.[85] Patient satisfaction is a broad concept and interpreting it can be complex due to multiple factors influencing patient satisfaction.[61]

In a study conducted to determine patient satisfaction with South Africa's healthcare providers, participants reported generally high levels of satisfaction with services rendered by healthcare professionals.[86] Another study conducted to determine patient satisfaction in Botswana also found that overall participants were pleased with healthcare services provided.[87] However, the same study reported that the aspect participants were most displeased with was the amount of time spent at the primary healthcare facility.[87] Increased waiting periods were also found to decrease patient satisfaction in another study conducted at a plastic surgery unit at a hospital in South Africa.[85]

In this study, waiting times played a major role in patient satisfaction. Waiting times related to the amount of time the participant had to wait for registration, the waiting time to see a doctor and the waiting time about being operated on if the injury required surgery. Most participants who experienced low levels of satisfaction with services provided waited for prolonged periods to be operated on and even long periods to be registered on arrival to the emergency department. This meant that they sat for a longer period with the physical pain and one of the patients described waiting with blood dripping from their hands with staff failing to perceive their situation as an emergency. Waiting times at emergency centres in the South African public health sector have been reported as a problem in the literature.[88] In contrast, patients at a primary healthcare facility in Botswana experienced high levels of satisfaction with registration services.[87]

The number of adults reporting dissatisfaction with health services in South Africa is increasing regularly.[89] It is important to be aware of the reasons surrounding this dissatisfaction so that a quality service is offered to patients at all times. One of the reasons for being dissatisfied with a healthcare service in this study related to the way participants were spoken to by healthcare providers. In cases of dissatisfaction, participants reported that healthcare providers were not kind to them, particularly admin clerks. They found admin clerks to be dismissive to their enquiries, rude in the way they spoke to them and presenting with an unpleasant attitude towards them.

One of the Batho Pele principles is 'ensuring courtesy' which encourages service providers to speak to service users in a manner that conveys courtesy and politeness [90]. In this particular study, it was clear that the implementation of this principle of courtesy was not consistent through healthcare facilities and often was not even being used in patient interactions. However, in another study, participants were pleased with the relational aspect of services rendered at a public hospital in South Africa, their dissatisfaction mostly related to the physical infrastructure of the facility.[85] This suggests that patient experiences will vary across settings and it is important to continuously seek to understand patient perspectives and experiences to provide quality service.

Another factor that negatively affected the satisfaction of some participants with healthcare providers in this study is that they felt they were either not given enough information about their condition or not given any information at all. This made it difficult for them to have a positive experience. It is important to give patients information and not assume that they understand the nature of their condition. In a study conducted in Korea, it was found that doctors often do not give patients information about their conditions and assume that patients

have a high health literacy when they often do not. [91] It was also reflected in this study that participants wished things were better explained to them for them to fully understand their condition. The Patients' Rights Charter is clear in stating that persons accessing health services have a right to access information regarding their health.[43]

Some studies have looked at the impact of race and socio-economic status on health services rendered and patient satisfaction, this is particularly an important aspect to consider in a South African context with a history of segregation and persistent income inequality. Researchers in one study found that when looking at the satisfaction of patients with health services in South Africa, those from a higher socio-economic status had higher levels of satisfaction compared to those of a lower socio-economic status.[86]

In this study, it was interesting to note that there were no major differences in perceptions in terms of quality of care between those of a higher socio-economic status and those of a lower socio-economic status. It was also interesting to note that there were no marked differences in experiences between those accessing private health facilities and those accessing public health facilities as one would expect. Participants accessing private healthcare had experienced poor quality of care with issues such as missed injuries, having to undergo multiple surgeries and experiencing poor services when reporting to emergency centres. Participants accessing public healthcare had similar experiences about those issues.

One of the major differences between public healthcare and private healthcare noted in this study is the aspect of waiting times. Participants accessing public healthcare reported excessive waiting times upon arrival to a hospital, they reported waiting longer to be admitted and also waited longer for surgeries and operations related to their injuries compared to participants in private. Long waiting times are the most common reported issue for patients in South Africa reporting dissatisfaction with services rendered in public healthcare.[92]

In this study, participants in private healthcare facilities, experienced less of an issue with waiting times about operations and therefore typically reported experience of long admissions. This may also be because it has been found that the level of responsiveness in the public health system is lower than in the private health system.[89] This study suggested this to be true as most participants in the public sector felt like their injuries were not treated quickly and efficiently despite being in extreme pain. These participants felt unseen and unimportant and this worsened their experiences. The poor responsiveness in public healthcare is often attributed to a shortage in staff. Limited staff availability in health facilities leads to services not being of an adequate standard and this may lead to further patient dissatisfaction.[85]

Overall, patient experiences vary and multiple factors affect how patients feel about services rendered. One of the major takeaways from my observations of patient experiences in this study is the importance of acknowledging the pain that people are in and treating them with courtesy and patience. It is important to improve on factors affecting patient satisfaction because patients are more likely to adhere to treatment when they experience high levels of satisfaction with treatment.[91] Taking into account the psychological aspect of sustaining a hand injury helps healthcare providers to offer services that patients are more likely to be pleased with.

### 5.4. Theme 2: Emotional journey

Throughout this study, it was evident that the impact of a hand injury was not only physical but also very emotional and impacting psychological well-being. When participants expressed their experiences of living with a hand injury, it was clear that they needed their psychological well being to be taken into account during treatment. Participants' experiences demonstrated that it can be distressing to sustain a traumatic hand injury as it impacts overall psychological well-being and physical health. [93] The event that caused the hand injury and the injury itself can cause problems emotionally for patient. [94] It is therefore important for healthcare providers treating hand injuries to constantly be aware of the psychological impact and the emotional aspect of a hand injury.

Some participants in this study experienced having flashbacks of the occurrence of the injury and this affected their journey of recovery. This was evident in how clearly they described the events leading to the injury and when asked about the injury, they felt as if they were at the scene of injury again. Flashbacks are often a sign of some form of trauma response and should not be ignored when a patient reports them after suffering a hand injury. The presence of flashbacks and nightmares can be a sign that a hand injury has also had a psychological impact. [56] One study identified flashbacks, nightmares and remembrance of the injury to be common symptoms of trauma-related stress. [94]

A study conducted to determine the impact of depression and post-traumatic stress disorder (PTSD) after a hand injury found that one-third of participants presented with symptoms of depression, anxiety or both. [95] It is therefore important for healthcare practitioners involved in hand injury care to be aware of the psychological impact of a hand injury and treat psychological aspects with as much importance as physical aspects. The journey that a patient follows after a hand injury needs to reflect consideration of psychological symptoms arising post-injury.[93]

It was evident in this study that people ascribe great value to their ability to provide for themselves and their families. Hands play a major role in this ability and most participants in this study had to take time off work due to their injury which caused a great amount of emotional distress due to the loss of the ability to provide for their families and engage in premorbid activities. This is no surprise as loss of function in the hand after an injury is known to have an emotional impact. [57]

The loss of the ability to use the hand as they did before injury meant that they went on an emotional journey of acceptance of their current state. The journey of accepting loss of function of the hand, especially after a hand injury reflects the same process one would go through following grief. [56] The process of being injured involves having to go through a journey of accepting the injury and learning about the emotions associated with the injury. [96]

Some participants in this study felt that they needed to come to terms with the loss of function in their hand and learn to accept the appearance of the hand after injury and surgery. The new look of the hand caused some to feel uncomfortable with going out in public due to feeling like people would stare at the hand. Some participants also took time to fully accept their hands would never look the same either due to the presence of a scar, deformity or amputation. It is vital to be aware of how a patient first responds to the sight of their hand after injury and surgery to offer support to reduce the chances of PTSD symptoms developing. [97]

Patients with amputations have also been found to show signs and symptoms of PTSD after injury. [98] It is important to be aware of these findings to be more cognizant of patient responses and therefore signs of psychological problems that may arise when offering hand injury care services. A study analysing acute symptoms of PTSD in patients with hand injuries found that forty-four out of sixty-seven patients had symptoms of PTSD and one of the patients was formally diagnosed with PTSD as per DSM. [97] The presence of psychological and emotional issues related to sustaining a hand injury cannot be ignored and it is better when they are identified sooner rather than later.

In this study, one of the most commonly noted aspects of the emotional journey of sustaining a hand injury is the aspect of emotional fatigue and exhaustion from attending several appointments, loss of income and loss of overall function. Some participants had to be seen by several healthcare providers, go to several healthcare facilities and use most of their resources in pursuit of healing for their hands. It was clear that all these factors and other factors related to their injuries, left them feeling drained physically, emotionally and

psychologically. Some even felt that the journey to heal has been too long and it is time to accept that their lives are forever changed due to their injury.

Due to the emotional fatigue experienced after a hand injury, a few participants felt the burden and pain of injury were easier to bear when healthcare providers were considerate of their emotional needs and offered emotional support in the form of brief counselling. However, in all cases in this study, none of the participants were referred to other healthcare professionals for psychological support which was concerning as most participants presented with signs and symptoms of emotional distress. These symptoms included crying throughout the interviews with the researcher, feelings of hopelessness about their condition and feelings of worthlessness because of not being able to engage in daily life the way they used to premorbid.

For treatment to be holistic and beneficial for the patient, it is important to always consider psychological factors related to a hand injury and assess these aspects during treatment. A study conducted looking at the psychological outcomes after hand injuries supports the use of screening tools after a hand injury to screen for pain and psychological issues three months after injury.[93] The psychological issues noted by participants in this study support the need for screening of such issues to take place for all patients with hand injuries.

### 5.5. Theme 3: "Now everything has stopped"

A hand injury can affect all areas of a person's life significantly because we need our hands to do all tasks that make us functional human beings and active members of society. When asked about the impact of a hand injury on their lives, some participants in this study felt like their lives had almost come to some sort of halt. This was because their injuries affected their ability to return to work, ability to perform daily tasks such as dressing independently, being socially active and fulfilling their daily roles.

A study conducted to understand the changes that occur in a person's life after a hand injury found that all participants experienced difficulty engaging in their life roles as they used to before injury.[99] This is an experience that can be difficult to go through as our hands are parts of our body that enable us to work and live life as we desire.[100] The long-term functional impact of an injury was reviewed in another study and it was found that leisure and work were the most affected post-injury.[101] This corresponds to the results found in this study as some participants returned to work but on either light duty or a different role due to their injury. Participants reported their leisure time, which was often linked to their social participation, also

being affected as they felt more uncomfortable with being around people due to the questions that they could arise about their hands.

The same study reporting on the functional impact of a hand injury found that sexual intimacy was one of the least areas affected.[101] This was particularly surprising as hands are vital organs for intimacy and one would expect a hand injury to affect this.[101] In this current study, only a few participants reported concerns about how their hand injury would impact their intimacy with their partner. One participant particularly felt concerned about whether he would be able to make his partner happy and this concern affected his self-esteem. Overall, concerns about sexual intimacy after a hand injury were not a recurring area of concern.

Work and leisure were not the only aspects of occupational performance affected. Some participants in this study reported their roles as caregivers to their families being affected. This was cause for frustration, feelings of hopelessness and a sense of letting their family down due to being unable to care for them as they used to. It has been proven that a hand injury has the potential to drastically impact the caregiver role of the person injured.[99] Due to this impact, “role reversal” is often experienced as children begin to take over the role of caring for their injured parent and assisting them with activities of daily living.[99] This was also true in this study as some participants had to rely on their children to help them with bathing, dressing and other activities.

One of the participants expressed great hurt with having to ask her young daughter to take over the role of cooking in the home, she describes having to put a stool for her daughter to get on and cook. The same participant also expressed hurt with having to ask her daughter to assist her in putting on a sanitary towel. Other participants had to ask their sons to help them with dressing and bathing.

The caregiver role was not only affected by requiring assistance with daily tasks but participants who are parents to school-going children were unable to play with their children or assist them with homework and this caused them a great deal of emotional pain. It is important to note that while the participants were incredibly grateful for the support from their families, they could see that having to carry out additional tasks was taking a toll on their families.

Dependence on others is one of the major changes that occur as a result of hand injury due to the loss of independence.[99] This dependence on others caused some participants in this study to feel a sense of loneliness and frustration especially as they have been used to taking care of themselves and their families. Along with dependence on family and other structures

of support comes the aspect of role inadequacy where participants felt like they were no longer adequate in the roles they performed before injury. This further adds to the feelings of loneliness, dependence and a sense of hopelessness experienced by the participants.

It is important to also note that pain is one of the factors that contributed to participants in this study feeling like their lives would no longer be the same. Pain occurred on various levels, from emotional pain to physical pain and all types of pain would impact role adequacy and overall occupational performance. Literature has shown that pain was one of the factors that affected return to work in the early stages of injury.[102] Therefore pain can be considered to be one of the factors affecting role adequacy after a hand injury. Some participants in this study expressed that pain made it difficult to participate fully in tasks.

The theme 'Now everything has stopped' encapsulates the impact of a hand injury on various areas in the participants' lives. They felt that various areas in their lives stopped and were no longer the same due to the hand injury. It is therefore important for hand therapy practitioners to be fully aware of the impact of a hand injury and the experience of halt effect that patients experience as a result of injury. Participants found it to be important to return to daily activities and premorbid function. Thus it is important for therapists to not only focus on outcome measures and neglect the importance of improving participation in activities.[103] A lack of assessment of activity participation limits the ability to assess the true outcomes of occupational therapy intervention.[103]

### 5.6. Theme 4: The Cost

A hand injury is costly. It can be costly to the person injured, their family and potentially their employer. The cost of hand injuries also extends to the healthcare system. Hand injuries have been reported to be the most expensive type of injuries, coming out first in rank compared to other types of injuries.[104] Due to these types of injuries accounting for a large portion of injuries treated, they can be quite burdensome to the economy.[104] However, this theme focuses on the financial and emotional cost of a hand injury to the participants and their families rather than the cost to the healthcare system and the economy.

Some participants who received healthcare services in the private sector incurred large medical bills and needed to be assisted with payment arrangements to pay off medical bills. Some participants in the public sector had incurred such high medical costs due to time taken off from work which meant that they no longer had a consistent source of income. This lack of consistent income affected the ability to cover medical bills and as a result, some participants found themselves in debt. Medical aid funds also ran out for some due to the numerous visits

that had to be made to healthcare providers as a result of the injury. The inability to produce income thus led to an increase in the overall cost of sustaining a hand injury.[105]

Some participants in the public sector had similar experiences about paying admin fees to open files at public hospitals however most of them did not incur as high medical bill costs due to services in the public sector being mostly free. This is similar to what was found in a study conducted in Ethiopia where patients had overall lower medical costs when the hospital offered free services or waivered some of the medical fees.[106] Although participants receiving public healthcare did not incur high medical fees in this study, it is important to recognise that the fees that they were required to pay were burdensome to them especially if they were no longer working due to the injury.

One of the major costs resulting from a hand injury for some participants in this study, especially those in public healthcare, is the cost of travel. Some participants were unable to cover transport costs due to no longer having enough funds as a result of time away from work. This meant that they had to loan money from others or ask other family members to drop them off for appointments. Travel costs were also incurred by some participants due to having to attend frequent visits to medical centres for check-ups and other appointments about their injuries. Overall, in this study, participants did not incur high transport costs due to either living close to their check-up facilities or having support structures in place that would assist with transport.

While considering the costs of the injury to the participants, it is important to consider the cost of injury to the family. In a study conducted at a public hospital in South Africa, it was shown that most people suffering from hand injuries have family members who are dependent on them.[17] It was no different in this study as some participants were breadwinners in their families and this meant that their loss of income due to injury affected their families as well. This cost to the family meant that families struggled with everyday provision and had to explore other options and seek help elsewhere to sustain the family.

The cost of injury to the family was also evident in some partners/spouses of the participants having to take time off from work to help participants adapt to their new life after injury. Participants had to rely on their family members to sometimes assist them with daily tasks such as bathing and dressing. Taking on these additional tasks and others meant that family members had to make room for additional tasks in their daily lives and this would cost them time and income in cases of having to take time off from work to look after the participant.

The cost for some family members, as reported by the participants was more of an emotional one due to caregiver burden. Family members had to sacrifice so much to look after the participants and this would lead to emotional and physical exhaustion. The participants would report seeing some family members getting annoyed or frustrated with being called on by the participants when they needed help with something.

Some participants would report seeing some of their family members becoming emotionally drained from seeing them not functioning as optimally as they used to before the injury. It is important to consider the cost of an injury to the family as they are the ones who mostly take on the load of caring for the person with the injury. Their lives change drastically at times and they no longer engage in activities as they used to and this can take a toll on them. Thus support for caregivers also needs to be considered in the recovery process of a hand injury.

One participant reported having to apply for a temporary disability grant but this was not common among the rest of the participants. It is interesting to take note of the fact that some participants had no alternative sources of income and could not claim any benefits from their employers even though their injuries may have been work-related. This was however found to be a common thread among people sustaining hand injuries while performing informal work which is common in South Africa.[17]

Overall, it is difficult to estimate the overall cost of a hand injury across literature from various countries due to the differences in currencies, health policies, management of businesses and other factors.[107] However, it is always important for healthcare professionals to consider the cost of hand injury to the patient and employ measures to reduce the cost wherever possible. It can be noted that limited literature exists that details the cost of a hand injury to the patient but literature focuses more on the cost of hand injuries to the healthcare system and the economy, sadly forgetting the one that is injured.

### 5.7. Theme 5: The Occupational Therapist

This final theme reflects on how the participants experienced occupational therapy services specifically. All participants in this particular study had positive experiences with occupational therapy and when asked if there is anything they would change about the services they received, none of them felt the need to change anything. Most participants found occupational therapy to be almost a light at the end of a long and tiring hand injury tunnel. They were generally satisfied and pleased with the relationship and interaction with occupational therapists.

The above is similar to some studies conducted to understand patient experiences of occupational therapy services. One study evaluating relationships between therapists and clients to understand their experiences of occupational therapy found that a great amount of satisfaction with the relationship formed with the therapist was expressed by the clients. [108] The participants also expressed that the therapists had a warm nature and were very considerate and attentive to them which enhanced their experience of therapy. [108] Some participants in this study felt the same as they expressed that their overall satisfaction with occupational therapy services stemmed from the conduct of the therapists, how they spoke to them, and the level of care and concern they expressed.

The caring nature of the therapists is what most participants attributed their satisfaction with occupational therapy services to. Some of the participants felt that the occupational therapists were caring and considerate of their needs which made a big difference in their overall healing journey and acceptance of their new norm after injury. It has been found that when the therapeutic relationship between the client and therapist made the client feel comfortable, it was easier for them to cope with the injury as well as their loss of function due to the injury. [109] This was also seen in this study as some participants felt comfortable in occupational therapy and also found their emotional needs were being considered and this made the process of acceptance easier for them.

Participants in this study reported that they found occupational therapists to be like trainers, trainers for their hands. This stemmed from the common therapy chosen by therapists using passive stretches and mobilization exercises as part of treatment. When asked about some of the things they did in therapy, most participants mentioned exercises, stretches as well as home programs given to continue exercises and stretches at home. Some participants mentioned that they were able to trust the intervention given when the therapist displayed confidence in the intervention they were giving. This is consistent with another study that found that clients were unhappy with therapy intervention and the therapist when the therapist did not seem competent and confident in the service they were offering. [110]

Some participants found their relationship with occupational therapists to be different and more positive compared to relationships they experienced with other healthcare professionals along their recovery journey. This is similar to what was found in another study where participants reported that due to some interactions with occupational therapists being informal, it was easier to establish a close relationship where they found it easier to trust the therapists compared to interactions with other healthcare professionals. [108] In this study, some participants built very close relationships with their therapists and they found the

therapists to be a great source of emotional support and comfort, especially when the impact of the injury would become overwhelming. This mainly came from participants feeling that occupational therapists expressed care in the way they handled them.

It was clear that participants appreciated the therapists who understood the overall psychological impact a hand injury has in an individual's life because it meant that therapeutic intervention incorporated some level of counselling as well. This brief counselling offered by therapists in some sessions was highly appreciated by participants as it made them feel that the healthcare provider acknowledged that the hand belonged to someone rather than just treating the hand and ignoring the person. The level of care expressed by occupational therapists in terms of helping participants reintegrate back into their daily lives and adapt to their new condition were some of the things that participants found positive about occupational therapy intervention.

Some participants found occupational therapists to be very encouraging in sessions with cheerleader characteristics and an optimistic attitude throughout the intervention. Some participants even felt like therapists would be more excited about any kind of improvement in hand function than they would be as the person injured. This would encourage participants to hope for the best at all times, as they would feed off the optimistic energy from the therapists. This optimism would give some participants positive anticipation for the functional outcomes of therapy and potential improvement in their hand function. For participants who may not have seen significant improvement or changes in their occupational performance after therapy, they found it easier to deal with their new level of functioning due to the positive attitude of the therapists.

All healthcare providers need to be aware of the significant role of occupational therapy in hand injury intervention. This study supported existing evidence that shows the overall positive experience hand-injured patients have with occupational therapy intervention. It is also important for occupational therapists to be aware of the role they play and how they are perceived by patients as this can be a confidence booster in intervention.

### 5.8. Strengths

There are some strengths concerning this study and they are as follows:

- Firstly, this is the first study in South Africa to use patient journey mapping as a tool to understand patient experience and all the factors that impact patient experience according to the views and perspectives of the patients.
- The depth of the knowledge and information collected in this study came from the participants and less from the clinicians. This makes this study different from others

in the sense that, patient experience is explored from the view and perspective of the patients themselves. The information given by the participants informed the results and conclusions of the research.

- While interview guides were available to guide the interviews, additional information shared by the participants was not ignored, it was added to the study and used to inform the overall experiences of the participants.
- This study was conducted in both public and private settings which allows for a broad perspective to be gained into hand injury care services in different settings. This study was able to add to the existing literature regarding the comparison of services rendered between the public and private healthcare sectors

These are some of the strengths that were prominent in this study.

### 5.9. Limitations

This study has some limitations due to various reasons arising during the data collection process, the analysis or write-up of the results. The limitations are as follows:

- As a novice qualitative researcher, it was challenging to develop reflexivity and articulate positionality to enable the reader to appreciate the student researcher's integral role in generating the themes generated from the analysis. While attempts were made to give a voice to participants, the influence that the researcher had in relaying this has not been clearly articulated in this study.

- An emic perspective in the study would be strengthened through member-checking. Allowing participants' opportunity to recognize their own experiences in the results and communicate where this has not adequately been achieve will both enhance the rigour of the results, as well as balance the emic and etic perspectives reflected in the results. Member checking will therefore be undertaken prior to publication of this study in a peer-reviewed journal.

Other limitations may have been present during the completion of this study, but these are the limitations that are being reported currently.

### 5.10. Reflections of a novice qualitative researcher

The process of conducting this research has been a life-changing experience for me as a researcher. Not only has it changed the way I view and understand patients with hand injuries, but it has also changed the way that I conduct myself as an occupational therapist in the day-to-day treatment of patients.

I have always known the value of being patient-centered and giving holistic care that encompasses the patient's physical and psychological well-being. However, during this research, I have never been more convinced of the importance of incorporating psychosocial factors into all patient treatment. I implemented the findings of this research in my intervention with hand injury patients in practice. I began to notice that truly, the overall healing begins from a psychological perspective and when I referred patients to psychology or counselling, they began to show great improvement and more willingness to comply with occupational therapy treatment.

This research resonated with me as an occupational therapist that treats patients with hand injuries at a public healthcare facility in Johannesburg, Soweto. The setting in which I practice is similar to one of the settings the research was conducted (Chiawelo community health centre). My closeness to the topic made it important for me to go into the research with a desire to gain insight into patient experiences but with the main goal being to take my existing knowledge and experience in treating hand injuries combined with the research results to add to the existing body of knowledge in literature.

While the participants' experiences are at the crux of the research, the data analysis does not solely depend on the views of the participants but the views of the novice researcher are considered to also be valuable to the overall research. This highlights that both points of view are important- that of the researcher and that of the participants.

I also began to notice that even in treatment of other conditions outside of hand injuries, taking care of the emotional needs of patients plays a major role in developing a strong therapeutic relationship, encouraging compliance with treatment and improving motivation to either return to work or become more independent in daily life activities.

### 5.11. Conclusion

Hand injury care services need to be holistic and take into consideration all aspects of a patient's life from their work to their role in society and their participation in daily activities of function. This chapter has reviewed the existing body of literature and compared it to the results generated in this study. Some aspects of the results of this study agree with what has already been found in the literature. However, a larger part of this study covers the gap that exists in the literature regarding patient experiences in receiving hand injury care services.

Satisfaction with hand injury care services is a broad topic and it is affected by different factors for all participants in this study and patients reported on in the literature. However, one of the most consistent factors reported by patients in feeling satisfied with services rendered is how they are spoken to by healthcare professionals. Participants in this study who were treated with a harsh and dismissive manner of approach were more likely to report

low levels of satisfaction compared to those who were spoken to politely and in a calm tone. This is consistent with literature that explores patient satisfaction.

A vast array of literature detailing the emotional and psychological impact of a hand injury has shown that the emotional is just as impacted as the physical after a hand injury. The same was shown in this particular study. Participants expressed the impact of a hand injury on their emotional wellbeing especially because of the feelings related to having to process the loss of ability to participate in life the way they used to before injury. The cost of a hand injury was not only an emotional one but it was also financial. Throughout the literature and in this study, it is clear that costs of travel, medical bills and costs on the family are some of the impacts of a hand injury and affect the overall well-being of not only the person injured but their families as well. This is because family members often have to take on the role of being caregivers while the patient recovers from injury.

This process of recovery may elicit emotions of feeling like 'everything has stopped' for patients because they now have to rely on family members and other support structures to perform daily activities that were once performed independently. The impact of a hand injury on income contributes to some participants in this study and other studies, feeling that their lives have stopped and that their roles as providers have been negatively affected.

It is important to ensure that assessment and treatment of a hand injury is done from a holistic point of view that considers all factors in a patient's life that are affected by a hand injury. It is also important to consider that the journey of healing is not linear but it changes and shifts as the patient adapts to the injury, accepts the injury and acclimatizes to their new way of functioning after the injury.

# Chapter 6: Conclusion

Understanding the experiences of hand-injured patients accessing care is key to supporting care that is responsive to patients' needs. This study aimed to describe the journey of hand-injured patients using journey mapping to enable an in-depth understanding of patients' experience of accessing hand-injury care services in South Africa.

A qualitative descriptive design was used. Data collection was undertaken at one private and one public healthcare facility in Gauteng. Twelve adult patients who had sustained traumatic hand injuries were recruited. Three data collection techniques were employed: a review of patients' clinical notes, a patient journey mapping exercise, and in-depth interviews. Reflexive thematic analysis (RTA) was used, and rigour was pursued using a reflexive journal, data source triangulation and dense description within reporting.

Five themes were generated from the analysis: *Spectrum of Satisfaction* captured participants' varying levels of satisfaction with the care they received influenced by the experience of various factors. *An Emotional Journey* describes the trauma associated with the hand injury, the emotional impact of the injury and loss and the need to come to terms with these. *Now everything has stopped* capturing that life-changing nature of hand-injury that included a sense of dependence or aloneness, role inadequacy, caregiver or family burden, and pain. *The Cost* included medical and travel expenses, the role of the temporary disability grant, and the cost to the family. Finally, *The Occupational Therapist* captured participants' experience of the occupational therapist as trainer and cheerleader, as well as their experience of genuine care.

One of the recommendations arising from this study is that opportunities should be available for generalist occupational therapists to develop the necessary clinical competencies to respond to the needs of patients. Similar studies in other provinces are recommended. It is also recommended that all healthcare professionals offering hand injury care services always consider the psychological impact of a hand injury and refer patients for psychosocial support.

**Recommendations:**

- Practice

- Healthcare professionals involved in hand injury care need to value the psychological well-being of hand-injured patients as much as they value improvement in physical function. Screening of possible psychological fallout should be conducted at initial assessment of the patient and at intervals throughout the treatment process. Hand-injury care teams should seek to draw in team-members with expertise in addressing psychosocial difficulties (e.g. social workers and psychologists). Hand-injury care teams should also familiarize themselves with community resources that patients can access, or assist patients in identifying supports within their own communities. The hand-injury care team may also consider supporting the development of expert-patient mentors (veteran hand-injured patients who have undergone hand surgery and rehabilitation) who can provide valuable peer support.
- Clinicians should provide comprehensive information to the patient regarding their condition, surgery they may need to undergo, the rehabilitation process. Explaining every step of the recovery journey to the patient and facilitating realistic expectations should be undertaken. Asking patient's to explain their understanding can be used to assess their insight and understanding and need for further education.
- Early referral of hand-injured patients to occupational therapy is important to ensure that occupational performance intervention commences early and functioning can be preserved or rehabilitated. Patient outcomes can be used effectively as an advocacy tool with doctors, demonstrating tangible consequences of early versus late/absent referral to rehabilitation. This, however, necessitates meticulous and accurate recording of patient outcomes. Using versatile communication systems (e.g. referral phone applications) that facilitate easy referral to hand rehabilitation and a visible presence of rehabilitation in the clinical settings (e.g. on ward rounds) are ways that early referral can be supported.
- It is important for healthcare professionals to be more involved in awareness campaigns regarding workplace safety to prevent injury as workplace injuries due to poor use of machinery are common. This can be done through visiting workplaces correcting ergonomics of work environments and encouraging following precautionary measures when using potentially dangerous machinery. It is recommended that clinicians audit their clinical records to identify common workplace injuries and challenge themselves to implementing one prevention initiative each year. Evidence to guide the development of simple prevention strategies may be accessed online. The South African Society of Hand Therapists could support therapists in this by offering workshops for developing prevention initiatives and institute an

annual award for exemplary projects.

- It is important for healthcare professionals to always remember to put into practice 'Batho Pele' principles by having a positive attitude, speaking respectfully to patients and being considerate of the valuable role healthcare professionals play in ensuring patients recover well and fully. It is assumed that all health professionals know how to enact these principles. This, however, is an assumption. Dynamic professional development opportunities that support health professionals in developing and maintaining these soft skills and professional dispositions would be beneficial.

- Education
  - Higher education systems need to incorporate more client-centered care in syllabi to build client-centered thinking in healthcare professionals at an early stage. This is to ensure that the implementation of client-centered care comes naturally to healthcare professionals when they are in practice. Knowledge of client-centered principles does not necessarily translate into the skills and professional behaviours that facilitate client-centeredness. Mentoring, case presentations and other professional development opportunities that demonstrate *how* client-centeredness can be enacted should be encouraged. Student's can be guided in reflecting on their own practice and the practice of others to identify where client-centeredness was achieved or compromised, and how they can change or reinforce positive professional behaviours. Exploring the principles of shared decision making within interprofessional activities may be another useful way to concretise actions that lead to an empowering and collaborative approach with patients.
  - While including more client-centered care in syllabi, higher education institutions need to ensure that this aspect is routinely assessed and reflected in student feedback documents such as fieldwork assessment rubrics. This is to encourage sensitization to the importance of client-centered care amongst students.
- Research
  - More research exploring the experiences of patients receiving hand injury care services across South Africa is recommended to enhance the accessibility of hand-injury care services. Studies can use a similar approach (journey mapping).
  - More research needs to be conducted to explore the impact of waiting times on overall functional outcomes and recovery after a hand injury

- Policy
    - More policies need to be developed to protect manual labourers, especially those in the informal sector. During this study, it was clear that policies that protect the well-being and income of informal manual labourers are few. As a result, after injury, those who are unable to return to work, have no source of income assistance their employer even if they may have worked for several years at the same place. Implementation of current policies within the Department of Labour needs to be strengthened. Occupational therapists also need to familiarize themselves with how relevant policies can be leveraged for improved patient work outcomes.

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# Appendices

## Appendix A: Information sheet for therapists

Dear Occupational Therapist

My name is Tsakane Sono and I am a Master of Science student at The University of the Witwatersrand in Johannesburg. I wish to invite you to participate in my study that seeks to explore the experiences of patients receiving hand injury care services in Gauteng. Most research is focused on gaining health practitioners' perspectives but rarely on the patients and this study seeks to bridge that gap.

Your participation will involve assistance in the selection of six participants that will be appropriate for the study to ensure that as much information as possible is gathered to improve patient care about hand injury.

**What are the objectives of the study?**

**Objectives of the study**

To map the journey of hand-injured patients through the healthcare system.

To describe the experience of accessing hand-injury care services in Gauteng.

To describe the experience of accessing occupational therapy intervention for a hand injury.

**What would participation involve?**

Selection of twelve participants that will fit the criteria required for participation in the study. You will be required to be the first line of communication with the patients before the student researcher takes over communication. You will also be asked to assist with the selection and booking of an appropriate area in the facility to carry out the one-on-one interviews. As a therapist, you will also be required to offer access to the clinical notes of the participants who are involved in the study. Permission to access these notes will be obtained from the necessary authority.

**Participant criteria**

Age: 18 years and older

Sustained a traumatic hand injury

Receiving occupational therapy and hand injury care services for six months or more. If a patient was lost-to-follow-up for a period, but previously received intervention for a minimum of six months and has recently returned, they may also participate in the study (ie. patients who have had difficulty adhering to appointments are not excluded)

**Are there any risks involved in participating in the study?**

There are no direct risks or benefits to patients participating in the study.

**Is participation voluntary and confidential?**

Participation is voluntary and confidential and participants are welcome to withdraw from the study should they not wish to participate.

**How will the findings of the study be disseminated?**

This study will be written up as a master's dissertation which will be available online through the university library website. The study will also be submitted for publication in peer-reviewed journals. The study will also be presented at the IFSSH Congress in London (2022) which is the largest congress dealing with hand surgery and hand therapy. If you wish to receive a summary of the study in which you will participate, I will be happy to send it to you (optional)

**Does the study have ethical approval?**

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg (*insert HREC number)* has approved this study. A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research. If you have any concerns over the way the study is being conducted, please contact the Chairperson of this Committee, Professor Clement Penny, who may be contacted by telephone number 011 717 2301, or by e-mail at Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za

If you have any questions regarding the research, please feel free to contact me at the details listed below.

Yours sincerely,

Researcher / MScOT Student

Tsakane Sono

Email: 1314081@students.wits.ac.za

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Research Supervisor

Kirsty van Stormbroek

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**South African Depression and Anxiety Group contact details:**

SADAG Helpline: 0800 323 323 (24 hours)

SMS: 31393

Email: office@anxiety.org.za

## Appendix B: Information sheet for potential participants




Dear Sir/Ma'am

My name is Tsakane Sono and I am a Master of Science student at The University of the Witwatersrand in Johannesburg. I wish to invite you to participate in my study that seeks to explore the experiences of patients receiving hand injury care services in Gauteng. Most research is focused on gaining health practitioners' perspectives but rarely on the patients and this study seeks to bridge that gap. By participating in this study you will be contributing to the development and improvement of patient-centered care by ensuring that health practitioners have a better understanding of patient experiences.

What are the objectives of the study?

Objectives of the study

To map the journey of hand-injured patients through the healthcare system.

To describe the experience of accessing hand-injury care services in Gauteng.

To describe the experience of accessing occupational therapy intervention for a hand injury.

**What would participation involve?**

Participation in the study will involve you taking part in a one-on-one interview where you will contribute information regarding your experiences of having a hand injury and receiving hand injury care services in Gauteng. These experiences may be positive or negative. The information from the interview will be put together into a timeline that will reflect your experiences of receiving hand injury care services. A tool referred to as 'journey mapping' will be used first in the interview and the follow-up questions will be guided by your responses in the journey mapping activity.

**Are there any risks or benefits involved in participating in the study?**

There are no direct risks or benefits involved in participating in the study as a therapist. It is possible that sharing your experiences about your hand injury and accessing health care may trigger negative emotions. If this is the case, the researcher will refer you to the South African Depression and Anxiety

Group which are able to provide the support that you require. The researcher will also make contac with you, after the referral, to check that you have received the assistance that you need. There are no direct benefits to participating. However, an indirect benefit to participating is being able to generate knowledge of patient experiences that can be used to improve services for hand-injured patients.

You will be offered reimbursement for your travel costs and refreshments for the days of data collection.

**Is participation voluntary and confidential?**

Participation is voluntary and confidential. You are welcome to withdraw yourself from the study should you wish not to participate. There will be no consequences should you wish to withdraw. Within data analysis, all participants will be kept anonymous and the researcher will ensure that no identifying data is linked to the participants

**How will the findings of the study be disseminated?**

This study will be written up as a master's dissertation which will be available online through the university library website. The study will also be submitted for publication in peer-reviewed journals. The study will also be presented at the IFSSH Congress in London (2022) which is the largest congress dealing with hand surgery and hand therapy. If you wish to receive a summary of the study in which you will participate, I will be happy to send it to you (optional)

**Does the study have ethical approval?**

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg (*insert HREC number)* has approved this study. A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research. If you have any concerns over the way the study is being conducted, please contact the Chairperson of this Committee, Professor Clement Penny, who may be contacted by telephone number 011 717 2301, or by e-mail at Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za

If you have any questions regarding the research, please feel free to contact me on the details listed below.

Yours sincerely,

Researcher / MScOT Student

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**South African Depression and Anxiety Group contact details:**

SADAG Helpline: 0800 323 323 (24 hours)

SMS: 31393

Email: office@anxiety.org.za

**Appendix C: Consent form: Potential Participants**



Title of project: *Patient journey mapping: the experience of patients receiving hand injury care services in Gauteng*.

Name of researcher: Tsakane Sono

I, _____ hereby acknowledge that I have read and understood the study information sheet. I have been allowed to ask questions and these have been answered to my satisfaction. I understand that my participation in this study is completely voluntary and that I am free to withdraw at any time, without consequence. I will be requested to participate in a one-on-one interview with the student researcher.

I understand that my participation is anonymous in that I will be assigned a pseudonym in the reporting of the study findings and my information will be always kept confidential.

I understand that the results of the study will be shared by the researcher at conferences, in journals and for teaching purposes (eg. with students and other therapists who are already working)

I understand the risks and benefits to participation. I voluntarily agree to participate in this study and acknowledge that I will receive a copy of this consent form.

| | | | |
|---|---|---|---|
| Potential Participant's signature | | Date | |
| Researcher's signature | | Date | |

**Appendix D: Consent form (audio-recording)**




**Title of project:** *Patient journey mapping: the experience of patients receiving hand injury care services in Gauteng*.

**Name of researcher:** Tsakane Sono

I, _____hereby give consent for the **audio-recording** of my interview with the researcher. I understand that this audio recording will be stored on the researcher's password-protected computer. I understand that this audio recording will be transcribed by a commercial transcription service but that my name will not be included in the transcript. I understand that the transcript will be stored on the researcher's password-protected computer

| | | | |
|---|---|---|---|
| Participant's signature | | Date | |
| Researcher's signature | | Date | |

## Appendix E: Journey mapping timeline:

**Purpose:** to illustrate and gain a basic understanding of the participants journey of receiving health care services for the hand injury *across time*. The data collection tool will specifically focus on illustrating the *breadth* of the experience (capturing lots of detail with limited depth). The completed map will then be used as a tool to unpack the *depth* of the participant's experience along the journey during the in-depth interview.

The mapping activity will capture:

- Touchpoints: clinical (eg. "CHBAH Emergency") and non-clinical ("went to live with aunt in Edenvale") touchpoints – will involve asking *where* and *when* questions? ("…And then what happened…where did you go after that…)
- Experience at each touchpoint: Brief descriptions of events. Typical questions: *What* happened, *what* this was like/ *how* did they experience this? *Who* was involved?
- What influenced the experience at each touchpoint (internal and external influences): *What* made this a positive/negative experience? *What* led to you experiencing…?

The touchpoints, experiences and influencers will be indicated on the journey map by green, blue and pink post-it notes, respectively. The timeline will be obviously divided into the three sections: touchpoints, experiences and influencers [21]

**The '6 W's and H' questions will be used to facilitate the enquiry into every journey touchpoint:**

| Question | Examples |
|---|---|
| **What?** | *What happened? (desription) What contributed to your feeling of being treated well?* |
| **Where?** | *Where did it happen?* |
| **When?** | *When were you discharged from Hand Clinic?* |
| **Who?** | *Who took you too hospital?* |
| **Why?** | *Why did you feel that….?* |
| **Which?** | *Which health professionals did you see when you were still in the hospital.* |
| **How?** | *How did it happen? How did you feel when…? How long did you wait to see a doctor?* |

**Explanation given to participant at start of mapping:** An explanation similar to the explanation below will be provided at the start of the mapping session: *"I would like to understand your journey of having a hand injury, and the experiences you have had, and continue to have, in the healthcare system. Basically, I would like to understand **what** happened, **how** it happended, **where** it happened, **who** was involved and **what** it was like for you.* Each detail of your story that we share, we will put on this map.

We can use words or draw simple pictures to tell the story. The map that we draw could look something like this:

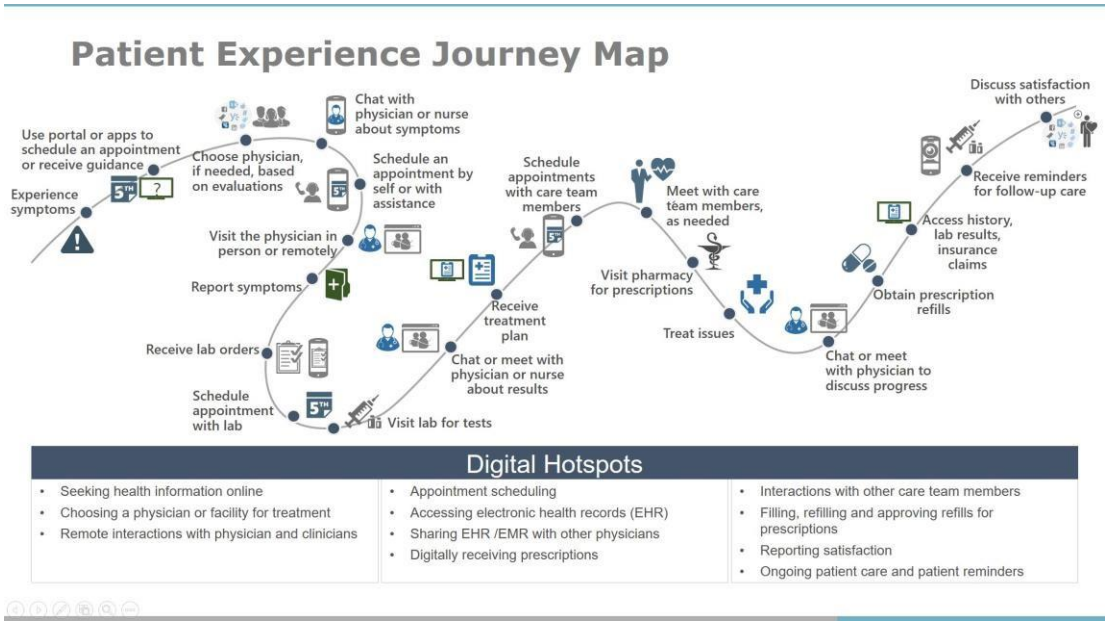



Illustration 1: Example of Patient Journey Map accessed online 8 Ocotber 2021
https://pbs.twimg.com/media/DoCpNjvUcAEbCdU?format=jpg&name=4096x4096

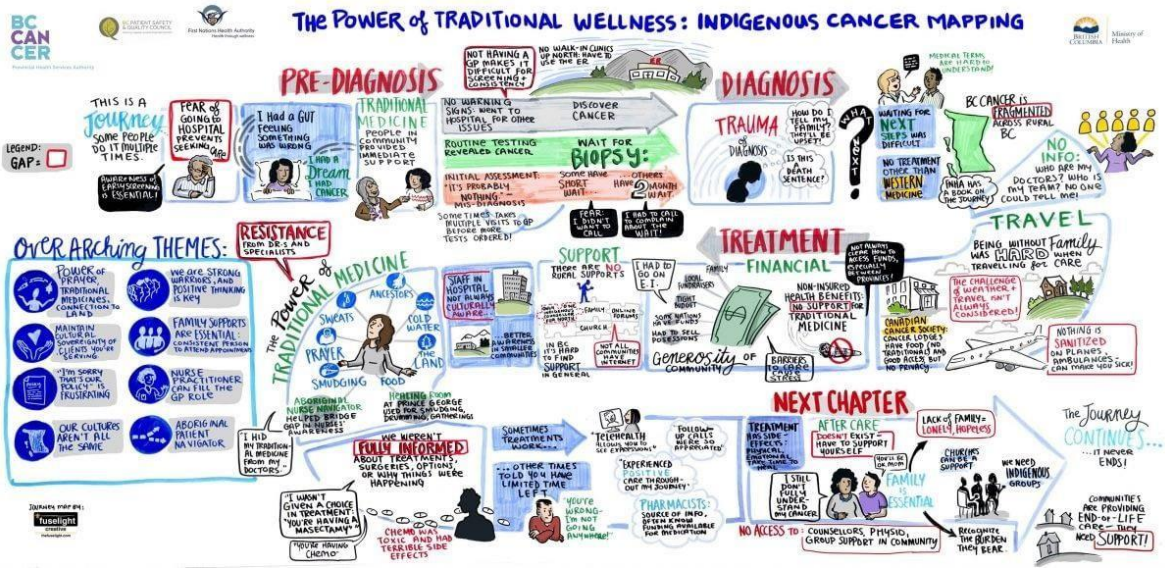



Illustration 2: Example of Patient Journey Map accessed online 8 October 2021
https://www.google.com/imgres?imgurl=https%3A%2F%2Fbcpsqc.ca%2Fwp-content%2Fuploads%2F2019%2F02%2FCOMPRESSED-Indigenous-Cancer-Mapping-Nov.-20-2018-FINAL-1-300x388.jpg&imgrefurl=https%3A%2F%2

**Appendix F: Interview guide**

Opening

Establishing rapport: *introductions*

Outlining purpose: *while the mapping covered all your "steps" along the journey, the interview will go into more depth around your experiences.*

Motivation: *explain what data will be used for (justification)*

Masters Project

Sharing with other health professionals at congresses and conferences

Teaching purposes eg. teaching students

Time: *the interview will take approximately 60 minutes*

Body

1. Demographic questions:

| | | | |
|---|---|---|---|
| Gender: | | Home language: | |
| Age: | | Address (Suburb): | |
| Date of hand injury: | | Occupation: | |
| Hand Dominance: | | Assistive devices being used: | |
| Type of hand injury: | | | |
| Mechanism of injury: | | | |
| Hand injury care services received thus far: | Surgeries: (specific) – *describe number and purpose*<br>Therapies: (specific) – *which therapies, for what purpose*<br>Other eg. Wound nurse, social worker: | | |
| Occupational roles that the client fulfils: | Eg. worker, mother, friend, choir-member | | |

2. Topics

i. Warm up questions:

Can you give me **two or three words** that you would use to summarise your

- experience of having a hand injury*?
- experience of the healthcare that you received for your injury**?

ii. Experience of sustaining and having a hand injury

- Please tell me about the words that you mentioned above*. Can you tell me more/why did you use these words to describe your experience?

- Can you tell me a little bit more about how the injury happened? Prompt: what was this experience like for you?/Can you tell me how you felt at this time How has this experience influences/impacted your life?

- *What did a typical day look like, prior to your hand injury?*

- Can you tell how your hand injury has affected your ability to be a part of normal daily life? /How have your personal and work life been affected?

- How has your hand injury affected your ability to do the things you need to work, want to and have to do? (unpack across participant's occupational roles)

- How has your hand injury affected your feelings about: yourself; the future; those in your community …(adapt to specific client)

iii. Experience through the health system (unpacking what was captured at each touchpoint in the mapping exercise)

- Which health professionals did you receive services from?

- What were these services like? How did this make you feel? How do you feel about the care you received?

- Can you tell me about getting to the hospital/clinic – what does this involve? Prompt: distance /cost (direct and indirect cost). What is this process like for you?

- Can you tell me what a typical visit/appointment to/at the hospital/clinic involves? What works well? What is challenging/frustrating?

- Is there anything that you would change about the services you received? If so, what would you change?

iv. Experience of receiving occupational therapy services

- What was the purpose of going to occupational therapy? Did the service help you? – if yes – in which way/s?

- Could you please tell me about what it has been like receiving Occupational Therapy services in Gauteng?

- Did you find it easy to communicate with the therapists with regards to language? / Do you feel that the therapist understood you and that you understood him/her?

- What about the experience has been positive? What about the experience has not been positive?

- What (if anything) would you change regarding the services that you have received? /If you had to oversee the services, what changes would you make?

- **Close**
  1. Summarize

2. Maintain Rapport
3. Make arrangements for member checking

## Appendix G: Clinical notes guideline (data gathering sheet)

The following information will be extracted from the clinical notes:

- Date of onset of injury
- Date of discharge from treatment if patient is discharged
- Healthcare professionals that have been involved in care and treatment
- Assistive devices currently or previously issued to the patient
- Did injury affect return to work or is patient still working
- If surgery conducted- nature of surgery and healing period
- Length of time patient has been attending occupational therapy
- Compliance to treatment / medication

**Appendix H: HREC Clearance Certificate**

UNIVERSITY OF THE

WITWATERSRAND

JOHANNESBURG

RI 4/49 Miss Tsakane Sono

# HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

## CLEARANCE CERTIFICATE NO. M220415

| | |
|---|---|
| NAME: (Principal Investigator) | Miss Tsakane Sono |
| DEPARTMENT: | Occupational Therapy<br>Chiawelo Clinic and Private Practice |
| PROJECT TITLE: | Patient journey mapping: the experience of patients receiving hand injury care services in Gauteng |
| DATE CONSIDERED: | 29/04/2022 |
| DECISION: | Approved unconditionally |
| CONDITIONS: | |
| SUPERVISOR: | Miss Kirsty Van Stormbroek |

APPROVED BY: Dr CB Penny, Chairperson, HREC (Medical)

DATE OF APPROVAL: 26/07/2022

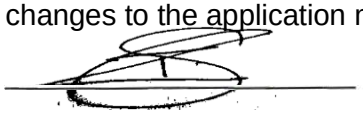
This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

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## DECLARATION OF INVESTIGATORS

To be completed in duplicate and ONE COPY returned to the Research Office Secretary on the Third

Floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace, Parktown, 2193, University of the Witwatersrand. I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. I agree to submit a yearly progress report. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in and will therefore be due in the month of each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).



30/09/2024

Principal Investigator Signature Date