UNIVERSITY OF SOUTHAMPTON

FACULTY OF HEALTH SCIENCE

An Exploration of Informal Learning Experiences of Individuals Case Managing People Affected by Traumatic Brain Injury

by

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Thesis for the degree of PhD

April 2018

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF HEALTH SCIENCE

Health Sciences

Thesis for the degree of Doctor of Philosophy

AN EXPLORATION OF INFORMAL LEARNING EXPERIENCES OF INDIVIDUALS CASE MANAGING PEOPLE AFFECTED BY TRAUMATIC BRAIN INJURY

Case management (CM) is a process used worldwide to rehabilitate people with complex health conditions such as traumatic brain injury (TBI). TBI is the worlds' foremost cause of mortality and disability (Roozenbeek et al., 2013). TBI generates a unique kaleidoscope of highly challenging physical, cognitive, social, and community problems, often needing simultaneous management. Therefore, CM of people affected by TBI requires a breadth of knowledge to respond to such varying needs. This relatively new role is undertaken by academically and professionally diverse people; however, how CM knowledge develops is poorly understood.

The contribution of knowledge acquired outside structured learning processes is recognised internationally (Singh, 2012). Early literature encapsulated this as "informal learning" (IL) (Marsick and Watkins, 1990). Recognition and value of IL arising from workplace experience is increasing (Norcini, 2016). However, IL experiences occurring beyond the workplace that have the potential to influence professional conduct are rarely considered (Jensen 2007).

This qualitative research study explores the breadth of experiences that practitioners consider have informed their CM role in supporting people affected by TBI. The researcher draws on a constructionist ontology acknowledging the multiple ways case managers learn from experience and a relativist epistemology that supports her interpretation of the data arising from her (own) professional knowledge.

Semi-structured interviews were conducted with a purposive sample of 22 diverse practitioners and these were analysed using thematic analysis. Four key themes emerged:

- Shaping the sense of professional self
- Experience of illness, injury, disability
- Experience of violence
- Experience of role models and champions

Within each theme, sub-themes arose indicating that IL supports the development of numerous attributes participants considered necessary for the role. Insight and empathy occurred most frequently. This study indicates that IL experiences beyond workplaces are helpful in contributing to CM knowledge needed to support people affected by TBI.

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Academic Thesis: Declaration Of Authorship

I, Allison Saltrese

declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

An exploration of informal learning experiences of individuals case managing people affected by Traumatic Brain Injury (TBI)

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed: .....

Date: .....

Acknowledgements

There are many people who have supported my endeavours in this study for whom I have enduring gratitude. Firstly, without the participants who gave their time and trusted me with their highly sensitive intimate information, this study could not have taken place.

I have enjoyed the support and help from several supervisors but Prof Edgar Meyer has accompanied me throughout the whole of my PhD journey. His valuable enthusiasm and warm gave me the confidence to keep going at times when obstacles seemed insurmountable. Dr Maggie Donovan-Hall and Dr Bernadette Waters latterly joined the supervisory team and have provided reassurance, support and help.

My colleagues patiently listened to the development of my ideas and arguments and have provided interesting feedback and questions. People affected by traumatic brain injury whom I support have helpfully reminded me of the devastating impact of this injury on many lives and the need to persevere.

The encouragement I have received has been humbling but none of this would have been possible without the support of my Christian faith, family, friends and wonderful husband. They have been my refuge and a source of comfort particularly during difficult times.

Definitions and Abbreviations

British Association Brain Injury Case Managers	BABICM
Case Management	CM
Case Managers of people with Traumatic Brain Injury	TBICMs
Case Management Society United Kingdom	CMSUK
National Health Service	NHS
Traumatic Brain Injury	TBI

Chapter 1 Introduction and Rationale for the Study

1.1 Introduction

This chapter introduces the key issues that underpin the development of this study. These are the challenge and complexity of managing the long term rehabilitation of people who have sustained a traumatic brain injury (TBI); the nature and formal preparation of the case management (CM) role, the contribution of informal learning and within this, investigation of the impact and contribution of informal learning experiences for case managers in the delivery of their professional role. A short summary explaining the position of the researcher sets out the rationale for undertaking this inquiry. The chapter concludes with an outline of the layout of the thesis and the topics covered.

Traumatic brain injury (TBI) is caused by a violent impact or trauma that damages cognitive and physical abilities (Rassovsky et al., 2015). The outcome may be transitory or permanent depending on the nature of the injury (Dawodu, 2011). The multiple sequelae and problems faced by people who sustain a TBI are outlined to illustrate the complexity of needs following an injury. The magnitude and diversity of problems experienced by individuals resulting from TBI frequently requires skilled and expert (case) management (Fitzsimmons, 2003). This is necessary to ensure that people with these injuries achieve their optimum rehabilitation outcomes.

Case management may be described as rehabilitation project management. It is a process used to ensure effective and holistic rehabilitation of people with complex health and welfare conditions. The aim of case management is to facilitate optimum outcomes for the injured person and their families (Wood and McMillan, 2013). Case managers work collaboratively with a wide range of professionals and services in order to meet the long term needs of people affected by TBI (Clark-Wilson, 2006). The evolution of case management has been shaped by multiple factors including the type of service provided and client group served (Drennan et al., 2011, Clark-Wilson, 2006, Brown et al., 2008, Burns et al., 1999). This has led to numerous approaches to the training and delivery of

case management across the globe (Scheinberg et al., 2005, Maniapoto and Gribben, 2003). A similar pattern has occurred within the UK, as case management is delivered across a range of services by a number of professions (Drennan and Goodman, 2004, Sargent et al., 2008, Department of Health, 2006). The development of case management within the UK will be outlined to illustrate the diversity of service delivery with specific reference to people affected by TBI.

Within the UK, there is no structured regulatory framework guiding case management delivery. Consequently, there is no universal agreement on the definition, standards or minimum qualifications needed to practice. This raises the question of how people providing this service learn to case manage, particularly in an area of practice that is characterised by the complexity of needs arising from TBI. In the absence of a structured learning process, consideration of the role and contribution of informal learning is needed. Informal learning arises from experiences in daily life and in all settings (Jarvis, 2015, Singh, 2012). Most informal learning literature focuses on learning in the workplace but overlooks experiences that inform delivery of professional roles that occur in other contexts (Kyndt et al., 2017, Billett, 2016). The aim of this thesis is to explore the spectrum of informal learning experiences that case managers providing support to people affected by TBI consider have informed the development and knowledge of their practice.

1.2 Position of the Researcher

The following brief summary of the researcher's background has been included to set the context of the study and enable the reader to appreciate her ontological position fully. In undertaking this study, the researcher has been guided by experiences in her personal, professional and academic life (Skovholt and Starkey, 2010). Members of the researcher's family have sustained severe neurological disabilities and psychiatric illnesses that have influenced her professional practice as a registered general nurse. Working within the NHS located the researcher within a registered profession and established her framework of professional practice. She has also been influenced by her formal education with academic qualifications in psychology, health promotion, general management and rehabilitation. The researcher has provided care and support for people with severe cognitive injuries throughout her career. Nevertheless, her work preparing

reports for the court on the long-term needs of people who had sustained a severe TBI highlighted a serious deficit in comprehensive specialist management.

In the early 1990's, the complex needs of people with TBI living in the community were poorly understood. In 1992 the Department of Health (DOH) funded a five-year project for 12 providers across the UK to enhance services for people with TBI. This became known as the National TBI Study (NTBIS), (Stilwell et al., 1999). People who had sustained a TBI were monitored for up to three years following injury. On conclusion, responsibility for the on-going funding and maintenance of this provision transferred to statutory services. However, limited awareness of the long term needs of people who had sustained a TBI contributed to decisions in many areas not to fund specialist service provision for this client group. The sparse level of suitable service provision for people with TBI sparked a wave of development of independent case management services across the country. Within the researcher's locality, there was no bespoke case management for people who had sustained a TBI. This underpinned her decision to develop a case management service within the independent sector. Much of the UK literature on case management focuses on service provision from the statutory sector only (Gowing et al., 2016, Reilly et al., 2010). The researcher's experience of working in the statutory and independent sectors contributed to a broader perspective of case management. This engendered the deliberate decision to engage TBI case managers (TBICMs) from all sectors in this study.

The researcher has been actively involved in two peer-led organisations that were founded to promote and develop the profession of case management (Case Management Society United Kingdom (CMSUK) and British Association of Brain Injury Case Managers (BABICM). For example, the researcher co-authored and developed case management standards of practice and a code of ethics (Ainsworth et al., 2009, Harrison et al., 2008). The researcher's involvement in case management organisations brought her into contact with a wide variety of case managers from a range of professional and academic backgrounds, many of whom indicated that their professional qualifications did not inform their case management practice. This raised speculation about the source of learning for this role across services and professional disciplines. The anecdotal evidence from other case managers mirrored the researcher's own informal learning experiences in both work and non-work contexts that have, and continue to be valuable in the case management of people with TBI.

1.3 Summary

TBI is a complex and challenging chronic condition that requires experienced case management (Fadyl et al., 2017). Case management in the rehabilitation of people who have sustained a TBI has been adopted across the globe (Lukersmith et al., 2016b, Kelley et al., 2015). In the UK, diverse implementation of case management has led to various approaches to the training and education of practitioners (Reilly et al., 2015, Randall, 2014). There is no formal learning framework to determine the delivery of case management; therefore, how practitioners learn to develop knowledge and skills needed for the role is unknown. Anecdotal evidence from the people who provide TBI case management suggests that informal learning experience has contributed to their practice. This study seeks to explore the perspective of a range of TBICM regarding their informal learning experiences considered to inform their knowledge and role. The researcher's own informal learning experiences have contributed to her own body of knowledge. A breadth of influences has influenced the researcher's conduct of this study. These will be discussed in further detail in chapters 5 and 7.

1.4 Structure of the Thesis and Research Aims

Chapter 2 briefly outlines the causes and multiple outcomes of TBI to illustrate the enormity of the societal and individual consequences following an injury. This chapter summarises the literature regarding the management of this specific clinical group. Some of the most significant problems caused by this type of injury will be highlighted to provide an insight into the complexity of severe TBI. This points toward the need for experienced management and support.

Chapter 3 summarises the origin of case management to explain its development within the UK. This will provide a foundation to illustrate the reasons underlying the numerous approaches to the development, training and delivery of case management. Examples from each service sector will illustrate the diversity of case management practice.

Chapter 4 reviews the concept of learning to provide a contextual background from which to discuss formal learning (FL) informal learning (IL) and the role of informal learning experiences. This is to consider of the nature, contribution and

development of informal learning more fully. In particular, the value of informal learning experiences is discussed. The chapter concludes with a synopsis of the key areas of learning theories underpinning the aims and focus of the study. This research seeks to establish whether there is a pattern in the informal learning experiences that inform the case management role and how case managers apply this learning in the delivery of their professional practice.

Chapter 5 explains the theoretical framework used in this study and explains why adopting a generic qualitative methodology is appropriate for this research. A reflexive approach underpins the description of the investigation to provide details of the different procedures required in conduct of this study. An explanation of the sample selection and data gathering methods precede discussion of the methods of data analysis. This is followed by a review of the role and contribution of reflexivity in qualitative research and the impact of the researcher on this study in particular. The chapter concludes with consideration of the ethical issues in this study.

Chapter 6 reports the findings of this study. Participants recalled experiences that seemed to inform their case management of people with TBI. The educational and professional backgrounds of participants varies but similarities in the nature of informal learning experiences are evident. This chapter highlights the four themes emerging from interviews with 22 case managers. The four emergent themes are; “Shaping the sense of professional self”, “Experience of illness, injury, disability” “Experience of violence”, “Experience of role models and champions”. Each theme and sub theme are discussed in detail and encapsulate similarities in informal learning experiences that appeared to influence conduct of the role. All themes are fully illustrated with quotations from participants giving the impression of how informal learning experiences are used in the conduct of the case management role.

Chapter 7 considers the four key themes that have emerged to illustrate how the breadth of informal learning experiences seem to point toward to a number of attributes and skills considered by participants as being fundamental for conduct of the role. How this study addresses the research question and objectives will be summarised; this will be followed by a summary of the reflexive stance adopted by the researcher. This section is written in the first person to highlight her influence on and interpretation of the study. The implications of this

investigation for current theory and case management practice with recommendations for further research are summarised before highlighting the strengths and limitations of this study. The chapter is concluded by indicating how the findings may be viewed in a wider context and the final reflections of the researcher.

1.5 Chapter Summary

This chapter has introduced an outline of the influences that have shaped the design and construction of this research. The following chapter will discuss TBI in further detail.

Chapter 2 Traumatic Brain Injury

2.1 Chapter Introduction

This chapter will explain what constitutes a traumatic brain injury (TBI) and why, within this study, an understanding of the causes and consequences are important. The definition and epidemiology of TBI will be outlined to illustrate the far-reaching impact this has across the globe. This will be followed by a brief description of the extensive array of problems and challenges encountered by people who sustain a TBI. There are three main classifications of TBI that indicate the severity and long term consequences of the injury, namely mild, moderate and severe TBI (Ponsford et al., 2016). These categories are relevant because it is predominantly the people who sustain the most severe TBI who need ongoing support to sustain an effective adjustment to life with a disability (Wilson et al., 2017, Clark-Wilson et al., 2016).

2.2 Definition & Epidemiology

Traumatic brain injury (TBI) occurs following a sudden violent insult to the head that precipitates damage to brain tissue and its structures (Ashley and Connors, 2010). In addition to the structural damage to the brain and its systems, further harm ensues from a rapid process of physical, chemical and metabolic changes that commences on impact (Halldorsson et al., 2012). Traumatic brain injury is a substantial worldwide public health problem that is overtaking many other disease processes to become a leading cause of death and permanent disability (Peeters et al., 2015, Masel and DeWitt, 2010). The outcome and severity of each individual injury will be unique because of the exacerbation or mitigation of many extraneous factors including the timing and availability of treatment (Johnson and Griswold, 2017). The social milieu in which the individual lives also provides a key element that may enhance or obstruct rehabilitation. Part of the complexity in identifying the long term rehabilitation needs of people with TBI arises from the unique variation in outcomes experienced. For example, two people of the same age, socioeconomic background and gender could sustain similar injuries and receive comparative emergency care but the long term sequelae may differ sharply (Forslund et al., 2017, Gardner et al., 2017). Notably more people are

surviving extreme injuries due to preventative safety measures in legislation, transport and advances in medical treatment (Salattolo et al 2017, Rozenbeek et al 2013, Summers et al 2009).

TBI has been referred to as the "*silent epidemic"* (Peeters et al 2015, p1683) because of its pervasive impact on every society throughout the world (Brown et al., 2015) . Part of the difficulty in identifying and supporting people affected by TBI arises from discrepancies regarding how it is identified, recorded and measured at the treatment stage (Savitsky et al., 2016, Roozenbeek et al., 2013). Accurate data regarding the spectrum of injuries are difficult to obtain partly because of the broad range in severity of symptoms when the injury first occurs (Feigin et al 2013). For example, some people who sustain what is termed a mild TBI or who incur repeated injuries at different times, do not necessarily attend an accident and emergency department and are not included in medical data collection (de Koning et al., 2017, Halldorsson et al., 2012). Studies reporting annual rates of TBI acknowledge their tendency to represent more seriously injured people. Nevertheless in Europe approximately 2.5 million people sustain a TBI every year (Synonot et al 2016). The number of people who present at emergency departments in England following head injury vary each year from 1.2 million to 700,000 (National Institute Clinical Excellence, (NICE), 2014, www.hesonline.nhs.uk information centre, 2013). The causes of TBI vary with the majority of injuries occurring from falls, road traffic accidents, being accidently struck and violence (Salottolo et al.,2017, Hughes et al.,2015).

For people of working age, TBI is the foremost cause of mortality and morbidity (Fleminger and Ponsford, 2005). It particularly affects adolescents and young people before they have had the opportunity to fully develop, thus hampering efforts to become independent as adults (Thurman, 2016, Roozenbeek et al., 2013, McMillan et al., 2014, Fleminger and Ponsford, 2005). Within this discrete population, the male to female ratio is higher and injuries frequently occur in the 15-24 age group (Thurman 2016, Feigin et al., 2013, Dean et al., 2012). This is because multiple and indeterminate influences from biological, social, cultural and environmental sources enhance risk taking behaviour in young inexperienced males (Maegele et al., 2007).

TBI is defined by the presence of three key clinical indicators namely a Glasgow Coma Scale score, the length of time consciousness is lost and the period of post

traumatic amnesia (Ponsford et al., 2016). Together these measures are used to classify the severity of the TBI as mild, moderate or severe. More recently, the complexity of the most devastating injuries are recorded as very severe and extremely severe (Salattolo et al., 2017, Ponsford et al., 2016). These categories are related to the configuration of the impact including the level of force, size and location of insult and how the injury is caused. To promote international understanding and classification of TBI, institutions such as the World Health Organisation (WHO) defined common features that involve at least one of the five key attributes. This includes: change or decrease in consciousness; physical, psychological, and neurological changes; fractured skull; injury to brain structure and tissues and (in the most extreme circumstances), death (Thurman, 2016).

Identifying the severity of injury is essential because this indicates the likelihood of developing extensive and simultaneous problems needing long term management (Teasdale et al., 2014). Consequently, failure to identify or understand the symptoms of TBI will prevent access to services and expertise that may be needed to manage problems effectively (Williams and Chitabesan, 2016, Godoy et al., 2016).

2.3 Consequences of TBI

The consequences of TBI are extremely complex in part because of the interconnected influences that exacerbate multiple problems. People affected by TBI often experience a combination of personal, physical, cognitive, social, vocational, financial, emotional and environmental difficulties arising from their injury (Pressman, 2007). Deficits in memory, attention, concentration, receptive and expressive communication, behaviour control and poor mental health frequently occur simultaneously (Williams et al., 2010, Schwartz et al., 2012). These problems are magnified by other challenges that may occur as a result of the injury including personality change, disinhibition, increased irritability, aggression, slowness of responses and increased fatigue (Buck et al., 2012, Conway et al., 1999). Furthermore, pre and post injury factors also influence the impact of injury contributing to the unique presentation of the individual (Rassovsky et al.2015, Zampolini et al.,2012). Experiencing just one of those conditions is likely to be distressing, but it is the multiple morbidities that frequently compound the ordeal faced by people with TBI (Higashi et al., 2007). These difficulties are exacerbated by the significant strain encountered in

personal relationships with high levels of relationship failure following injury (Wood and Yurdakul, 1997). The outcome and severity of each individual injury will be distinct because of the exacerbation or mitigation of many extraneous factors including availability and timing of interventions and ongoing social support.

The outcomes of TBI are also associated with unemployment, violence, aggression, criminal behaviour arising from impaired executive function and homelessness, all of which contribute to poor integration that further isolates the injured person. These difficulties are exacerbated because the needs of people with multiple chronic conditions tend to be met in a fragmented way. For survivors of TBI this contributes to poor outcomes and increases their likelihood of developing a chaotic and vulnerable lifestyle (McMillan et al., 2014, Barnett et al., 2012, McMillan et al., 2011). Furthermore, skilled knowledge, expertise and services for those with TBI are lacking (NICE, 2014, Brown et al., 2015, Holloway and Fyson, 2015, Hawley et al., 2015). Thus categorising the severity of TBI can indicate the level of post injury needs. A brief review of the three main diagnostic categories of TBI will follow.

2.3.1 Mild TBI

The consequences of mild TBI have received increased attention and focus in recent years (Topolovec-Vranic et al., 2017, Sveen et al., 2016). This has been influenced by the high number of military personnel injured in recent global conflicts and a rising interest from contact sports (Jak et al., 2015, Hawley et al., 2015, Jordan, 2013, Xydakis et al., 2012). Some people who experience mild TBI are thought to recover to the extent they may return to their usual activities but a number of substantial problems remain for several people (de Koning et al., 2017). Troubling symptoms include increased irritability, fatigue, anxiety and depression, impairment of memory and concentration (Dikmen et al., 2016, Sveen et al., 2016, Ponsford et al., 2014). Without professional intervention and support, those people whose symptoms persist can face disastrous consequences (McMillan et al., 2014, Masel and Dewitt, 2014, Ashley and Connors, 2010). Therefore, the label of a mild TBI can be misleading because of the extensive variation in adverse long term outcomes (Losoi et al., 2016, Dikmen et al., 2016). This is because mild TBI increases the risk of other health conditions and cognitive problems that undermine personal independence as well as social and

economic productivity (Sveen et al., 2016, Masel and DeWitt, 2010, Langlois et al., 2006).

2.3.2 Moderate TBI

Moderate TBI has been noted as being poorly defined in the literature because a variety of factors increase the difficulty in accurately assessing the level of severity at the time of the initial treatment (Moscote-Salazar, 2016, Joseph et al., 2015). This can be due to a delayed deterioration that is not immediately apparent. For example for some people, alcohol and or drug ingestion prior to injury distorts symptoms. In a small proportion of people the severity of their injury is not immediately obvious. Thus as many as 15% of people who are able to talk during the initial phase post injury develop avoidable complications leading to their death (Godoy et al., 2016, Reilly et al., 1975). This indicates the highly volatile nature of this condition. People who have sustained a moderate TBI will require specialist rehabilitation and many will need some form of support for several years (Rogers et al., 2015). Unfortunately, there will be a number of people with this level of TBI whose deficits will impair their independent living activities resulting in the need for lifelong support (Godoy et al., 2016, Rogers et al., 2015).

2.3.3 Severe TBI

The diversity in presentation of people with severe TBI is extreme; one person may have no physical indications of injury whatsoever but suffer an idiosyncratic collection of psychiatric, cognitive and behavioural problems and the other may have variable levels of consciousness and could be paralysed. The management of physical disabilities may be more obvious but it is the combination of a range of cognitive challenges that frequently precipitate some of the most complex health and social problems (Fleminger and Ponsford, 2005). This group sustain marked changes in their cognitive abilities that impairs independent functioning (Teasdale et al.,2014, Darnoux 2011). The majority of people who survive a severe TBI need some form of support indefinitely; a third need high levels of care (Godoy et al., 2016, Rizoli et al., 2016). Severe TBI also increases the risk of early mortality due to the increased propensity for other health conditions as well as a turbulent lifestyle that frequently ensues (McMillan et al., 2014, McMillan and Teasdale, 2007). Consequently, the pattern of recovery is unpredictable and

lengthy, taking several years for an individual to reach their optimum potential (Fleminger and Ponsford 2005).

2.4 Chapter Summary

This chapter has introduced the diverse complicated clinical condition of TBI and provides the clinical context on which the study rests. The extensive impact TBI perpetuates throughout every level of society throughout the globe frequently leads to other health needs. For the most severely injured individuals and their families the consequences are devastating. The complexity and idiosyncratic nature of severe TBI means that most people affected by TBI will need professional support to manage long term rehabilitation (Lukersmith et al., 2016). It has been asserted that the provision of holistic, experienced case management can improve outcomes for people with TBI by enabling them to re-engage with their communities and achieve a good quality of life within the constraints of their disability (Clarke-Wilson et al., 2016, Pressman, 2007). The following chapter will explore the concept of case management, its mission and methods in order to illuminate its utility in supporting individuals with severe TBI.

Chapter 3 Case Management

3.1 Introduction

The previous chapter outlined why people who have sustained a severe TBI need skilled and experienced case management. This chapter explores the concept of case management; particular attention will focus on those influences shaping the delivery of this role in order to meet the needs of people affected by TBI. This will provide the context for the study. The origin and subsequent international development of case management will be discussed to illuminate the challenges in establishing a universal definition. This will highlight the complications influencing the delivery and conduct of the role. Different models of case management will be reviewed briefly to provide a background from which to introduce the diverse range of case management services that are needed for people affected by TBI. This will also highlight the spectrum of idiosyncratic needs of individuals with TBI. The chapter will then outline the delivery of case management in the UK to establish the framework in which the study is set. Case management is provided from the statutory, third and independent sectors. An example from each sector will be included to demonstrate the diverse and complex range of needs of people with TBI and the different services needed across and within each sector. The chapter will then outline the inconsistencies and diversity in the education and training of practitioners providing case management. This will illustrate why exploration of sources of learning that informs the role is worthy of investigation.

The chapter summary synthesises the concept of TBI case management as a foundation from which to introduce the academic and theoretical foundations that underpin this research.

3.2 The Origin, Purpose and Definition of Case Management

This section will explore the origins, purpose and global influences that have contributed to the definition, shape and development of case management. This is to establish the important contribution case management makes to the

rehabilitation and ongoing support of people living with complex health and social needs.

Case management was initially developed in the United States of America (USA) (Tahan, 1998). Its rapid growth in the 1950's was propelled by two key concerns. Firstly, to provide co-ordinated services for severely disabled people, their families and others providing support in order to improve the quality of their lives in the community (Challis et al., 2007, Buck and Alexander, 2006, Rothman, 1992). Secondly, to contain health care costs by engaging difficult-to-reach groups of people with complex conditions. Their multiple needs often fostered an iterative pattern of chaotic, unhealthy lifestyles, increasing dependency and poor outcomes (Vanderplasschen et al., 2004, Smith et al., 2013, Ross et al., 2011, Reilly et al., 2010).

Case management may be described as project management for people with multiple complicated health and social care needs. It has been described as a "*unifying concept*" (Thornicroft 1991, p130) involving a comprehensive and complex process of collaborative, multifaceted, iterative actions and interventions (Lukersmith et al., 2016b). The purpose of case management is to proactively integrate services that will support, empower and engage individuals who have extensive, challenging health and social needs. This approach aims to design and deliver interventions that respond to the individual's wishes and inclinations. It has been described as person centred care (Brown et al., 2016, World Health Organization, 2010). The purpose of a person centred approach is to achieve and sustain the disabled person's optimum health, well-being and independence (Wilson et al., 2008, Lukersmith et al., 2014).

The length of time case management is required ranges from time-limited responses needed in an acute phase or crisis, to continual, long-term support required for several years (Clark et al 2016, Marston et al 2015, Abdel-Baki et al 2013). In comparison to disciplines such as medicine, case management is an emerging professional activity. This has enabled a flexible interpretation and subsequent application of the role across a broad spectrum of settings and communities. Consequently, case management has been extensively adopted and adapted to respond to the specific needs of heterogeneous populations across the globe (Lukersmith et al 2016a, Kahan et al 2016, Sullivan and McCabe 2015). As a result, a range of different case management services have been

established in countries such as Italy, Australia, Hong Kong, Madagascar and Zimbabwe (Lukersmith et al 2016a, Bender et al 2015, Van Mierlo et al., 2014, Rasanathan et al 2014, Lee et al., 1998, Landi et al., 1996).

The flexible application of case management has enabled its use to support people within institutional contexts such as hospitals, schools and prisons (Kahan et al 2016, Rasanathan et al 2014, Engelke et al 2013, Bauserman 2003). However, by far the most diverse use of case management is found in a wide spectrum of community settings. Examples of the differing types of community-based case management are found in the support of homeless people; rehabilitation of injured military personnel; provision of vocational support and offender management (Clark et al 2016, Sullivan et al., 2016, Kelley et al 2015, Rezansoff et al., 2014, Abdel-Baki et al 2013). Therefore, the delivery of case management is frequently influenced by the context in which it operates at a macro (societal), meso (interpersonal groups) and micro (individual) level (Mueser et al 1998, Summers, 2015). Approaches differ across the globe according to the context and the culture in which it is delivered (Maniapoto and Gribben, 2003). Variation in the delivery of case management has led to substantial difficulties in establishing a specific definition (Van Mierlo et al 2014, Sullivan 2016, Thornicroft 1991). As a result, this hampers efforts to compare, evaluate and improve case management. The emergence of numerous definitions has also shaped the way in which case managers' knowledge and skills are developed; without a universally agreed definition of case management, the training and education of practitioners is unclear. Thus the diversity of case management services needed for different populations raises further speculation regarding how case managers acquire knowledge and skills that are specific to the needs of the people they support. The challenges in defining case management will be explored further.

3.3 Challenges in Defining Case Management

Case management was first delivered by social workers and nurses who had been trained in specific ways leading to somewhat different approaches to disability (World Health Organisation (WHO) 2001). To some extent, each profession approaches impairment in a way that mirrors the distinctions in the social versus medical models of disability (Robinson et al., 2016). Social workers focused on the personal attributes and environmental context of the individual (Anastas and

Clark 2013). In contrast, nurses drew heavily on the nursing process to define their role (Thoma and Waite, 2017). This has subsequently exerted a substantial influence on how case management has been defined and developed. Other professions including occupational therapists (OT's), physiotherapists, probation officers, teachers and substance abuse counsellors have also become case managers (Goldman et al., 2016, Robinson et al., 2016, Johnson et al., 2015, Silverman et al., 2015, Guy et al., 2014, Mas-Expósito et al., 2014, Van Veldhuizen, 2007). These academic and professional disciplines have contributed skills, abilities, views and approaches that have shaped the definition, growth and delivery of case management (Goldman et al., 2016, Robinson et al., 2016, Johnson et al., 2015).

This eclectic range of expertise and experience brings richness and variety to the case management role. In so doing it straddles the contrasting paradigms between a holistic, social approach and a medical model that draw on managerial processes of care and support (Sullivan and McCabe 2015). Nevertheless, in some circumstances, the diversity exacerbates associated tension in how those overarching perspectives are reconciled in the literature and daily practice. This subsequently influences learning and knowledge needed for the conduct of this role (Silverman et al 2015, Rapp 2014). For example, within nursing, difficulties in developing case management has been magnified by poor role definitions and inconsistent use of titles (Smith, 2011). For some nurses becoming a case manager has been challenging as they have moved from a robust professional identity to one that is poorly understood by colleagues and patients (Schmitt 2006). In contrast, OT's are trained to incorporate a variety of disciplines within their practice. Accordingly OT's highlight that case management is a natural progression within their profession (Robinson et al 2016). Consequently, there may be intra and inter-professional discord in explaining how case management should be delivered and by whom (Keigher, 2000). Furthermore, the terminology used to discuss case management differs within and across various professions (Lukersmith et al 2016, Silverman et al., 2015). As a result, these differences may add further complexity in establishing the knowledge and skills considered necessary to deliver case management (Keigher, 2000, Ney, 1998). Consequently a brief overview of the variation of language used in the literature will follow to provide a context from which to define the case management of people with TBI.

The way in which case management is delivered stems from the definition. The academic and grey literature use different vocabulary to define, describe and discuss case management consequently, this can hinder clarity and debate (Clark et al., 2016, Hasche and Lavery, 2015, Tsai et al., 2014). On a strategic level, this muddles the development of case management services. Misunderstandings between different professional disciplines may arise as a result of a lack of a shared common terminology. This could cause difficulties at the point of delivery to a recipient of case management (Malcus and Kline, 2001). An example of this semantic complexity is illustrated by the way in which social workers within social services define, describe, understand and deliver their service, referring to care rather than case management (Silverman et al 2015, Challis et al, 2007). Within the literature, several terms are used interchangeably including care management, case management, activity, approach and interventions (Silverman et al., 2015, Anastas and Clark, 2013). In some cases this variation arises within the same article, thus promulgating inconsistency (Lukersmith et al 2016a, Stokes et al 2015, Reilly et al 2015, van der Plas et al., 2013, Smith and Newton, 2007, Zwarenstein et al., 2000). The evolution of case management and simultaneous increase in the range of professionals delivering the role heralds the use of additional terms such as "life care planning" (Robinson 2016, Silverman et al 2015). Whilst this describes similar activities to those undertaken in case management, the potential to add further confusion and obstacles in comparing services is apparent (Johnson et al 2015).

Without an agreed definition, practitioners undertaking a developing role may encounter difficulties from professionals from other disciplines and members of the public whose understanding of case management may be poor (Morrow et al 2011). This can obstruct recognition of the new profession and impede its growth, not least by challenging the identity of people performing the role. Case management emanating from different disciplines may also offer contradictory definitions opining whether a single profession is best suited to deliver this service. Arguments supporting the involvement of a sole profession as case managers have separately promoted mental health nurses, OTs or social workers (Robinson et al 2016, Alexopoulos et al 2016, Brown et al 2012). This single profession approach may be appropriate in some circumstances where a specific population requires a particular skill set. For example, case managers of elderly people with dementia require specific knowledge in order to monitor and manage interventions (Khanassov and Vedel, 2016, Minkman et al., 2009). This

distinctive knowledge may not be readily available from other disciplines (Engelke et al 2013). In contrast, other client groups such as people with complex, enduring mental health problems may have needs that are successfully met by a case management service that incorporates staff from various backgrounds (Johnson et al 2015, Clark-Wilson 2006, van Veldhuizen 2007). Thus different perspectives have arisen in part from the way in which services have been defined and subsequently configured. Therefore, a sensible approach in defining a case management service should first clarify its purpose and the needs of the people it aims to serve. This will point toward the knowledge and skills needed for the conduct of the role. This is the approach taken in this study and will be discussed later.

Case management is not readily defined because it has been developed from a wide variety of practices and professional paradigms using different terminology, all purporting to describe case management. Within the literature, a frequently cited definition of case management is taken or adapted from national organisations of case managers located around the world such as the National Case Management Network Canada (NCMNC), Case Management Societies of: America (CMSA), Australia and New Zealand (CMSA), Singapore (CMSS), United Kingdom (CMSUK), and the British Association of Brain Injury Case Managers (BABICM) (Evans et al., 2012, Ross et al., 2011, Reilly et al., 2010, Huber, 2002). These definitions refer to the assessment, planning, implementation, coordination, monitoring and evaluation of services to meet the specific needs of a service user.

A review of 79 studies of community based case management services reported 23 distinct definitions that, nevertheless, shared many similar characteristics (Lukersmith et al 2016a). Whilst generic definitions from national case management societies are relevant and have been helpful, new definitions are emerging by consensus and offer a more robust approach by specifying the key elements needed by specific populations within a given context (Sullivan 2015). Given the complexity within the literature, this study will use a specific definition of brain injury case management. Within the brain injury case management literature, the terms “acquired brain injury” (ABI) and “traumatic brain injury” (TBI) are frequently used interchangeably. However, there are few studies specifically investigating the case management of TBI (Clark-Wilson et al., 2016, Pressman,

2007). Consequently, in this research, the adoption of a definition for TBI case management will draw on the available brain injury case management literature.

Within the case management of brain injury, (Lukersmith et al., (2016a) identified two services that have produced specific definitions. Kennedy et al (2012) locate their service in a specialist brain injury rehabilitation unit. Thus, the focus is on the initial post injury rehabilitation phase within an institutional setting. Whereas Vuckovic-Kosanovic (2013) highlights the importance of a person centred, holistic and proactive approach needed for the long term case management of brain injured people living in the community. Irrespective of the environmental context, Vuckovic-Kosanovic's (2013) approach is particularly important for people who have sustained severe TBIs who frequently need multiple and extended interventions to maintain their health, wellbeing and stability. For this reason, a version of her definition will be used in this study.

Case management is a client centred approach involving the co-ordination of multi-disciplinary services within a community that promotes more effective, positive and sustained outcomes for people with TBI. Case management enables the active participation and empowerment of the client or the client's designated representative (e.g. guardian) in all aspects of identifying and meeting client /family needs. Case management is a collaborative, holistic process that attends to the cognitive, physical, psychosocial and vocational needs of individuals with TBI" (Vuckovic-Kosanovic 2013 p10).

This definition is helpful because it highlights the diversity involved in the role. It also points to the question of how case managers supporting people affected by severe TBI acquire the knowledge and skills needed. Use of a clear definition underpins the model on which case management services are based. A brief discussion of the models of case management will follow to provide an outline of the different approaches used. This will illustrate another aspect that complicates the service and the implications for the knowledge and skills needed to undertake the role.

3.4 Case Management Models

This section will outline the case management models used most frequently across the international spectrum of case management. The purpose of this is to

illustrate the similarities and differences in approaches in the management of people affected by severe TBI.

The absence of a universal definition and explanation of case management in the literature has promulgated a variety of case management models and approaches. A case management model is a framework that establishes the actions undertaken by members of staff to meet client and service objectives. Thus the case management model shapes and influences the knowledge and skills needed for the role. As case management developed and adapted to meet needs of diverse populations across multiple settings, several authors attempted to broadly classify different models, activities and purposes of case management (Mas-Expósito et al 2014, Huber 2002, Thornicroft 1999). More recently, researchers are focusing on the case management of people living with identifiable diagnoses. Unfortunately, descriptive and methodological inconsistencies often undermine the development of condition-specific models such as diabetes (Watts and Lucatorto, 2014, Norris et al., 2002). In contrast, the case management of people with severe chronic psychiatric illness living in the community has been established in several countries for over 40 years (Schwab et al., 1987, Lamb, 1980, Turner and TenHoor, 1978). Accordingly, many studies refer to the same approaches and terminology (Van Veldhuizen, 2007, Mueser et al., 1998). Consequently, this enables robust comparisons of practice investigation and debate (Lerbaek et al 2016, Vroomen et al 2012, Happell et al 2012, Marshall and Lockwood 2011, Mueser et al 1998). This has supported the international development of specialist case management models that are now considered fundamental for the effective support of this population (Lerbaek et al 2016, Happell et al 2012, Vroomen et al 2012, Holloway & Carson 2001).

Drawing on this important work, Lukersmith et al (2016a) reviewed international studies of the case management of people with complex long term health conditions living in the community - including brain injured individuals. Of the original 1515 papers identified in a literature search, less than half were considered to describe and define case management appropriately. This included peer reviewed journals and the grey literature. Application of inclusion and exclusion criteria filtered a subsample of 79 papers that were closely examined. Whilst 23 papers reported the theoretical basis and definition on which case management was based, 57 papers did not include this information. The grey literature may have been included in the subsample if documents provided

detailed descriptions of case management. A review of all 1515 papers may have revealed more models and descriptions. Although some of the models identified had different names, there were broad similarities across the case management literature (Mas-Exposito et al 2013, Happell et al 2012). Thus the models may be grouped into clusters according to similarity of approach and purpose (Lukersmith et al 2016). These include:

- Broker
- Clinical/rehabilitation
- Strengths based
- Chronic care/ assertive/intensive

All case management models aim to match people and appropriate services required to meet individual needs. Each model will be briefly outlined to highlight its relevance in the long term management of people affected by TBI. This will illustrate the difficulty in establishing a single model of case management that comprehensively responds to the TBI population with enduring complex needs.

The broker model was developed to respond to the needs of individuals by linking them to services in a way that minimised cost and contact with the case manager (Holloway and Carson, 2001). The level of interaction between the case manager and the service user is limited. Therefore this model is not appropriate for the management of people affected by the complex long term consequences of severe TBI. The focus of the broker model may also be too concerned with cost saving at the expense of sourcing appropriate support (Salfi 2003, Fisher et al 1988).

Clinical case management was developed because broker case management was deemed lacking in a holistic approach. Clinical case management develops a therapeutic relationship between the case manager and the injured person (Simpson et al 2003). This is also known as the rehabilitation model, and involves a spectrum of interventions to re-establish function and independence. This model is used frequently in the case management of severe TBI because of its comprehensive approach to service users (Parker 2006). The rehabilitation model works with the individual and their personal network to identify and achieve a range of goals to optimise recovery (Clark-Wilson 2006). Notably the

focus of the clinical/rehabilitation model concentrates on the clinical abilities of case managers. This fails to recognise the contribution made by staff working in different contexts whom do not have a professional qualification in health or social care.

Case managers using the strengths based model draw on the positive resources available to support an individual's recovery. In particular, the individual is helped to understand that they are central to the process (Rapp and Wintersteen 1989). The strengths-based model of case management engages a service user's skills, abilities, relationships and networks to build personal resilience within the context of the community (Mueser et al 1998). Whilst this model may be effective for some people who have sustained a severe TBI, if the background context in which the service user inhabits is unsupportive, unhealthy or damaging, this model may not be effective in assisting rehabilitation towards independence over a sustained period.

The chronic care model involves a wide range of interventions to assimilate the support of people with chronic conditions over lengthy periods of time. This model is relevant for people with severe TBI who have complex enduring needs and require substantial levels of case management for several years (Applebaum and Mayberry 1996). This is comparable to the models of case management used in the long term support of people with chronic mental illness living in the community. Although these models are known by different titles (assertive community treatment, intensive, comprehensive, wraparound and functional case management), in practice they are very similar (Lerbæk et al., 2016, Rapp et al., 2014). Use of these models aim to support the spectrum of people with severe mental health needs in achieving stable and fulfilling lives within the limitations of their health challenges (Lerbæk et al., 2016). Whilst support is frequently provided for as long as is needed, the way in which the service is delivered differs. Some services use a dedicated multidisciplinary team, of whom one member is a case manager. In this approach all team members respond to the individual (Mas-Expósito et al., 2014, Baier et al., 2013). Others use a single individual only who is assisted and supported by a multidisciplinary team. In some circumstances a hybrid approach involving both configurations is used (Sullivan and McCabe, 2015, Van Veldhuizen, 2007). This model offers benefits to those people with TBI who have severe, chronic enduring mental health

problems alongside their other needs; but this approach may not be suitable for all people who sustain a severe TBI.

The similarity arising across several case management models and the flexible way in which they have been applied has enabled specialisation within discrete areas of practice such as paediatric brain injury case management or a group based approach for people who need supported accommodation (Tsai et al., 2014, Scheinberg et al., 2005). It would appear that bespoke models of case management practice have arisen because of the way in which the specific needs of particular populations have been supported. Examples include culturally sensitive offender management and homeless people with complex needs (Sullivan et al., 2016, Clark et al., 2016).

Some models share a common focus, for example enabling case managers to respond to the needs of people in a client centred way. Irrespective of the model chosen, the key factors in the model of choice must start with the needs of the individual to be supported. Many people who sustain a severe TBI have long term psychiatric needs in addition to cognitive and physical disabilities (McHugo et al., 2017, Osborn et al., 2017). Community mental health trusts are established to respond to people with psychiatric needs. Nevertheless, the challenges arising from restricted budgets could increase difficulties in justifying the allocation of resources to specifically respond to a smaller more complex subset of the patient population. Thus configuration of these services may make it difficult to respond effectively to those individuals with enduring complex needs arising from severe TBI (O'Donnell et al., 2015, Marston et al., 2015).

The example of community mental health case management illustrates the value of an agreed model in enabling discussion and research on which to consolidate, understand and deliver the service. Of particular importance is the impact this has on the training and education of people delivering case management (Turkington, et al., 2014). However, unlike mental health case management, because the needs of people with TBI who have enduring complex needs are diverse, it is difficult to identify a particular model of approach for this client group in totality. Consequently, the sources of learning that contribute to the development of skills and knowledge needed for the TBI case management role are ambiguous. Without clarity, this raises the potential of failing to meet the needs of this population leading to a waste of resources.

The challenges encountered across the globe arising from a lack of a consistent definition of case management have been outlined. The overview clarified the need for several models of case management in order to meet the different, complex and enduring needs of people affected by TBI. The following section will discuss case management delivery in the UK, with particular attention on the provision of case management to people affected by severe TBI.

3.5 Case Management in the UK

In the 1980's, case management was introduced in the UK to address two key concerns. Firstly to contain budgetary pressures arising from the demographic challenges of an aging population living in the community who had increasingly complex needs (Weiner et al., 2003). Secondly to improve outcomes of interventions in a client centred way (Ross, Curry, Goodwin 2011) . Case management is a core feature of UK government policy that was outlined in the NHS Care and Community Act (Cambridge, 1992, Department of Health,1990) The government did not specify which case management model to use, but considered that each locality should determine this according to the needs of their population (Cambridge, 1992).

In 2005, the NHS Modernisation Agency published a competency framework for community matrons and case managers. This established an approach to the management of people living in the community with complex health and social conditions. The framework also identified how these two similar roles should monitor and manage the needs of patients who were at risk of readmission to hospital (Bentley, 2014). A distinction between the two roles defined community matrons as qualified nurses and case managers who did not necessarily hold any healthcare qualifications. Community matrons were tasked with managing people with multiple, on-going, unpredictable health conditions. In contrast, case managers were also responsible for managing individuals with long term, health and social care needs but whose conditions were stable within parameters expected for the diagnosis (Lillyman et al., 2009). The titles were used interchangeably by different authorities adding to confusion about each role (Lillyman et al., 2009, Silverman et al., 2015). Prior to the introduction of this case management approach, tasks needed in the management of people with complex needs had been undertaken by social workers (often referred to as care managers), occupational therapists (OT's), mental health nurses and practice

nurses (Evans et al., 2005, Murphy, 2004, Clarkson and Challis, 2003). It is unclear why the professionals delivering these services appear to have been overlooked in the new framework. Notably, scant reference was made to these professionals' former work or the diverse knowledge and skills they brought to the role.

The framework provided loose descriptions of the types of activity that service managers should consider to enable bespoke configuration of case management services to meet local needs (Randall et al., 2014). The range of influences included the need for intervention (Baldwin and Fisher, 2005, Björkman, 2000, Horwood et al., 2009), professional discipline (Cambridge, 1999, Hussein, 2008, Kelly et al.,2007), nature and purpose of the organisation delivering the role (Togno-Armanasco et al., 1995, Weiner et al., 2003, Evans et al., 2005), and client group (You et al., 2012, Sargent et al., 2007, Kelly et al., 2007, Landi et al., 1996). Therefore, because each service was influenced by numerous factors, there were substantial differences in approaches across and within organisations and sectors (Offredy et al., 2009, Evans et al., 2005). Consequently, the need to develop specific case management services for people affected by TBI emerged in different ways with ramifications for the knowledge needed for the role. The diverse approaches in delivery of TBI case management will now be considered.

3.6 Case Management of People with Traumatic Brain Injury

Case management is successful in meeting the needs of people with highly complex health and social issues in a cost effective way (Safford, 2015, Hong et al., 2014). This explains why an increasing number of TBI rehabilitation programmes are now using case management (Lannin et al., 2014). The purpose of case management for people who have sustained a TBI is to enable and empower them to achieve optimum health in order to underpin a stable, fulfilling life in their community (Clark-Wilson et al., 2016).

The overwhelming impact of TBI means that case management involves numerous multifaceted actions arising from the simultaneous involvement and overlap of many diverse influences frequently taking place over several years (Lukersmith et al 2016). The multiple challenges experienced by people affected by TBI with

enduring complex needs means that the delivery of case management needed to support these individuals cannot be a "one size fits all" approach. Service delivery is also influenced by the purpose and configuration of the organisation, resources and staff. Diversity in service provision is both necessary and important in meeting the complex enduring needs of people affected by TBI. The following section will review how the statutory, third and independent sectors approach case management.

3.7 Sources of Case Management Provision

TBI case management in the UK is currently delivered by a variety of organisations that are located in one of three service sectors, namely statutory, the third sector i.e. charitable, social enterprise, community or voluntary services and the independent sector (Drennan et al., 2011, Clark-Wilson 2006, Brown et al., 2008, Burns et al., 1999). The diverse range of TBI case management providers within each sector is illustrated in Table 1.

Table 1 Range of TBI Case Management Providers in the UK

TBI Case Management Providers in the UK		
Statutory Sector	**3rd Sector**	**Independent Sector**
NHS Social Services Ministry of Justice	Charities (Headway, BIRT) Not for profit organisations	Insurance companies Legal practices Case management companies Care Agencies Rehabilitation providers

The organisations within these sectors are defined according to different philosophical and financial factors that underpin a wide variety of case management services (Offredy et al., 2009). The case management approach found in each sector will be illustrated by a vignette that provides an anonymised example of TBI case management practice identified from the researcher's peers.

Each vignette outlines the organisational and professional background of the member of staff case managing an individual living in the community with complex long term needs following a severe TBI. This is accompanied by an outline of the key issues frequently occurring in those people affected by TBI with complex enduring needs and the range of case management activities and interventions required to meet their necessities.

3.7.1 The Statutory Service Sector

This sector encompasses all publicly funded bodies that government legislation has mandated to meet needs of the population. As a result, there are broad similarities across organisations delivering health and social care, and offender management such as probation services. Each service is configured according to the needs of the population within a given locality thus differences arise to enable the most suitable response to local need. Providers include National Health Service (NHS) Trusts, Local Authority Social Services and Probation Services located within the Ministry of Justice (MoJ). Referral to the NHS and social services can arise from professionals, individuals or their families. Referrals to the probation service are handed down from the court. A brief review of each service will follow to demonstrate the complexity of contexts within the statutory sector from which case management for people affected by TBI is delivered.

3.7.1.1 The National Health Service

The NHS is the largest single publicly funded organisation in the UK, employing 1.2 million staff (NHS Digital, 2017). The breadth of responsibility the NHS holds for the care and support of people with a spectrum of complex health needs has led to the adoption of case management. Case management is provided free at the point of delivery from clinical commissioning groups, hospital trusts, community mental health teams and rehabilitation teams. Thus the amount, location and how services are delivered varies according to local priorities, the availability of resources and the population for whom case management is provided. Two different examples in delivering community case management include: community matrons supporting older people with multiple morbidities and multi-disciplinary case management teams of whom each member delivers assertive/intense case management to a person with enduring severe mental health challenges (Randall et al., 2014, Marshall and Lockwood, 2011). Within the

NHS, case management provision for people with TBI is inconsistent. This is highlighted in those areas that have a clearly identified specialist brain injury services to others that do not.

For example, the Cumbria Community Acquired Brain Injury Rehabilitation Team offers multi-disciplinary expertise limited only to those adults who have an acquired brain injury, for example through trauma or infection. The configuration of this service therefore excludes people who have a stroke or a deteriorating neurological condition such as Parkinson's disease. Membership of the team includes a case manager but there is no indication of how case management is provided[1]. This is different to the Hertfordshire Acquired Brain Injury Team who offer a service to all people with acquired brain injury or other neurological illnesses irrespective of cause. There is no reference to case management on this website[2]. To further illustrate the inconsistent pattern of service provision, in Somerset there is no specialist NHS community brain injury rehabilitation service.

3.7.1.2 Local Authority Social Services

Local authorities are mandated to provide social services to support dependent and vulnerable people in the community. Within this sector, case management delivered by social workers was frequently referred to as care management (Cambridge, 1999, Lymbery, 1998). Local authorities are funded through local taxation and central government grants but they bear additional budgetary responsibilities for the delivery of other services in the area such as education, law enforcement and public health. Central government grants have reduced significantly since 2010 with further cuts anticipated. This has coincided with a rising demand for care management (Local Government Association, 2014). Although service users are not charged for care management, many social services are now only able to respond to people with the highest needs (Lewis and West 2014). Some social service staff work closely with NHS colleagues and are located in joint settings but the pattern is difficult to identify because the increasing financial pressures mean that services are regularly reconfigured to

[1] See website (https://www.cumbriapartnership.nhs.uk/our-services/specialist-services/aquired-brain-injury).
[2] See website (https://www.hct.nhs.uk/our-services/neuro-community-therapy-and-specialist-nursing/).

meet the greatest need (Communities and Local Government Committee UK Parliament, 2017).

The social service response to case management for people with TBI who have complex enduring needs differs to NHS provision partly due to other assessment criteria and responsibilities of the service. The advancement of medical technology now means that more people are surviving severe brain injuries leading to sustained demand for support over the course of their lifetime (Salottolo et al., 2017, Teasdale et al., 2014). Thus until recently, the number of severely brain injured people living in the community have been fewer in comparison to other client groups such as people with learning disabilities (Higham 2001). This may account for the lack of acknowledgement of the needs of brain injured people in the Adult Social Care Outcomes Framework (2016, 2014). This is more pertinent because other people with needs for support such as mental health service users are specifically mentioned in this document. This may also offer an explanation as to why social care professionals have been identified as unwittingly failing to recognise the complex needs of people affected by TBI (Holloway and Fyson, 2015). Consequently, although social services have long discussed a care management approach to people with complex needs, there appears to be little bespoke case management services for people with TBI (Holloway and Tyrrell, 2016, Holloway and Fyson, 2015).

3.7.1.3 The Ministry of Justice (MoJ)

The MoJ is responsible for the management and rehabilitation of offenders in prison and in the community with the aim of reducing crime and reoffending; no charge is levied to the service user. The MoJ uses case management to prevent and reduce offending and reoffending across all age groups. A particular case management focus is used to respond to the needs of children and young people as well as those individuals where there is a clear link between criminal behaviour and health needs such as TBI (Scott 2008).

The prevalence of TBI amongst prisoners varies between 49-71% and is particularly notable in young people (Williams and Chitabesan, 2016, Hughes et al., 2015, Williams et al., 2010). To offset the consequences of failing to accurately recognise each injured individual's needs, a full screening assessment of prisoners at the point of incarceration has been recommended (O'Rourke et al

2016). With such a high proportion of the population experiencing TBI, specific MoJ guidance highlights the contribution of case management that is achieved by a range of staff, approaches and interventions when the individual is adjusting to community life. For example, in addition to regularly meeting the injured person, staff are directed to involve and coordinate different services and professionals to contribute to each person's cohesive and holistic case management plan[3]. Therefore, for these people, case management is a foundational approach in the way in which probation services manage people who have sustained a TBI and who have committed offences.

Within statutory services there are three different sources of case management but the probation service appears to offer the most widespread and consistent approach to the management of people affected by TBI. For this reason the vignette setting an example of the case management services provided will be based on the probation service.

[3] See website (https://www.gov.uk/government/publications/use-community-interventions/use-community-interventions-section-6-case-management-guidance).

Vignette 1 Probation Service

Gerry has a degree in forensic sociology that has enabled him to work in a wide range of occupations. He does not have a registerable qualification and has worked as a probation officer in a rural area for 6 years. The departmental manager allocates Gerry's caseload ranging from people who sustained numerous TBI's over the course of many years to others who have been injured in recent months. Some have served custodial sentences and are being supervised following release from prison. Others are being monitored following their first or several offences.

Within his caseload, Gerry manages David a 19 year old man who sustained a severe TBI aged 15 in a fight with his stepfather. David lives with his father but does not have a supportive home life. David has committed several offences partly arising from his inability to plan ahead or interpret subtleties of language: he follows instructions literally. He once committed the offence of breaking and entering an office because it was locked and he had been told to attend at a specific time. As far as David was concerned, he was obeying his probation officer's instruction. Without structure or specific guidance, David is easily led and is a frequent target for unscrupulous people.

Gerry holds substantial power in his relationship with David and has the authority to insist that he concords with particular instructions.

Gerry's case management of David involves a range of activities including:

- Providing a source of expertise to David, colleagues and others.
- Liaising & negotiating with colleagues from health, housing social care, benefit agency, MoJ and local employers to obtain support for David.
- Supporting David in his interactions with professionals and other services.
- Writing letters, progress reports.
- Seeking funding for interventions.
- Regularly supervising, monitoring, coordinating, managing, adjusting the delivery of interventions according to David's progress.
- Juggling delivery of service within the court directions and timetable.
- Advocating for David where when necessary.

In some areas where statutory services do not provide case management, it may be commissioned from a third and/or independent sector provider. Case management provided by third sector organisations, will be discussed next.

3.7.2 The Third Sector

Definition of the third sector changes according to political and cultural influences (Sandberg et al., 2014, Mas-Expósito et al., 2014, Alcock, 2010). Third sector organisations encompass a diverse range of organisations for example: charities, social enterprises, co-operatives, voluntary bodies, and not for profit organisations (National Audit Office, 2017, Salamon and Sokolowski, 2016). The common motivator amongst third sector organisations is to respond to a specified need/community; any profit is redeployed to sustain the service and to benefit the specific client group. Third sector organisations fund their services from a variety of sources including charitable donations, fundraising initiatives, grants, statutory service commissioning, and private purchasers (Kendall, 2009). Access to the third sector may be purchased privately or from statutory services. Nevertheless, the availability of third sector case management varies widely throughout the UK according to local need, available resources and location. Some third sector providers link case management with other health care services. These may include specialist inpatient rehabilitation, supported accommodation, day centres, outreach, peer support and rehabilitation therapies. Some services have been established for several years and are recognised nationally and internationally for the quality of research, support and expertise they provide e.g. Headway or The Disabilities Trust (Davidson, 2017, Williams and Chitabesan, 2016). Third sector organisations have developed specialist skills and services that are needed by the community they aim to serve. Unlike statutory services that must meet the needs of the population they are mandated to support, third sector organisations may not be able to offer services in all geographical areas. Reasons for this include insufficient demand in sparsely populated locations or lack of human and financial resources. Third sector organisations such as Headway and Brainwave, were initiated by families of brain injured people as peer support and self-help groups in response to a general lack of information and understanding. They have developed in different ways to offer a source of expertise and support for all people with TBI, their families and professionals. Third sector staff regularly work alongside other partners and agencies (Williams et al 2016, Headway website 2017, BASIC website 2017).

The following vignette demonstrates that the provision of TBI case management differs substantially from the previous statutory service example from the probation service.

Vignette 2 Third Sector Organisation

Phyl is a social worker employed by a third sector organisation based in a medium sized town. She has worked as a brain injury case manager for 12 years. The organisation is commissioned by statutory services and private individuals to provide case management. Phyl has a mixed case load of people affected by TBI of varying severity. This includes newly injured people as well as people who sustained their TBI many years ago.

Amongst Phyl's case load is a 58 year old carpenter called Kevin who sustained a severe traumatic brain injury following a fall. Kevin will need a high level of support when discharged from hospital and will stay with his adult daughter until a place in a rehabilitation unit is available. At this stage in his recovery, Phyl is supporting Kevin and his daughter during the transition to the community.

Phyl's case management of Kevin involves a range of activities including:

- Assessing and monitoring changes in needs.
- Navigation of complicated health, social and benefit systems to support Kevin at each stage of his rehabilitation.
- Investigating multi-agency resources. Initiate intervention and service delivery .
- Deliver training and supervision to support workers and other staff.
- Provide a single point of contact to offer support, knowledge and expertise to Kevin, his family, and Phyl's professional colleagues.
- Advise, support, negotiate and advocate for Kevin and his family.
- Seek funding for interventions

In locations where no statutory or third sector case management is readily available, independent case management services may be purchased. The independent sector will be discussed next.

3.7.3 The Independent Sector

Independent sector organisations include a diverse range of private or corporate-led business without recourse to public funding. Examples include bespoke case management services, care agencies, insurance companies, law firms and specialist rehabilitation providers. The type of case management service offered varies according to the size and scope of the company. This ranges from international firms employing large numbers of staff to single handed practitioners. Whilst these businesses aim to make a profit, many claim to operate within an ethical framework and report adopting national standards of case management practice (Ainsworth et al., 2009).

Access to case management may be commissioned privately or by statutory services depending on the reason it is required. For example, case management provided by insurance companies could be initiated by a policy holder seeking help in returning to work following an injury or illness (Baptiste et al., 2015). Whereas other organisations such as care agencies and rehabilitation providers deliver case management as part of a range of services for people they support (Hasche and Lavery, 2015, Morano and Morano, 2006). Thus within the independent sector, the variety and the range of case management provision is diverse.

A frequent criticism of the independent sector is that they are profit-making ventures who pick the most lucrative aspects or non-challenging patients, leaving statutory services to deal with the most complex (and therefore expensive) needs (Porter, 2013). Whilst this may be true for some independent service providers, this overlooks those firms that deliberately specialise in meeting the needs of challenging people and for whom there are few or no other services available. In an ideal world, independent sector case management would not be necessary because statutory and third sector services would be able to meet the needs of all people.

Independent case management providers are located throughout the UK. Areas of high population density such as cities may have several services, whereas small organisations or single handed practitioners may operate in a variety of more remote settings depending on the nature of the service they offer. The diversity of activities available from some of the larger firms specialising in case management include rehabilitation therapies, client focused social events and fundraising for the client group. Within the independent sector, case management is provided as long as it is required and funds are available. However, there is the potential for a conflict of interest if the case manager continues to unnecessarily intervene. Many independent case management organisations support severely injured people who are pursuing compensation (Whitely and Wright, 2006). Thus the case management of these individuals operates in tandem with personal injury litigation adding further complexity for the case manager to navigate.

For people with complex neurological conditions such as severe TBI it can be difficult in obtaining specialist rehabilitation. In particular, "*England and Wales*

do not have the capacity to provide the volume of services currently required" (NICE 2014 p23). Thus whilst statutory and third sector organisations have skills and expertise in dealing with people affected by TBI who have highly complex needs, there is a shortfall in the level of service available.

Several practitioners working in statutory services recognised they were unable to meet the highly complex needs of people with TBI within their workplace. As a way in which to address the gap in service provision, some launched their own independent case management firms (Parker, 2006) . These new organisations have specialised in the case management of people who have injuries of the utmost complexity arising from severe TBI (Clark-Wilson et al., 2016). As a result, many have raised the profile of people with severe TBI and thus have helped expose unmet need (Clark-Wilson et al., 2016, Holloway and Tyrell, 2016).

Senior staff in these organisations formed peer support groups to develop and understand their case management role. This led to the publication of case management best practice standards (Ainsworth et al., 2009), a statement of case management ethics (Harrison et al., 2008), professional competencies (Watkiss et al., 2010) and guides that are universally applicable across all sectors for the conduct of case management of all people with TBI. A number of independent case managers also link with universities to conduct research in this specialist area (Clarke-Wilson et al 2015, Holloway & Fyson 2015). Consequently, this has assisted in the development of knowledge of the case management role for people affected by TBI.

The contribution of case managers in independent practice has been recognised by colleagues based in the statutory and third sectors. Increasingly, statutory service staff work together with case managers from the independent sector (Green and Dicks 2012). Statutory services also commission case management from specialist case management organisations and care agencies (personal communication, Harrison Associates, Chapman Healthcare). Thus for those people with TBI who have access to funding, the gap in provision has been narrowed.

The following vignette provides an example from the independent sector.

Vignette 3 Independent Sector

Nina is an OT who works as a specialist paediatric brain injury case manager. She has been employed by a city based case management firm for 10 years. Services are funded by private individuals, law firms, insurance companies and Clinical Commissioning Groups.

Included in Nina's case load is Annie and her family. Annie sustained a severe TBI in a car accident at the age of 13. She is now a permanent wheelchair user, with partial sight and behavioural challenges. Annie's parents are pursuing a compensation award on her behalf. Annie lives with her parents and younger sibling but her disabilities prevent her from attending her previous school with her sister. Annie needs 1:1 care during waking hours and her parents provide assistance at night.

Annie's legal case is complicated and protracted. Funding for Annie's needs are met through a mixture of statutory contributions and staged payments on account via the court from the insurance company. This money is managed by a court appointed financial deputy.

To meet Annie's current and future needs the case management role involves a range of activities including:

- Assessing and monitoring changes in needs; adjusting plans and goals accordingly.
- Navigation of complicated health, education, social care, housing & benefit systems to support Annie and her family throughout her rehabilitation.
- Providing a single point of contact to offer support, knowledge and expertise to Annie her family and professional colleagues.
- Advise, support, negotiate and advocate for Annie and her family.
- Design implement and manage a bespoke care package for Annie to respond to her needs in accordance with CQC standards (*this incorporates recruitment, training, management, supervision, support and where necessary, removal of staff).*
- Liaison with local authority builders and architects to ensure building adaptations meet Annie's needs in the immediate and long term future.
- Preparing Annie and her family for independent living during the next 6-8 years.
- Liaison with Court of Protection Deputy, solicitor and parents in the management of resources.
- Supporting and managing the family during the legal process; working within the courts directions and timetable.

The examples in the vignettes highlight that the broad range in configuration of services that are currently available are needed to meet the highly diverse circumstances arising from complex enduring challenges resulting from severe

TBI. This also demonstrates that case management of people with TBI needs to be broad and thus does not fit into a particular service, organisation or discipline. Whilst there is no literature that has established a comprehensive overview of all case management provision in the UK, this brief outline highlights the complexity of services across the UK for people who have sustained a severe TBI.

Each sector has different levels of power and influence that bring concomitant positive attributes as well as limitations in meeting the long term multiple needs of people with TBI. For example, a probation officer has the authority to return someone to court if their behaviour is believed to constitute a risk to themselves or others; this option is not available to people in other organisations providing case management. These examples also demonstrate that as people with increasingly challenging health conditions survive and move from hospital to the community, their wide ranging needs complicates delivery of effective support and help (Goldman et al., 2016). The breadth of idiosyncratic needs of people with TBI demand extensive skills and abilities to manage, support and guide the individual in navigating the myriad of circumstances and challenges (BABICM website 2016). Consequently, this raises the question of how the case managers who support such a diverse clinical population learn the skills and knowledge needed for the role. Thus the following section will briefly review the education and training of case managers in further detail.

3.8 Training and Education of Case Managers in the UK

All sectors provide case management by statutorily registered professionals in health, social care and education as well as people with non-registerable, academic qualifications. Consequently, the provision of case management and the knowledge and attributes needed by professional staff to deliver this role is diverse across the three sectors. Becoming a professional and conducting a professional role confers an expectation by society that the individual will hold a particular knowledge base in order to practice appropriately (Burns and Grove, 2009, European Parliament, 2005). However in the UK, no mechanism currently exists to standardise case management provision, education or training. This raises the question of how case managers develop the knowledge and skills to undertake their role in the absence of a formal learning framework. In addition it is unclear how this comparatively new professional role develops the breadth of

knowledge and attributes needed to case manage the diverse population of individuals affected by TBI with enduring complex needs.

In professional and academic training, formal learning is highly structured to enable people to acquire a defined skill set and knowledge base. The attainment of a qualification takes a number of years. Professional qualifications involves learning material that is officially prescribed and delivered by recognised organisations within society (Singh, 2012, Marsick and Yates, 2012, European Parliament, 2005). This influences the progress of a profession and provides structure for the subsequent science and research on which a discipline rests (Burns & Grove 2009).

The label of "profession" denotes a recognised discipline such as nursing but also confers an expectation of a standard of conduct and knowledge applicable to all people undertaking the role. This includes those people who have an academic rather than a registered professional qualification. Maintaining a statutorily regulated and registered professional qualification involves continuing professional development within a defined area of practice and adherence to the standards set out by the relevant regulatory body; for example the Nursing & Midwifery Council (NMC) or the Health and Care Professions Council (NMC, 2001, HCPC, 2012). Those who employ or use the services of professionals will refer to an individual's qualifications as a means of gauging their ability to undertake the role at an acceptable level of quality. Individuals and the society in which they live value qualifications as a licence to pursue a particular career and improve their prospects. This also supports the identity of the individual who holds the qualification (Bowen-Clewley et al., 2005). However, whilst formal qualifications have much to contribute, for some people, pursuing specific training can foster a myopic or inflexible approach when creative solutions are needed in novel situations (Wear, 1998). Thus in increasingly complex work settings such as case management of people with enduring complex needs following severe TBI, there may be circumstances where a qualification per se may not guarantee the most effective approach required from the professional (Bowen-Clewley et al., 2005).

The qualifications of people who currently perform case management roles vary considerably ranging from newly qualified professionals with 1-2 years' experience to senior practitioners with postgraduate qualifications (CMSUK 2008). In the past two decades, investigation into the education, training and knowledge

needs of case managers has predominantly focused on formal learning approaches for nurse case managers (Lincoln et al., 2002, Sargent et al., 2008). As case management has become more widespread several master's degree courses/modules have been developed covering aspects of case management and long term conditions (University of Cumbria, 2017, University of Salford, 2017, Plymouth University, 2017).

Much of the early literature pertaining to case management focuses on the needs of older people, those with mental health problems or both (Simpson, 2007, Forchuk et al., 2002, Drennan and Goodman, 2004, Guttman, 1999). This suggests that the proportion of patients seen by case managers will present with these clinical backgrounds and academic courses will respond accordingly (Casey and Mackreth, 2007). More recently, courses offered refer to long term conditions but there remains a strong focus on the needs of older people. Formal courses such as these provide important information and training on the conduct of the role. This is echoed by Hong et al., (2014) who considers that case managers need specialised training. Some principles of case management such as a client centred approach is applicable to everyone, However, it is questionable whether the diverse range of needs arising from TBI would be addressed in sufficient detail by courses where the focus concerns the needs of different populations. This view is supported by Sargent et al (2008) who highlights the pressing need for research to inform and develop case management of people with enduring health needs.

There are several taught master's degree modules on brain injury management and rehabilitation. In the past 15 years, two Master's degrees in brain injury case management have been launched by the University of Swansea and more recently in Birmingham (University of Birmingham, 2012). These courses provided a recognised academic qualification in the case management of brain injured people but have been discontinued. Achievement of a professional qualification relevant to the specific population served is not mandatory to deliver case management and at present the delivery of case management is unregulated. Furthermore, there is no mechanism to standardise the provision, delivery of education or training. Thus without a formal pathway it is unclear how case management knowledge develops. Concern to protect vulnerable people whilst promoting standards of best practice within case management has led to the formation of peer-led organisations: BABICM, (2017), CMSUK, (2017) and

Vocational Rehabilitation Association (VRA, 2017). Each organisation offers opportunities for their members to continue their training and education via conferences, seminars and events that promote peer support and the distribution of information ((VRA, 2017, BABICM, 2017, CMSUK, 2017).

However, Parker (2006) recognised that the breadth of expertise needed for the delivery of effective case management to people with TBI could take a significant amount of time to obtain. Whilst learning generated in formal educational settings may contribute, without a prescribed qualification or agreed route for the case management of severe TBI, this raises the fundamental question of how do people who undertake case management acquire such detailed, specialist, but wide-ranging knowledge as illustrated in the vignettes above. This points to the contribution of informal learning. Informal learning recognises the acquisition of knowledge and learning arising from an extensive range of activities occurring in multiple environmental settings and contexts (Werquin, 2016, Werquin, 2012). Consequently, this raises wider questions of what and how informal learning contributes to the development of skills, attributes and knowledge that are valuable to delivery of severe TBI case management (Singh, 2012, Conlon, 2004).

3.9 Chapter Summary

This chapter has outlined the development and role of case management. The challenges in defining and identifying case management models has provided a useful background from which to discuss the variations in case management delivery in the UK. A focus on traumatic brain injury, and the different ways in which people affected by severe TBI are case managed highlights the lack of a formal qualification for this role. Without a formal learning structure, it is unknown how practitioners acquire knowledge necessary to case manage people with severe TBI. The following chapter will explore formal and informal learning to understand how this influences the conduct of the role.

Chapter 4 Learning

4.1 Introduction

The focus of this study concerns how learning from experience informs conduct of the case management role. As outlined in Chapter 3, case management is delivered by a broad range of practitioners from varied academic and professional backgrounds (Sullivan et al., 2016, Robinson et al., 2016, Kelley et al., 2015). Each practitioner will have had a different pathway into this career. Thus, the philosophy and educational framework influencing the development of their knowledge will differ accordingly. For this reason, it is difficult to establish whether the expertise held by each case manager is similar.

The absence of a specific qualification or formal TBI case management training raises a number of questions, namely:

- how do the people who deliver this service know what they need to know in order to conduct the role in an effective and consistent manner?
- are sources of learning other than formal learning relevant for case managers?
- are there any sources of learning, which commonly occur across the profession?

It is important to explore these issues to understand how this comparatively new profession develops the knowledge and attributes necessary to support people with complex and challenging needs arising from TBI. Exploration of whether a diverse group of case managers draw on similar (informal learning) experiences may support other TBI case managers to consider how their own personal trajectory can contribute to their conduct of the role. Thus, this research is important because it draws attention to a little known area of practice learning that is accessible to all case managers.

There are many theories that account for how learning occurs, and it is beyond the scope of this study to undertake a detailed review of them all; (detailed reviews of the wider literature can be found, for instance, in (Van Noy et al.,

2016, Manuti et al., 2015, De Houwer et al., 2013). This chapter will explore some definitions of learning and the general theories that underpin them. In setting out a review of the learning theories that are relevant for this study, those learning theories that did not explain the phenomenon encountered will not form part of the literature review. For example organisational learning theory is primarily concerned with the development and management of knowledge within an organisation (Popova-Nowak and Cseh, 2015). Lifelong learning theory will also be excluded because the focus of this theory tends to highlight learning by adults following formal education, and disadvantaged communities in later life (Merriam and Kee, 2014, Holford et al., 2014).

Therefore, this study will outline the key areas of learning theory that best account for the learning experienced by TBICMs. These are formal and informal learning. Nested within informal learning theory are two closely interlinked concepts comprising the role of experience in learning and experiential learning theory. There is no specific formal learning qualification currently available in the UK to train TBI case managers. Nevertheless, formal learning theory will be reviewed because individuals who offer case management to people affected by TBI will have engaged with formal learning at some level. For example this may have been to achieve an academic or professional qualification (Becker and Bish, 2017, Bjornavold, 2008).

Informal learning theory will be reviewed because it explains how learning takes place in different ways outside formal learning frameworks. Informal learning theory may be described as an overarching concept encompassing a labyrinth of other informal learning theories (Seltrecht, 2015). It is beyond the scope of this study to provide a detailed review of all informal learning theories. Therefore, those theories deemed relevant to the professional development of the role, have been reviewed and critically evaluated. Several informal learning theories will be discussed to illustrate the reason for including them in this review.

The two specific informal learning theories that provide the underpinning theoretical framework for this research are: learning from experience and experiential learning. An overview of these theories will illustrate the breadth and complexity of approaches scholars have taken to explain how experience generates learning. These theories have been selected because many argue that

all learning starts with experience (Kolb, 2015, Jensen 2007, Dewey, 1938, Follett, 1924).

4.2 Definition of Learning

This section highlights the diversity of definitions of learning within the literature. Examples of definitions will be included to illustrate the breadth of the topic and to clarify the reason for the particular definition of learning to be adopted in this study. Within the literature, the vocabulary used to discuss learning frequently uses education and learning synonymously (Swanwick, 2005, Dewey, 1938). This distorts understanding by the implication that each concept is interchangeable (Jarvis, 2006a, Andresen et al., 1995). This is because education enables learning but learning arises from an indeterminate range of different sources that does not necessarily involve education (Darkenwald and Merriam, 1982). The definition of education here will use an abbreviated definition from UNESCO's definition of formal education (2011 p11, paragraphs 36-38).

"… education is … institutionalised, intentional and planned through public organizations and recognised private bodies, (together these) constitute the formal education system of a country (that generate qualifications recognised by relevant) authorities, and organisations. Education mostly occurs within institutions that are designed for this purpose to ensure a continuous educational pathway is offered. Education also includes all age groups with programme content and qualifications (designed according to need) Some workplace education leading to a nationally recognised qualification are often provided in cooperation between educational institutions and employers (e.g. apprenticeships)."

Darkenwald and Merriam (1982, p6) also highlight that the purpose of education is to:

> *"transmit, evoke, or acquire knowledge, attitudes, values, or skills…. It is purposeful, deliberate, systematic and sustained."*

From this, it would appear that education is intentional in the development of knowledge based on a formal, methodical and structured format.

Unlike UNESCO's internationally accepted definition of education, a universally accepted definition of learning is much more difficult to establish (De Houwer et al., 2013, Illeris, 2009). The reason for the way in which learning is defined largely reflects on how the individual is understood to view the world within the broader context of socially constructed experiences (Anderson et al., 2003, Berger and Luckmann, 1991). Further influences arise from the breadth of different academic approaches in investigating and explaining the concept of learning and the multiplicity of environments in which it occurs (Barron et al., 2015, Rescorla, 1988, Brooks et al., 2010, De Houwer and Hughes, 2016). For example a study by Brooks et al (2010), established that different European countries approach the identification, collection and categories of learning in multiple ways. Without an agreed approach to the data and how it is collected, this obstructs the conduct and comparison of multidisciplinary and international inquiries (Brooks et al., 2010, De Houwer and Hughes, 2016). To address this, a definition of learning was ratified by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to offer a universal understanding of the concept. This defines learning as an:

> "…*individual acquisition or modification of information, knowledge, understanding, attitudes, values, skills, competencies or behaviours through experience, practice, study or instruction"* (UNESCO, 2011).

This definition of learning by UNESCO is limited because it does not explain the intricacies and extensive complexity that contribute to all aspects of learning. As research into different facets of learning reveal new insights, other definitions have emerged (Barron et al., 2015, Cedefop, 2014, De Houwer et al., 2013). Some studies seek to investigate specific aspects of learning such as the environmental influence (De Houwer and Hughes, 2016). Notably, a constructivist approach is adopted investigating learning from the perspective of the individual (Loyens et al., 2007, Christensen, 2014). For example, this approach has enabled new investigations to explore and explain individual learning at a neurobiological level. Use of functional magnetic resonance imaging now provides access to brain physiology and activity that enables further exploration of individual learning (Cao et al., 2013, Hund-Georgiadis and von Cramon, 1999, Dosenbach et al., 2010).

In contrast, a constructionist perspective recognises that learning within society arises from the fundamental contribution of immeasurable social contexts (Jarvis, 2009). Thus constructionist investigations into learning may focus on numerous settings and approaches to understand how people learn (Falk and Dierking, 1997). Using the example of learning from emotional experiences, studies have identified that emotional learning is fundamental in establishing cohesive and supportive relationships and effective professional conduct (Bridgeland et al 2013, Dornan 2007). Examples of where this occurs in the conduct of the professional role have been identified in nursing, teaching, medicine and emergency care (Poulou,2017, Bevan and Hill, 2013, Seylani et al., 2012).

Different philosophical positions have enabled new areas of research combining both constructivist and constructionist approaches. This is illustrated by investigating how neurologically based activity underpins aspects of social learning such as mimicry (Hamilton, 2015). However, Barron et al (2015) recognised that because particular disciplines such as neuroscience, artificial intelligence, and psychology were investigating learning from different perspectives, this meant that not all studies could share a common standpoint. This indicated that a definition of learning that was common to all specialities was increasingly unlikely. To counteract this, Barron et al (2015) proposed a shared theoretical structure. He postulated that if several academic disciplines adopted the definition that learning is *"a structured updating of system properties based on the processing of new information"* (Barron et al., 2015, p406), then this would help to overcome the obstacles in multidisciplinary research. Notably this definition is impersonal and does not appear to account for the many subjective and contextual settings that influence learning. This also implies that learning occurs immediately.

Several scholars recognise the benefit of a move toward a broad and more inclusive approach to the definition of learning (Barron et al., 2015, Jarvis, 2015, Ormrod, 2014). This is because it better reflects the complexity and diversity of how and where learning takes place and opens new opportunities for new research approaches (Lundgren et al., 2017, Greenhow and Lewin, 2016, Hall et al., 2013). Learning is understood to be a dynamic process that occurs throughout the lifespan of the individual and includes cognitive, emotional and practical change that is initiated by experiences of social situations (Jarvis 2014, 2009). Jarvis' definition of learning is holistic and thereby inclusive. For this

reason and because the word learning has multiple connotations, this study will adopt the definition of learning by Jarvis:

> *"… it fundamentally refers to the combination of processes throughout a lifetime… whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, meaning, beliefs and senses) – experiences natural and social situations, the content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person's biography resulting in a continually changing (or more experienced) person' (Jarvis 2014 p 53, Jarvis 2009, p 25).*

An example of how Jarvis' definition is helpful can be applied to learning to drive a vehicle. This involves a combination of biological processes (seeing, automatic and deliberate physical movement, attention, concentration and reading) that respond to changing environmental cues with knowledge of laws, national regulations and application of cultural rules regarding appropriate road use (Bennet and Bennet, 2008). Therefore an individual may learn to drive but this is embedded within a world that is socially constructed (Jarvis, 2015, Hager, 2008).

Jarvis' (2014, 2009) definition also implies scope for tacit learning. Tacit learning occurs where a person is unable to articulate their learning clearly. This is described by Polyani (1967, p4) as "*we know more than we can tell"* (Polanyi, 1967, De Houwer and Hughes, 2016, Eraut, 2000). This is important because tacit learning recognises that it provides a source of potential advantage for individuals over people who do not have the same knowledge (Sternberg, 1999). Thus, Jarvis' definition of learning will be adopted because it better reflects the social constructionist paradigm on which this study rests. It also recognises the multiple influences that generate learning of which individuals may or may not be aware. In, particular the contribution of experience is central to this definition (Jarvis, 2014, Jarvis, 2009). Thus for TBI case managers who do not have a specific formal TBI or case management qualification from which to support their practice, this points toward the importance of learning from experience as a fundamental source of learning and knowledge.

This section has illustrated that the challenge of establishing an agreed definition of learning arises from the numerous theories and perspectives on the matter.

For this reason, this study will adopt a holistic definition of learning as set out by Jarvis (2014, 2009) because it recognises the fundamental contribution of experience that is embedded within a socially constructed framework. The definition of learning used in this study has provided a foundation from which to discuss the two learning theories that are most relevant to this research; namely, formal learning and informal learning. In particular, a subset of informal learning concerning the role of experience will be used to provide the theoretical framework from which the question will be examined; namely the role of experience and experiential learning. Each set of theories will be reviewed in turn to illustrate why and how they contribute toward the underpinning theoretical framework of this study. Consideration of each theory will commence with a definition.

4.3 Formal Learning Theory

4.3.1 Introduction

In this study, formal learning will be discussed separately to clarify the particular features that differentiate it from other forms of learning. In some ways, the separation of learning into formal and other forms of learning is somewhat artificial. This is because different forms of learning are interconnected and frequently span approaches that obscure academic borders (Malcolm et al., 2003, Seltrecht, 2015). Furthermore, whilst there have been different perspectives on which approach is better these arguments are historical (Colley et al, 2003). Thus whilst it is useful to establish different aspects of formal learning, this does not suggest different theoretical paradigms. Therefore, exploration of formal learning theory provides an indication of the type of learning TBI case managers may have. It also provides a useful contrast from which to discuss other forms of learning theory, such as informal learning and learning from experience. Formal learning is distinct from other types of learning because it involves the transmission of a predetermined specific body of knowledge to an individual to acquire knowledge (Candy and Matthews, 1998). A brief overview of the influences contributing to the concept of formal learning will be established. This will be followed by an outline of some of the different perspectives that are relevant to the definition of formal learning adopted in this study. This will demonstrate how formal learning theory contributes to the theoretical framework

underpinning the investigation into how experience contributes to learning that guides the delivery of the TBI case management role.

The role and function of formal learning is fundamental to ensure mutually accepted standards of practice and capability in occupations where specialist knowledge and practice is necessary. Examples include a wide range of disciplines such as engineering, management and nursing (Becker and Bish, 2017, Iwasiw and Goldenberg. 2015, Perrenet et al., 2000). There is broad agreement on what the construct of formal learning entails. To minimise ambiguity regarding its definition, it is configured to enable universal application for each specialism. Therefore, it is important to outline the concept of formal learning because this is the type of learning that is used in the education and training of those case managers who have an academic or registerable qualification.

Formal learning theories differ according to the disciplinary paradigm from which they have developed (Nilsson and Nyström, 2013). As new disciplines have emerged, application of theories from other subjects have been used to scaffold understanding of learning (Skinner, 1972, Field, 2007). Development of education as well as academic and professional occupational roles traditionally involved formal learning from a positivist perspective (Colley et al 2003). This ensures knowledge is standardised and imparted using a specific approach that meets the norms of a particular population (Schulte, 2017, Marsick and Yates, 2012). For example, a five-year-old child learning maths in primary school would need a particular level of information delivered in a suitable way. Notably, the definition of formal learning exerts a strong influence on the way in which knowledge is transmitted (Freire et al., 1970). This will be considered further.

4.3.2 Definition of Formal Learning

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) developed the International Standard Classification of Education in the 1970's that was updated and adopted in 2011. The original aim of UNESCO was to provide a broad standardised framework to enable comparisons of formal education and learning delivered across the globe (Holford et al., 2014, Jarvis, 2014). UNESCO produced a document classifying education in which formal

learning is defined and described (UNESCO, p 11-12). In this study, the definition has been modified to explicate the specific details of formal learning namely:

"Learning is institutionalised, intentional, structured and planned through public organisations and recognised private bodies that contributed to the formal education of a nation. Formal learning is validated and acknowledged in collaboration with statute. Examples of formal learning include primary, secondary, tertiary and some vocational education; some workplace programmes." (UNESCO, 2011 taken from paragraphs 36-38 page 11-12).

Notably, Werquin (2016) highlights that this definition does not include objectives and learning outcomes that he claims are fundamental to formal learning. Several departments within UNESCO have adopted different definitions of formal learning without explaining why this has occurred or whether new research has informed their position (Werquin 2016). It is reasonable to anticipate that an international organisation such as UNESCO would have an agreed definition of formal learning that is applicable across all departments. Failure to use a shared definition of formal learning within UNESCO detracts from its value. On the other hand, different departments may have needed to affirm different definitions to reflect particular circumstances.

Some support for the need for a variety of definitions arises because of other multiple perspectives that have influenced the definition and understanding of formal learning (Galanis et al., 2016, Kyndt et al., 2016). For example, professionals and academics refer to formal learning as *"codified bodies of knowledge most commonly embodied in disciplines and expressed in academic discourse"* (Usher 1987 p28). Formal learning definitions have been customised by some authors to reflect particular circumstances and theories that underpin them (Manuti et al., 2015, Stubbé et al., 2016). Nevertheless, theories of learning have been established on two critical disciplines of psychology and education. Psychology is concerned with understanding behaviour and cognition whereas education seeks to understand how to best transmit knowledge to learners (Bryson 2017). Learning theories that have emanated from these two separate fields have supported the development of an extensive spectrum of learning theories from different disciplines (Illeris 2009a, Hager 1999). Consequently, this has led to conceptual diversity underpinning formal learning. Examples of

different formal learning theories will be summarised to illustrate approaches to learning that are not available to TBI case managers in the conduct of their role.

Formal learning theories focus on different aspects that influence learning. For example, behaviourist learning theory aims to shape the behaviour of the learner though close instruction. Information is delivered sequentially and there is little or no scope for learners to engage their own approach (Hrynchak and Batty, 2012). Formal learning that is framed within a behaviourist theory involves transmission of knowledge in a detached, mechanical and inflexible manner (Skinner, 1972, Whedall, 1987). Approaches to learning based on behaviourism have subsequently been discarded in the area of vocational training and education because they did not easily accommodate the different needs of learners (Field, 2007). Learning based on a behavioural approach also increased difficulty for learners attempting to apply their knowledge in different situations (Skinner, 1972, Field, 2007). In contrast, cognitive learning theories specifically focus on how the learner's mental processes are involved in establishing knowledge (Pritchard, 2013, Mohana, 2010 p45). For example, neurological studies have demonstrated patterns of biological activity within brain architecture. This has enabled scrutiny of how different neurobiological processes enable learning but learners are not at liberty to adopt a different interpretation of the information (Hamilton 2015, Hagen and Park 2016). Nevertheless, these studies have established a fundamental contribution to formal learning theory and new studies continue to advance current understanding.

In contrast to behaviourist and cognitive learning theories, constructivist theories recognised the critical importance of engaging each learner to explore how to construct knowledge from their experiences (Harasim, 2017, Bruckman, 1998). Constructivist formal learning theories include inquiry-based, meaningful and problem based learning theory. All three theories aim to engage learners in thinking, questioning and reflection to develop knowledge but there are subtle differences involved in the process (Pedaste et al., 2015). Inquiry-based and meaningful learning are facilitated through a teacher. In inquiry-based learning learners are introduced to questions and materials from which to explore solutions (Pedaste et al., 2015, Levy et al., 2013). Learners are supported to apply different approaches, methods and theories to develop their own learning (Alfieri et al., 2011). This differs slightly from meaningful learning where

participation in activities that are significant to the learner fosters construction of new knowledge (Cavanaugh et al., 2015, Novak, 2011). Problem-based learning frequently involves a sequence of steps needed to resolve a problem. Within problem-based learning learners participate in gathering information from which to establish solutions where they exist (Savery, 2015, Hrynchak and Batty, 2012) This is best achieved by using problems and circumstances that are of importance to the learners (Wang et al., 2016, Perrenet et al., 2000). Whilst these learning theories are equally valid for individuals as well as groups, team based learning involves a number of learners working together (Parmelee et al., 2012, McMahon, 2010). Thus, the learning that occurs involves a group of people analysing particular challenges as part of a wider issue (Hrynchak and Batty, 2012). This involves a collaborative approach that is coordinated and managed by a tutor (Koles et al., 2010).

The examples of different formal learning theories set out above have been informed by different disciplines bringing particular perspectives to the field. The contribution of increased understanding of how individuals and groups learn has enabled new theories to emerge that may be more suitable in specialist areas of practice. This may be illustrated by the development of artificial intelligence (AI). Initially, AI drew on formal learning theory established within psychology to explain an extensive range of operational functions of computing (Michalski and Kodratoff, 1990). Since then, many new theories have been generated as the field has expanded (Wang and Goertzel, 2012). As a result, formal learning theories in AI have developed along a different path from the formal learning theory originally developed within branches of psychology (Wenger, 2009). This has been shaped in part by the rapid development of AI and communication technology.

Irrespective of the learning theory used, the availability of technology enables many more people to participate in formal learning programmes (Goldie 2016). The courses available are diverse. At one end of the spectrum, massive open online courses (MOOC) are available to everyone with access to the internet (McAuley et al., 2010). In contrast, there are web based courses that deliver a specific topic of relevance to the development of a specific group of people such as GP's or children whose circumstances prevent them from physically attending a course (McAuley et al 2010, Spaan et al 2016). The effectiveness of web based formal learning has been established. For example, Sudanese children have

improved their maths proficiency by engaging with a programme delivered on a tablet at home (Stubbé et al., 2016).

The location of where formal learning occurs has also influenced the emergence of different opinions that shape its definition. Further challenges arise by researchers' use of different terminology to describe the same issue and conversely, the same words to describe different matters (Thacker, 2015, Candy and Matthews, 1998). The comparatively recent emergence of web facilitated formal learning, has engendered a developing theory that straddles both formal and informal learning known as connectivism (Siemens, 2005). As the experience of formal and informal learning is inextricably entwined, absence of clear definition of formal learning undermines conceptual clarity (Spaan et al., 2016, Paul et al., 2016). In the literature that includes a definition of formal learning, misunderstandings and confusion may arise where authors fashion their definition to reflect specific views and interests. Examples of this may be found in studies of workplace formal learning depending on whether the focus is productivity or individual occupations (Pilz and Wilmshöfer, 2015, Hager, 1999).

This brief review highlights that definitions of formal learning adapt and change according to different circumstances and new knowledge. Examples of definitions of formal learning that focus on specific topics include science (Ainsworth and Eaton, 2010), workplaces (Eraut, 2004a) and management (Becker and Bish, 2017). Notably many definitions of formal learning do not specify the paradigm on which their inquiry rests. In this study, a comprehensive definition is needed because TBI case managers are drawn from a wide range of formal learning disciplines. For this reason, the definition is drawn from several sources where each adds a different nuance. Thus in this study formal learning is understood as follows: *"intentional, planned through (multiple) organisations… validated and acknowledged in collaboration with statute"* (UNESCO 2001, p11-12), (Eraut, 2000), "*hierarchically structured, chronologically graded*" (Leone et al., 2010 p111), *"…has objectives, learning outcomes.."* (Werquin, 2016, p75); *"occurs in a context specifically intended for learning"* (Manuti et al 2015, p4) and is *"led by a teacher or trainer"* (Folkestad, 2006, p139). Consequently, clarity of definition of formal learning is important because of the critical role it holds in relation to opportunities for learning, employment and professional development (Christensen, 2014, Baker, 2014, Mallett et al., 2009, Kyndt et al.,

2009, Lohman, 2009). Having introduced and defined the concept of formal learning, its benefits will now be reviewed.

4.3.3 Benefits of Formal Learning

Formal learning draws upon a long-established philosophical framework of learning (Manuti et al., 2015, Beckett and Hager, 2002). It has been thoroughly researched and developed across the globe enabling national and international comparison (Corrigan and Curtis, 2017, Van Noy et al., 2016, Merriam and Kee, 2014, Bjørk et al., 2013). Whilst there are different definitions of formal learning, there is broad agreement on what it entails (Werquin 2016). This has been important for establishing the consistent educational development of society (Bernstein, 1971).

A primary benefit of formal learning arises from the pedagogical way in which it is delivered (Malcolm et al., 2003, Greenhow and Lewin, 2016). Formal learning is deliberate and structured and thus offers a consistent mechanism of knowledge transfer (Werquin 2016, Cedefop 2014). In principal, this means a specific curriculum that meets common standards should be taught to everyone according to their age and abilities. Thus although the method in which information is conveyed may differ, the same content may be repeated (Zagar and Kelava, 2014). A fundamental benefit of formal learning is that it can be delivered by a range of institutions such as schools, professional councils and awarding bodies that concord to national standards of practice and regulations in accordance with statute (Cedefop, 2014). Accredited formal learning providers may conduct courses that lead to qualifications recognised and valued by academic, professional and workplace organisations (Boeren, 2011, Bjornavold, 2008, Eraut, 2000).

Achievement of a qualification confirms the specific knowledge, skills and abilities a learner has accomplished (Choi and Jacobs, 2011, Eraut, 2000). Formal learning programmes build on earlier levels of knowledge and are interconnected. Courses may link “vertically” or “horizontally” (Bernstein 1971). For example, GCSE’s enable vertical progression to A ‘levels and options for degree and work-based qualifications (Werquin 2016, British qualifications awarded by professional and trade associations, 2014). Whereas some occupations such as nursery nursing involve horizontal connections to a number of learning approaches, some

of which may involve a combination of formal and informal learning activities (National careers service, 2017, Rotar 2014, Fragoso, 2014, Bernstein 1971). Irrespective of the level of formal learning experiences, learners are subsequently motivated to pursue other formal and informal learning activities; this in turn further develops and enhances a wide range of skills (Peeters et al., 2014, Smith and Smith, 2008).

An advantage of formal learning programmes is that they endorse knowledge and skills. This enables people to pursue employment and employers to recruit and deploy staff according to individual capabilities (Colley et al., 2003, Moreau and Leathwood, 2006, van der Heijden et al., 2009). In the context of the workplace, investment in formal learning by employers may convey a positive managerial value of, and commitment to, development of the workforce (Aguinis and Kraiger, 2009). However, the reasons for employers providing formal learning differ. Some organisations such as providers of health care and banking are compelled to provide formal learning courses for staff by law (Froehlich et al., 2014, Castle et al., 2007). Others provide formal learning to reduce errors and staff turnover (Salas et al., 2012, Storey, 2004). Thus whilst formal learning provides many benefits to society, there are also limitations that will now be considered further (Colardyn and Bjornavold, 2004, Dewey, 1938).

4.3.4 Limitations of Formal Learning Theory

This section will briefly outline three key areas that illustrate the limitations of formal learning. These are the impact of the influence held by institutions that safeguard or deliver formal learning; the configuration of formal learning delivery and the environment in which formal learning is conducted. The focus of the discussion will illuminate the limitations of formal learning on the conduct of professional roles.

4.3.4.1 Power and Influence

The establishments that deliver formal learning programmes and courses are governed by the dominant culture within society and the state (Lumby and Foskett, 2011). This hegemony shapes the ethos of each organisation and cascades through the development of policies, procedures, reputation, status and authority of each institution (Alsaadat, 2017). Together, these aspects establish

and perpetuate a powerbase. The staff embedded within these institutions are responsible for the design and delivery of formal learning programmes. Whilst this contributes to the maintenance of standards that are nationally agreed, it also consolidates and promulgates a position of expert power and influence. An example of this may be illustrated by a political or religious ideology influencing how and what information is conveyed (Long 2012, Freire et al 1970). Thus a limitation of this power and influence may be encountered by those outside the field should they wish to challenge the established authority (Van Noy et al., 2016, Khany and Tarlani-Aliabadi 2016, Jordan 1989). Whilst formal learning can empower people by providing skills and knowledge that can scaffold future learning, in some circumstances, formal learning may oppress and control learners (Picower, 2009, Malcolm et al., 2003).

In terms of professional training, a particular definition and perspective of knowledge permits control of who may join a particular profession, such as nursing or several other health and social care professions (NMC, 2001, HCPC 2017). For example, people wishing to become a registered nurse may only do so if they can demonstrate acquisition of an approved standard of specialist knowledge (Gerrish et al 2003, NMC, 2001). Whilst this has value and merit, the limitations of this use of power and influence may exclude valuable candidates. This is of particular relevance because academic institutions have been criticised for generating graduates whose knowledge and skill set do not meet the demands of a variety of occupational roles (Marsick and Watkins 2012). For example, a graduate nurse programme has been introduced in the United Arab Emirates to support newly qualified nurses who felt unprepared for their professional role (Nematollahi and Isaac, 2012). Notably, formal learning has been found to be insufficient to develop fully rounded professional nurses. Melia (1987) and Camilleri (2012) highlighted that a critical component of nurse education was to practise working as a nurse with peers in the work setting. This suggests that other aspects of learning may be needed because skills are often situation-specific and need practice at the workplace (Spaan et al., 2016, Eraut, 2004b). Workplace learning is a necessary part of socialisation that contributes to learners adopting their professional identity (Cruess et al., 2015, Eraut, 2000).

Despite the variety of formal learning sources, employers across the globe report a shortage of skilled staff (Becker and Bish 2017, Manpower Group 2016). Some formal learning courses have been shown to be limited in preparing staff for work-based roles (Emad and Roth, 2008). Nevertheless, such is the influence and appeal of formal learning that employers continue commissioning formal learning programmes for their workforce as a means to address the shortage of capable personnel (Nilsson and Nyström, 2013, Coffield, 2000). This investment in the individual's formal learning also aims to secure their long term commitment to the employer (Bednall and Sanders, 2016, Park and Jacobs 2011). Thus formal learning courses are purchased in preference to the upheaval caused from reconfiguring the workplace and workplace practices that might achieve more sustainable and longer term informal learning benefits (Felstead et al., 2011).

This discussion has illustrated disparity in power and influence between the providers and commissioners of formal learning and learners **(**Malcolm et al 2003). In terms of TBI case management, the absence of formal learning programmes from which to train members of the profession also highlights that expertise, and by implication, learning, is fragmented. The absence of an organisation authorised to establish formal learning from which case management may develop points towards other sources of learning, namely informal learning. (It is beyond the scope of the current study to propose the requirements for formal learning that may be needed by case managers supporting people affected by TBI.) In considering the limitations of formal learning, it is therefore necessary to outline the impact of the configuration of formal learning on learners.

4.3.4.2 **Configuration of Formal Learning Programmes**

By necessity, formal learning is configured rigidly to concord with pre-established goals. This may be demonstrated by teaching GCSE subjects in a secondary school, where the syllabus of formal learning is strictly determined (Van Noy et al 2016). In this example, the arrangement of formal learning involves allocation of time, staff, classroom space and resources that enables delivery of set information to a specific group of students leading to assessment (Patterson et al., 2017). However, this may not always meet the diverse needs of learners. Information that is not of interest or does not reflect similar values, backgrounds or aspirations of learners, may be considered irrelevant by them (Bednall and

Sanders, 2016, Kyndt et al., 2009). In addition, learners who feel alienated from their peers or teacher may disengage from learning (Duffy and Elwood 2013).

A key limitation of formal learning arises from commonplace belief that it is superior to other forms of learning (Coffield, 2000, Peeters et al 2014). For example, in circumstances where employers give precedence to formal learning above other forms of learning, this may demotivate individuals from pursuing other opportunities to develop knowledge (Long, 2012). The impact of this has been shown to curtail efforts to undertake informal learning activities (Van Der Heijden et al 2009). A study investigating formal learning in an Austrian bank found that an organisational culture valuing formal learning reduced efforts of employees to pursue learning from other sources (Froehlich et al., 2014). Thus prioritising formal learning over other forms of learning as a mechanism to enable learning and knowledge development may be counterproductive, with loss of benefit to the employer, individuals and their wider communities (Walden et al., 2011).

In the past, some authors have criticised formal learning for being exclusive (Hager and Halliday, 2006, Singh, 2009, Faure et al., 1972). Reasons for exclusion include the cost of attending and increased reductions in funding. Whilst a variety of adjustments have been made to improve access to formal learning programmes, sections of the population continue to face obstacles and are thus excluded. The challenge of participating in formal learning may also exclude other people in a different way. Individuals who work may find it impossible to combine employment with participation in formal learning not least because of the times in which the programme is delivered (Svensson et al 2004). For some learners, the time of formal learning courses may be incompatible with their need to manage various domestic responsibilities (Billett et al., 2013). Whilst some employers may be unable to support or release staff to attend formal learning courses, others may limit opportunities to engage in formal learning in other ways. A study investigating administration staff working in a university found that prospects to undertake formal learning programmes were greater for full time workers and males compared with part time and predominantly female employees (Van Der Heijden et al 2009). Irrespective of whether part time workers encountered deliberate discrimination, another important finding indicated that limited access to formal learning adversely influenced engagement in informal learning activities (Van Der Heijden et al 2009). This suggests that in

some circumstances, formal learning supports informal learning endeavours. The expense of attending a formal learning course may be prohibitive for some people. The cost of attending a formal learning course, travel expenses if it is located at a distance from the learner and loss of productivity at work may all adversely limit opportunities for employees to access formal learning programmes (Boliver, 2013). The environmental limitations of formal learning will be considered next.

4.3.4.3 Environmental Limitations

The location in which formal learning is delivered may limit some people from participating. As academic courses are organised and delivered from specific settings, the environment may present too many obstacles for some people to access. For example, the only course of choice may be offered at a distance too far from where a learner lives and public transport links may be poor. For those individuals who are able to attend, the way in which formal learning programmes are structured may limit participation. This may be illustrated by the way in which formal learning is delivered. For example, chemistry lessons may take place in a laboratory on a particular time and date (Alsaadat, 2017). If learners are unable to access the lesson within the space and time allocated, or travel arrangements are too onerous, participation in formal learning may be unmanageable.

Other limitations of formal learning arise from the physical and socially constructed way in which the environments of universities, colleges and schools are established. Some of the knowledge and skills needed in workplace roles may best be learned through rehearsal in a specific situation (Eraut 2004a, Spaan et al 2016). For example, health care staff learn how to conduct various professional functions of their roles within the workplace (Billett et al., 2013, Van Kleef and Werquin, 2013). The workplace setting also provides a source of learning in how to manage new challenges that cannot be authentically replicated in a formal learning setting such as a classroom (Billett, 2016, Marsick and Yates, 2012).

The limitations of classroom-based learning are not only confined to professional roles that depend on experiential activities. For example, teachers whose role involves delivery of knowledge in a formal learning setting have found that when they became learners in a classroom setting, the environment was insufficient to meet some of their professional learning needs. Learning needed to support

improved professional teaching performance was more effective outside of the classroom (Jurasaite-Harbison, 2009). This suggests that the traditional environment in which formal learning is delivered has a number of limitations. In response to this, many formal learning courses incorporate periods of practice placement to offset some of the limitations (Steurer et al., 2015). Examples include, management, medicine, and a wide range of allied health profession such as midwifery and radiography (Becker and Bish, 2017, Lloyd et al., 2014, Billett et al., 2013, Marsick and Yates, 2012, Teunissen, 2014).

This section has highlighted a number of restrictions of formal learning that affect a broad range of people. A key criticism of formal learning is that it does not sufficiently prepare people for work (Aarto-Pesonen and Tynjälä, 2017). This includes professions for whom an advanced level of specific formal learning is essential in order to practise (Janssens et al., 2016, Brady et al., 2015). Studies investigating the learning needs of a variety of well-established professional and workplace roles have shown that whilst formal learning provides a valuable foundation on which individuals' scaffold further learning, it is limited in a number of ways. The recognition and need for other sources of learning to continue the development of professional practice challenge the view of formal learning as the superior approach. Consequently, if established professions confirm a need of informal learning for the conduct of their role, the absence of a formal learning case management qualification points toward the fundamental contribution of informal learning. Furthermore, the breadth of contexts and diversity of settings in which TBI case managers, work indicate that formal learning alone would be unlikely to meet all learning needs of the practitioners delivering the role. A review of informal learning will follow.

4.4 Informal Learning Theory

4.4.1 Introduction

This section will introduce informal learning and will outline the wide range of influences that have shaped the development of this concept. Informal learning has been investigated from many perspectives and settings across the globe. This has led to a plethora of definitions that add a layer of complexity to an

extensive and complicated subject area (Werquin, 2016, Halliday-Wynes and Beddie, 2009, Marsick and Volpe, 1999).

There is broad agreement that informal learning occurs during routine and unplanned daily life experiences outside of a formal learning framework (Schürmann and Beausaert, 2016, Werquin, 2016, Peeters et al., 2014). Several scholars define informal learning in opposition or comparison to formal learning in some cases phrasing it as *"anything that formal learning is not*" (Cerasoli et al 2014 p2, Mocker and Spear 1982, Marsick and Watkins 1990). This approach fails to communicate the all-encompassing ways in which knowledge is developed and the challenges in establishing a holistic definition (Eraut, 2004). By implication, describing informal learning as something it is not, also implies that it is inferior to formal learning (Becker and Bish, 2017). In particular, this approach does not recognise the fundamental role of experience within the concept of informal learning. For this reason, the researcher will adopt a comprehensive definition of informal learning.

Informal learning theory is extensive and complex, therefore it is beyond the scope of this work to address every aspect comprehensively. A brief outline will highlight the breadth of informal learning and the challenges this creates for defining the topic. An overview of the underpinning theories that contribute to the concept of informal learning will follow.

Within the literature, failure to distinguish informal learning from experience and experiential learning obscures conceptual clarity. Therefore, the important difference that separates these approaches will be reviewed and discussed. The reason this study will investigate the question from both theoretical perspectives will be clarified. This will highlight the contribution of informal learning occurring outside of the workplace that influences the conduct of professional roles.

4.4.2 Background of Informal Learning Inquiry

In the 20th Century, the seminal work of Lindeman (1926) and Dewey (1938) identified the fundamental role of experience in learning outside a formal learning framework. This was of particular relevance following the rapid progress of technology and subsequent development of new industries that transformed

societies across the globe (Galanis et al., 2016). As a result, new opportunities arose that straddled disciplines and led demand for an increasingly skilled and flexible workforce (Casey, 1999). For emergent economies to compete internationally in increasingly complex global markets, nation states would need to educate their citizens (Faure et al., 1972). This meant that learning confined to a narrow formalised framework would be inadequate to meet the demands of new occupations.

The recommendations by Faure et al., (1972) stimulated research investigating different facets of informal learning, leading to a proliferation of topics of inquiry. Consequently, the body of informal learning literature theory is extensive, international and wide-ranging (Werquin, 2016, Cseh and Manikoth, 2011a, Grahovac et al., 2013, Livingstone, 2000, Fuller and Unwin, 2003, Alsop and Watts, 1997).

Examples include adult learning, workplace learning and communities of practice (Knowles 1970, Marsick and Watkins 1990, Boud and Middleton, 2003). The breadth and complexity of contexts in which informal learning occurs has fuelled broader investigation of informal learning arising within specific disciplines that adopt a particular perspective and numerous definitions (Marsick and Volpe, 1999, Halliday-Wynes and Beddie, 2009). Examples include psychology, education, information technology and rural communities (Noe et al., 2017, Rogoff et al., 2016, Cain and Policastri, 2011, Pilz and Wilmshofer, 2015). This adds a further level of complexity to a broad and complicated field and contributes to informal learning being a contested area (Tynjälä, 2013, Colley et al., 2003, Carliner, 2013).

4.4.3 Challenges in Defining Informal Learning

Some of the challenges in defining informal learning arise from the limited consensus in the definition of learning because some of the literature contains modified definitions to reflect distinct areas of investigation or practice (Rogoff et al., 2016, Anderson et al., 2003). Examples from different professional fields include teaching, management and nursing literature (Kelly and Hager, 2015, Cunningham and Hillier, 2012, Finney and Philpott, 2010). For example, within the nursing profession, informal learning is defined in different ways. A study investigating the informal learning of Iranian nursing students defined it as "*a*

function of observing, retaining and replicating behaviours" (Selyani et al, 2012 p493). In contrast to this somewhat restricted approach, a more holistic and nuanced definition of informal learning encountered by trained nurses is summarised as… *learner dependent, arising spontaneously, within daily life, and is socio-culturally embedded* (Kyndt et al, 2016, p446). Differences in socio-cultural values or the stages of the nursing profession may account for the alternative definitions in these examples. However, more extensive definitions of informal learning are evident across a diverse range of occupational roles such as speech therapists and flying instructors (Wofford et al., 2013, Walden et al., 2011). An increasing number of studies define informal learning by combining contributions from a range of disciplines within a single definition (Tews et al., 2016, Torunn Bjørk et al., 2013, de Feijter et al., 2012). This has been helpful to convey the breadth of circumstances and settings in which informal learning arises (Wofford et al., 2013, Van Noy et al., 2016, Le Clus, 2011, Sawchuk, 2008). An example of this is:

"… the natural companion to everyday life… involving routine and unexpected human pursuits…. that amalgamate and interconnects... it may be imperceptible". (Peeters et al., 2014 p,182).

Some authors have defined informal learning according to how learners develop their knowledge. Informal learning that arises through individuals' ability to initiate, orchestrate and control their own actions and learning is known as self-directed learning (Popović, 2012, Schugurensky, 2000, Merriam and Clark, 1991, Knowles, 1970). An example of self-directed learning may involve deliberately collaborating with other people to learn (de Feijter et al., 2012). In contrast, incidental learning is unplanned and occurs as a by-product during other activities (Popović, 2012, Marsick and Watkins, 2001, Marsick and Watkins, 1990). This means that learners may not identify their learning at the point of the experience (Marsick et al., 2017). In some circumstances, incidental learning has been shown to be enhanced by activities such as trial and error, but the contribution of multi-sensory environments, and multiscreen media have also been shown to enhance incidental learning (Nee and Dozier, 2017, Broadbent et al., 2017, Arden 2016). There is general agreement amongst scholars that incidental learning is unexpected, spontaneous and rarely identified by the learner (Jubas 2011, Foley 1995). This is because unplanned or serendipitous experiences that occur alongside mundane activities are subsumed within the

routine of daily life (Colley et al.,2003, Marsick and Watkins 2001). Nevertheless incidental learning has been recognised as an important source of learning (Foley, 1995).

Individuals do not consider their vast number of experiences because they occur as part and parcel of their everyday life (Engeström, 2009). Learning that arises from experience in a way that is unknown to the learner is described as tacit or implicit (Skovira, 2013, Nonaka et al., 2000, Sternberg, 1999). An example of tacit learning may be demonstrated by children developing language skills without awareness of this change (Skinner,1972). However, the terms tacit and implicit learning have been used interchangeably in the literature (Yardley et al., 2012a, Alonderiene et al., 2006, Reber, 1993). This may have arisen from Reber's (1993) definition of tacit and implicit learning, indicating that learning takes place irrespective of whether this is deliberate or occurs without awareness of what has been learned (Yardley et al., 2012). The crux of both concepts recognise that knowledge arising from tacit or implicit learning cannot readily be articulated by learners. Nevertheless, the interchangeable use of the terms "tacit" and "implicit" obscures different aspects of the process by which knowledge is created. Tacit, implicit and explicit knowledge may best be described as a scale ranging from tacit knowledge at one end, explicit knowledge at the other and implicit knowledge somewhere between the two (Bennet et al., 2008).

Depending on the nature of how learning occurs, the boundaries between each position will fluctuate (Bennett, 2012). Knowledge is understood to be profoundly idiosyncratic and is described by Polyani (1967, p4) as "*we know more than we can tell"* (De Houwer and Hughes, 2016, McIver et al., 2015, Eraut, 2000, Polanyi, 1967). Tacit learning is considered important within the context of the workplace because those individuals who develop tacit knowledge may have an advantage over others (Sternberg,1999). An example of tacit knowledge may be seen when a person makes a judgement about something without being able to communicate what informs their view (Schön, 1991).

Implicit knowledge arises from the processing of tacit knowledge by initiating novel thoughts from connections between ideas, memories, and other fragments of thoughts (Bennet and Bennet, 2008). Implicit learning will be shaped by how individuals interpret the multiple simultaneous contributions arising from their internal physical, emotional and cognitive states and their contextual

environment (Pfeifer et al., 2017). Studies investigating the acquisition of implicit knowledge have demonstrated that in activities where participants are exposed to concealed rules they are able to undertake future interventions successfully by application of rules of which they are unaware. An example of this is adopting specific conduct, attitudes or behaviour from a social situation (Pozzali, 2008, Schugurensky, 2000). Thus, tacit and implicit knowledge is acquired through formal but mostly informal learning experiences.

Different sources of informal learning may occur simultaneously. Therefore defining informal learning, from the process by which knowledge is developed such as incidental learning, offers a limited perspective of the field. The current study does not focus on whether the informal learning used by case managers of people affected by TBI arose from self-directed, incidental or tacit learning in particular, but is more concerned with informal learning as a whole. Thus in this study, the definition of informal learning is taken from Eraut (2004 p297) as:

> *"A simple contrast to formal learning... that suggests greater flexibility or freedom for learners. It recognises the social significance from learning from other people, but implies greater scope for individual agency than socialisation. It draws attention to the learning that takes place in the spaces surrounding activities and events with a more overt formal purpose and takes place in a much wider variety of settings than formal education or training. It can also be considered as a complimentary partner to learning from experience, which is construed more in terms personal than interpersonal learning" (Eraut 2004, p247).*

There are multiple influences shaping the definition of informal learning. Support for broad and holistic definitions of informal learning is gathering momentum in the literature to reflect the flexibility it offers to learners. Consideration of the theoretical basis for informal learning will follow.

4.4.4 Theoretical Basis for Informal Learning

The overarching theory of informal learning encompasses the incorporation of a range of theories that contribute to the overall concept and explanation of how people learn outside of a formal learning framework (Van Noy et al., 2016, Marsick and Volpe, 1999). This has enabled a broad application of informal learning theory across a diverse range of settings (Noe et al., 2017, Harasim,

2017, Carliner, 2013, Cerasoli et al., 2014). Informal learning theories that adopt a particular perspective such as adult or workplace learning have developed extensively (Nicolaides and Marsick, 2016, Manuti et al., 2015, Illeris, 2003). These concepts can be grouped together forming an overlapping framework to explain and describe a number of informal learning activities and approaches. An example of this would include learning from experience that is applicable to adult and workplace learning (Knowles et al., 2005, Dewey, 1938). In contrast, those theories that have emerged specifically to explain the acquisition of knowledge in the workplace are limited.

Other theories differ in their account of how informal learning occurs. Informal learning may be deliberate (Cerasoli et al., 2014, Eurostat, 2013, Doornbos et al.,2008), unintended (Eraut, 2000, Marsick and Watkins, 1990), involving a single or a series of events (Eraut, 2000, Andresen et al., 2000). Some individual learning experiences may straddle several theories simultaneously. For example, inventing a recipe from a disparate collection of ingredients is a combination of incidental (Arden, 2016), spontaneous (Doornbos et al., 2008), reactive (Eraut, 2000) and experiential learning (Yardley et al., 2012b), all within the concept of adult learning (Harrison et al., 2003, Eraut, 2000, Marsick and Watkins, 1990). Thus, the concept of informal learning is a distinct theory in its own right because it can account for learning that occurs across a breadth of settings (Noe et al., 2013) .

Informal learning theory consistently recognises that the individual is central to the process of gaining knowledge (Kelly and Hager, 2015, Jones 2013, Andresen et al 2000, Marsick and Watkins, 1990, Knowles 1973, Dewey, 1938). Consequently, each person's knowledge will be unique (Teunissen, 2015). Nevertheless, because all people are embedded within their socially constructed lives, the learning that takes place is formed through an interaction between the person and their physical, psychological and social circumstances (Yardley et al., 2012, Lave and Wenger, 1991 Stein 1988, Vygotsky, 1978, Follett 1926). Informal learning theories are nested within the wider philosophical perspective of multiple, interconnected socially constructed contexts, thus offering an explanation of learning occurring within a vast range of complex settings (Marsick et al., 2017, Manuti et al., 2015, Stein, 1988) .

The development of informal learning theory has benefited from the emergence of a number of clusters of theories that broaden investigation into informal learning (Le Clus and Volet, 2008). In the current study, the cluster of socio-cultural learning theories will be outlined.

4.4.4.1 Sociocultural Learning Theory

Socio cultural learning recognises that knowledge arises from traditional and contemporary social practises. Leaning emanates from a symbiotic and interactive relationship between the individual and their immediate culture as well as more widely within the society in which the culture operates (van der Zwet et al., 2011). Informal learning theories that draw on sociocultural learning theory include experiential learning (Dewey, 1938), activity theory (Engeström, 2001, Vygotsky, 1978), communities of practice (Lave and Wenger, 1991), and personal epistemologies (Billett, 1996). These theories complement each other by contributing different perspectives. For example, experiential learning theory underlines the critical role of reflecting on experience in learning, and activity theory identifies that within an experience, the interaction between consciousness and the outside world is pivotal in initiating the process of learning (Kolb, 2015, Kolb, 1984, Vygotsky, 1978).

Activity theory also recognises that learning is influenced "internally" by differences in personal epistemology and "externally" by abstract and concrete social mechanisms. An example of this can be demonstrated from the informal learning that individuals develop within their family from which learning in the community develops (Billett, 2009, Lave and Wenger, 1991, Vygotsky, 1978). Numerous theories propose an explanation of learning at various stages in human development from infancy to old age, all of which are underpinned by sociocultural learning theory (Livingstone, 2000, Vygotsky, 1978, Knowles, 1973). As the literature concerned with informal learning relevant to workplace roles is overwhelmingly concerned with adults, the key aspects of adult learning theory will be considered next (Stokes and Wyn, 2007, Price, 2011).

4.4.4.2 Adult Learning Theory

Adult learning theory draws on the work of several scholars including Follett (1924), Lindeman (1926), Lewin and Grabbe (1945), Kolb, (1976), Mezirow (2003)

and Knowles (2015). A Canadian study reported that approximately 80% of learning considered fundamental for adult development arises from informal learning experiences (Livingstone, 2000). Similar results have been reported in other settings (Pilz et al 2015, Osborne and Dillon 2007). Whilst adult learning theories make an important contribution to the overall theory of informal learning, the essential contribution of learning acquired during childhood is not considered. The amount of time children spend in a formal education setting is limited and therefore highlights the level and contribution of informal learning to the development of children and young people's knowledge (Osborne and Dillon, 2007, Hofferth and Sandberg, 2001). Childhood informal learning has a deep and lifelong influence on learners' ability to integrate into their communities; this enables their participation in and contribution to society (Thomas and Pattison, 2013, Resnick, 1987). This is particularly important because informal learning in childhood occurring in domestic and community settings continues to influence activity and behaviour within subsequent workplace roles and the conduct of professional activity (Pecnik and Bezensek-Lalic, 2011, Skovholt and Starkey, 2010, Osborne and Dillon, 2007).

Adult learning theory recognises that the learner's experience is a limitless resource of fundamental value (Lindeman, 1926, Follett, 1926). Experience is also critical to transformational learning theory (Mezirow, 2003). Notably learners need to reflect on their experience in order to transform their learning and subsequent behaviour, thoughts and actions. However, transformational learning theory does not take into account tacit and implicit learning (Reber, 1989). Therefore, adult learning theory is unable to provide a comprehensive explanation for the informal learning that contributes to the conduct of the case management role in the current study. Consideration of theories examining workplace informal learning will follow.

4.4.5 Workplace Informal Learning

Marsick and Watkins (1990) drew on the seminal work of Dewey (1938) to explore the role and contribution of informal learning in the workplace. This research instigated a new field of inquiry arising from international and occupational diversity that has become a fertile area of investigation (Kyndt and Beausaert, 2017, Manuti et al., 2015 Nilsson and Nyström, 2013, Boud and Garrick, 1999, Marsick and Watkins 1990).

The concept of workplace informal learning is supported by a number of well-established theories such as activity theory, (Vygotsky, 1978, Engeström, 2014), adult learning theory (Merriam, 2001, Knowles, 1970) and theories of personal epistemology (Schommer, 1990, Billett 2009b). Whilst some studies investigate informal learning in the workplace from an individual stance, the informal learning arising from participation in a wide range of different groups (known as communities of practice) has also been identified as an important source of knowledge (Wenger, 2000, Lave and Wenger, 1991, Wenger and Snyder, 2000, Boud and Middleton, 2003). Irrespective of whether workplace learning research focuses on individuals or communities of practice, the key thrust concerns understanding the development of skills, knowledge and approaches of organisations and in turn, employees (Kyndt et al., 2017, Manuti et al., 2015). It is estimated that 70-80 % of learning needed in the workplace arises from informal learning (Cerasoli et al., 2014, Eraut, 2011, Cross 2007).

In the drive for increased efficiency, research into informal learning in the workplace has benefited employers, employees and researchers by enabling them to identify effective ways of working and developing knowledge (Eraut 2011, Candy and Matthews, 1998). Research undertaken in different industries and specific settings has revealed previously unknown aspects of informal learning. This opens up opportunities for discoveries to be investigated in other workplaces (Manuti et al., 2015, Sawchuk, 2008). This attention has been honed further to investigate specialities including banking, teaching, management, mechanics and the wide range of occupations that provide health and social care, (Corrigan and Curtis, 2017, Billett, 2016, Froehlich et al., 2014, Williams, 2003, Barber, 2003). For example, a study investigating organisational learning culture in banking illuminated the complexity of factors that adversely affected informal learning in the workplace (Froehlich et al., 2014)[4].

Informal learning occurs throughout the conduct of all activities in daily life (Pilz and Wilmshöfer, 2015, Grummell, 2010). This points towards learning arising outside of work that offers a source of learning for work-based roles. As the borders between work and personal life are becoming increasingly blurred, the

[4] Useful overviews may be found in Werquin (2016) and Van Noy et al (2016).

need to investigate informal learning that occurs outside the workplace increases in relevance (Janssens et al., 2016). Notably the literature highlighting occupations where employers place greater emphasis on effective interpersonal skills have seldom considered the role of informal learning outside of work-based contexts (Arden, 2016, Candy and Matthews, 1998). The relevance of this is brought into sharp focus because of the proportion of time that people spend within the context of the workplace. Cerasoli et al., (2014) estimated that most people spend no more than 30% of their lives in work. Consequently, a consideration of the role and value of informal learning outside work-based contexts offers important opportunities; failure to do so neglects a potentially valuable resource (Billett, 2010).

As demonstrated in the brief review of adult and workplace theories, each cluster offer a partial explanation for some people's informal learning experiences but has limitations. Engeström (2001) acknowledged four key questions concerning who, what, how and why people learn but did not consider *where* or *when* people learn which could include socio-cultural events external to the work environment. Since then five key factors that influence informal learning in the workplace have been identified; namely the environment, planned learning, a guide or mentor, colleagues, and the individual learner (Jacobs and Park, 2009). However, the authors did not consider informal learning beyond a defined workplace setting. The literature recognises the importance of further qualitative research to establish deeper insights, and an understanding of how informal learning contributes to conduct of workplace roles is needed (Tews et al., 2016, Kyndt et al., 2016). Billett (2009) also highlights the need for further research investigating the personal aspects of work-based learning. Nevertheless, he did not consider learning occurring outside of work that influences occupational roles. For example, investigations into informal learning encounters within childhood that impact on professional activity is limited (Armstrong, 2014, Pecnik and Bezensek-Lalic, 2011, Mykhalovskiy and Farrell, 2005). Thus there is a paucity of literature investigating how informal learning experiences arising outside the workplace, influence employment roles and knowledge; accordingly, the opportunity to investigate this perspective is valuable and necessary. The current study rests on the social constructionist theoretical framework of informal learning from experience, this is because it is diverse, ubiquitous and continual.

4.5 The Role of Experience in Learning

Dewey (1938) set out the need for a theory of experience that recognised two key principles, namely continuity and interaction (Dewey 1938 p20). This means learners are immersed in a continual stream of socio-cultural experiences with which they interact, leading to the generation of learning (Jarvis, 1987). Within the literature investigating the theoretical concept of the role of experience in learning, the terminology often uses learning from experience and experiential learning interchangeably (Werquin, 2016, Cerasoli et al 2015, Singh, 2013, Yardley et al 2012.) Nonetheless the way in which experience leads to learning differs (Brah and Hoy, 1989). The contribution of learning from experience has been fundamental in providing people with collective awareness of their situation. For some marginalised communities using their collective experiences has been useful to challenge oppressive practice (Freire et al., 1970, Cooper, 1998). According to Usher and Soloman (1999, p161), learning from experience is rarely recognised but "*takes place in the lifeworld of everyday contexts*". The transition to experiential learning recognises where experience is brought into conscious awareness through the learner's active reflection (Kolb, 1984, Lewin and Grabbe, 1945, Dewey, 1916). Learning from experience and experiential learning are inextricably interconnected, but the literature investigating experiential learning has by far the larger body of work. A brief overview of learning from experience will establish how this has made a profound contribution to current understanding of learning. By way of comparison, an overview of experiential learning and its influence on the development of professional practice, will follow.

4.5.1 Learning from Experience and Experiential Learning

Learning from experience acknowledges the contribution of all experiences encountered by people throughout daily life. Nevertheless, the learner does not always recognise or understand the learning that has occurred. For example infants are born with innate genetically programmed reflexes that are triggered by an internal or external stimuli (Colson et al., 2008). The reflex leads to a spontaneous cascade of activity involving neuronal, motor, sensory and chemical responses (Friston, 2016). These reflexes are fundamental to child development and learning that builds into an internal concept of the world by forming the initial building blocks on which new experiences may inform learning (Vygotsky, 1978).

Irrespective of this, infants and children do not reflect on their experiences spontaneously but develop this ability supported by formal and informal learning processes (Flavell, 2004). The various stages of development during childhood and adolescence enable the child to develop a range of physical and cognitive skills (Piaget, 1964). These are largely shaped by the socially constructed environment in which they are situated (Vygotsky, 1978, Tomasello, 2009). Impoverished emotional, physical or social environments have been found to impair knowledge and learning leading to disruption and difficulties in individual learning needed in adulthood (Brooks-Gunn and Duncan, 1997). Notably, key theories arising within learning from experience include tacit and/or implicit learning as discussed earlier in this chapter (see paragraphs 4.2, 4.4.3).

In contrast to the concept of learning from experience, experiential learning theory contains an extensive body of literature that explains how learning is generated from experience (Kolb, 2015, Yardley et al., 2012b, Beard and Wilson, 2006, Weil and McGill, 1989). Learners interact with an inexhaustible supply of interconnected psychological, social and personal experiences from which they learn (Marsick et al., 2017, Jarvis, 1987). For each person this combination of encounters creates a unique "lifespace" in which learning is embedded within a socially constructed context (Lewin, 1939). Yardley et al., (2012 p103) conclude, *"…experiential learning theories explain how individual people learn individual things in individual ways as they react to individual perceptions of experiences".* Thus a key difference between learning from experience and experiential learning is the need of learners to remember and reflect on how their experience has influenced and changed them (Beard and Wilson 2006, Jarvis, 1987, Argyris and Schön, 1974). Reflection depends on the learner deliberately directing their attention to the episode (Lewin 1939). The knowledge that arises following this has been defined as an internal process that transforms experience (Yardley et al., 2012, Jarvis, 2006).

The power of experiential learning has been demonstrated by its universal contribution across the spectrum of human learning (Jarvis, 2006, Knowles et al., 2005, Kolb, 1984, Vygotsky, 1978, Lewin, 1939). Broad application of experiential learning theory has supported development of specific areas of investigation, perspective and definitions (Billett and Choy, 2013, Hager, 1999, Boud and Walker, 1991, Marsick, 1988). There are many similar definitions that recognise the role of experience but the focus of the study influences different

standpoints (Austin and Rust, 2015, Moon, 2006). For example, studies focusing on the setting in which experiential learning occurs have been defined as situational learning (Van Noy et al., 2016, Lee, 2008). The literature has also identified experiential learning as a specific approach to enable learners to develop and hone their knowledge (Stirling et al., 2017, Giridharan and Raju, 2016, Ritchie, 2011). Experiential learning has been used effectively in the workplace development of professional practitioners in a variety of disciplines such as medicine, social work and engineering (Stone, 2016, Giridharan and Raju, 2016, Yardley et al., 2012a, Yardley et al., 2012b, Hickcox, 2002). Notably occupations in different aspects of health and social care commence with an apprenticeship which depends on experiential learning (skillsforcare.org.uk, 2017, Feinstein et al., 2015, Singh and Duvekot, 2013). Experiential learning is also viewed in terms of aspects of communication involving conceptual thinking, review and reflection (Ritchie, 2011, Usher and Soloman, 1999). Contributions to experiential learning theory from other scholars include transformational learning theory, experienced based learning and the learning cycle, (Andresen et al., 2000, Mezirow 1997, Kolb 1976 Parker-Follett 1926).

The key model of experiential learning draws on a cyclical process that depicts a continual, dynamic, spiral process that builds on reflection of previous experiences to enable holistic adaptation to the world (Kolb 2015 p43, 1984, 1976, Kolb and Kolb, 2005). Whilst Kolb found support for his theory from other scholars such as Vygotsky (1978), Lewin (1939) and Freire (1970), critics of Kolb's work highlight a number of aspects that do not address particular considerations. For example, the theory does not appear to acknowledge that learning may involve several different processes occurring simultaneously, or that these will be shaped by socio-cultural influences (Beard and Wilson, 2013, Seaman 2008). The theory has also been criticised for the consecutive steps that may not be applicable to some experiential learning situations (Stirling et al, 2017).

Learners may also differ in the length of time needed to develop insight to the learning and knowledge developed. Experiential learning theory is unable to account for tacit and implicit learning by demanding that reflection is a prerequisite for knowledge development; this theory does not explain all learning from experience because it does not explain such notions as the role of tacit or implicit learning adequately (Reber, 1989, Polanyi, 1967). Learning from experience provides a theoretical framework for those episodes where the learner

has not reflected on the event and demonstrates that reflection is not essential for learning. As the current study seeks to explore the breadth of informal learning experiences that contribute to the conduct of the role as described by participants, experiential learning theory does not fully account for all learning arising from experience. For this reason, the theoretical framework adopted for this study draws on both learning from experience and experiential learning. A review of the benefits and limitations of learning from experience and experiential learning will follow.

4.5.2 Benefits and Limitations of Learning from Experience and Experiential Learning

The literature investigating the role of experience in the conduct of professional roles often refers to "personal experience" (Donaldson-Andersen, 2017, Oates et al, 2017, Pecnic and Bezensek-Lalic, 2011, Sheppard 2000). Notably, these studies engage participants in reflection of their experiences. Several research studies appeared to prompt the reflection of practitioners rather than identify the consequences of experience from earlier self-introspection. This may indicate that in some circumstances practitioners draw on implicit knowledge in their work. However, amongst studies investigating "personal experience", the link between the impact of experience on informal learning and the conduct of the professional role is ambiguous.

Jensen (2007) undertook a case study investigating how family experiences outside of work influenced the interaction of psychotherapists with clients. He suggested an enhanced ability to undertake their professional role (Jenson, 2007). In this study, the practitioners had not recognised the connection between their informal learning experiences and conduct of their role. These research participants may have been more aware of the impact their experiences from childhood had on their profession. An ethnographic study investigating factors influencing the work of Caucasian, middle class GPs did not set out to investigate informal learning or experiences from childhood (Mykhalovskiy and Farrell, 2005). Nevertheless, during the semi-structured interviews, two participants spontaneously commented they had spent part of their childhood with people from different socioeconomic backgrounds and this had subsequently shaped their view and professional practice. It is unclear from this study whether the GPs had reflected on how childhood experience influenced

their work prior to the study. This example illustrates how childhood experiences continue to influence adult life (Skovholt and Starkey, 2010, Hayward and Gorman, 2004). This indicates that including informal learning experiences in childhood may lead to a broader understanding of the impact of experience in the delivery of professional roles (Oates et al., 2017).

Informal learning experiences arising outside of work-based contexts reveal a mixed picture of whether they exert positive or negative influences in the conduct of professional practice (Goldberg et al., 2015, Armstrong, 2014, Whyte et al. 2013, Pecnik and Bezensek-Lalic, 2011, Brodribb et al., 2008). In particular, several studies have investigated the consequences of different aspects of physical or mental trauma such as illness, bereavement or violence on the conduct of professional roles (Armstrong, 2014, Christie and Jones, 2014, Woolf et al., 2007). Recognition of the value of an individual's direct or vicarious experience of trauma, and its contribution toward attributes such as empathy, have been considered for millennia (Plato, translated by Jowett, 1948). The positive impact of traumatic experience within the conduct of health and social care professions has subsequently been identified as the "wounded healer" (Brady et al., 2015, Goldberg et al., 2015, Hadjiosif, 2015, Jackson, 2001). Notably for the experience be used constructively in practice, for example by becoming empathetic, reflection is insufficient. The individual needs to have adjusted to and incorporated the trauma (Christie and Jones, 2014, Gilbert and Stickley, 2012). Irrespective of research confirming the value of reflection in assisting practitioners to optimise learning from their experiences, the experience of trauma does not automatically generate learning that will be beneficial to their role (Korszun et al., 2012, Roberts et al., 2011, Schön, 1991).

Retrospective self-reports of experience of familial violence ranging from childhood to current life demonstrated different responses of social workers to one of four vignettes setting out challenging examples of child risk (Pecnik and Bezensek-Lalic, 2011). They found that 76% of respondents reported receiving corporal punishment as a child, 39% observed their father's violence toward their mother and 19% confirmed experiencing violence in adulthood from an intimate partner or husband. The response of social workers to challenging and emotionally intense circumstances may generate either a protective zeal toward children or withdrawal (Yoshihama and Mills, 2003). The social workers who experienced numerous abusive experiences were more reluctant to intervene to

protect children when they had multiple personal experiences of abuse involving corporal child abuse and longstanding familial violence. On a more positive note, social workers who reported histories of corporal punishment in childhood only, expressed views conveying protective actions involving the police and safety measures (Pecnik and Bezensek-Lalic, 2011). Thus, there is a mixed picture regarding whether experience of violence is helpful or harmful to the conduct of the professional role.

Investigations into health care staff who have experienced illnesses or permanent disabilities reported that participants were reluctant to disclose their needs to their colleagues and employers (Neal-Boylan et al., 2012, Fox et al., 2011). Those that did divulge their health issues were discouraged from using it to inform their work (Gilbert and Stickley, 2012). These studies reported a lack of support and understanding from co-workers in health care. Whilst disabled health care staff (doctors and nurses) reported developing empathy for patients as a result of their experiences, there are mixed results regarding the experience of doctors who had developed ill health (Woolf et al., 2007). Thomas et al. (2007) found an inverse relationship with empathy and distress amongst medical students. Whereas other studies investigating the impact of direct or vicarious illness on medical students and doctors from a range of specialities found participants to have higher empathy scores (Brady et al., 2015). A positive association was also identified between direct experience of illness with the development of positive regard, maintenance of compassion and empathy in medical and social work students (Goldberg et al., 2015, Korszun et al., 2012, Roberts et al., 2011). In contrast, some medical practitioners who became ill expressed a judgemental attitude towards some patients suggesting a reduction in empathy (Neal-Boyan et al., 2012, Fox et al., 2011, Loyens et al., 2007).

The literature reporting informal learning experience on the conduct of professional roles in health and social care is predominantly concerned with trauma. Most studies focus on one professional discipline or topic of experience such as bereavement (Supiano and Vaughn-Cole, 2011). The recognition of learning from experience in contributing to skills and approaches valued in a professional role is beginning to emerge (Kyndt et al., 2017). For example, adventure based activity has been shown to cultivate personal development, and effectiveness (Ritchie, 2017, Cavanaugh et al., 2015, Greffrath et al., 2011). However, in studies where experience arising outside of the workplace has been

reported to be helpful to some professionals undertaking their role, there also appears to be misgivings about the value. A study investigated how personal experience of breastfeeding provided a source of informal learning to GPs in the care of nursing mothers. Some GPs who acknowledged that their experience of breastfeeding taught them more than formal training or work-based education stated that they were "*disappointed*" in the need to use this experience to provide professional knowledge (Brodribb et al., 2007, p6). The conclusions of the paper indicated that GPs thought knowledge obtained informally was inferior. Similarly highlighting how the influence of family experience affected psychotherapists conduct of the role, one practitioner rejected this as a source of learning. Although the therapist acknowledged that his family experience was mirrored in an intervention with a client he "*said that he would never do that again"* (Jensen, 2007, p380). Notably the participant had not reflected on how his experience outside of the workplace influenced conduct of the role. Whilst these examples illustrate how learning from experience with or without reflection can influence the conduct of the professional role, it is possible that the scientific paradigm underpinning the training of health care professionals fostered the practitioners' concern to remain objective and professional rather than emotive (Skovholt and Starkey, 2010).

4.6 Overview of Learning

The need for specialisation and specific qualifications within professions, demands that formal learning is an essential component of knowledge development. Theories explaining how people learn highlight socio-cultural influences, the nature of adult learning and work-based learning in shaping and informing delivery of professional services. Whilst recognition of the value and role of informal learning in the development and conduct of professional roles has increased, the literature concerned with informal learning has been predominately focused on work-based activity (Manuti et al., 2015, Le Clus, 2011). However, as more research has been undertaken, the scope of investigation has broadened to consider a range of disciplines and areas of interest.

For millennia, philosophers have considered the role and importance of experience in the development of knowledge and there is a small but growing

recognition of how informal learning experience influences the delivery of professional roles. To date, the literature investigating this approach has mainly focused on a single topic or profession. However, emerging literature investigating the influence of specific experiences in the conduct of professional roles has presented a mixed picture of positive and negative influences (Supiano and Vaughn-Cole, 2011, Pecnik and Bezensek-Lalic, 2011, Brodribb et al., 2008).

The requirements of clients with TBI are multiple and complex and are met by a range of professional disciplines who need extensive knowledge to meet the multiple necessities of people with TBI. It is unknown whether there are a range of informal learning experiences that influence the delivery of the roles that are common across the profession. This study aims to explore this aspect of informal learning in TBICMs from their view.

4.7 Chapter Summary

This chapter has summarised the literature concerning formal and informal learning theory. In particular, a subset of informal learning theories that offer an explanation of the role of experience and experiential learning have been reviewed. It has demonstrated that the two areas of learning from experience and experiential learning are intertwined, and because neither can fully account for the role experience has in informal learning, both these theories have been chosen to provide the theoretical framework on which this research rests.

The need for skilled case management of people with TBI highlights the inconsistent approach to the training of case managers. This further emphasises the importance of determining how people learn to undertake this role. The specific focus on the influence of informal learning has not been considered in case management before now and research investigating case management of people affected by TBI is limited. However, international support for studies considering how informal learning experiences outside of work inform the conduct of occupational roles is growing (Werquin, 2016, Werquin, 2010, Singh, 2012). Consequently, there is value in investigating the overlap between these areas and a need for research to explore informal learning experiences of people case managing people affected by TBI in order to provide deeper insights into the way that people work towards service delivery. Investigating the perspectives of a

wide range of individuals performing this role will create an opportunity to illuminate where knowledge originates across this specialist occupation and may stimulate much needed debate.

4.8 Research Aim and Objectives:

The aim of this study is to explore the spectrum of informal learning experiences judged by the participants to have been influential in the development of their role and knowledge. The personal perspectives of a range of case managers working with TBI clients will be analysed to investigate if and what informal learning experiences have contributed to their knowledge and development of the role. Any pattern in the range of informal learning experiences reported will be highlighted. The study will also consider whether and how participants apply informal learning experiences to their role. The research seeks to answer the following question: What informal and personal learning experiences do people providing case management to people affected by TBI consider as having supported the development of their professional role? This will be approached by:

i. Exploring the individual perspectives of people undertaking this role.
ii. Identifying any common learning experiences valuable to the role.
iii. Exploring whether there is a pattern of informal learning experiences reported.
iv. Investigating how participants applied informal learning experiences to the conduct of the role.

Chapter 5 Methodology and Method

5.1 Introduction

This chapter will set out the methodology used in the design of the study and the methods employed to collect, analyse and interpret the data. An explanation of what constitutes qualitative methodology will be followed by a brief review of the established paradigms that are available for this research approach. A more detailed explanation underpinning the paradigm of choice in this study will preface a discussion about the methodology adopted to answer the question. The methods used in this research are described and nested within the theoretical framework of choice. An outline of the literature search strategy is set out in Appendix A. The chapter concludes with a reflexive account of the researcher's position in the study.

Within qualitative research, the term methodology and method are frequently used interchangeably (Patton, 2002). In this study, the term methodology incorporates the selection of approaches from a variety of academic and practical specialties and customs (Denzin and Lincoln, 2005, Miller and Crabtree, 1999). The method is concerned with the specific techniques used by researchers to answer their questions (Denzin and Lincoln, 2005). The way in which research questions are approached and answered are underpinned by the particular ontological and epistemological beliefs of the researcher (Guba and Lincoln, 1994). This forms the theoretical framework on which studies are based and has been described as a multifactorial patchwork of influences including knowledge, opinions, experiences and ideas that are germane to the way in which the question is answered (Maso, 2003). Thus to enable others to test the quality of the inquiry (Caelli et al., 2003), clarification of the researcher's assumptions are essential (Mason, 2007b, Hammell and Carpenter, 2000). To do this thoroughly, an explanation of how the researcher's personal values and understanding of reality and knowledge have shaped the design and implementation of the study are included and nested within the definitions of paradigm, ontology and epistemology (Guba and Lincoln, 1994).

The term methodology is used universally within quantitative and qualitative research as *"the systematic investigation of the various rational and procedural principles and processes which guide scientific enquiry"* (Delanty and Strydom, 2003 p4). Tashakkori and Teddlie (2009) also comment that this involves the researcher's choice for using particular methods to answer the question.

5.2 Paradigm

This section will define what constitutes a paradigm and why in research it is essential to clarify the paradigm of choice. The main paradigms used widely within research will be outlined to illustrate the differences in the paradigm that underpins this study. An explanation of why a constructivist interpretivist paradigm has been chosen will preface a more detailed clarification of the main differences in approach within this framework. This will be followed by an explanation of the constructivist interpretivist paradigm adopted in this study to investigate the unplanned learning experiences arising from interpersonal experiences and encounters that inform the role of TBICMs. Within the constructionist interpretivist paradigm there are two different approaches. A brief review of these perspectives will contribute to establishing clarity of the theoretical framework underpinning this work.

5.2.1 Definition of Paradigm

A paradigm is a comprehensive framework that describes the way in which people understand and construct their world (Holloway, 2008, Dillard, 2006, Glesne,1999). For example within politics the left/right paradigm considered that the shaping of society arose from political ideology (Wheatley, 2015). A researcher's beliefs and philosophical affiliation are conveyed through the adoption of a particular paradigm (Pritchard, 2010, Ponterotto, 2005). The underpinning philosophical influences that shape each paradigm depend on six fundamental components (Ponterotto, 2005): These are:

- ontology: how the researcher views reality (Guba and Lincoln, 1994);
- epistemology: the connection between the researcher and the participant, how knowledge is created, acquired and known (Soini et al., 2011, Holloway, 2008);

- methodology: how the inquiry should proceed to answer the question (Lincoln and Guba, 2013, Pritchard, 2010);
- axiology: how the values of the researcher influence the conduct of the study (Kennedy, 2016, Antlová et al., 2015);
- language: how it is used to convey knowledge as well as the framework and structure of the study (Young and Popadiuk, 2012, Gergen, 2009);
- The choice of methodology by which the research is conducted (Endres and Weibler, 2016, Tashakkori and Teddlie, 2010).

Each paradigm is based upon the combination of these elements. Together these aspects provide a framework that directs the approach to research, management of the study, methods used and the role of the researcher within the inquiry (Scotland, 2012, Glesne, 1999). Each paradigm makes a specific contribution to the production of new knowledge (Taylor and Medina, 2013). Irrespective of the paradigm, all research data are interpreted by the researcher (Yanow and Schwartz-Shea, 2006). Therefore as a paradigm reflects the assumption of the investigator in establishing new knowledge, no one paradigm is superior to another (Kusch, 2016). Whilst all research should clarify the paradigm used to indicate the philosophical underpinnings of the inquiry, within qualitative research, the researcher actively contributes to production of data, and knowledge. Consequently, an explanation of the paradigm underpins a transparent account of a study.

Some authors have argued that within social theory, paradigms are mutually exclusive because acceptance of one automatically disregards the others (Burrell and Morgan, 1998). As the development and discovery of scientific knowledge takes place within a global context where communication is becoming increasingly ubiquitous, inquiries across various settings that examine different aspects of a particular issue are unlikely to be influenced by one paradigm only (Taylor and Medina, 2013, Patton, 1990). The diversity of disciplines and the myriad of perspectives that influence qualitative research mean that the representation of knowledge as truth will need to be clarified in detail (Caelli et al., 2003, Donmoyer, 2006). In contrast, studies that adopt a single approach in the conduct of research may more readily subscribe to one of five main paradigms. These will be reviewed briefly to illuminate the reasons for the paradigm considered the most suitable in this study.

5.2.2 Positivism

A positivist paradigm is used when the researcher believes there is a single truth to be identified and this can only be determined quantitatively. Research based on a positivist paradigm approaches investigation from the position of objectivity where the influence of the researcher is minimised to ensure the results are not biased (Guba and Lincoln, 2005, Miller and Crabtree, 1999). Methodologies and study designs adopt vigorously controlled investigations to ensure that the inquiry can be accurately replicated in order to prove whether findings are valid. An example of an appropriate use of positivist methodology is found in the development and testing of medicines.

5.2.3 Post-positivism

Similar to a positivist paradigm, researchers adopting a post-positivist paradigm also consider that there is a single truth to be found. The interaction and influence between researchers and participants is minimised (Guba and Lincoln, 2005, Guba and Lincoln, 1994) or severely restricted (Taylor and Medina, 2013). Unlike positivism, however, post-positivists consider that achievement of a full and comprehensive understanding is impossible because of the infinite number of unknown influences. Post-positivist studies consider that objective accounts of reality are unobtainable because all methodologies have limitations. Post-positivists implement specific research processes to enable observations of a social phenomenon within a population that may be generalised (Ponterotto, 2005). An example would be using an internet survey to obtain a particular opinion of sports fans (McGannon et al., 2009).

5.2.4 Critical Theory

There are a number of paradigms that are subsumed within critical theory. These include amongst others, political, feminist, ethnic and disability theories (Hales, 2011). These paradigms consider that reality differs according to specific characteristics such as gender, race or disability. The critical theorist's world view is fuelled by the interplay of power leading to control, dominance and oppression (Guba and Lincoln, 2005b). This paradigm focuses on the prevalence of power structures, which exist in some objective form. Research located within a critical theorist paradigm explores the individual interpretations of such

structures as well as the way in which social actors emancipate themselves from existing hegemonies (Taylor and Medina, 2013). A critical theory paradigm was used to explore the continuous obstacles that discriminated against disabled people who were trying to participate in sport (Saxton, 2016).

5.2.5 Participatory and Postmodern

Participatory-and post-modern paradigms are similar insofar as they recognise that reality is established from co-constructed perspectives, understanding and knowledge between participants and researchers (Luper, 2004, Gergen, 1995). Truth is understood holistically and findings are created between research participants and researchers through a democratic process based on a shared context and language. The language used within the data is examined and deconstructed to question and investigate assumptions of knowledge (Taylor and Medina, 2013). A participatory paradigm was used to investigate HIV infections in Pacific Island populations. This approach aimed to empower the community at the centre of the research (DiStefano et al., 2013).

5.2.6 Constructivist Interpretivist

Constructivist interpretivist paradigms consider that there are multiple realities that arise from each individual's experiences and interactions with society (Lincoln and Guba, 2013). Research based on this paradigm uses the investigator as a tool in collecting the data. This is because of the ability to respond and adjust to opportunities that arise during data collection (Lincoln and Guba, 1985). Reality is deemed to differ for each individual person according to their experience. This means their world is only accessible through socially constructed mechanisms such as language, shared meanings and understanding. Interpretive research places value on the context in which the data is generated in order to understand people's perspectives. In an interpretivist approach knowledge is constructed, shared and interpreted from the interaction between the participants and the researcher (Lee, 2012). The role of the researcher is to comprehend, interpret, describe and clarify the socially constructed world of participants through their experiences (Cohen et al., 2007). The simultaneous understanding encountered by the participant and the researcher during discourse is recognised and valued. It has been reported as a double hermeneutic (Giddens, 1984). Methodologies use the language and discourse of

the participant and researcher to synthesize findings that represent the whole data set.

Studies investigating the impact of personal experience on work-based roles appear to have investigated specific issues around health (e.g. bereavement, pain and illness (Goldberg et al 2015, Armstrong 2014, Patiraki-Kourbani et al 2004), violence (Zozky, 2013, Pecnic & Bezensek-Lalic 2011) and parenthood (Koncikowski 2016, Brodribb 2007). The current research differs from other studies on personal experience because it aims to identify and explore the breadth of experiences that TBICMs consider have influenced the delivery of their role from their perspective. It recognises that participants who provide case management to people affected by TBI come to the position from a broad spectrum of different backgrounds and disciplines.

5.2.7 Paradigm Used in This Study

Within interpretive qualitative research, emphasis is placed on the investigator's influence and values in constructing meaning (Antlová et al., 2015, Lincoln and Guba, 2013, Cooper and Endacott, 2007). Thus clarification of the paradigm used in this study rests on a particular ontological and epistemological stance. The researcher bases her understanding on a constructivist interpretivist paradigm because she believes that there is no single reality. Instead, the researcher considers that reality is socially constructed from multiple dynamic sources for example at a personal, cultural, symbolic and linguistic level (Finlay, 2006a, Guba and Lincoln, 2005a, Berger and Luckmann, 1991). Whilst people construct knowledge from their experiences (Endres and Weibler, 2016), this does not take place in a societal vacuum (Garrick, 1999). Reality is relative to individuals and the multiple aspects of the society they inhabit, it is changeable (Lincoln and Guba, 2013, Cunliffe and Eriksen, 2011, Burr, 2003). Consequently, in this study a relativist ontology is assumed (Denzin and Lincoln, 2005). The researcher is a case manager of people affected by severe TBI and brings her own socially constructed understanding, interpretation and knowledge of the topic to the study (Lincoln & Guba 2013). As knowledge is understood to be co-constructed with her peers based on sharing an occupation and client group, a subjectivist transactional epistemology is adopted (Denzin and Lincoln, 2005). This paradigm also acknowledges the fundamental role of the researcher in interacting with each participant to collect, create, and interpret the spectrum of

data to identify issues of relevance and meaning (Lincoln and Guba, 1985). Within the literature the term constructionism and constructivism are used interchangeably (Ho, 2012, Burr, 2003). As there are important differences between these similar terms, this will be discussed further.

5.2.8 The Difference Between Constructivism and Constructionism

The difference between constructivism and constructionism relates to the focus of how knowledge is constructed. Whilst both approaches emphasise the importance of language, each approach adopts a different perspective. Constructivism considers the building of knowledge from an individualistic approach. Knowledge is thought to be developed by each person during an interaction with their surroundings. Everyone's entire physical, psychological and social experiences are gauged against their internal lives and perspectives. Constructivism emphasises that because everybody's standpoint regarding knowledge and meaning arises from their experiences, knowledge is unique, legitimate and should be respected (Crotty, 1998).

Several theorists have contributed to the development of constructivism by examining how individuals build knowledge (Kelly, 1977, Piaget and Inhelder, 1967, Dewey, 1938). Within this field there is a range of positions proposing how knowledge is constructed ranging from trivial to radical constructivism (Doolittle, 2014, Von Glaserfeld, 2000). At one end of the spectrum, trivial constructivism suggests that people actively create knowledge by incorporating and expanding their pre-existing established information (Steffe, 2000). Individuals then modify their knowledge to establish internal systems that accommodate structures and concepts in the external world (Von Glaserfeld, 2000). Radical constructivism draws on the work of Vico (Berlin, 1976) and Piaget (1928) focusing on the cognitive processes by which an individual adapts to all experiences (Von Glasersfeld, 1989). Consequently, knowledge is constructed differently for each person. Thus radical constructivism highlights the diverse nature of knowledge (Von Glaserfeld, 2000). A position that incorporates both aspects of trivial and radical constructivism has been named social constructivism. This acknowledges that people build internal knowledge though their encounters and interactions with the external world (Vygotsky, 1978).

Constructionism, on the other hand, is concerned with the interpretation and understanding of knowledge that is co-constructed by a number of people and not an individual (Endres and Weibler, 2016). Within constructionism, individuals are understood to be born into a socially constructed world that is established from - and influenced by - a wide variety of structures, for example, culture, gender, politics, religion and numerous institutions (Walker, 2015). Thus each person's knowledge is shaped by the interconnection of experiences and perceptions from an individual (psychological) and/or cultural (societal) perspective, (Gubrium and Holstein, 2012, Burr, 2003, Willig, 2001). Consequently, knowledge will be perpetuated by individuals and society but this changes at the location and point in time of its genesis (Vall Castelló, 2016, Peterson, 2012). This is illustrated by the broad spectrum of views indicating how knowledge is established (Geldenhuys, 2015, Lock et al., 2010, Gergen, 1985). These perspectives have enabled different disciplines across the globe to explore how knowledge is socially constructed in novel contexts such as management, social psychology and conflict resolution (Endres and Weibler, 2016, Wang, 2016, Slocum-Bradley, 2013, Scherer, 2012, Hosking, 2011, Holstein and Gubrium, 2008). Thus constructionism can be described as an interconnected web of theories (Raskin, 2002, Danziger, 1997, Gergen, 1985).

Whilst the diversity of constructionist studies has provided a rich variety of approaches, different terminology used by different disciplines has led to confusion, inconsistencies and disagreements (Burr, 2003, Danziger, 1997). These difficulties are not helped by literature referring to constructivism when describing constructionism (Greenhow and Lewin, 2016). A key example of this is in the debate surrounding language and discourse. For example, some studies explore language from a broad perspective whereas others investigate a specific aspect of the process language creates such as the power dynamic arising within discourse (Hosking, 2011, Gergen, 2009, Gergen, 1985). Irrespective of different semantic and theoretical approaches throughout the constructionist literature, the role of language is essential because it is considered to be the only means of accessing, investigating, and distributing knowledge.

Social constructionist studies acknowledge multiple social realities and highlight that how these are interpreted and understood by people is socially established and thus relative to their circumstances (Walker, 2015, Lee, 2012). In particular, studies aim to create understanding of issues that are frequently overlooked,

taken for granted and thus are not semantically expressed (Wang, 2016, Garfinkel, 1967). A key aspect of constructionist research is to share newly constructed knowledge with others. The main purpose of this is to enable people to make informed choices on which to base their actions (Wang, 2016).

The difference between constructivism and constructionism depends on the focus; whether knowledge is constructed within individual or the society in which they live. The following section will explain and justify the adoption of social constructionism as a theoretical framework from which to investigate how people delivering case management to people affected by TBI use informal learning experiences in the conduct of their role.

5.2.9 Justifying the Use of Social Constructionism in Terms of the Question

This section provides a brief review of methodologies considered when establishing the research framework and why they were rejected. The reasons social constructionism is deemed a fitting theoretical framework for this research will be highlighted.

There is a paucity of formal learning opportunities to become a case manager for people affected by TBI, as outlined earlier (see paragraph 3.8). People are actively involved in the construction of their knowledge by drawing on their previous experiences and understanding (Patton et al., 2013). Thus, learning is considered to be *"socially and culturally constructed"* (Boud and Miller, 1996 p9-10). Therefore, the focus of the study will explore how a diverse group of practitioners case managing people affected by TBI applied their socially constructed informal learning in their work.

Language has a critical function in the conduct and maintenance of a professional role and is specific to the practitioners and the nature of the service they deliver (Lock and Strong, 2010). Furthermore, language is the accepted and dependable currency underpinning transmission of knowledge by all professionals. Thus, the most expedient way in which to co-construct knowledge with participants was to use the shared language of case management to collect the data. Using a communal language facilitated in-depth probing and exploration of nuance that enabled enriched understanding of meaning (Gergen, 1985). This is of particular

importance because knowledge and skills within established professions such as midwifery and nursing that has developed through informal learning has not been recorded and tested well (Finnerty and Pope, 2005, Eraut, 2000).

To date there has been no investigation into how TBICMs develop knowledge needed in the conduct of their role. Furthermore there is no evidence of such a heterogeneous sample of people doing the same professional role. Consequently, the combined view of their experiences was considered useful in addressing this gap. Whilst an interview guide was used, the inductive process acknowledges the role of the participant in shaping the conversation. This provides a foundation from which to investigate aspects of life that are frequently overlooked and taken for granted (Schultheiss and Wallace, 2012, Gergen, 2009, Raskin, 2002). Thus, bringing experience to the fore is a way to explain how knowledge is produced (Scott, 1991). There is no formal training or educational pathway that sets out a coherent approach to the case management role of people affected by TBI. Therefore investigating informal learning experiences that different practitioners apply in the conduct of their role, seeks to illuminate this previously hidden area of practice (Schultheiss and Wallace, 2012, Gergen, 1985).

A key factor in adopting social constructionism as a theoretical framework is the recognition of the researcher's active and embedded role in co-constructing knowledge from the outset. The researcher's experience and pre-existing understanding of the role as a case manager of people with TBI is a lens through which to understand and interpret the discourse occurring between herself and participants. Language forms the key mechanism of access and the representation by which the researcher presents the data. In establishing this position it is recognised that the findings, and any patterns identified by the researcher through the analytic process, are social constructions across the whole data set, not from individual participants (Braun and Clarke, 2006). The application of social constructionism has been fundamental in the selection of an appropriate methodology. This will be discussed further (see paragraphs 5.3, 5.3.1, 5.4).

Research that has been designed specifically to investigate the impact of an individual's particular experience in the delivery of a professional role highlights the need for qualitative research. This is because rich detailed data is required to

explore and explain the meaning and the impact of these experiences (Whyte et al., 2013, Pecnik and Bezensek-Lalic, 2011, Colson and Francis, 2009, McNair et al., 2008, Brodribb et al., 2007, Jensen, 2007, Patiraki-Kourbani et al., 2004, Jewell, 1999, Saunderson et al., 1999, Woolf et al., 2007). Clinicians who undertake research investigating an aspect of their profession frequently use their knowledge to identify and access an appropriate sample. Researchers who draw on their insight and knowledge of the field are often able to establish trust with participants (Attia and Edge, 2017). In those circumstances this can enable investigation of sensitive topics that may otherwise remain hidden (McNair et al., 2008, DiCicco-Bloom and Crabtree, 2006).

5.3 Selecting an Appropriate Methodology

In considering whether there was an established methodology that would be appropriate for this study, several methodologies were considered. This involved examining the literature investigating the impact of informal learning from personal experiences on the conduct of a professional role within health and social care. The literature has recognised the challenges in researching informal learning for several years. A key reason for this is because informal learning can be messy, unstructured and difficult to identify (Marsick et al., 2017, Marsick and Watkins, 2001, Coombs and Ahmed, 1974). Consequently, researchers investigating the contribution of informal learning to professional roles recommend that the field approaches the subject from a variety of research methodologies (Walden 2011). A brief account of the methodologies reviewed follows.

Case study design was initially considered but disregarded because the question did not seek to compare informal learning experiences between subgroups of practitioners - for example, between nurses and probation officers. Also, it was not possible to set robust boundaries of cases at the outset (Zosky, 2013, Yin, 2009, Yin, 2003), which is a requirement for a robust study using a case study methodology.

Ethnography was not suitable because of the heterogeneity of the sample in terms of geography, discipline and aspects of the participants' employment (Swidler, 2000). The question was concerned with identifying the pattern and nature of experience influencing individual conduct of the role within the

community of case managers across all sectors in England and Wales rather than the definition of a specific cultural group (Percy et al., 2015).

Interpretative phenomenological analysis (IPA) focuses on the participant's voice and incorporates the researcher in interpreting the data. IPA was rejected because it draws on a prescribed theoretical framework to focus on a single lived experience only rather than a spectrum of experiences (Supiano and Vaughn-Cole, 2011, Brocki and Wearden 2006, Biggerstaff and Thompson 2008).

Grounded theory was not considered appropriate because the inquiry was concerned with exploring patterns of informal learning experience. There was no intention to develop a theory (Charmaz 2012, Jensen, 2007).

Narrative Inquiry was deemed unsuitable because the exploratory nature of the study was concerned with identifying a pattern in the range of informal learning experiences across the spectrum of participants (Goldberg et al., 2015, Webster and Mertova, 2007). Table 2 summarises examples of where specific methodologies have been used in the investigation of informal learning arising from experience and why they were rejected for the current study. Bellamy et al (2016, p672) describes this analytical approach as a *"methodological toolbox*" from which to confirm the most appropriate methodology for the question.

Table 2 Comparison of Established Methodologies

Methodology	Key approaches	Example of how experience influenced the conduct of practitioners	Reason for rejection
Case Study	Seeks to investigate questions of how or why about an event/s within a context. The size of cases range from individuals to organisations, countries etc. Cases must be bounded (Yin 2009).	Van Breda (2012). Use of on line reflective diaries and post course reflections in a formal learning context to establish whether personal reflection on life experiences using E journaling enabled deeper learning. (Zosky 2013). Investigation of how personal experiences of family violence of social work students influenced their experience of a domestic violence course.	Case study methodology is not suitable for the current study. From the outset, it was not possible to establish a boundary to the case/cases in advance because the context was prior to data collection was unknown in terms of: • profession • type of employer • nature of organisation • location of CM activity • model of CM delivery The question is concerned with gathering data from the broadest perspective of CM delivery.
Ethnography	Investigates patterns in the lives of a specific community. Data is collected from interviews but the researcher spends time within the community and forms a connection with the people concerned (Agrinosino 2007).	(Swidler 2000). Investigation of telling personal experience stories in the context of a peer group of teachers.	The researcher is a member of the community being investigated. Thus she did not set out to work alongside or within a particular group of TBI case managers to reveal insights/patterns in their lives. Instead the study seeks to establish whether there is a pattern of informal learning influences on the conduct of professional work and how this is applied.
Interpretive Phenomenological Analysis (IPA)	IPA investigates specific lived experiences of people for example living with back pain. Researchers interpret how participants understand their experiences whilst presenting the views of the participant accurately (Cassidy et al 2009).	(Supiano & Vaughn-Cole, 2011). Investigation of impact of personal experience of loss and bereavement on professional practice amongst health care professionals.	This study is interested in the range of informal learning experiences that are used to deliver the role across the spectrum of disciplines and organisations providing case management to people with TBI.
Grounded Theory	Grounded Theory sets out principles and techniques to obtain and analyse qualitative data from which to build a theory. Researchers adopt an inductive approach and iteratively analyse the	(Jensen, 2007). Investigation of how personal life experiences influence the delivery of practice of 8 psychotherapists. (Pascual-Leone et al., 2013). Explore change in	This current research is an exploratory study. The aim is to seek patterns, identify and investigate whether similar informal learning experiences are reported across the spectrum of case management provision. The study does not aim to

Methodology	Key approaches	Example of how experience influenced the conduct of practitioners	Reason for rejection
	data (Charmaz 2014).	student psychotherapists undergoing a master's degree course on experiential-integrative psychotherapy.	develop a theory.
Narrative Inquiry	Aims to form a sequence of events from the stories of participants (Webster, Mertova 2007).	(Goldberg et al., 2015). Exploration of personal experiences of mental illness in social work students.	The study is interested in identifying whether there is a pattern of informal learning experience across a wide spectrum of different practitioners undertaking the role not just from stories of one professional discipline.

The review of the established qualitative research methodologies summarised in Table 2, confirmed that these approaches did not adequately support the exploration of the question. Other literature investigating informal learning in the workplace had insufficient methods for measuring conditions that were conducive to learning (Skule, 2004). Consequently, further investigation was undertaken to identify an appropriate methodology. At the time the study was being planned this involved undertaking a detailed critique of the available literature investigating the impact of informal learning from personal experience on the conduct of professional roles. The methodologies used in these papers were scrutinised to identify approaches that offered coherence with the researcher's ontological and epistemological framework within a social constructionist paradigm. A brief summary evaluating other informal learning theories that are not considered in this study may be found in Appendix B. This also sets out the researcher's critique of why the established methodologies were not appropriate to answer the question. Some of the reasons that established methodologies were unsuitable include: qualitative description where the data is not interpreted (Brodribb et al., 2007), surveys that would not facilitate in depth exploration (Woolf et al., 2007, Patiraki-Kourbani et al., 2004) or grounded theory as the study did not aim to develop a theory (Pascual-Leone et al., 2013, Saunderson et al., 1999). Of particular relevance to the current study are authors who recommend that studies should use a variety of different methodologies to explore fully the impact of experiences in the conduct of professional roles (Niemann et al., 2017, Doornbos et al., 2008).

The review of studies investigating how personal experience influences professional practice confirmed that there was a mixture of quantitative and qualitative approaches. Notably these studies recognise the contribution of qualitative inquiries in this under-researched topic (Whyte et al., 2013, Woolf et al., 2007). Within these methodologies several used specific methods (Brodribb et al 2007, Woolf et al 2007, Saunderson et al 1999). The review of literature investigating different methodological positions identified that established methodologies were not suitable to answer the question. Consequently, the decision to use generic qualitative research was made. An explanation of generic qualitative research and the rationale for adopting this methodology will be discussed subsequently.

5.3.1 Methodology of Choice: Generic Qualitative Research

The need to use a methodology that supported a social constructionist and interpretivist approach was fundamental (Kennedy, 2016, Kahlke, 2014). This is because the researcher's own ontology and epistemology aligns with a social constructionist theoretical framework on which the formation of the question, design and conduct of the study rests. A further influence was the need to apply a methodology that built on a theoretical foundation of social constructionism and informal learning from experience. Of the papers describing generic qualitative research, definitions differ slightly. For the purposes of this study, generic qualitative research methodology is defined as a methodology that aims to investigate the subjective views, experiences and reflections about a particular group of peoples' experiences of the outside world (Alianmoghaddam et al., 2018, Percy et al 2015, Cooper et al 2007, Caelli et al., 2003). Support for this methodology is found in the extensive work of Jarvis who recognises the importance of investigating the interpretations of prior experience to inform learning (Gouthro, 2017, Jarvis, 2015, Jarvis, 2008, Jarvis, 1987). This methodology has been adopted because it is not wedded to any specific theory and thus allows creative flexibility to establish a bespoke research design. The advantage of generic qualitative research enables the design of a coherent methodology to answer questions that do not fit within established research methodologies. This is essential to enable deliberate use of methods that are philosophically compatible with the researcher's paradigm and social constructionist theoretical framework. In particular, because informal learning from experience had not been explored amongst a group of case managers,

generic qualitative research enables a bespoke study design. The decision to pursue a generic approach was informed by factors listed below (Kennedy 2016, Kahlke et al 2014, Caelli et al 2003). Which include:

- the nature of the question;
- the researcher's social constructionist philosophy;
- the context of the researcher's professional position in identifying nuance and meaning;
- the need to use suitable and compatible methods by which to acquire, interrogate, understand and present the data on informal learning through experience;
- a means to demonstrate rigor;
- the background assumptions and knowledge of the researcher shaping her interpretive analytical lens;
- the location of the researcher at the centre of the spectrum of newly constructed knowledge;

Generic qualitative research methodology is appropriate because it supports a researcher's use of their knowledge and experience in actively investigating communities to which they belong (Percy et al., 2015). This is of relevance when exploring how individuals within a particular group reflect on the impact their personal informal learning experiences have had on an aspect of their professional lives. Consequently, generic qualitative studies frequently use methods that gather information inductively from a broad sample of people that will be interpreted by the researcher (Bellamy 2016, Percy et al 2015, Kalkhe 2014).

Criticism of generic qualitative research highlight fundamental concerns. Absence of a universal theory leads to the allegation of a dearth of underpinning literature to shape and direct this methodology (Bellamy et al., 2016, Kahlke, 2014). Generic qualitative research has responded to this by clarifying the researcher's theoretical assumptions from which a bespoke methodological framework is designed. This involves clarifying every aspect of the study and the decisions taken in selecting methods that demonstrate coherence throughout every level of the research (Caelli et al., 2003). Use of different methods can lead to *"method slurring"* (Kahlke, 2014, p13), i.e. methodological inconsistency and confusion that undermines the production of knowledge (Kennedy, 2016, Kahlke,

2014, Neergaard et al., 2009, Holloway and Todres, 2003, Baker et al., 1992). In contrast, some methods such as interviewing are used across methodologies and thus are flexible in how they may be incorporated into research design (Pouliot, 2007).

To counteract the criticisms of generic qualitative research, this study highlights four key pillars that underpin the choice of a generic qualitative research methodology (Creswell, 2013). Firstly the study is located within the constructionist interpretivist paradigm (see paragraph 5.2.7) (Vall Castelló, 2016, Hosking, 2011, Lock and Strong, 2010). Secondly, this means that the researcher views her role as integral in the conduct and interpretation of the study; the choice of methods cascade from this. Thirdly, the values of the researcher contribute to the construction, interpretation, and language used in the presentation of the data (Ponterotto, 2005, Guba and Lincoln, 1994). Finally, these aspects combine to create a coherent research design that is appropriate to answer the research question and ensure rigor (Kahlke, 2014, Holloway and Todres, 2003, Lincoln and Guba, 1985).

The use of a generic qualitative research methodology has been determined by a detailed review of established methodologies and the literature investigating the impact of informal learning on the conduct of professional roles, underpinned by the researcher's assumptions. A detailed explanation setting out how each component of research design has been selected deliberately to contribute to the overarching project will follow.

5.4 Research Approach

In England and Wales, the occupation of case management is a comparatively new discipline having emerged in the last 30 years (Lannin et al., 2012, Parker, 2006). Consequently, the views of the people delivering the role are fundamental and valuable in establishing an overview of experiences that inform the role across a diverse group of practitioners. Thus, gathering data from the case manager's (expert) point of view is essential to answering the question (Mason, 2007, Burrell and Morgan, 1998, Guba and Lincoln, 1994). Every informal learning experience that participants describe as informing the conduct of their role will be considered equally.

One reason for deliberately including TBI case managers based in many different settings, is to establish what experiences contribute to the informal learning knowledge base. This will assist in identifying whether these experiences occur in a pattern. Exploration of how a group of people who undertake the same occupation construct knowledge can best be achieved by gathering data from participants who are deeply rooted within the construction of the social context of their world. Generic qualitative research places the researcher at the centre of knowledge construction (Kennedy 2016). Therefore, undertaking detailed one-to-one interviews with people performing this role is the most appropriate means of capturing their views. In accordance with the exploratory nature of this inquiry, an inductive approach where the data drives the analysis and enables the co-construction of new ideas, information and themes, is appropriate (Boyatzis, 1998).

As stated earlier (see paragraphs 5.2.7 - 5.2.9), social constructionists recognise that language is critical in the establishment of knowledge. Language is fundamental to communicate reality and explain behaviour. It is not confined to the spoken or written forms but may draw from a variety of means, including speech, images, print, film, construction, music, etc. (Lock et al., 2010). In this research, the language that participants use will provide the richest source of data. In considering the experience of practitioners who case manage people affected by TBI as a group, it is possible that they will have developed their own language to convey, affirm, bound and create a sense of identity for at least some of the people in the "community". For this purpose, a semi-structured interview format was considered suitable to support an inductive approach (Fontana and Frey, 2005) and to enable participants to narrate their experiences drawing on language with which the researcher is familiar.

All language demands interpretation and a separate philosophy (Hermeneutics) has developed highlighting the fundamental role of language to the understanding of humankind (Ramsberg and Gjesdal, 2005). Whilst language is important, other influences including the diversity of backgrounds, employment configurations, experiences etc. mean that understanding the breadth of the subject will require detailed interpretation of the data. Investigating a community to which the researcher belongs means that there is a tension arising from a dual role as peer and researcher. In this study the researcher, acknowledges her status as an "insider" with practical experience (Hayfield and Huxley, 2015) and

an outsider by setting herself apart to gaze on the experiences of peers (Arber, 2006). Consequently, both roles have been used as an interpretive mechanism in the research process. The researcher adopts her own experience in this industry as the analytical lens through which the data has been investigated (Valentine, 2007). In an attempt to ensure clarity of the research process, where a particular position is adopted the obstacles and opportunities arising from this are clarified. Contradictions have been embraced to facilitate deeper understanding of the data (Simons, 1996).

5.4.1 Research Approval Process

The research approval process ensured that the breadth of issues influencing the conduct of the study had been fully considered. Following peer review, university sponsorship and insurance was obtained. At the time this study was being developed, all research involving members of staff in statutory services was assessed via the integrated research application system (IRAS, 2018). This online process enables researchers to provide comprehensive and detailed evidence about all aspects of study design (for example see Figure 1). As a novice researcher this was helpful in reflecting on a wide range of factors that may cause challenges to the conduct of the study (Tracy, 2010).

Each statutory service required different information but an application to recruit NHS staff was considered valid for applications in social services. Ethical committee approval was given with two minor amendments required but the committee commended the thoroughness of the application (Appendix C). Approval to approach probation services was granted by National Offender Management Service (NOMS) within a few days of the IRAS form being submitted to their organisation (Appendix D).

An NHS research passport was required from a nominated “lead” NHS site where research would be conducted. Without this, researchers who are not employed within the NHS are prohibited from recruiting participants. When the lead site was established, the researcher attended a research conduct course. On receipt of an NHS research passport the researcher was able to approach other statutory service sites for participants (Appendix E). Details of the recruitment process for participants is discussed later (see paragraph 5.5.2).

5.4.2 Data Protection

To conform to the Data Protection Act and in order to maintain the privacy of individuals, the researcher requested that the organisations that were approached during the recruitment phase forward the email and/or letter to its members or employees (Appendix F). The organisation determined whether they wished to distribute the information by post or email. Every organisation preferred to distribute the information electronically. All documents were converted into PDF files and forwarded to the organisations (Appendix G). On receipt of the email inviting them to participate, respondents had between 6-8 weeks to reply (Appendix H).

5.4.3 Risk Assessment

The hazards that could cause physical or psychological injury to participants or the researcher were considered thoroughly (Health and Safety Executive, 2009). A full risk assessment and a harm minimisation approach were taken in accordance with University of Southampton and professional guidelines (CMSUK 2009). In terms of the safety of participants and the researcher, physical risks were considered negligible because the method of gathering data was via interview.

Prior to interview, the details of the participants' address and telephone number of the venue were recorded and placed in a sealed envelope. This was given to a family member of the researcher with instructions to telephone if not contacted within an agreed timeframe. The envelope would then be opened and the telephone number of the participant called to determine the whereabouts of the researcher. This system was not required. The researcher took responsibility for personal safety and welfare, for example identifying the location of fire exits prior the interview. The risks arising from travelling away from the workplace and using public transport are the same for any member of the public. In circumstances where the interview took place during winter months, transport was planned to ensure safety. A combination of public and personal transport was used; a fully charged mobile telephone was available at all times. It was not envisaged that the research participants were likely to present a physical or psychological risk because they had undergone enhanced criminal record bureau

checks[5] and had been cleared to work with a vulnerable population. All interviews were arranged with the participants in advance. Due to the nature of the client group the researcher supports, an established emergency call procedure was available that would enable the police to be summoned urgently if necessary. The need to invoke this procedure did not occur.

From the outset of the research, it was difficult to anticipate what psychological injury participants could have sustained as a result of partaking in this study. In accordance with the application via IRAS (2018), the researcher set out a process of how she would respond if participants raised a topic that subsequently became distressing to them. This involved advising participants to seek advice and support from an appropriate source such as their GP or professional organisation.

As a General Nurse registered with the Nursing and Midwifery Council, the researcher is bound by this professional code of conduct. The ethical issues identified in the development of this study include:

- Identification of unsafe practice.
- Breach of confidentiality.
- Case Managers known to the researcher who may wish to participate.
- Management of risk.

In considering what to do if a participant disclosed information that caused concern regarding unsafe practice a process was developed as illustrated in Figure 1. It was not necessary to instigate this process in any of the interviews.

[5] Now known as the Disclosure and Barring Service

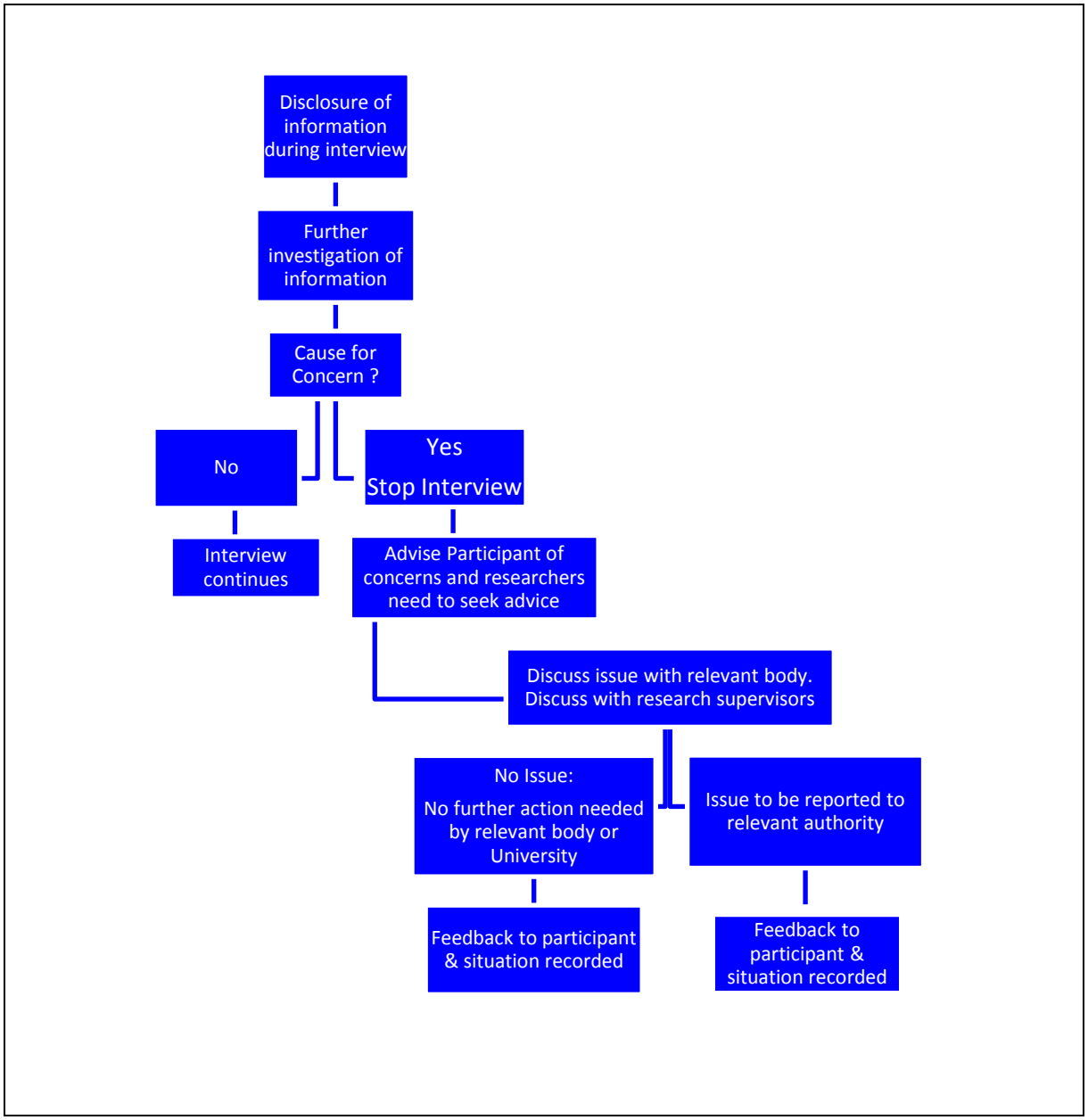

Figure 1 Procedure for Responding to Information Causing Concern

As soon as the research approval process had been completed, the study commenced. The following section discusses the methods chosen to answer the question in further detail.

5.5 Research Methods

5.5.1 Inclusion and Exclusion Criteria

The researcher acknowledges the diverse range and configuration of case management services for people affected by TBI (You et al., 2015). Thus, to

explore fully the influence of informal learning on the conduct of the role, participants were drawn from a broad spectrum of services, disciplines and geographical locations. The inclusion and exclusion criteria focused specially on the provision of case management to people affected by TBI. These are set out in the following table.

Table 3 Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion criteria
Provide case management to people with TBI	Provide a case management role but are currently working with the researcher in the management of a person with TBI. (To maintain professional boundaries for clients and staff).
Have a job description or role profile that refers to the rehabilitation, care, support or management of people who have sustained a traumatic brain injury.	Work in the researcher's organisation. (To maintain professional boundaries for clients and staff).
Work in an organisation delivering case management to people with TBI in statutory services, the 3rd or independent sector.	

5.5.2 Sample Identification and Recruitment

Within generic qualitative research, a researcher's knowledge in creating the topic is seen as fundamental (Morse et al., 2002, Percy et al., 2015). The researcher has worked in the developing field of case management for over 19 years. During this time she has regularly presented at case management conferences and training events. She has also served on committees of case management organisations that have published Standards of Practice (Ainsworth et al., 2009) and a code of ethics for case managers (Harrison et al., 2008). Consequently, her profile as an experienced case manager may have been known by other case managers working throughout the UK. This supported the recruitment of participants because a number of TBICMs within the professional network indicated their enthusiasm for the study and their willingness to participate. Those people who responded to the invitation and met the inclusion criteria were recruited to the study.

Studies investigating personal experiences of a specific professional group such as nurses, where the researcher shares the same background, frequently use a purposive sampling approach (Berger, 2015, Byrne et al., 2015). Generic qualitative research is used in inquiries where the breadth of views and thoughts

from a wide spectrum of participants are gathered (Bellamy et al., 2016, Percy et al., 2015, Palys, 2011, Procter et al., 2010, Bakitas, 2007). This study concerns what and how informal learning experiences of a diverse group of case managers influence conduct of their role. Consequently, purposive sampling approach was used (Brodribb et al., 2007, Patiraki-Kourbani et al., 2004, Saunderson et al., 1999).

Participants were approached in a number of ways including indirectly via email from their relevant case management organisations, employer and an advert in professional bulletins and newsletters (Appendix G). Participants were also made aware of the study at conferences, training events and networking meetings. For example, some people were approached via mutual colleagues within the professional network, a process known as snowball sampling (Procter et al., 2010, Heimer, 2005). As the researcher is a member of the South West England psychology forum, an advert was circulated to local members via their newsletter inviting respondents (Appendix G). Some participants recommended that other practitioners contact the researcher because they had found the process interesting and beneficial. Details of organisations that were most likely to provide case management, such as brain injury rehabilitation services, were gathered from internet searches and professional networks. Participants were recruited from a range of organisations and professional backgrounds. Table 4 illustrates the types of organisations that were approached to recruit participants together with the variety of professionals who are known to deliver this role.

Table 4 The Range of Organisations and Professional Backgrounds of TBICMs.

Range of Organisations	Professional backgrounds
• Social Services • NHS Trusts • Probation Services • Not for Profit/ Third sector organisations • Independent organisations case managing clients with TBI	• Clinical Psychologists • General Nurses • Learning Disability Nurses • Mental Health Nurses • Occupational Therapists • Physiotherapists • Probation Officers • Social workers • Speech and Language Therapists • Teachers

Respondents were given a choice of how to reply to the invitation to participate including via email, telephone or freepost reply slip to indicate their interest. Three respondents returned the reply slip, and, a further three stated they would like to participate during discussion at a conference (Appendix H). Respondents were telephoned or emailed (according to their preference) to establish their willingness to take part, screen for their eligibility, answer any questions and arrange a mutually convenient interview at a suitable location. A participant information sheet (PIS) (Appendix J) and a consent form (Appendix K) was sent to all participants in advance of the interview. Eligibility to participate in the study was determined by the inclusion and exclusion criteria outlined in Table 3 (see paragraph 5.5.1). The process by which participants were recruited involved circulation of invitations to join the research study via different means. Respondents who met the inclusion criteria were interviewed. The process of accessing participants is illustrated in Figure 2.

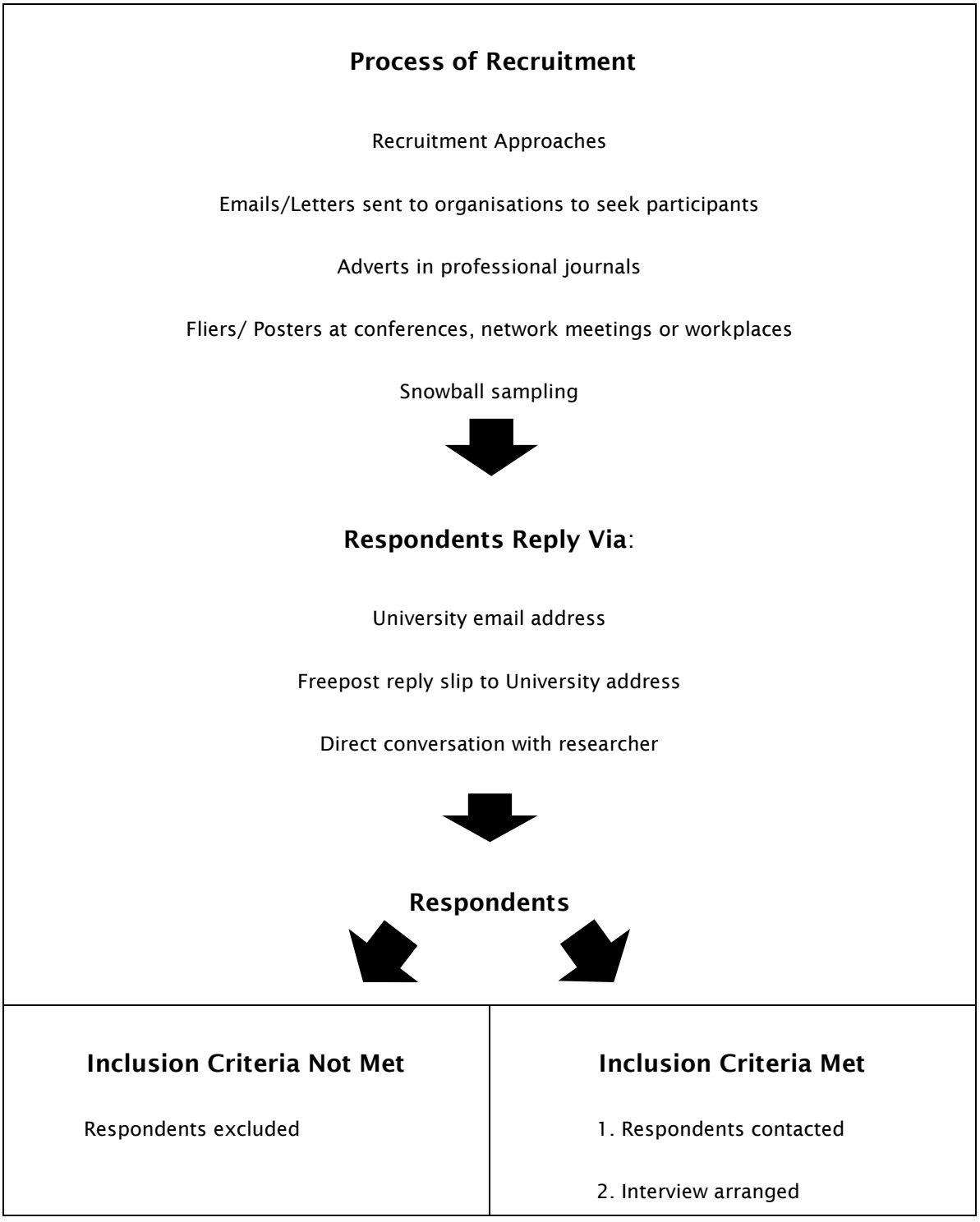

Figure 2 Process of Recruiting Participants

A review of the literature undertaken to determine an appropriate number of participants for the study revealed discrepancies according to type of research method (Creswell and Miller, 2000, Morse, 1995) and nature of enquiry (Charmaz, 2007b, Guest et al., 2006, Leedy and Ormrod, 2005, Palys, 2011, Gaskell, 2000, Kuzel, 1999, Bernard, 1995, Leninger, 1985). Numbers ranged from six (Kuzel, 1999) to 60 (Leninger, 1985). However, a study involving 60 interviews of sex

workers based in two different countries found that twelve interviews generated all the necessary codes for analysis. Furthermore, the most significant themes were identified after six interviews (Guest et al., 2006). This view is supported by Gaskell (2000) who considered that increasing the number of interviews does not necessarily improve the standard of knowledge obtained.

Most studies that explore matters where knowledge is broadly disseminated across a population are considered to require a small number of participants only to generate data that will amply explain the issue being investigated (Guest et al., 2006). This suggests that because purposive samples are based on a common factor, there is no need for large numbers of participants. Gaskell draws attention to the fact that for a single interviewer, a ceiling of 25 interviews would be sufficient due to the volume of the data generated (Gaskell, 2000). However, generic qualitative research aims to recruit larger samples than other methodologies (Bellamy et al., 2016, Percy et al., 2015). In accordance with generic qualitative research, the study question was concerned with identifying informal learning that generated knowledge for the conduct of practice. This influenced the decision to include participants from as many different backgrounds as possible. Based on the diverse range of potential professional backgrounds and employment configurations within which case management is delivered, a sample of 30 participants was considered to be the maximum needed (Onwuegbuzie and Leech, 2005). As data would be collected and analysed throughout the course of the study, fewer interviews would be conducted if data saturation was achieved (Bakitas, 2007).

5.5.3 Rationale for Use of Interviews

In qualitative studies, two approaches frequently used to collect data that gather opinions and recollections of personal experience include focus groups (Plummer-D'Amato, 2008) and interviews (Mason, 2007a, Fontana and Frey, 2005). Focus groups involve gathering a small number of people together to discuss a particular issue in order to gather opinions and views. As participants were drawn from locations throughout England and Wales, this approach would create numerous logistical difficulties. A focus group may inhibit debate of deeply intimate experiences, and some participants with strong personalities may dominate discussions or cause some individuals to feel exposed and embarrassed (Plummer-D'Amato, 2008). Interviews with individual participants were

considered more appropriate for this research to enable sensitive matters to be explored.

The way in which interviews are conducted varies; for example, in person, by telephone (Sturges and Hanrahan, 2004) or over the internet (Kvale and Brinkmann, 2009). Telephone interviews may offer anonymity to participants when describing personal or embarrassing matters. Face to face interviewing enables the researcher to identify and respond to non-verbal cues (Legard et al., 2003). In turn this fosters the ability to build a rapport and respond sensitively when required (Irvine et al., 2013). Interviews undertaken via webcam enable researchers to see the participant's face, but other cues and influences are less apparent and may limit the researcher's ability to appreciate environmental influences on the conversation (Deakin and Wakefield, 2013).

Depending on the nature of the research question the format of the interview may be structured, unstructured or semi-structured (Leedy and Ormrod, 2005, Legard et al., 2003). A structured interview does not permit the researcher to ask spontaneous questions and therefore would not enable deep exploration of issues raised by participants (Kvale and Brinkmann, 2009). In contrast, an unstructured interview approach was not considered suitable because the research question aimed to investigate informal learning experience and the researcher was concerned that some participants may need prompting to recall incidents outside of formal learning processes (Legard et al., 2003).

Generic qualitative research and methodologies conducted to gather the individual views and experiences of a group, often uses semi-structured interviews (Percy et al., 2015, Goldberg et al., 2015). For research undertaken by a peer, semi-structured interviews enables an interviewer to probe responses by drawing on their insider knowledge (Bellamy et al., 2016, Percy et al., 2015, Byrne et al., 2015, Wofford et al., 2013). Furthermore, when an interview is conducted by someone who has a shared background or experience as the participant, the mutual understanding supports the co-construction of data based on trust and empathy (Greene, 2014, Fisher, 2011, Coar and Sim, 2006, Merriam, 1998). Using semi-structured interviews has particular relevance for investigations of specific groups of people such as a profession, community or affiliation of which the researcher is a member and who may be described as an "insider" (Hayfield and Huxley, 2015, Brunero et al., 2015, Greene, 2014). The arguments

supporting insider and outsider positions recognise that each brings its own strength and perspective (Brunero et al., 2015). Insiders recognise their dual role as someone who understands the nuances and subtleties of the group being studied and consider that this provides a valuable level of insight and understanding not accessible to an "outsider"(Muhammad et al., 2014). In particular, researchers who are insiders investigating informal learning that influences workplace practice are well placed to draw on their store of knowledge from which to tease out ideas from participants that are relevant and meaningful to them (Eraut, 2000). Outsiders are those researchers who have an interest in the population being studied but do not share the same experiences or identities (Gair, 2012). For example, outsiders may identify a commonly unnoticed issue that insiders take for granted (Hayfield and Huxley, 2015, Greene, 2014). However, in this study the researcher recognises her dual role as an insider and outsider because of differences in academic and professional training that some participants have experienced. The researcher has been able to adopt the role of an insider because of her work developing the case management profession together with her professional experience case-managing people affected by TBI. In contrast, her stance as a researcher sets her aside from the population under investigation. This has been referred to as an "inbetweener" indicating that researchers more frequently occupy a position on a spectrum rather than being located in a singular perspective (Hellawell, 2006). Thus, the researcher's knowledge as an insider and her research training combined to enable analysis of the data in a way that recognised and incorporated the variety of influences on the collection, analysis and presentation of the results. The role of the researcher will be discussed in more detail (see paragraphs 5.6 and 5.8).

In this study, undertaking semi-structured interviews to collect data lent support to the insider role and enabled the establishment of a rapport with participants (Spaan et al., 2016,Byrne et al., 2015). Semi-structured interviewing supported a flexible approach, for example enabling exploration of statements in greater detail (Charmaz, 2007a). An advantage of undertaking face-to-face interviews is that it exposed the researcher to numerous cues such as facial expressions, gestures and body posture that emphasised meaning of the spoken word (Fontana and Frey, 2005, Merriam, 1998). Conducting semi-structured interviews also enabled the demonstration of the researcher's active listening by maintaining eye contact and sustaining the engagement of the participant through reflective questioning (Edmunds and Brown, 2012). Semi-structured

interviews were conducted and shaped by an interview guide (Appendix I) rather than rigid adherence to questions in a particular order. This decision was taken to enable the question to be investigated from the perspective of the participant more thoroughly. The flexibility of this approach also facilitated an opportunity for participants to reflect and discuss any of their experiences that they believed had provided informal learning for the role (Jootun et al., 2009). This also enabled the researcher to draw on her role as a case manager to explore ideas and experiences raised by participants that may not have been appreciated by others (Eraut 2000).

Ten questions formed the basis of the interview guide. The first four questions asked participants to describe their age group, professional background, the organisation in which they were employed, and how many years they had been undertaking their role (Klink et al., 2012). The purpose of this was to provide a non-challenging introduction to the participant and gather some contextual background data (Gaskell, 2000). The second part of the interview encouraged participants to recall personal experiences that they considered provided informal learning to support conduct of their case management role. Using a semi-structured interview with professional peers (Coar and Sim, 2006) enabled the researcher to guide the interaction toward a conversational style (Pole and Morrison, 2003) that aimed to support participants describing the informative experiences occurring in everyday life (Pole and Morrison, 2003). This has been described as *"the tool of tools*" because meaning and understanding are established within the course of the interview (Osborne and Dillon, 2007 p1444).

5.6 Research Process

5.6.1 Data Collection

Interviews were held in a convenient venue chosen by the participant such as an office in their organisation that offered an appropriate environment. Prior to each interview, the researcher re-confirmed that the participant met the inclusion criteria (Table 2), and had read the participant information sheet (PIS) (Appendix J). Additional copies of the PIS were taken to the interview and participants were invited to re-read this before the process commenced. Written consent was obtained prior to the audio recording of each interview (Appendix K). A digital recorder was used to ensure that the whole interview was captured and could be

transcribed accurately (Mason, 2002). On completion of the interview, the sound file was transferred to an encrypted storage system and then deleted from the recorder to ensure confidentiality was maintained. During the set-up of the digital recorder, the process was explained to the participant including their right to stop at any time. The researcher also explained she would make notes during the interview as part of a reflexive approach to the understanding and analysis of the data.

When arranging the interview, several respondents asked whether they needed to prepare for this. The researcher explained that she wanted to investigate the breadth of personal experiences that participants consider have enabled them to learn their role. This included their journey into case management of people affected by TBI and their current professional background. Three participants raised matters from notes they had made prior to the interview. In addition, the researcher recorded thoughts, feelings and observations before, during and after the interview to gather reflexions and insights that arose during this process (Lincoln and Guba, 1985). All entries from the research diary before, during and after the interview have formed part of the analysis and the subsequent findings discussed in Chapter 7. The researcher anticipated drawing on her work as a TBICM to share cultural knowledge of the role to encourage participants to discuss their informal learning experiences freely (Coar and Sim, 2006). The researcher now recognises that this position provided her with a sense of confidence and reassurance when designing the study.

5.6.2 Sharing Transcriptions with Participants

The mechanism by which knowledge is constructed between the interviewer and the participant is language. This is framed within a shifting power dynamic between the communication partners that changes during the conversation (Foucault, 1980). In the past, researchers have engaged in what would now be considered unethical behaviour, for example, manipulating participants to access data (Fontana and Frey, 2005). This has given rise to research techniques that attempt to adjust the power balance between researchers and participants. Examples include providing interviewees with a copy of their transcribed interview and an invitation to respond further or to check accuracy (Karnieli-Miller et al., 2009). The researcher considered a range of factors in deciding whether to return the transcripts to the participants in this study. This included

recommendations in the literature and the practical aspects of the process (Murdoch et al., 2010, Mallon, 2008, Mason, 2007c, Coar and Sim, 2006, Forbat and Henderson, 2005). Transcription of interviews that include all features of speech such as pauses or laughter is known as a naturalistic approach. A de-naturalistic approach would transcribe the spoken word only (Oliver et al., 2005). In this study, a naturalistic approach to the transcription of interviews has been used and all interviews have been transcribed ad verbatim. The whole transcript has been used in the analysis (Strauss 1987). This means that all features of speech such as pauses or laughter have been included (Oliver et al., 2005). Social constructionists acknowledge that language is core to the specific aspect of the group, culture or society to which they belong (Merriam, 2009, Cunliffe, 2008). Whilst discourse between individuals occurs spontaneously, their experiences are recalled and related in different ways in accordance with their tradition (Corlett, 2013). Furthermore discourse is seldom reviewed ad verbatim. An accurate record of what has been said may illustrate poor grammar that may be embarrassing in the context of discussion with a peer. In addition, participants may be disconcerted by the confrontation of the bluntness of their words on paper (Forbat and Henderson 2005). Returning transcripts to participants therefore may not empower the participants but the reverse, undermining the original intention.

The interview has been conducted in a specific context for both the participant and the interviewer. The political, employment and professional experience may have changed between the date of the interview and the receipt of the transcript. In addition, the participant will have been exposed to new information and experiences that could shape and influence their views. This may change their perspective. Delays in returning the transcript to the participant or a difference in the participants' memory of what or how they conveyed the information seen in the written text, could lead to their rejection of data authenticity. Consequently returning transcripts to participants may undermine participant's view of their contribution. This could create future difficulties for the researcher in research and professional contexts (Forbat and Henderson 2005).

Whilst there is a case for engaging participants in the research to facilitate groups of people to be heard, Angrosino (2005) challenges post-modernist values that aim to represent the truth by in engaging research participants. He argues that most subcultures are sufficiently capable to raise their own voices. As people

providing case management frequently need to advocate for people with TBI, this is likely to be true (Hekkers, 2005). Furthermore, the influence of many factors suggest that the truth cannot be categorically determined by returning to research participants to check for accuracy (Tracy, 2010, Angrosino, 2005).

Forbat and Henderson (2005) highlighted that transcribing is an active and creative process and it is the responsibility of the researcher to clarify the background context of both the interview setting and its related features that will influence the analysis of the transcript. Generic qualitative research acknowledges the researcher, their values and the interpretive lens they use as central to the construction of knowledge. Consequently enabling participants to influence the data after the interview may restrict the researcher's scholastic and educational freedom (Karnieli-Miller et al., 2009). The researcher acknowledges that each individual will have a variety of different experiences all of which have been true for them but every participant would approach their transcript from their own perspective. This would contribute but not constitute knowledge constructed from the wide sample of case managers, whereas the researcher had the benefit of accessing a much wider array of data from which to construct a broader interpretation of knowledge (Morse et al., 2002). For all the reasons outlined above, transcripts were not returned to participants. At the end of each interview, the researcher confirmed that a summary of the results would be sent to each participant on completion of the research. Some participants also requested a presentation to a group of colleagues on completion of the research. During conduct of the study, the researcher has presented findings at local, national and international research and case management conferences. She has also presented to peers at meetings and seminars to share findings with a wide audience. This constituted, in principle, a type of member checking, whereas feedback from relevant stakeholders provided verification and reassurance of the emerging findings.

5.6.3 Pilot Study

A pilot study was conducted to test and develop the rigour of the research design and instrument (Teijlingen van and Hundley, 2001). Two people with experience of providing case management to people with TBI agreed to participate in a pilot study. The same procedure as in the main study (outlined above) was used. On review of both interviews, the researcher felt that her interview style adopted was

unsatisfactory. Body language, facial expressions and verbal responses could be considered to encourage the respondents in some areas and close down other topics. At times the researcher did not follow the guide and in her enthusiasm, she inadvertently asked leading questions. Following reflection and discussion with supervisors, the researcher decided that the data from the pilot study would be excluded. The researcher improved her interviewing style, through the use of hand written prompts on the interview guide; e.g. phrases such as "*tell me more*" (Charmaz, 2007a). This question is also used in other generic qualitative studies to encourage participants to speak freely about their experiences (Percy et al., 2015). Undertaking two pilot interviews was valuable to test out the tools used. This includes the interview guide as well as the recording apparatus and process of organising and undertaking the interview. The interview guide was effective and no modifications were required.

5.6.4 Data Analysis

The analysis of the data has been shaped by the researcher's social constructionist position, the aim to answer the questions within the study and exposure to a broad range of academic literature and practice. These influences are specifically located within the generic qualitative research framework (Kennedy, 2016, Kahlke, 2014, Caelli et al., 2003). The researcher acknowledges her deliberate and active role in constructing, analysing and interpreting the data that will have been shaped by her own perspective and knowledge available at that time (Taylor and Ussher, 2001). The researcher considered a number of methods to determine the most appropriate approach for the analysis, including thematic analysis, narrative analysis, individual phenomenological analysis and case study design (Quinn et al., 2008, Brocki and Wearden, 2006, Yin, 2003). However, not all these options were considered suitable to capture data that would answer the question in its fullest because the question seeks to explore informal learning experiences across the spectrum of case managers. The method of data collection also needed to reflect a social constructionist paradigm (Braun and Clarke, 2006). Generic qualitative research frequently uses thematic analysis because it is a method that is not bound to a specific theoretical framework and aims to establish patterns in the data (Percy et al., 2015, Joffe, 2012, Braun and Clarke, 2006). This means that rather than examining the experience of a single individual, thematic analysis is concerned with the

underpinning socially constructed influences; in the current research this concerns a group of case managers (Braun and Clarke, 2006).

In this study, a range of people with different professional and academic backgrounds provide case management to people with TBI. Simons (1996) emphasises the importance of investigating the multiple dimensions in order to appreciate the developments and consequences of education more fully. This is applicable to informal as well as formal learning. Eisner (1993) argues that there are multiple routes to knowledge. At the start of this study it was unknown whether there were clear patterns of informal learning experiences that inform the role of case managers of people affected by TBI. For this reason it was important to use a method that enabled every aspect of the research to pursue evidence of informal learning influencing the TBICM role. As this was an exploratory inquiry, an inductive thematic analysis was undertaken to support the development of themes that acknowledged a subjectivist transactional epistemology. Thus there was no attempt to force the data into a pre-established framework (Braun and Clarke, 2006).

Investigating the perspective of peers regarding how informal learning experiences influence their conduct of the role has influenced the analysis of data. Consequently, Marsick et al's (2008) analogy of informal and incidental learning is applicable here in the analysis of data because it encapsulates the way in which the spectrum of data was analysed as: *"multi-dimensional… iterative cycling back and forth among phases of the process….with frequent forays into conversation, work with other people and exploitation of a wide array of resources … providing new stimuli for further inquiry"* (Marsick et al., 2008, p591, Fereday and Muir-Cochrane, 2006). Whilst use of an inductive thematic analytical approach aims to support data coding in a way that bypasses pre-existing themes evident in the literature, the researcher acknowledges that an inductive approach to coding the dataset was through her interpretation. This was widely influenced by other issues outside the data including her own past informal learning experiences and the thrust of the inquiry to investigate whether there were patterns within informal learning (Braun and Clarke, 2006, Ely et al, 1997). As more interviews were undertaken the researcher's views at the start of the research changed and developed. This will be considered further in the discussion (see Chapter 7).

The paucity of research in TBI case management supported investigation into the breadth of informal learning experiences influencing the role. Consequently, a method was selected to enable thorough investigation of the data at all levels to enable identification of patterns of experience. This would not be confined to the participant's commentary about their experiences but include other aspects of the interaction such as the space where nothing is said, a facial expression or gesture that may convey deeper meaning (King and Horrocks, 2010). As there has been insufficient research to illustrate the most appropriate theoretical paradigm, an open approach to the current study is fundamental. The researcher used her knowledge as a practising TBICM as a lens through which to interpret and explore nuances that may be missed by others who do not conduct this role. This influence has been acknowledged in the construction, collection and analysis of the data; it is identified as adopting an "insider role".

In considering which analytic approach to use, thematic analysis appeared to offer the most flexible approach in the examination of areas that have not been investigated because it is not attached to a particular epistemology (Braun & Clarke, 2006). In particular, its value has been shown in exploring information gathered from interviewing people regarding their experiences, (Braun and Clarke, 2006, Aronson, 1994). The six stage approach to thematic analysis that has been used to analyse the data is illustrated in Table 5 (Braun & Clarke 2006).

Table 5 The Six Stage Approach to Thematic Analysis (Braun and Clarke 2006)

Stage of Thematic Analysis	Associated Activities
1. Familiarisation with the data	Researcher undertakes transcription of interviews. Identifies initial ideas.
2. Initial code generation	Labelling text within research transcripts and researcher notes. Identifying and weaving data together to construct the themes. Establishing a systematic coding frame across the data set.
3. Looking for themes	Collecting and organising codes into similar groups (themes).
4. Reviewing themes	Confirm whether the themes represent the coded data across the whole data set. Development of a schemata representing the analysis and themes.
5. Refining and labelling themes	Further analysis to clarify, define and refine each theme. Ensure that together all themes represent the story. Label each theme accurately.
6. Producing the report	Choosing pertinent extracts from the data to illustrate the theme. Further analysis as the themes are presented as a coherent picture that answers the question. Production of the report.

Thematic analysis is a method that facilitates comparison and illumination of patterns and diversity from multiple levels within the data. It also supports a relativist ontology by recognising that reality is constructed in multiple ways and acknowledges the role of the researcher in constructing and interpreting the data. Themes were identified during coding of the dataset. This involved a systematic approach where multiple coding was applied throughout the data (Braun & Clarke 2006). In circumstances where the same portions of text have different meanings, multiple codes have been applied. This has proved valuable because of the complexity and diversity of the subject. Coding has also involved combining components and fragments of ideas, issues, and experiences to reveal important aspects that, when viewed in isolation, may appear insignificant (Leninger, 1985). An example of how the coding frame developed has been

included (Appendix L). An extract illustrating the initial coding frame development is set out in Table 6.

Table 6 Initial Coding Frame Development Using Thematic Analysis

Coding Frame Development		
Theme	**Source and Line Number**	**Examples of Data Coded**
Voicelessness	Harrie line 480	(Gestures / pauses) It just went,whoomph! (pushes hands down).
Treated as stupid	Dee line 9	I was classed as you know oh well you're stupid.
Being able to present yourself differently	Francis Line 594	Because it wasn't Francis on the stage, it was Edna on stage.
Leaving the parental home	Billy Line 97	I physically couldn't bear being there in the house.
Carrying blame	Uzzia line 82	Whatever's going wrong, it's our fault.
Health symptoms unexplained	Chris line 38	They couldn't diagnose what it was.
Grief and loss	Pip line 68	That's another loss on top of all your other losses, so it's taught me about loss.
Mental health difficulties	Jo line 98	I've been so depressed, so absolutely depressed at times.
Fear	Alex line 269	It's a fear of mine.
Loss of identity	Lindsay 301	"*You've not got a qualification".* You know and there's some kind of… what's the word? **Snobbery** (Voice change).
Influence and power of the researcher	Niall 402 Researcher field notes (mid interview)	Sitting in meetings with case managers, well I can include you and say "my God I wouldn't have thought of that. That's really good, I'll remember that in the future". (on hearing this) Feeling humble and a bit bashful.

The interview data, researcher's field notes and research diary have been coded and incorporated into the analysis. The research diary analysis continued iteratively until no new themes developed. In setting out the analysis of the data, Table 7 provides a summary of how the data was analysed according to the stages of thematic analysis as indicated by Braun and Clarke (2006).

Table 7 Coding Stages Based on Braun and Clarke's Stages of Thematic Analysis (2006).

Braun & Clarke Stage	Example of Data Analysis
BC 1	Pre, during and post interview reflections.
BC 1/2	Listening to recording and typing transcript. Cross referencing to mid interview reflections. Making notes such as words that appear to summarise concepts on hard copy.
BC 2	Printing transcript, re reading interview, coding and adding new labels.
BC 2 /3	Loading transcripts into Nvivo, intense coding and recoding, adding memos.
BC 3	Half way through interviews and data collection initial themes created. These were: ●illness and disability, ●violence, ●not being listened to, ●rejection in childhood. Discussing work with peers at poster presentation at International Brain Injury Association conference, presentation VRA conference, research conference and case management seminars and meetings. Also debating ideas with academic peers, family and colleagues.
BC 1/2	Coding of remaining interviews as stage 1 and 2 above.
BC 3	When all interviews had been iteratively coded and recoded a further approach to coding commenced. This involved recoding data starting at the end of the interview and working toward the beginning and vice versa to refresh my approach to the data.
BC 3	Printing out codes and initial grouping together.
BC 3	Further re-coding and grouping.
BC 3	Collecting chunks and fragments of data according to codes.
BC 3	Highlighting text using colours to identify text with multiple codes.
BC 3/4	Establishing super ordinate themes; ● Identity, ● Illness injury disability, ● violence, ● role models and champions.
BC 4	Review of data within the coding frame and organisation of where the data sits.
BC 5	Refining labels. Identity becomes Shaping the sense of professional self. Organisation of chunks of data within themes.
BC 6	Development of sub-themes. Further data analysis to pool data that supports and refutes themes (E.g. Chameleon case management.

All the data has been coded repeatedly to enable deep and thorough analysis of the subject to refine and define the themes. For example, investigation of

differences and similarities within and between participants, in areas such as professional backgrounds, level of education, and the organisation in which they work, has been undertaken to gain a full and rounded understanding of the service they provide to people affected by TBI. Coding has included chunks of data, sentences and single words. In addition, the data has been analysed systematically both on a micro and macro level by looking at individual components and combining them to achieve deeper understanding of meaning (Braun and Clarke, 2006).

All written transcripts were imported into a specific project management package to help organise and manage the data (Nvivo 9) (Silver and Lewins, 2014). A detailed diary has been maintained throughout the research process. In addition, thoughts and reflections before, during and after each interview have been recorded and have been used to inform the interpretation of the data. The length of time the study has taken has enabled the researcher to *"step back and consider why things are as they are*" (Marsick and Yates, 2012, p173), and generate alternative explanations. Throughout the analysis, the researcher has discussed coding and the emergent themes extensively with supervisors, colleagues, peers, friends and family members. These people challenged the researcher's interpretation, thus providing different perspectives that helped her to attune to the development of themes. At times this felt uncomfortable but the process aided the researcher's examination of the data in order to establish whether themes and sub-themes would be substantiated. An excerpt from the research diary is included below revealing that she found the process challenging.

Vignette 4 Excerpt From Research Diary

6.2.2015

I finished coding today. It feels like I have completed a marathon. I described the process to my family and colleagues as having all kinds of materials in a builder's yard in order to build a house. These have been sorted, labelled and put into piles. I now need to design the house, configure rooms and build walls.

At the stage of starting to sort codes in August 2014 there were 362 codes by February 2015, there were 363 therefore no new codes.

The researcher's intent and the theoretical framework underpinning the research direct whether semantic or latent codes are ascribed to the data (Braun and

Clarke, 2006. Semantic coding tends to highlight obvious aspects in the data and patterns in word use. In contrast, latent coding is frequently associated with a constructionist approach because there is recognition that the construction of themes incorporates the interpretive stance and influence of the researcher (Bellamy et al., 2016).

Initially some codes were directly observable at a semantic level. However, as the researcher immersed herself in the data, further analysis led to the development of latent codes. For example self-critical, self-protection, self-reliance, self-understanding, solo, identity, isolated, unsupported were re-coded and regrouped providing new insights into themes that illustrated informal learning experiences under the heading of identity (King and Horrocks, 2010). This was subsequently reframed as shaping the sense of self. When incongruities arose in the data the researcher examined these discrepancies closely whilst continuing to code and recode data in order to identify and understand new insights (Simons, 1996).

5.6.5 Data Saturation

Saturation describes the position in research when no new themes or information are established from the data (Charmaz, 2007b, Morse, 1995). Recruitment of a specific sample is fundamental to ensure the saturated data is abundant, complete and achieved as quickly as possible (Morse 1995). One of the difficulties with qualitative research is that it is not always possible to determine accurately a suitable sample size in purposive data sampling (Guest et al., 2006). Deliberately open-ended questions were asked to explore the influence of informal learning experiences of TBICM in the conduct of their role. Consequently, it was possible that complete data saturation may not have been feasible. At the outset the researcher considered that data saturation would be achieved when no further information was collected (Fusch and Ness, 2015, Gerrish and Lacey, 2010) and following repeated cycles of analysis, no new themes were constructed from the data (Kennedy, 2016, Corbin and Strauss, 2008).

Data collection took place between September 2011 and November 2012. The researcher transcribed 13 interviews, usually immediately after the interview was conducted, as a means of immersing herself in the data. When the interviews could not be transcribed immediately, a professional transcription service was

used. On receipt of professionally typed interviews, the researcher listened carefully to each, checking for accuracy and making any necessary corrections. It was useful to re-engage with the data and commence the analysis of each transcript thus enabling identification of any new themes. Interviews were analysed continuously during the data collection phase. No new themes were identified after the 20th interview. Two further interviews were undertaken to confirm that data saturation had been achieved (Francis et al., 2010, Bakitas, 2007). Thus 22 participants were recruited to the study.

5.6.6 Ethical Position Guiding the Research

Several codes of conduct have been reviewed in designing this research including: Standards of Conduct, Performance and Ethics for Nurses and Midwives (NMC 2001), Case Management Standards and Best Practice Guidelines (Ainsworth et al., 2009) and Principles and Guidelines for Case Management Best Practice (BABICM, 2005). In addition, the statement of ethics produced jointly by CMSUK & BABICM (Harrison et al., 2008) has also been considered. The research has been undertaken in a way that does not discriminate on grounds of race, religion, gender, sexual orientation, disability or political ideology.

Given the expertise and length of service in the rehabilitation and case management arena, it is inevitable that the researcher knew several respondents. Participants were recruited according to the inclusion/exclusion criteria (see Table 3). The researcher works in a commercial organisation within the independent sector, consequently some people may have questioned whether conduct of the study would be used for commercial gain. The researcher abided by the Caldicott Principles in data collection (1997) and no information gathered has or will be used for business advantage (Appendix M).

When interviewing one's peer group there will be a complex array of views, feelings and beliefs which may be challenging for them to discuss with someone who shares their occupation (Quinney et al 2016). Social constructionist research acknowledges that contributions from all participants represent knowledge established between themselves and the interviewer; consequently, all data has been treated equally and respectfully (Lincoln and Guba, 2013). This is particularly relevant because of the heterogeneity of the group of participants. This means that the researcher should be sensitive to the power she/he holds as

an interviewer and handle all data responsibly and confidentially. This view presupposes that researchers are always mindful of how they behave within their role. Whilst the values held by the researcher have shaped the conduct of the inquiry, throughout the study she has attempted to acknowledge the constant change and influences that have shaped her (Follett, 1924). This is reflexively discussed in the following section.

5.7 Power

This section will define and discuss the concept of power and how it is understood to have shaped the study. Different definitions of power have emerged over time (Dahl, 1957). In this study, power is defined as a dynamic resource that increases or diminishes according to the prevailing circumstances. Power may be described as "*an overlapping field of social forces*" (Pfohl, 2008, p352) and may be used to achieve specific outcomes. Examples include legitimising individuals and institutions, establishing expertise and/or status, informing, rewarding or coercing people (French and Raven, 1959, Nietzsche 1968). Various types of power held by the researcher are recognised as a core influence in the conduct of the study and will be considered in turn. Within the context of research, an explanation of the role and dynamic movement of power in the construction of knowledge is necessary because knowledge and power are intertwined (Foucault,1977).

As power shifts iteratively, the way in which knowledge is understood and represented changes accordingly. Social constructionist research acknowledges and incorporates the role of the researcher. Nevertheless because the power that researchers hold fluctuates, a reflexive consideration of how her power has shaped this study is fundamental (Karnieli-Miller et al 2009). As the construction of knowledge occurs within a wider context, this study offers a subjective perspective. This is because it was undertaken at a specific time with the plethora of concomitant macro and micro influences such as the people involved, political issues, economic situation (Geldenhuys, 2015, Pfohl, 2008, Hosking, 2008).

5.7.1 Power of the Researcher

In this study, the power held by the researcher is understood to arise from four main spheres. The first concerns her professional background as a case manager and a member of the group of practitioners being investigated. The second arises from her role as the researcher investigating the experiences of her peers. These two influences subsequently shape the dynamic ebb and flow of power between each participant and the researcher and influences the third sphere of relational power (Nietzsche, 1968). The fourth area of power lies within the role of the researcher as she collects, interprets and presents the knowledge created in the study (Pfohl, 2008, Foucault, 1977). Each of these aspects will be considered in turn.

5.7.2 Background as a Case Manager

The researcher has developed her case management practice in part from collaborating with other senior case managers in the development of the profession. This includes co-authorship of standards of case management practice and an ethics statement (Ainsworth et al., 2009, Harrison et al., 2008). It is unknown whether the participants in the study were aware of the researchers background. Thus it remains unclear whether the researcher's background may have motivated or deterred some practitioners' participation in the study (Berger, 2015). Consequently, the power assumed from the case management role may not have been applicable to all participants in the study. Nevertheless, the researcher's occupation as a case manager legitimised her access to the wider culture of case managers as a peer (Proust, 2003).

To an extent, the power dynamic arising in the relationship between the researcher and the participant had already been socially constructed in numerous ways (Anyan, 2013). For example both communication partners share the same occupation and client group leading to a shared terminology, jargon and abbreviations that co-locates the relationship within this culture (Gergen, 1995). It is unknown whether feelings encountered by the participants influenced the information they revealed. For some participants this mutual understanding may have fostered a rapport that facilitated disclosure of sensitive information (Karnieli-Miller et al., 2009). For others, being interviewed by a peer may have been uncomfortable, and shaped how and what information they disclosed

(Berger, 2015). Consequently, it is difficult to identify exactly where power was held because of fluctuations occurring within each interview (Greene, 2014, Proust, 2003).

The researcher recognises the power conferred by the dual role of her membership of the case management community and as a researcher casting her gaze on her peers (Greene, 2014, Pillow, 2003). The power held as a researcher will be explored further.

5.7.3 Researcher Power

The power held as the researcher was apparent because she constructed the study and framed the discussion with participants through the formation of the interview guide (Ely et al., 2001). Use of a semi-structured interview aimed to support the participant's control in revealing which informal learning experiences influenced their professional role (Haworth, 2006, Atkins and Murphy, 1993). This approach intended to reduce the researcher's power in favour of the participant. Nevertheless, the influence and power of a university infuses the role of the researcher. Whilst institutions exert legitimate, expert (and in the past coercive) power, this is conveyed though the individuals within these structures (Gergen, 1995).

The researcher knew some participants when the study commenced but most were strangers. Therefore, within each interview the relational shifts of power were dynamic and complex according to factors such as gender, ethnicity and professional discipline. Issues raised by preceding participants informed the researcher's conduct of each interview (Mason 2006). Some researchers use self-disclosure to support a more equitable relationship with the participant (Walsh and Cunningham, 2017, Greene, 2014). This approach may inadvertently distance participants because researchers are imbued with cultural assumptions indicating they are knowledgeable about the subject being investigated (Walsh and Cunningham, 2017, Hosking 2008). The researcher confirmed that any questions raised by participants would be answered openly and honestly, she acknowledges her privileged role conferring different sources of power.

5.7.4 Relational Power

According to Foucault (1977), the use and application of power can only occur within the context of relationships (Alvesson and Sköldberg, 2009). In this study the power dynamic between the researcher and the participant will have been shaped by multiple numerous influences. For example, the researcher's access to peers within the same profession may facilitate trust and empathy (McDermid et al., 2014, Dyson and Brown, 2006, Proust, 2003). This may confer relational power to the researcher that enables exploration of deeply sensitive information that might not otherwise be easily accessible in another group (Hayfield and Huxley, 2015).

The environmental context where the interview takes place also influences the relational dynamics of power. Every participant determined the location of the interview. The power dynamic in this setting meant the researcher behaved respectfully as an invited guest and sat where the participant directed. This may have established a more equitable framework for the narrative that followed. Also, familiar surroundings may have supported participants to be less guarded in what they chose to reveal. Interviewing participants in a location where they conduct their professional occupation affirms attributes that enable maintenance of this role (Quinney et al., 2016). Thus the language used by participants may have been highly pertinent in this study.

All interviews were conducted at a time participants' deemed convenient. Participants appreciated the researcher's endeavour and commitment particularly in circumstances where travel had taken several hours. Prior to the interview commencing, all participants were reminded of their right to withdraw at any time but recognition of the researcher's effort may have encouraged them to continue when discussing sensitive experiences. This fed into the researcher's internal voice representing her own encounters and impacts through her posture, gaze and speech (Seikkula, 2008). Consequently this aspect of the relationship becomes embedded within the narrative shaping and influencing the subtle power shifts as nuance is recognised and pursued (Seikkula et al., 2012). As the researcher is responsible for representing the findings from the interview, her role as author will be considered further.

5.7.5 Power as an Author

Social constructionism places emphasis on efforts to redress potential power imbalances from the researcher toward the participant but recognises the embedded role of the researcher in the construction of knowledge (Råheim et al., 2016, Burr, 2015). The role of language in the construction and production of knowledge permeates throughout society (Gouthro 2017). Thus an author's use of language has the power to influence how reality is understood, which in turn will affect the perceptions and activities of others (Pfohl, 2008, Foucault, 1977). This is because the power of the author has been compared to a surgeon where they alone dissect the narrative, amputating what is not judged to be helpful in the interpretation and construction of knowledge (Lock and Strong, 2010, Ely et al., 2001). Thus because the researcher is embedded in the interpretation and construction of knowledge her voice may appear favoured above that of the participant (Greene, 2014). The researcher recognised that some of her own encounters were similar to the experiences reported by participants. This heightened her concern to ensure that she did not use the study to validate her own position. Consequently, the researcher identified numerous examples from the data that underpinned the development of themes and sub-themes (Cunliffe, 2003). She also reviewed her own life story as a way of exploring her own position in relation to the information collected from participants (Finlay, 2006b). In presenting the findings, the researcher recognised her ethical responsibility in demonstrating her role in authentically representing the interpretation of the data (Pillow, 2003, Karnieli-Miller et al., 2009). Research into the informal learning of this specific group of practitioners had not taken place before. The private and sensitive information shared during the interviews suggested participants trusted the researcher. The researcher understood that her responsibility as a peer and author meant that she was obliged to construct and represent social reality faithfully. In addition she recognised that she would receive and interpret the data through the prism of her own understanding (Eraut 2000). This included her conceptual understanding of the whole dataset and is thus equally valid (Cunliffe, 2003). Consequently the power between the participant and the researcher is understood to fluctuate with occasions when the voices of the participants rise above that of the researcher and vice versa (Anyan, 2013).

Investigating how the researchers' power as an author has influenced the study has involved the meticulous exploration of her own assumptions that have

changed and developed over time (Pillow, 2003). Thus the identity of the researcher and how her assumptions interconnect and influence her construction of knowledge aims to contextualise the findings as a snapshot in time (Seikkula et al., 2012). Whilst the direction of power flowed toward the researcher as an author, it was accompanied by feelings of exposure and vulnerability. This will be considered further.

Undertaking research within the auspices of a University confers privilege and power as well as exposure and vulnerability (Ballamingie and Johnson, 2011). Irrespective of the commitment to undertake and complete the project, conduct of the study is frequently obstructed by issues the researcher is unable to control (Laar, 2014). As the researcher works in the independent sector, a key focus was to situate herself within the broad community of people who deliver case management to people affected by TBI. However some statutory organisations made it extremely difficult to negotiate access to staff who may have wished to participate. At times this raised the possibility that participants from statutory services could not be accessed and thus would mean that the original aim of a broad view of the community would be curtailed with the potential of months of preparatory work being lost. At such times the influence of academic colleagues who were able to use their contacts and power to provide an introduction was invaluable but demonstrates that within the research context, power constantly shifts in numerous directions throughout the process (Foucault, 1972).

To clarify the researcher's initial assumptions and background underpinning the research question, it has been necessary to disclose some deeply personal facts of her life. This document will become available to others and for those participants who disclosed sensitive information this may go some way to redress the power balance. Of greater concern is the potential to expose private and intimate aspects of the researcher's life to the scrutiny of the wider case management community (Huckaby, 2011). The researcher is also vulnerable to potential criticism if the community do not recognise or accept her conceptual interpretation (Råheim et al., 2016, Bakhtin, 1981).

5.7.6 Summary of the Influence of Power

The four key areas concerning the location and impact of the dynamics of power in this study have been discussed. These include the researcher's professional

background and the access this provided enabling investigation of her professional community as an insider. The research role affiliated to a university also bestowed power and privileged her ability investigate perceptions and views of peers from a different perspective. Together these two elements interacted to influence the dynamic movement of power within the participant-researcher relationship (Quinney et al., 2016, Lincoln and Guba, 2013). The construction of knowledge by the researcher as an author also holds some power as the choice of language used shapes the representation and interpretation by future readers (Pfohl, 2008, Foucault, 1977).

Within qualitative research, the embedded position of the researcher often has attracted criticism as subjective and the methods used as unsystematic (Finlay 2006). To counteract this, qualitative researchers deliberately explain how the multiple factors contributing to the study demonstrate a systematic, coherent methodology. This is complimented by critical discussion about personal involvement and influence. This is described as rigour, which aims to corroborate the worth and integrity of the research. This will be discussed in the following section.

5.8 Rigour

The purpose of rigour in qualitative research is to establish the trustworthiness and quality of a study (Mays and Pope, 1995). This commences by clarification of the rationale for the methods, decisions and issues influencing the subsequent interpretation of the findings (Noble and Smith, 2015). Within each established methodological tradition each approach draws on a comprehensive set of techniques to demonstrate rigour (Neergaard et al., 2009, Seale, 2002). For example within ethnography, prolonged immersion in the field enables researchers to build trust with difficult to research groups and thus identify small and slow changes that would be overlooked by other research methodologies (Hoolachan, 2016).

Generic qualitative research is a highly flexible methodology because it can be adapted to enable a bespoke design that is suitable to investigate questions in a manner befitting the researcher's ontological and epistemological position (Kahlke, 2014, Guba and Lincoln, 1994, Krefting, 1991). For this reason, mechanisms used by other established methodologies to demonstrate rigour may

not be entirely suitable (Kahlke, 2014). Researchers must thoroughly account for the strategies and mechanisms engaged to demonstrate rigour providing a clear audit trail for others considering the topic (Cooper and Endacott, 2007). This process contributes to the generic qualitative research field by illustrating an alternative approach to established methodologies (Percy et al., 2015, Caelli et al., 2003).

In generic qualitative research there are four key elements that researchers must establish to demonstrate rigour (Caelli et al., 2003); the theoretical stance of the researcher (Darawsheh, 2014, Zitomer and Goodwin, 2014); congruence between methodology and methods (Bellamy et al., 2016); the analytical lens indicating how the researcher engages with the data (Creswell and Miller, 2000); and the particular strategies used to conduct the study (Braun and Clarke, 2006). Guba and Lincoln (1985) consider rigour may be demonstrated by establishing credibility, dependability, trustworthiness, confirmability. Some confusion has arisen by authors using different terminology to describe aspects of rigour such as integrity and contribution (Råheim et al., 2016, Noble and Smith, 2015, Neergaard et al., 2009, Finlay, 2006b, Creswell and Miller, 2000). This study will illustrate rigour based on the recommendations by Caelli et al (2003) and Lincoln and Guba (1985) incorporating recommendations in the literature where relevant to the study (Neergaard et al., 2009, Finlay, 2006a).

In considering how each aspect of the study contributes to rigour, consideration of how best to answer the question is directed by the paradigm framing the researcher's beliefs and assumptions. This determined a generic qualitative approach that guided choice of appropriate methods. Clarification of the lens adopted by the researcher informs the assumptions and interpretation; together these two aspects enable consideration of elements such as credibility and authenticity. This is illustrated in Figure 3.

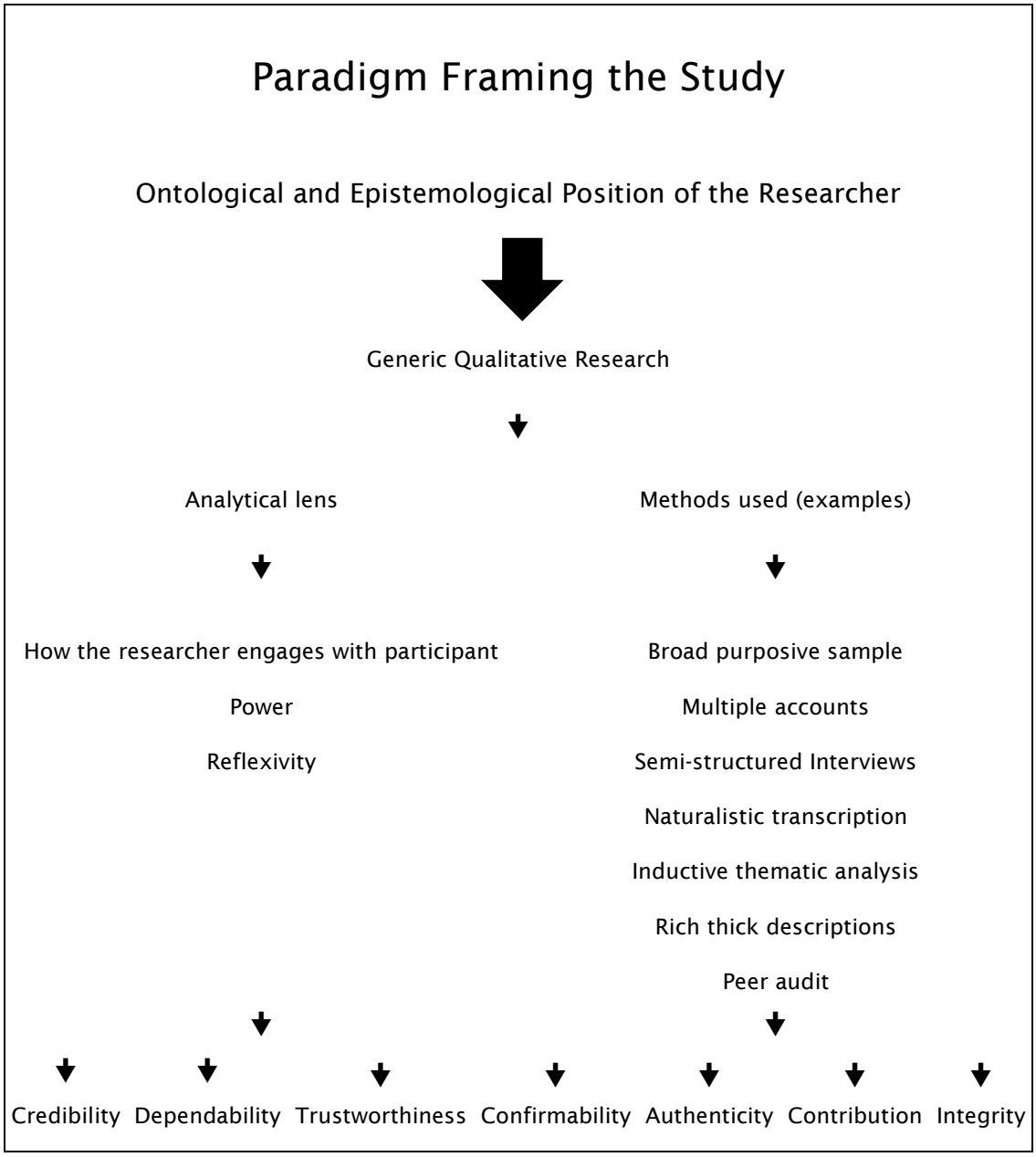

Figure 3 Paradigm Framing the Study

5.8.1 Credibility

There are a number of approaches that enable researchers to demonstrate the credibility of the study (Lincoln and Guba,1985). These include: maintaining a lengthy involvement with the study, sustained investigation, analysing and accounting for contradictory findings, iterative review of raw data as findings emerge, reflexive dialogue with peers and liaison with the population being studied to clarify their perspective on the results (Lincoln and Guba 1985).

In this study, credibility is considered to have been established in a number of interconnected approaches. Face to face interviews of a heterogeneous purposive sample involved 22 practitioners from a wide range of professional, employment, organisational tenures and geographical locations. The semi-structured interview guide had been tested before being used in every interview generating over 30 hours of discourse. Participants were asked to describe the informal learning experiences that they considered had influenced the conduct of their case management practice. In studies investigating informal learning experiences that contribute to workplace conduct, it is appropriate for the researcher to draw from their own knowledge and understanding to raise topics with participants for consideration. However this risks undermining the credibility of the study if this is not undertaken "*modestly and reflexively*" (Eraut, 2000 p121, Lincoln and Guba, 1985). For example, participants' discourse may have been influenced by the researcher shaping the topics or their answers; participants may have also responded in a way in which they hoped to please the researcher (Sandelowski, 2010, Krefting, 1991, Lincoln and Guba, 1985). With this in mind a number of measures were undertaken to counteract the risk of the credibility of the study being undermined.

The study was undertaken part time. This meant that the length of time spent analysing the data comprising interviews, field notes, research diary was extensive lasting over 18 months. Finlay (2006) calls for interpretations that are convincing, credible and realistic. Therefore numerous, rich, thick examples of raw data drawn from across the dataset have been included to illustrate that every part of the study contributes to the findings. Whilst the findings have been interpreted through the lens of the researcher, these have been discussed at local meetings and seminars as well as national and international conferences (Finlay, 2006b, Seale, 2002). Colleagues, case management and academic peers have also provided feedback. Case managers reported that the themes and findings have resonance with their own experiences (Lincoln and Guba, 1985).

5.8.2 Dependability

Establishing the dependability of a study relies on a number of mechanisms that demonstrate the research has been conducted in an open way (Taylor and Medina, 2013, Lincoln and Guba, 1985). In this inquiry detailed records have been maintained throughout the investigation to enable a thorough audit to be

undertaken for others unfamiliar with the research (Mays and Pope, 1995, Greene, 2014). Different aspects of the process have been described in detail.

5.8.3 Trustworthiness

Clarification of how themes were established from the raw data using inductive thematic analysis contributes to the general thrust of establishing trustworthiness. The inclusion of excerpts of raw data to illuminate how themes were developed enabled the researcher to confirm the interpretive position she adopted. Trustworthiness is also indicated by a transparent acknowledgement of shortcomings and limitations of the research with suggestions of areas for consideration should other investigators intend to explore the subject matter (Kahlke, 2014, Finlay, 2006).

5.8.4 Confirmability

The confirmability of this study is demonstrated in a number of ways. Firstly inclusion of an in depth critically reflexive account of all the influences is fundamental. The approach taken in this research sets out the position of the researcher within this chapter and in more detail in the discussion (Chapter 7). Secondly, inclusion of data that seems to contradict the findings is important to illustrate the complex and multiple perspectives that have been considered when developing the theme. This has particular relevance to reduce the risk of myopia arising from the inclusion of supportive data only (Golafshani, 2003, Creswell and Miller, 2000).

5.8.5 Authenticity

Adopting a naturalistic approach to transcription of interviews that includes all features of speech is one way in which the study demonstrates authenticity because it has been used to highlight emotional or strongly held views that emphasise meanings (Oliver et al., 2005). Inclusion of unmodified segments of data provides authentic examples that have been considered to contribute to the development of themes. However this also enables others to challenge the researcher's interpretation. The interview guide intentionally supported the discussion of issues that were important to participants. The study embraced the complex diversity of the data denoting respect and value for all the data.

5.8.6 Integrity

Consistent use of language reflecting the philosophical and methodological conventions contributes to the coherence of a study. Unlike established methodologies, generic qualitative research does not have a large established literature that defines a tried and trusted route. Consequently, the systematic application of methods that concord with the theoretical perspective offers another approach to demonstrate the integrity of the research (Kahlke, 2014). One way in which the researcher demonstrated her integrity is to set out critically and reflexively details of the wide range of influences that engendered the question and shaped her interpretation of the findings (Pfohl, 2008, Willig, 2001). A key aspect of rigour involves the researcher providing a critically reflexive account of her influences. This is considered in detail in the following section.

5.9 Reflexivity

5.9.1 Reflexive Role of the Researcher

Reflexivity is a systematic approach used to convey the researcher's explicit and implicit influence on every aspect of the study and the knowledge subsequently produced (Finlay, 2017, Berger, 2015). Therefore, this section is written in the first person to highlight my embedded role as the researcher and how this has shaped the conduct of this inquiry. An explanation of the importance of this in qualitative research and how I structured and applied my reflexive approach in this inquiry follows.

Whether the reflexive account is effective depends on the cognitive and affective skills of the researcher in articulating, analysing and integrating their influences and experiences to develop knowledge and new perspectives (Hetzner et al., 2012, Atkins, and Murphy, 1993). The main technique I have used has been my research diary in which thoughts, worries, questions, reflections, insights and views were documented throughout the research process (Fisher, 2011, Ballinger, 2006).

In qualitative research, the researcher is acknowledged as inseparable from the study (Gubrium and Holstein, 2012). I acknowledge that the motivation to understand myself and the unconscious influences I have had on the study has

meant that it has been necessary to examine my assumptions critically (Gouthro, 2017, Pillow, 2003). Thus clarification of my position in the conduct of the study is important to highlight fundamental influences in the way I have constructed knowledge. Therefore this provides a mechanism by which the quality of the study can be judged (Berger, 2015, Shaw, 2010).

5.9.2 Position of the Researcher

In introducing my position as a researcher, I confirm my recognition of the iterative interface between my experiences, actions and reflections (Follett, 1924). These factors continually shape and influence my perceptions and subsequent understanding. I consider that there are three fundamental aspects that influence my conduct of this study (Berger, 2015). In the recruitment of participants I have used my occupation as a case manager of people affected by TBI to scaffold access to my peers (Hellawell, 2006). In the collection of data, my dual role as both a member of the case management community and a researcher combine to shape the interaction between each participant and myself (Quinney et al., 2016). The construction of knowledge at the interview and in the subsequent analysis, interpretation and presentation of findings are subject to my innumerable interconnected influences (Fisher, 2011). By way of example these include my profession, academic background, experiences, knowledge and the way in which I use language to shape and convey ideas (Bakhtin, 1981, Berger, 2015, Pillow, 2003).

My understanding of the construction of reality rests on a social constructionist paradigm; I consider that everyone is shaped by the social worlds into which they are born and spend their lives (Burr, 2003). Thus I believe that experience fundamentally influences all perceptions and actions in the world; myself included (Endres and Weibler, 2016). My experiences and encounters have guided my approach and drive to pursue knowledge in this specific area of practice. Influences affecting me are not static and whilst some aspects of my understanding remain unchanged, others have developed over the course of the study. Therefore I present this work as contextual snapshot in time to convey the dynamic nature of my involvement in the creation of knowledge.

From the inception of the study I have maintained detailed records including dated versions of computer files (Greene, 2014). The approaches I have used to

reflect on and monitor my influences at every stage of the research process comprise: a research diary to record thoughts and perspectives at different stages of the process, interview notes made before, during and after the interview, writing memos and discussing every stage of the study in detail with peers, colleagues, academics and friends (Fisher 2011). To encourage debate and feedback I have presented interim findings at local meetings of peers as well as national and international conferences. These sources provide a reflexive data set from which to inform the analysis. Whilst I have continually undertaken these activities, standing back and seeing my own situated and taken-for-granted assumptions has been challenging. I recognise that insights occurring during the analysis of the data may change with the passing of time following completion of the study (Mauthner and Doucet, 2003). There is little opportunity to consider what these aspects may be because all research studies are conducted within a timeframe.

In acknowledging my position as a researcher and my identity as a case manager with many years of experience I draw on Skovholt and Starkey's (2010) model of the practitioner's stool. This identifies that practitioners have three legs supporting and influencing their work namely professional, academic and personal. I will use this framework to discuss and illustrate how each leg interlinks to fundamentally support and shape my understanding and interpretation of the world. This approach aims to illustrate those experiences that have shaped me as a registered nurse, case manager, and of relevance to this study, the care and support of severely disabled and ill people within the context of my domestic life. The purpose of this is to clarify how these influences have influenced the direction of the research and reflexivity helped me to design a robust research study.

5.9.2.1 Professional Position

Prior to training as a nurse, numerous school holidays were spent as a volunteer in a hospital for children with severe learning disabilities. I encountered profoundly disabled people of my own age whose disability at birth meant that their lives differed sharply from mine. This experience initiated a personal passion that all people should be treated with respect and dignity. Nurse training enhanced this approach and exposed me to the care of patients with different diagnoses and needs. However, it was the devastating consequences of

irreversible neurological conditions in particular that had the largest impact on me. This was because every patient had a different presentation and for many, every facet of their lives was affected.

My work in different roles increased my awareness of a deep lack of understanding of the needs of people with neurological injuries and increased my own interest in learning about the needs of people with TBI. At this time it seemed there was a dearth of services in any of the sectors providing long term support to people living in the community. Research into the community management of people with a TBI highlighted their unmet needs (Stilwell et al., 1999). Following completion of the study, many of the practitioners involved moved from statutory services into the independent sector to specialise in the delivery of bespoke support for severely injured people affected by TBI. Thus moving from a role in statutory services to the independent sector met my own need and desire to support people living in the community with this highly complex injury that was often poorly understood. However, there was very little in the way of direction or guidance on how to deliver an appropriate service of the highest quality. Joining two newly formed case management peer organisations, BABICM and CMSUK enabled me to network with other members, share information and identify the highest standards of practice on which I could scaffold my own work.

The conduct of the case management demands an in-depth understanding, interpretation and analysis of complex and conflicting sources of information. The ability to listen actively to people who have sustained a severe TBI, their family members, lawyers, health and social care professionals is an essential component of the case management role. Thus these professional skills have been engaged in the conduct of the research. It is in my professional context as a TBICM who has specialised in the support of people affected by severe TBI for many years that means that I approach the field from a position of power and authority amongst my peers (see paragraph 5.6).

5.9.2.2 Academic Position

Prior to my work in the independent sector, I had worked as a research nurse, gaining various health related academic qualifications. This provided a useful skill set to investigate academic and grey literature on the case management of

people with TBI. However, the paucity of literature emphasised the importance of networking with colleagues undertaking a similar role. In identifying my ontological and epistemological stance I saw myself as a tool in the gathering, constructing and interpreting of knowledge (Appleton and King, 2002). The dearth of formal learning opportunities for practitioners case managing people affected by TBI, meant that in exploring patterns of informal learning experiences used to in the conduct of the role the voice of each and every participant held equal importance. The heterogeneity of the case management community propelled me to investigate the question inductively by listening to their voices (Cunliffe, 2008). Thus a tension arose: whilst I did not want to privilege my voice over theirs, I recognised and acknowledged my own validity in interpreting the data (Bakhtin, 1981). I am deeply embedded in the construction of narrative because I am the other person who frames the discussion and creates a relationship with the participant (Davies and Harré, 1990, Hosking, 2011).

In choosing generic qualitative research methodology I encountered difficulties and challenges because of the paucity of literature available about this approach. Other established methodologies have a large body of academic work that has amassed over many years. For example, case study design provides extensive instructions regarding the application of this methodology (Yin, 2009, Gillham, 2000, Simons, 1996). Using a generic qualitative research methodology was not the usual approach taken by my PhD student peers. This meant that sharing ideas and debating methodologies and methods was more difficult leading to a somewhat isolated position as in the early phase I struggled to articulate why it was an appropriate approach and worthy of adoption. Rejecting established methodologies intensified the level of work needed to create and justify my own research framework. This is because generic qualitative research does not have handbooks and guides as is the case with other methodologies such as ethnography where the field has developed and specialised (Atkinson, 2001, Drake et al., 2016). The dearth of generic qualitative research increased the challenge in establishing a robust rationale for my choices. Consequently I have thoroughly investigated the application of generic qualitative research and taken great care to ensure that the research design in this study is methodologically coherent.

5.9.2.3 Personal Position

I have worked as a Case Manager for individuals with severe TBI for 19 years and have therefore witnessed at first hand the devastating long-term consequences of this injury. However, before this, my professional work as a registered nurse enabled me to develop a set of skills and attributes necessary to work with those who were dealing with significant disruption in their lives. Furthermore, these professional roles were underpinned by, and resonated with, my significant personal experiences of a caring role within my own family over several years. It is this that enables me to appreciate how the quality and skills of case management infuse every intervention needed by disabled people and their families. However, this study has enabled me to develop a deeper understanding of my own perspectives, knowledge and place in the world (Gouthro, 2017). Therefore I recognise that I continually change as new information and experiences occur. This has been of particular value in understanding how personal, professional and academic influences interconnect and continually shape and change my knowledge, perspectives and understanding.

5.9.3 Overview

Providing case management to people with traumatic brain injury for many years establishes membership of my professional community. This enables me to access this group of practitioners and provides me with valuable insight into this world. However, I recognise that my longevity of service and involvement in the development of the profession raises the issue of the power and influence I hold. This is just one of the aspects that will be explored in further detail in the discussion chapter. The constellation of professional, academic and personal experiences have been central to my development and have amalgamated to enhance my ability to deliver support. These experiences served to pique my interest to the extent to which the professional and personal identities might be entwined and the important role that informal learning from experience may have on practice. By drawing on my own background in the world of case management, this research can bring new insights and understanding to this poorly researched area of specialist practice.

5.10 Chapter Summary

This chapter has outlined the influences that have shaped the design and conduct of this study. Social constructionism and informal learning from experience have established the theoretical framework that underpins the choice of generic qualitative research methodology. This methodology enables a bespoke research design that specifies philosophically compatible methods. Generic qualitative research is appropriate for investigating the experiences, reflections, and opinions of particular communities. It also supports researchers who investigate groups to which they belong. The methods used have been described in detail followed by a systematic account of how the study was conducted. A comprehensive explanation of the analysis preceded discussion of how different types of power held by the researcher have shaped the outcome of the study. This is followed by details of the steps taken to ensure rigour and includes the researcher's reflexive account of her professional, academic and personal influences on this investigation. The following chapter will present the findings.

Chapter 6 Findings

6.1 Introduction

This chapter describes the findings of this study. The data has been collected by interviewing a broad range of practitioners delivering TBI case management (Kahlke, 2014). Biographical details of the participants have been included to indicate the breadth and diversity of TBI case management delivery across the UK. The contexts of the experiences reported will be briefly outlined prior to an introduction of the themes and sub-themes. Four main interconnected themes have emerged, namely:

i. "Shaping the sense of professional self",
ii. "Experience of injury illness disability,
iii. "Experience of violence", and
iv. "Experience of role models and champions".

In Chapter 5 the researcher outlined the numerous influences that she recognised as shaping her interpretation; she takes responsibility for the analysis of the data (Mason 2002, Denzin 2001). This chapter aims to represent the findings in the data authentically but emphasises that this is filtered through the researcher's lens as a case manager supporting people affected by TBI (Kennedy, 2016, Hunt, 2009).

6.2 Biographical Data

Interviews were conducted with 22 TBICMs based throughout England and Wales. The age of the participants is illustrated in Figure 4 and demonstrates that the majority were above the age of 40. The age band of the participants is relevant because they recognised the importance of experience gained over many years undertaking the role. Participants referred to this as maturity which also emerged as a sub-theme.

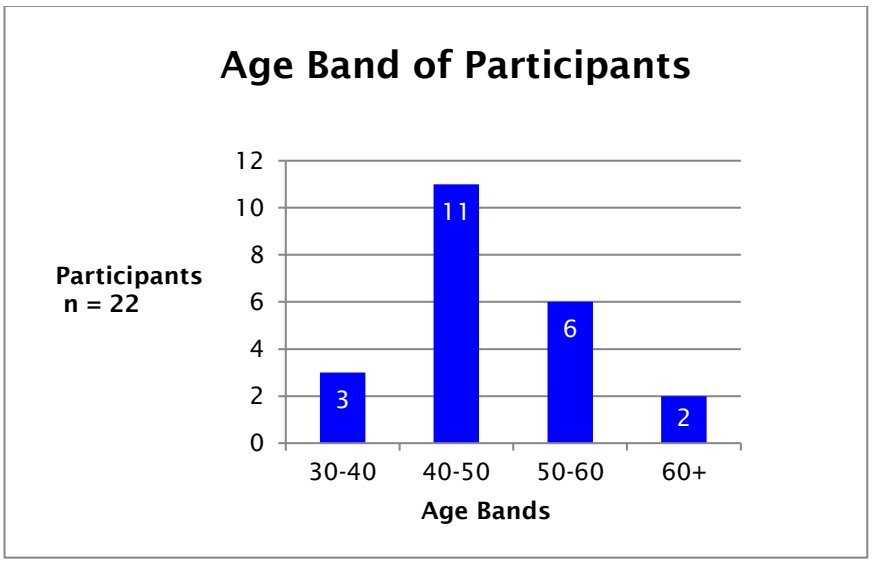

Figure 4 Reported Age Band of Participants

The ratio of men to women participating in this study was 13:9. This may be important because more males acquire a TBI than females (Williams and Chitabesan, 2016, Feigin et al 2013). Access to a case manager of the same gender may be necessary for role modelling in some circumstances. It is beyond the scope of this study to determine whether gender is important in meeting the needs of this client group. Figure 5 below illustrates participants according to gender.

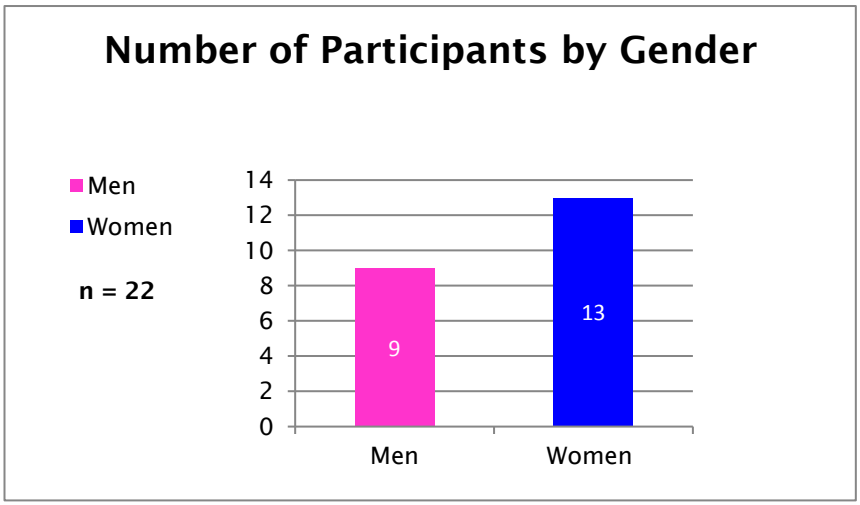

Figure 5 Number of Participants Participating in the Study by Gender

The number of years individual participants have provided case management ranges from 1 to 20 years. This is illustrated in Figure 6. Only two participants had been practising for fewer than five years. This suggests that the majority had

established experience in the conduct of their occupation and therefore would be appropriately placed to comment on the informal learning that supported the role.

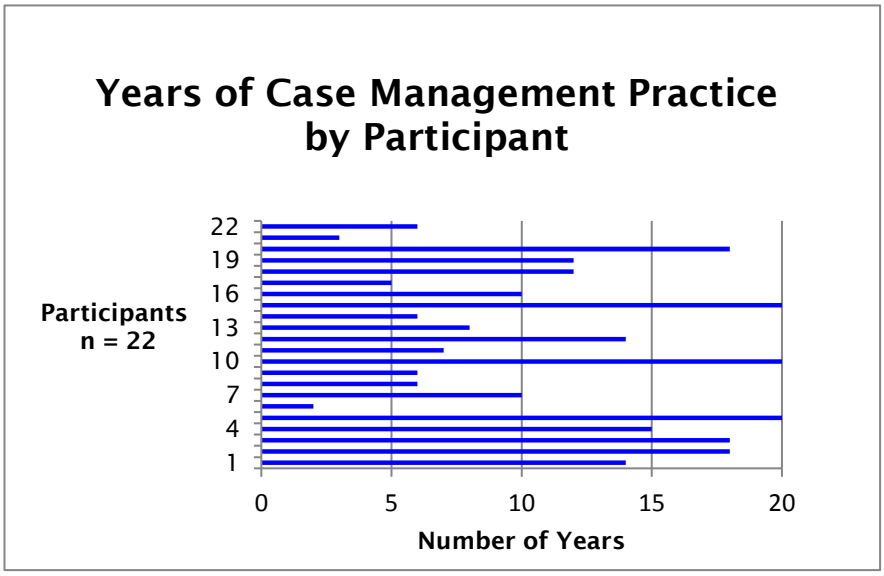

Figure 6 Years of Case Management Practice by Participant

The academic qualifications held by participants ranged from undergraduate diploma to doctoral degree. Many participants held academic qualifications in addition to their registration with a specific professional body such as teaching. Some participants had academic qualifications that did not immediately appear relevant to their current case management role, including a Master of Business Administration, a first degree in economics and a diploma in hospitality management. The range of academic achievements varied across the sample. This is illustrated in Figure 7.

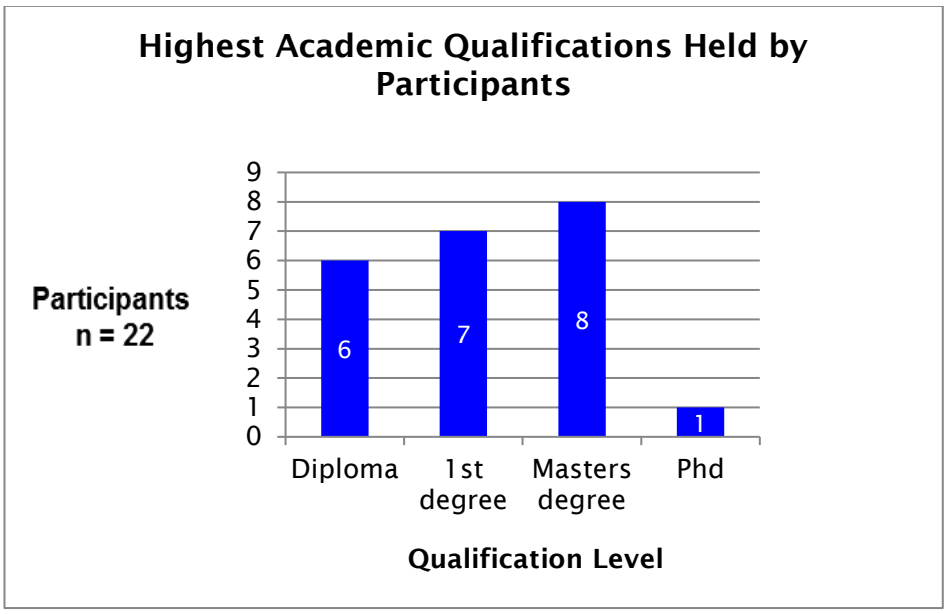

Figure 7 Range and Number of Academic Qualifications Held by Participants

Some participants in this study did not hold a professional registration such as occupational therapy. Nevertheless, participants without a registerable qualification worked across all sectors. In the independent and statutory sectors, the ratio of registered to non-registered professionals is 3:1, with a ratio of 2:1 in the third sector. Figure 8 illustrates the employment tenure of participants according to registerable qualifications.

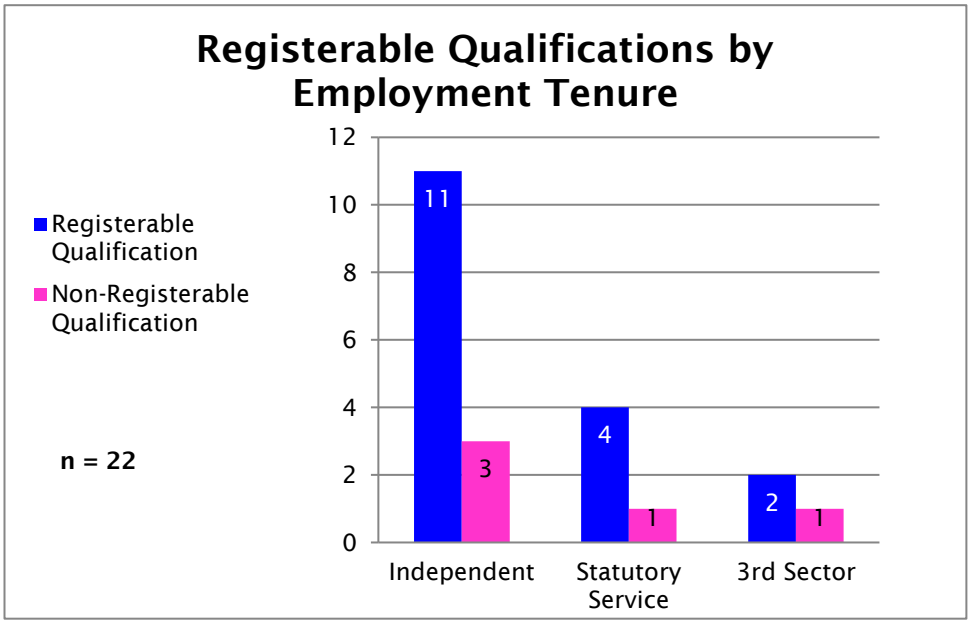

Figure 8 Registerable Qualifications by Employment Tenure

All employment sectors used TBICMs without registerable qualifications but in this study, the greatest number worked within the independent sector. Peer led case management organisations concerned with maintaining high standards of service delivery have called for all TBICMs to hold a registered qualification such as physiotherapy or nursing (BABICM et al., 2017). This is because registrants may be removed from their profession if they behave inappropriately. BABICM and CMSUK consider this offers some assurance that TBICMs will work to the highest standards. In the absence of a mechanism by which TBICMs achieve registration, that validate their professional abilities, these organisations have developed tools by which purchasers and providers may evaluate service delivery (Watkiss et al., 2010, Harrison et al., 2008). These organisations are largely populated by practitioners within the independent sector.

This study includes a diverse range of professional disciplines. The numbers of participants from different occupational groups varied with only one participant from speech and language therapy, teaching, psychology and probation. In contrast, there are four social workers, three OT's and five nurses of whom two reported training for specific patient groups such as psychiatry. For this reason, registered nurses have been separated into general and specialist nurses. Five participants had an academic background without a professional registration. The spectrum of professions participating are illustrated in Figure 9.

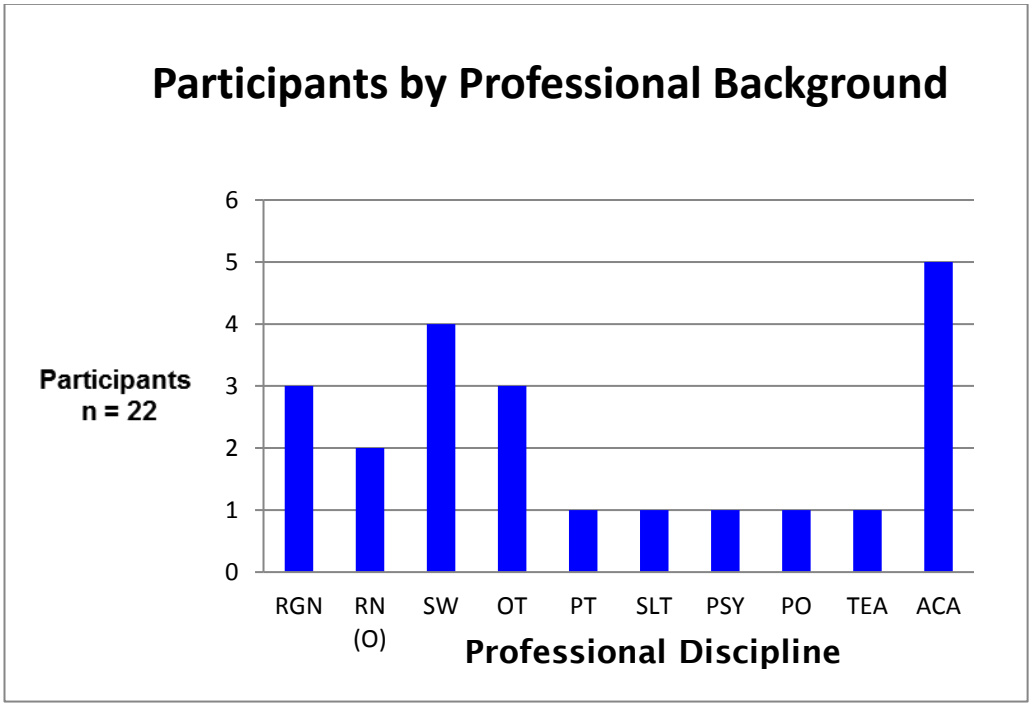

Figure 9 Participants by Professional Background

Key for Figure 9	
RGN	Registered General Nurse
RN (O)	Registered Nurse (Other) such as paediatric, forensic
SW	Social Worker
OT	Occupational Therapist
PT	Physiotherapist
SLT	Speech & Language Therapist
PSY	Psychologist
PO	Probation Officer
TEA	Teacher
ACA	Academic rather than registerable qualifications

6.3 Contexts of Experience

Participants reported a diverse variety of experiences that they considered important in generating informal learning for their knowledge and conduct of the case management role. In many cases, the subject and nature of these episodes provided a highly emotive but rich resource that continued to impact on people for years following the experience.

The context in which these episodes arose include work, domestic and education settings but no pattern emerged within or across these areas. Some episodes reported arose within two contexts. For example, numerous informal learning experiences were reported to have occurred at work when the participant visited someone within their domestic context. Other examples of dual contexts were described by participants who lived in a boarding school thus representing their home and education environment. Figure 10 illustrates the contexts in which informal learning experiences were reported in relative proportion. Where there is an overlap this indicates experiences arising in two contexts.

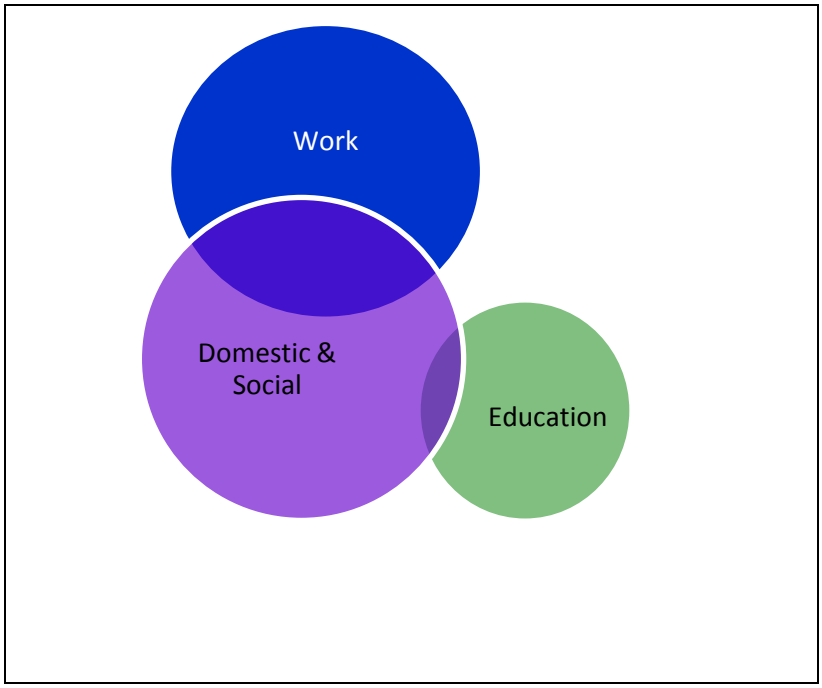

Figure 10 Contextual Settings of Personal Experiences Reported.

Participants reported a diverse variety of informal learning experiences happening throughout their lives. Some of these arose in the work context with most examples occurring before their role as TBICMs. The domestic context was also a plentiful source of informal learning experiences. Participants described episodes that were not limited to the physical dwelling and its surroundings but also the emotional and social environment that underpins domestic life. Within the education context, individuals reported informal learning experiences occurring at school or higher education establishments. Although fewer examples were given, participants who recalled experiences within the education context described how the informal learning arising from this continued to influence their work, in some cases decades after the event. Irrespective of the context, no

pattern in informal learning experiences emerged. A key finding in this study is that each informal learning experience appeared to be specific to the participant and thus did not confer a hierarchy of importance in terms of the environmental setting.

6.4 Emergent Themes

Participants described a plethora of informal learning experiences occurring throughout their lives, some of which continued to provide a source of informal learning in their practice as a TBICM. The most common informal learning experiences that appear to influence conduct of the role have been grouped into four key themes. These are "Shaping the sense of professional self", "Experience of injury illness and disability", "Experience of violence", and "Experience of role models and champions". Every participant recalled experiences that gave the impression of generating informal learning arising within each of the four themes. As the nature and meaning of the experience is unique to the individual, it is not possible to confirm whether one theme is more important than another.

Participants described informal learning experiences that they believed directly contributed to knowledge and attributes needed to deliver case management to people affected by TBI. For example, several participants developed health problems that generated similar symptoms to those encountered by people who sustain a TBI. These experiences seemed to have been an important source of informal learning for participants' TBICM role.

The four themes that emerged are interconnected and appear to contribute to the development of knowledge and attributes that participants use to inform practice. A number of sub-themes have arisen within each theme. These are illustrated in Table 8.

Table 8 Themes and Sub-themes

Theme	Sub-theme	
1. Shaping the sense of professional self	1.1	Previous work as a support worker
	1.2	Maturity
	1.3	Recognising individual limitations
	1.4	Chameleon case management
2. Experience of Injury, illness, disability	2.1	Providing care
	2.2	Understanding loss
	2.3	Isolation
	2.4	Inadequate support
3. Experience of Violence	3.1	Managing hostility
	3.2	Self-protection
	3.3	Resilience
	3.4	Defending people affected by TBI
4. Experience of Role Models and Champions	4.1	Negative Role models
	4.2	Positive Role models
	4.3	Role Models affected by TBI
	4.4	Champions

Research based on a constructionist, interpretivist approach illustrates findings by including direct, verbatim quotations from participants (Williams and Havercamp 2015). These themes will now be discussed in further detail incorporating pertinent excerpts from the interviews. Identification of the participant and the line number from their interview transcript is set out before each quotation, e.g. Lindsay 231.

6.4.1 THEME 1: SHAPING THE SENSE OF PROFESSIONAL SELF

All participants described experiences that influenced their sense of professional self. The theme of shaping the sense of professional self indicates how individual TBICMs draw upon themselves as a resource to enhance and consolidate their therapeutic relationships in the conduct of the role.

The theme of shaping the sense of professional self has developed from a wide variety of informal learning experiences occurring over several years that lead to a constellation of sub-themes. Within the overarching theme of shaping the sense of professional self, four main subthemes arose. These are previous work

as a support worker, maturity, recognising individual limitations and chameleon case management. The TBICMs ability to adjust their presentation to fit into the circumstances has been labelled chameleon case management. This is illustrated in Table 9.

Table 9 Subthemes Within the Theme of Shaping the Sense of Professional Self

Theme	Sub-theme	
1. Shaping the sense of professional self	1.1	Previous work as a support worker
	1.2	Maturity
	1.3	Recognising individual limitations
	1.4	Chameleon case management

An exploration of how sub-themes contribute to the overarching theme of shaping of the sense of professional self will be discussed.

6.4.1.1 Theme 1, Sub-theme 1: The Support Worker Role

Many participants recalled how working as support workers assisting disabled people prior to their employment as TBICMs informed their current role. Participants gave the impression that these experiences generated informal learning that enriched their insight into the importance and value of support workers. This appeared important for shaping the participants' sense of professional self because it provided practical expertise that prepared them for the case management role. Lindsay explains how her prior work as a support worker continues to shape her sense of professional self in her role.

*Lindsay 377: I'm really proud of the fact that I was a support worker because I just think that in some cases, support workers are seen as the, they're not qualified. You know that the people go in and do the day-to-day stuff... I see them as the **key** people, in lots of cases and really valued members of the team. (Participant emphasis)...some of the things, the strategies, and stuff that I would use as a support worker ... I was using as a case manager.*

Other participants described how working directly with brain injured people and their families provided intense encounters that enhanced their awareness of an individual's needs. Viv reported that her job as a healthcare assistant provided

her with insight in the needs of people affected by TBI as well as the multi-disciplinary team involved with their rehabilitation. This provided an introduction to the work she now undertakes as a case manager.

Viv 53: I also worked as a healthcare assistant on a stroke ward while I was training… it definitely helped with my understanding of the MDT of also the family involved with the patient, and also respect and, er, dignity of the actual patient.

Several participants felt that employment as a support worker introduced them to case management. This also provided a valuable source of informal learning for their identity as a TBICM that seemed to contribute to their delivery of the role. For example, Francis reported that his former occupation engendered insight that he now uses in his case management practice.

Francis 296: I still believe the best thing I could've done was being a support worker to start with…Because that's when you…get to understand the real person…the problems… the day-to-day issues. Sometimes, a case manager may only go there once a month maybe even less. You don't get to see the real person. You don't get to see the person that's struggling on a day-to-day basis and I think as a support worker then you get to understand it. It gives you an insight then to ask the right questions when you do the case management.

Numerous participants indicated that their professional and academic education was insufficient to develop the effective interpersonal skills and attributes needed in the case management role. Whereas, the informal learning gained from experience as a support worker seemed to support development of different, but no less important, attributes. Sam is a registered health professional but described how talking to people provided informal learning in the development of empathy and listening skills.

Sam 31: …working as an agency auxiliary gave me the opportunity to talk to the qualified nurses, see what they're doing, erm yeah, talk to patients, see what their experience was of it, which I found more useful than sitting in classrooms… The important skills of empathy and listening to people, the [nursing] course didn't teach you that. I don't know how it would have taught you that.

Participants in this study gave the impression that the informal learning from employment as a support worker contributed to a range of attributes that informed the case management role as well as shaping their sense of professional self. The participants' sense of professional self was considered to be an important element in the development of maturity.

6.4.1.2 Theme1, Sub-theme 2: Maturity

The breadth of experiences provided informal learning in a way that seemed to contribute to the development of maturity. Participants sometimes referred to this as "life skills", "life experience" or "feeling like a grown up". Several participants felt that the informal learning occurring from their upbringing encouraged and supported the development of a mature approach from childhood.

Viv 171: Me and my sister were encouraged through either our experiences or even the parenting sort of style to actually grow up quicker.

In contrast, Billie did not consider that his experiences led him to developing maturity in his youth. Instead, he reported that for him, informal learning results from his experiences of failure. However, this also helped him to develop insight and resilience.

Billie 501: Some people are more, much more mature, much more quickly and some people take their life experiences and make something positive out of it whereas I think I spent a long time trying to make something negative out of mine. I think I didn't assimilate these bits of information. I learn by being told, experience of failure, and being told again and go, oh yeah. (Participant emphasis)

Many participants considered that it takes several years of work experience in order to encounter the range of experiences needed to develop the effective interpersonal skills required to perform the role with this highly complex population.

Quinn 52: A lot of it is experience you couldn't say [to a newly qualified (health care professional), there you go, get on with that they just wouldn't have a clue you need to know about quite a bit about a lot of different things.

Within this theme, several participants indicated that the maturity required for the role drew upon experiences arising as part of life that subsequently led to the development of confidence. For Jo this meant having the confidence to apply her informal learning experiences rather than her health profession training in the conduct of the role.

Jo 237: I actually think that all I do is employ a life, er, put into practice the effects of the life events not the training.

The confidence arising from informal learning from previous experiences was recognised by participants as being important because it led to the development of other attributes such as the ability to work alone. Participants in this study explained that frequently, their work as case managers is conducted without the immediate support of a colleague. Pip noted that her experience of working by herself has heightened her insight of her need to be self-contained.

Pip 55: …as opposed to getting up every day and meeting with a team. I now get up every morning and I'm on my own…but there's something really different now about if you say have gone out to visit a patient or a client you come back to the office and you can off load and good, bad or indifferent someone's given you an earful. That's very different now.

The majority of participants described numerous informal learning experiences that that seemed to support the development of maturity.

Participants described numerous informal learning experiences that indicated development of their knowledge as well as a range of effective interpersonal attributes; these include insight, confidence, resilience, self-containment and determination. These factors contributed to a feeling of maturity underpinning a sense of professional self that participants inferred is fundamental for conduct of the role. Participants explained how being mature meant that they were aware of their limitations and deficits in knowledge thus recognising the need for support. One way in which professionals manage limitations is via professional

supervision. How informal learning experiences supported participants to respond to their limitations will be considered next.

6.4.1.3 Theme 1, Sub-theme 3: Recognising Limitations

The complexity of TBI means that injured people have highly unusual presentations. This means that in spite of working in neurology for several years, experienced case managers may fail to comprehend the totality of an individual's needs. Participants stated that knowing their own limitations was essential in ensuring that they provided the most appropriate support to people affected by TBI. Informal learning from experience appeared to support participants' appreciation and understanding of their limitations but this differed for each participant.

Participants identified professional supervision as being helpful in offsetting personal limitations in knowledge and skill. Several participants stated that they did not have supervision for their case management role. These practitioners were employed in all service sectors providing case management suggesting that the configuration of the service was immaterial to the availability of supervision. Some participants indicated that they did not have knowledgeable colleagues with whom to discuss their work. Quinn recognised that verbalising his concerns to others who understood the needs of people affected by TBI would be a useful informal learning process. He indicated that whilst he felt confident without supervision, his feeling of isolation arising from the solitary role he undertakes is magnified.

Quinn 218: Supervision, where do I go for supervision? Where do I go? Nobody does what I does, [sic] they come and ask me! [animated, speaking quickly] I've got no real place to go with it. I've got nowhere, no I haven't really. I would spend most of the session telling them, explaining exactly what I [breaks off] "Well I'm really struggling with this one". "Well who does that then, how does that work?" Do you know what I mean? I'd be educating them about brain injury I wouldn't be getting a lot of supervision. It might help me going through the process in your head [sic] and sort of discussing it with someone else … I don't see anybody else, we're all beavering away in our little silos. (Participant emphasis)

Discussing case management work appeared to provide a valuable and frequent source of informal learning by exploring their limitations and reducing feelings of isolation. Harrie acknowledged that the inability to discuss her work meant that this form of informal learning was absent. Without it, she had been unable to identify that she was becoming overwhelmed and this magnified her sense of isolation. Consequently, participating in the interview provided her with insight of her sense of professional self and the challenges for her practice.

Harrie 752: good supervision it's brilliant, you do feel so much more supported. And I've suddenly realised that now, not having one and I'm a bit snowed under and you know there are few issues but I haven't got anyone to talk to about it.

Irrespective of whether participants had access to supervision, they recognised that because the role is frequently conducted alone, it was important for case managers to have insight into their own limitations. Participants referred to a variety of experiences that taught them when to seek help. These encounters seemed to contribute to the development of effective interpersonal skills that shaped their sense of professional self. Francis explained that suffering a severe illness several years ago has enabled him to recognise his own limitations. This source of informal learning seems to have generated insight into his need to summon help. Francis indicates that he uses this knowledge in an attempt to deliver a high standard of case management to people affected by TBI.

Francis 448: I think it's given me an awareness of myself. It's given me an awareness of how and what am I capable of. I know where my limits are. I think as far as working with the client…I think that's important because you need to know and say, "Look, this is beyond me now. Let's go and look for help or advice".

Several participants indicated that their sense of professional self was supported by a stable domestic life such as a solid family background. Participants recognised that without this support, their limitations would be magnified leading to increased difficulties in undertaking the role.

*Alex 263: I have a very steady and stable life outside of my work and that I can separate the two very easily and that I keep **very** strict boundaries between*

my work and my home and if that was ever threatened I would feel very vulnerable and I don't think I could do the job. (Participant emphasis)

Participants reported a spectrum of experiences that appeared to generate informal learning providing insight from which to appreciate their own limitations. Learning from these episodes contributed to participants becoming mature practitioners. Maturity was considered to be critical to the conduct of the role and is also integral to the development of effective interpersonal skills. These aspects seemed to contribute to shaping the sense of professional self of participants.

6.4.1.4 Theme 1, Sub-theme 4: Chameleon Case Management

Participants demonstrated their insight by recognising the importance of adapting the presentation of themselves in order to achieve the best outcome for people affected by TBI with whom they worked. In this study, the ability to adjust has been termed chameleon case management to indicate the natural and empathetic response to the needs of people affected by TBI.

The complexity of TBI means that for those people who sustain serious injuries, case managers often continue to support people affected by TBI for several years. Consequently, establishing the foundations of a positive therapeutic relationship is critical to successful rehabilitation outcomes. In the course of their work, TBICMs rely upon their effective interpersonal skills to sustain relationships and communicate with a range of people from a wide variety of professional, academic and socioeconomic backgrounds.

Several participants referred to experiences where they had deliberately adjusted their presentation of themselves to fit in with the prevalent circumstances. Some participants did not indicate the nature of experiences that taught them how or when to change their presentation. Nevertheless most participants referred to adapting their manner of working to facilitate an empathetic connection with people affected by TBI. The change in presentation varied but the most frequently reported modifications included swearing, discourse, demeanour, and standard of dress. Participants acknowledged that swearing was not ideal but it was necessary to sustain the therapeutic relationship.

Chris 303: I don't like to use bad language....but there are occasions when it is essential.

Lindsay attributed her ability to adjust her presentation to her intuitive assessment of each situation; she stated that she did not learn this during her professional training.

Lindsay 96: I feel that the skill of being a good case manager, is being able to read the situation and know how to pitch it. So I can... I change my accent some... not change it... but I'll be a bit more rough and ready with some people and a bit more professional and use different language with others.

Erin described numerous experiences that provided informal learning in how and when to her to adjust her approach with different people. The insight she developed contributes to her sense of professional self as an empathetic practitioner.

Erin 253: …when you are working with the guys we work with, you have to be where they are. You have to go in at their level. People are where they are. If I'm working with people in [a socially, economically deprived area] I become a [socially economically deprived] girl... in an exclusive area in [city] and they are living in a multi-million pound house, then I become that professional person. For me its natural, it's not something I have to think about; I'll go into a situation and I automatically just become the person that they can relate to.

Some participants stated that, in addition to changing their style of narrative they adopted a style of dress and mannerisms befitting the presentation of people affected by TBI. Taylor reported that her informal learning of this came from her father who explained the importance of speaking appropriately for the occasion. Taylor has adapted this learning further and adjusts her attire and demeanour to ensure the people she supports are comfortable in her presence. This illustrates her insight into the needs of people she supports. It also highlights how she empathises with people affected by TBI through her effective interpersonal skills. The following interview conversation illustrates this further.

Interview Conversation 1 Chameleon Case Management

Taylor 155: It sounds awful to say the more rough type family in a more rough type area, then yeah we're officially not allowed to wear jeans for work but I would've put a sort of more scruffier end of so-called tailor trousers on, and trainers. If I'm going to a very nice elderly gentleman with a lovely wife with a twin set and pearls on then I will probably put my proper shoes and smart top on and sit more upright rather than sitting, leaning on the table.

Allison 156: Where did you learn that?

Taylor 157: I think there was something about that my dad always said the art of being well dressed is being well-dressed for the occasion and I think that comes in with the art of being well spoken is being well-spoken for the occasion. And it's about being right for the right environment… People might say you're just telling people what they want to hear but I think there's a fine line between telling people what they want to hear and also engaging them in a way that they're comfortable. It's their home. It's their life. Why should we go in and make them feel bad about it?

Most participants indicated support for chameleon case management. Nevertheless, Taylor's comment "*it sounds awful to say*" perhaps indicates a sense of discomfort about deliberately changing her presentation. One explanation for this may be because of participants' concern to present themselves authentically. Sam stated that he does not change his dress or language when working with people affected by TBI. However, he recognises that he would need to adjust his personal style if it was formal because this would cause difficulties in conduct of his role.

Sam 78: ….if I normally came to work dressed in a tweed suit and a dickey bow, I think yes it would cause a few problems going to some of the houses. I generally dress conservatively, appropriate to my age; and I'll never try and pretend by speaking differently to the way I speak.

The ability to "fit in" and thus connect with a range of people involved with the rehabilitation of people with TBI appeared to contribute to the development of effective interpersonal skills. Billie explains that the purpose of deliberately "acting" and adjusting his personal presentation is to achieve change needed for people affected by TBI.

Billie 599: …you have to change who are you to be where you are. [Hits the table rapidly emphasising the point.] So you have to be prepared to do that. You have to have enough confidence in yourself… and who you are in yourself to know that is okay to give that away... at times, because I'm not myself … when I talk to the lawyers, I'm not myself when I go to round table meetings and stuff like, I mean that's, that's when I'm acting… I know that I can't affect change for her unless I go to the other environment and act the way they want me to act and they've all fallen for it. Which is why people listen to me and that is the sum total of all the learning. Which is unless, you can get the people, with the power to listen to you, nothing changes for the people who need it to change and that is why I do put a suit on. (Participant emphasis)

Participants in this study varied their presentation in their delivery of case management. Describing the process as chameleon case management offers a succinct and comprehensive explanation that summarises the dynamic changes adopted by participants. Few participants described informal learning experiences that may have underpinned this approach. A number of attributes and skills seem to have been necessary for participants to adopt chameleon case management. This includes a mature sense of professional self, confidence, resilience, insight and empathy. Chameleon case management may be important to the maintenance of the therapeutic relationship.

The contribution of experiences leading to informal learning appears to be extremely important in the development of the shaping the sense of professional self. This is because the use of the self seems to be an essential tool for the conduct of case management. The following theme describing experiences of illness injury and disability that influenced the sense of professional self will be discussed next.

6.4.2 THEME 2: EXPERIENCE OF ILLNESS, INJURY, DISABILITY

The theme of injury, illness and disability emerged as the strongest and largest theme in this study. The majority of participants who discussed informal learning experiences influencing their case management role, raised the topic of illness, injury or disability spontaneously. Their detailed descriptions indicate the importance of these experiences in providing informal learning that seemed to contribute to the development of skills and attributes needed in practice.

Four sub-themes emerged within this theme. These are: providing care, understanding loss, isolation and inadequate support. The sub-themes are demonstrated in Table 10.

Table 10 Sub-themes within the Theme of Experience of Injury, Illness, Disability

Theme	Sub-theme	
2. Experience of Injury, illness, disability	2.1	Providing care
	2.2	Understanding loss
	2.3	Isolation
	2.4	Inadequate support

Participants considered that experience of illness, injury, disability provided informal learning that was relevant to their conduct of the role but the type of experiences reported did not indicate a pattern.

The age at which the participants experienced illness, injury, disability varied widely from early childhood to present day. Several practitioners described numerous episodes of illness, injury, disability occurring throughout their lives. The breadth and gravity of diagnoses differed considerably with some participants describing fleeting injuries and others encountering dramatic life changing conditions such as bereavement. Most experiences of illness, injury disability occurred within the participant's own domestic context.

The most frequent attributes arising from informal learning from illness, injury and disability seemed to be insight and empathy. Other skills and characteristics included maturity, effective listening, determination and commitment that may have supported the development of effective interpersonal skills. In particular informal learning arising from illness, injury and/or disability enabled participants

to connect their own experiences with the situation faced by people affected by TBI. This seemed to deepen their insight and enrich their empathy from which participants cultivated their therapeutic relationships with people affected by TBI. The rich informal learning arising from participants' intimate experience of illness, injury and disability is unlikely to be available from formal education.

6.4.2.1 Theme 2, Sub-theme 1: Providing Care

Several participants described providing care and support to family members during their lives; in some cases this started in early childhood. The intensity of support varied from delivering general help such as making tea to providing demanding levels of physical and emotional assistance involving the care of people who were seriously ill and dying. Those TBICMs who provided care during childhood indicated that this generated informal learning that helped them to become mature and develop insight into the needs of people affected by TBI. William commented that providing basic assistance helped him develop insight and responsibility. Nevertheless, depending on a child for assistance indicates a lack of formal support.

William 17: …my grandmother lived with us when I was a little boy. She was totally blind so, I had experience from a small child of being a bit of a carer. I would go to school; but at lunch when I would come home and heat up some food for my grandmother and I. So I was about seven then…. my mum's good like that…for instilling responsibility from a young age.

In contrast to William, several participants who provided support in childhood recalled that the experiences were distressing. Taylor reported that listening to her mother's dialogue was disturbing but these informal learning experiences helped her to develop good listening skills. Her experiences also seemed to foster attributes such as resilience, insight and empathy that prepared her well in her ability to establish therapeutic relationships.

Taylor 65: …my mum had, I believe she had a mental illness when we were younger…and I think that as a result of that there was lots of emotion within the household that as children, you just listen to…for her, it didn't matter if we were a ten-year old child or a whether we were another adult, she had to talk about stuff. And yeah at times it was distressing.

Participants who provided assistance during childhood were frequently isolated in this position but they indicated that this was a normal part of their lives. This differed to the care provided in adulthood where appreciation of the gravity of the situation facing loved ones seemed to intensify participants' emotional difficulties in providing support. This source of informal learning appeared to magnify the participants' understanding of the broad ramifications of illness, injury, disability on the lives of people affected by TBI. This may contribute to the therapeutic relationships established with people affected by TBI whom the participants support.

Yves supports her brain-injured partner and explained that this informal learning experience enriches her insight and empathy for the families who support relatives who have sustained a TBI.

Yves 47: …my spouse, it turns out damaged their brain … so I'm actually living with one 24/7… now he's relatively calm and able to cope and has learned all sorts of skills because we've spent a lot of time doing them.

The experience of caring for loved ones provided participants with informal learning about different aspects of loss for both the person with the illness, injury and disability and the people providing support.

6.4.2.2 Theme 2, Sub-theme 2: Understanding Loss

Participants' experience of illness, injury, disability appeared to have provided a rich source of informal learning underpinning their understanding of loss. Participants described a breadth of experiences of loss leading to a spectrum of transitory and permanent life changes. Encountering loss perhaps enabled participants to use their own situation as a lens from which to view and understand the perspective and challenges of people affected by TBI. This seemed to contribute to the development of insight and empathy. Several participants described experiences of loss in childhood. Dee recalled a harrowing situation when she was at primary school where the premature death of her mother forced her away from her familial home, leading to further losses. She now attributes this source of informal learning to her insight and understanding of the multiple losses encountered by people following a TBI.

Dee 33: I think that stems back to the fact that when I moved down to my grandmother's I didn't have any toys you know, my mum died, I didn't go to the funeral, wasn't allowed to go the funeral erm and then we [Dee and her mother] had a cat, that cat got put down.

Many people who sustain a TBI suffer a loss of control. Those participants who reported experience of illness, injury, disability indicated that of all the difficulties they encountered, loss of control was the most damaging. Niall experienced a cerebral injury leading to temporary but dramatic behavioural changes leading to a loss of control and his sense of professional self. Niall explained that the informal learning experience of losing control continues to inform his conduct of the role. Niall's experience has provided insight into aspects of sustaining a TBI that could not be replicated within formal learning. This supports his empathetic approach toward people affected by TBI on which develops his therapeutic relationships.

Niall 129: I was telling everybody to eff off, to leave me alone, no I'm not going to [do x], I'm going to [do y], you know. So, I was completely unreasonable, irrational, swearing so I was disinhibited. So, for a brief period, you know, I got to experience actually what it was like.

Kim experienced profound loss following a serious illness that took several years to subside. The informal learning from Kim's experience seemed to support his development of insight and empathy and understanding about the importance of helping people affected by TBI to achieve control. Kim also refined his interpersonal skills by learning to adjust his communication according to the needs of the individual. These experiences appeared to contribute to the development of several effective interpersonal skills that participants indicated are critical to successful conduct of the role. Thus for Kim, the experience of illness, injury, disability continues to inform his practice.

Kim 51: I couldn't speak. I couldn't use the phone. I couldn't be in a noisy environment. My balance was affected… I think it enables me possibly to have an empathy for where people are…more than I may have otherwise done…I think it's made me very aware of where people are and the need for them to be involved in what's happening and for things to be shared with them in a way that they can understand and they can have control over what's happening as far as they are

*able and is practicable …I think in some ways, the **biggest** problem was that loss of control if I'm honest. (Participant emphasis)*

A few participants reported multiple episodes of illness, injury, disability occurring in their lives. As people age the likelihood of experiencing a major life event such as illness, injury and disability increase. Consequently, because the majority of participants were above the age of 40 it is reasonable to anticipate that some will have encountered major life events leading to their experience of loss (Rowe and Kahn, 1997). Personal experiences of loss through severe illness, injury, disability provided participants with a breadth of knowledge and understanding that would be difficult to replicate within a formal learning framework. Glen commented that she uses her experience of the terminal illness of a close family member to understand and empathise with the losses encountered by people affected by TBI.

Glen 311: … I think that I can empathise. I do understand grief. I have gone through loss.

Several participants attributed their insight and empathy needed for the role to their experiences that fostered understanding of loss through illness, injury, disability. The informal learning that helped develop these attributes were considered by participants to be fundamental to delivery of case management. Participants may be able to empathise by drawing on their own experiences to inform their interpersonal skills that enhance therapeutic relationship.

6.4.2.3 Theme 2, Sub-theme 3: Isolation

Participants described diverse experiences of illness, injury, disability that appeared to cause feelings of isolation encountered in a number of ways. Experiences of isolation gave the impression of participants' deepened understanding and compassion that enriched their therapeutic relationships with people affected by TBI. For example, some participants described serious illness during childhood necessitating admission to hospital. Jo was forced to receive treatment in an isolation hospital during her childhood. The experience seems to influence her insight and empathy for people affected by TBI who appear to reject authority.

*Jo 61: I was in isolation hospital for xx months… I know rules, I hate them. That's why I understand these ones [sic] that don't conform, I think I wouldn't bloody conform either. Why should you? Why should **you** do this? Where does my dislike of rules comes from? Probably hospital again. Oh because I used to be force fed this **bloody** medicine which would still make me sick if I thought about it. (Participant emphasis)*

Isolation within hospital also had a profound effect on Lindsay. The following interview conversation illustrates how Lindsay links her informal learning experience from a hospital admission and the development of a number of attributes considered necessary for the TBICM role. This includes confidence, independence and insight into what isolation in hospital might means for people affected by TBI who experience similar encounters.

Interview Conversation 2 Informal learning from isolation

Lindsay 524:	*I had [emergency surgery] when I was seven and that was my first, strongest memory… I think that was a big, a **big** thing for me because... your parents weren't allowed to stay. So I was on my own. I was in a ward, side room on my own. And I was **ill**, (Participant emphasis)*
Allison 525:	*Why is it important for you to raise it in the context of informal learning?*
Lindsay 526:	*Because I probably learned to be on my own, really, a little bit by then… and that was a big deal for me at seven.*

The sense of isolation arose from physical illness but this increased sharply when resulting from mental health problems. Several participants described how their experience of poor mental health provided a useful perspective from which to comprehend the needs of people affected by TBI. In particular, participants explained how mental illness contributed to their development of empathy and effective interpersonal skills. Francis reported that the isolation he experienced from a nervous breakdown now enables him to understand some of the difficulties people have in communicating their needs.

Francis 93: …because I can sit in the client's seat I can imagine what it's like there. I know what it's like being there. I know what it's like having these questions. I know what it's like when you feel things and don't know how to say it. …And when you're in that dark place, you don't believe anybody else knows what it's like.

Two participants described isolation arising from life-threatening mental illness. Erin believed that her experience of severe depression continues to provide a rich source of informal learning by fuelling her insight and empathy for people experiencing mental health issues.

Erin 300: …at my lowest point which there was, I did actually consider suicide and was going to do it ….I can empathise because I know what it was like for me.

Nevertheless, not all participants reported experiencing isolation resulting from illness, injury, disability. Billie reported that his compassionate colleagues were supportive when he suffered a breakdown. Although Billie was not isolated as a result of his illness, the informal learning acquired from experience of severe mental illness engendered profound insight into the needs of people affected with similar problems resulting from their TBI.

Billie 547: I crashed, and as I started to crash I got caught and held and told it was alright… what I actually got told afterwards was, it will be a lot worse if you die and so let's keep you alive eh? And, so it was the, that breakdown if you like which was really useful.

Participants who experienced isolation arising from illness, injury, disability reported that they drew on their experiences to develop effective interpersonal skills and respond empathetically to the needs of people affected by TBI. Being isolated as a result of illness, injury, disability was exacerbated if there was inadequate support from professionals or services intended to meet their needs.

6.4.2.4 Theme 2, Sub-theme 4: Inadequate Support

Participants in this study reported that their understanding about the consequences of illness, injury and disability increased when services or professionals with the responsibility for providing support were inadequate or

unsatisfactory. Informal learning seemed to arise from interactions with people who had diverse health needs and their own direct experience. Some episodes occurred in early childhood. Harrie recalled that teachers relied on her ability to understand the needs of her disabled sister rather than seeking advice from suitably skilled colleagues. In her current role, Harrie works with colleagues who seldom understand the complexity of needs endured by people affected by TBI. The informal learning from her childhood provides a pertinent reminder of the need for effective interpersonal skills to communicate in a way that will ensure provision of the best package of interventions for brain injured people.

Harrie 408: …my sister has speech difficulties. It's called xx disorder. So there's a degree of retardation in it …she's eighteen months younger than me. I went to primary school and she went to primary school, and most of the day I'm going into the classroom to interpret for the teachers.

Several participants reported that communication failures by professional staff exacerbated a range of difficulties arising from illness, injury, disability. The informal learning arising from experience of inadequate services sharpened participants' awareness of the needs of people affected by TBI when encountering professional support. Taylor actively refers to her own experience as a source of insight and empathy to inform her current practice by making sure that people affected by TBI whom she supports do not experience anxiety from waiting for feedback.

Taylor 132: Had a blood test, phone call from GP. He was anxious that he hadn't been able to get hold of me. "Platelet count's sky-high. I need to refer to a haematologist right now, so my panic goes up, "Okay ***what's*** *wrong with me" sort of thing, and I haven't heard within 2-3 weeks … it hadn't been done. He'd never followed it up… But the fact that you tell somebody this information and you don't follow it up and you leave them in that state of panic and fear I think is awful. (Participant emphasis). I got a phone call this morning, I've already got it sorted. Because it's not fair for them to be hanging around not knowing and I feel for them.*

Several participants reported that not having their concerns heard provided informal learning that helped develop their effective interpersonal skills and enabled them to listen more effectively. Glen described being ignored by health

care professionals when expressing concern about her child's health. The informal learning arising from this experience taught Glen how to be persistent and determined in order to be heard; attributes that are essential when advocating for people with TBI who have complicated presentations. This also increased her insight into the challenges faced by those people affected by TBI whose symptoms are sometimes poorly understood.

*Glen 133: I've had to fight and fight to get help for my youngest who had really bad breathing problems when she was born and they just didn't listen me. And eventually turning up in A&E, I said that "I'm **not** moving until you sort this out." And they were like, "Oh my God, I can't believe you've gone this long without getting help." But again, it was **me** having to persevere. (Participant emphasis)*

Participants explained that their experience of inadequate professional support or difficulties in accessing services, was a source of informal learning that appeared to develop commitment, motivation and enthusiasm supporting their concern for people affected by TBI. Sam drew on his experience of attempting suicide to fuel his passion for people affected by TBI with severe mental illness. In particular his experience informs his understanding about the limitations of standardised assessment tools, especially for those people affected by TBI who are at risk of self-harm. Sam compares his informal learning experience of mental health management with the process introduced by his employer and considers that it is primarily concerned with protecting his employer rather than the individual at risk.

*Sam 82: We have a system for trigger factors for suicide risk and I suppose because of what happened to me, I am aware that I could have been assessed by the most eminent psychiatrist on the entire planet one hour before I took an overdose and he would have said piss off … So it makes me wary of the procedures and strategies that we have to use but are they effective?... So, we can say we've done that, yes "they said they wanted to kill themselves so we rang the GP" and I can see why they're there but at the same time I'm well aware that it wouldn't make **squat** difference. (Participant emphasis)*

This example illustrates the value of experience for case managers working with a vulnerable population. Informal learning resulting from a deeply painful episode of illness, injury and disability strongly influences how Sam uses and interprets

risk protocols; it also highlights how informal and professional learning are inextricably entwined. This indicates how experience is critical for learning and developing a number of skills and attributes such as insight, commitment, and empathy that participants considered fundamental to the therapeutic relationship and conduct of the role.

The direct or vicarious experience of illness, injury and disability would appear to have been instrumental in providing a source of informal learning for TBICMs. It also prompted participants to ensure they communicated effectively. People drew on their experiences and attributes to obtain a full rounded understanding of the needs of people affected by TBI from which to establish a therapeutic connection.

6.4.3 THEME 3: EXPERIENCE OF VIOLENCE

Informal learning arising from participants experiences of violence emerged as a strong theme. Violence represents all experiences of deliberate physical and psychological harm whether self-inflicted or caused by others. A brief review of why violence is a frequent feature of TBI will introduce the topic and will illustrate the importance and relevance of violence in the conduct of the case management role. The four key areas of informal learning arising from experiences of violence include managing hostility, self-protection, resilience and defending people affected by TBI as illustrated in Table 11.

Table 11 Sub-themes within the Theme of Violence

Theme	Sub-theme	
3. Experience of Violence	3.1	Managing hostility
	3.2	Self-protection
	3.3	Resilience
	3.4	Defending people affected by TBI

Although no distinct pattern of experiences emerged, many participants reported a broad spectrum of violent episodes throughout their lifespan. For some participants, the memory of these events continued to cause distress decades later. Several participants recalled episodes of violence in a range of settings occurring throughout their lives. Although participants did not always label the episode as violent, they described experiences of rejection, bullying, aggression, abuse, harassment, threats, assaults and suicide attempts. The learning described by participants was not confined to a particular context or type of

violence. Experience of violence appeared to provide a perpetual source of informal learning that seemed to support a source of insight and understanding that participants indicated was useful in their conduct of the role.

People who sustain TBI frequently experience a range of cognitive difficulties including poor insight, disinhibition, impatience and frustration (Wood and Thomas, 2013). These symptoms frequently initiate abusive, aggressive and/or violent responses from the injured person but also family members who are affected by the magnitude of difficulties (Rao et al., 2009). People affected by TBI often experience violence as victims, perpetrators (Rosenbaum and Hoge, 1989) or both indicating that TBICMs are likely to encounter hostile and violent behaviour during the conduct of their role. Consequently violence may impact on the way practitioners respond when encountering violence from people affected by TBI.

Recalling distressing violent experiences seemed to provide participants with informal learning in two areas of knowledge and approaches in the conduct of the role; namely, managing hostility and defending people affected by TBI. This appeared to support the development of a number of attributes such as confidence and empathy.

6.4.3.1 Theme 3, Sub-theme 1: Managing Hostility

Many experiences of violence appeared to provide informal learning that enabled participants to manage hostility during conduct of the case management role. The heterogeneity of experience generated learning that differed for each participant. Several participants reported numerous experiences of violence during their lives. For some, this commenced in early childhood. Being familiar with violence indicated a source of informal learning that supported participants' ability to respond confidently in circumstances of threat or violence. Harrie recalled that living with a sibling who behaved violently helped her to develop confidence with people affected by TBI who demonstrate challenging behaviour. However, she had overlooked this source of informal learning because for her, it was part of her upbringing.

Harrie 170: She used to have the most amazing tantrums, most amazing tantrums. Sometimes she could you know ripping things and throwing things,

and shouting and screaming… I don't feel fazed by difficult behaviour because I suppose I've lived with it.

Participants indicated that their experience of violence was fundamental in learning how to manage hostility frequently encountered in the case management role. Kim explained that working with brain injured people who were violent toward him helped him to develop an understanding that contributed to the development of attributes including a non-judgemental approach. For Kim, encounters with violence provided a deep and rich source of informal learning that he continues to use in his case management role.

Kim 231: …being on the receiving end of flying chairs and pool balls and what have you and I think that's where I learned a lot of things about not judging.

The role of a TBICM demands that people frequently work without the immediate support of a colleague. Consequently, the need for case managers to be confident is essential. The issue of confidence and the informal learning that influences this attribute was highlighted by several participants but there was wide diversity across the experiences of violence that initiated this learning. Pip described having to work in the home of a family who were extremely hostile.

Pip 74: They invaded my personal space in terms of [gestures with her hand that they placed their face very close to hers] so that taught me not to be scared and how to look after myself.

Whilst several participants described feeling uncomfortable when faced with hostility or challenging situations, others were able to maintain a degree of control over the situation by presenting in a confident manner. Alex reported that, because she was able to "act", this provided her with a sense of professional self-protection.

Alex 156: Even though I might paddle madly inside I can be very, very calm… if you act confidently I've learnt that it works.

Experiences of violence seemed to provide informal learning that taught participants how to defend themselves physically and psychologically.

6.4.3.2 Theme 3, Sub-theme 2: Self Protection

Informal learning experiences of violence seemed to heighten the participants' awareness of their own vulnerability and the need to maintain physical and emotional boundaries. Several people described the importance of this in the conduct of the role. How participants responded to experiences of violence varied according to the nature of the episode. Viv recalled that following a physical assault by her father she took refuge in a lavatory to protect herself. The informal learning from this experience provided her with a deep insight into the difficulties faced by others who are exposed to domestic violence and how they might protect themselves. The informal learning from this episode also taught her that removing herself from an aggressor provided valuable time in which to think and consider her best options in managing the situation.

Viv 324: I just ran away and locked myself in the downstairs toilet because there was only two locks in our house, downstairs toilet, upstairs toilet. He said, "Viv, come out that downstairs toilet otherwise, I'm going to break the door down and break every bone in your body." I remember that. So I was thinking, oh great so I was thinking there are two ways out, one way out where my dad stood, or another way out through the garage. Well, I'd go through the garage. (Participant emphasis)

From the participants' accounts, the majority of case management work took place in the homes of people affected by TBI. However, withdrawing from hostile environments is not always feasible and a different response may be needed to manage threatening people. Whilst employers have a duty of care to their staff and must assess risks for lone workers, employees also have responsibilities to take appropriate care of themselves and others. Employers may provide formal training and direction on how to respond to threat but this is unlikely to be able to offer the depth of authentic learning available from direct experience of violence. Harrie has learnt to protect herself by avoiding people who generate feelings of discomfort. She works in an organisation where a threatening person could be reallocated to one of her colleagues if she was unable to cope with their behaviour. However, this option may not be available for all case managers and for those people, they may need to adopt alternative approaches of self-defence. Harrie directly links her experience of domestic violence with her inability to work with any person who presents similar characteristics to her former husband. This

illustrates the critical importance of how informal learning experiences of violence influences professional practice.

Harrie 339: My [ex] husband… was…. aggressive and controlling… [and] was a certain way, and I occasionally get somebody I can't work with because it gives me the same vibe, you know, that sort of simmering, like…you know, and I think, Ooooh no, I can't do it.

Whilst individual experiences of violence differed, several participants described developing emotional boundaries in order to protect themselves from psychological harm. Numerous participants described the importance of a stable and private domestic life. Alex explained that she had informally learnt the risks of not separating her home and work life by observing colleagues.

*Alex 264: I keep **very** strict boundaries between my work and my home and if that was **ever** threatened I would feel very vulnerable and I don't think I could do the job …I've watched enough people fail miserably because they have divulged too much information. (Participant emphasis)*

The ability to maintain firm emotional boundaries is important to ensure a professional stance but also to protect the TBICM from becoming emotionally embroiled with people affected by TBI during chaotic and distressing times in their lives. Dee revealed that experiencing abuse during her childhood taught her how to isolate herself from the distress of the situation by maintaining a boundary of silence. This appears to have provided a source of informal learning she finds effective in protecting herself because she stated that she had revealed this information to only three people since the incident occurred.

Dee 43: I was abused when I was a child… I didn't say anything to anyone, erm, I always meant to keep back on certain things and, erm, I knew what I should say and what I shouldn't, erm, so as regarding boundaries in that respect I can keep them… In fact, you're the third person I have told…I have dealt with it in my own way.

It would appear that experiences of violence provided participants with informal learning on how they could protect themselves when dealing with hostile circumstances. Several participants reported numerous experiences of violence

throughout their lifetime enabling them to protect themselves and become resilient in the face of hostility.

6.4.3.3 Theme 3, Sub-theme 3: Resilience

Participants who experienced repeated episodes of threat and violence indicated that this provided informal learning that contributed to the development of their resilience. Pip recalled that her exposure to recurrent hostility enabled her to withstand a substantial level of threatening and abusive behaviour. Pip appeared to suggest that the level of hostility that she encountered would not have been tolerated by staff working in the NHS. Irrespective of whether this view is correct, this informal learning experience helped Pip to become resilient and also supported her determination and confidence; attributes that participants indicated as important in the conduct of their role.

Pip 74: I can't say I particularly looked forward to going to see that particular family but yes I became very resilient and I think anyone else actually as in terms of not a case manager but within the NHS they probably would have withdrawn because zero tolerance [snorts]. If I'd have said zero tolerance, well. They [meaning the NHS] wouldn't have accepted the abuse so … ok they can vent that at me but it got very personal and they didn't see me as being a successful case manager erm so that was very, personal really …but I, erm erm, I am more streetwise than I ever was before after that experience.

Quinn has been exposed to frequent threats of extreme violence that seems to have contributed to his development of resilience. Quinn compares his previous experiences of violence with the hostility he now faces in his current role. His pragmatic approach appears to help him keep matters in perspective thus supporting his confidence and determination. The following example illustrates how episodes of violence may offer a source of informal learning that could be helpful to conduct of the TBICM role.

Quinn 70: It was [area of conflict] and when you are on foot patrol and somebody takes a shot at you they are trying to kill you, so if I've dealt with that, next.

Erin explained that exposure to her mother's antagonistic approach provided informal learning leading to the development of determination and resilience.

Her informal learning experience also provides her with insight into how people affected by TBI might feel when deliberately provoked or undermined by a family member. Erin describes her resilience as becoming a "battler". "Battle" and "fight" were terms used by several participants to explain the approach they took when defending themselves and people affected by TBI.

Erin 223: If I was going for an interview or an exam or something I don't know why but my mother always used to sort of be particularly, I wouldn't say nasty, but difficult towards me on those days so I would go away sort of feeling sort of really angry and upset. So that made me even more determined to make something of my life. It's made, I suppose it's turned me into a battler to prove people wrong.

Repeated encounters with violence appear to have contributed to development of participants' resilience and may be helpful in the conduct of the role when encountering threatening circumstances. Resilience also seemed to support the ability to respond confidently and with determination. In particular, experience of violence highlighted the need to defend people affected by TBI who were vulnerable. This aspect of informal learning will now be explored further.

6.4.3.4 Theme 3, Sub-theme 4: Defending People Affected by TBI

Participants indicated that their experiences of violence throughout their lives provided informal learning in how to defend people affected by TBI. Glen recalls that she deliberately protected two members of her family when observing the impact of violence on them.

Glen 181: I remember standing up for my cousin or my sister on many occasions… My cousin was at school. My sister was in…later in life, she was in a quite an abusive relationship and he was more terrified of me than of her. He didn't ever… [breaks off] He treated her like dirt and I'm the little sister who… [breaks off] It's just that passion I suppose. You just want to protect.

Rod reported how witnessing the intense bullying of another pupil at his school provided informal learning that contributed to the development of insight, empathy and his philosophy on which he based his career as a TBICM. Consequently this experience has continually informed his conduct of practice.

Rod 49: … [bullying] absolutely does … inform [his current practice] ….. So that's what informed the things that I subsequently got into… you have to have a whole range of strategies and you have to be prepared to battle.

Several participants described experiences in their lives where defending the rights of other people meant engagement in conflict. Participants used the words to describe the defence of people affected by TBI as a "battle" or "fight". This conjures a very strong image of hostility indicating the need to be confrontational at times. Several participants indicated that their experience of violence has provided a source of informal learning that contributes to the conduct of their case management role. These informal learning experiences seem to have supported the development of commitment and determination. Jo sees the need to fight for her clients as an extension of the struggles she has faced throughout her own life and the tussle to be recognised as an individual.

Jo 169: You put that effort in for your clients. You fight for your clients…I've always had to fight. I've always had to fight. Fight everybody. Fight my mum, fight every husband I've had… It's about, it's fighting boundaries isn't it? I always feel that if you let it society will just close in on you, and I think they feel the same, it will just close in on them and make them be actually, what they don't want to be.

Uzzia reported numerous experiences of violence during her childhood from which she has learnt to defend herself. In so doing she applies this informal learning to sustain her defence of the brain injured people whom she supports as a case manager.

Uzzia 152: I fight for everything now and I'm so, [breaks off], and my husband said, "You're just so stressed all the time because I think you feel you've got to fight." … "You're fighting for your children you don't have"…That's what I do. I know that if I see a child going through the same thing [as her own family experiences] it would literally worry me. …I think it does come from, very much so, family, erm mess-ups… I do call it neglect. (Participant emphasis)

The hostility participants had encountered seemed to engender a deeply felt need to protect people affected by TBI. However, one participant indicated an experience which could be considered extreme but provided a significant

opportunity for learning and change. This informed his role as a TBICM by enabling him to deliberately seek positive qualities of people affected by TBI and thus contribute to the therapeutic relationship.

Mal 59: I can assure you my life experience would not be a regular one. I was a freedom fighter for 20 odd years… although it was very difficult, it actually changed my personality from being a judgemental one to saying people you really dislike have good qualities.

Within the framework of health and social care, the need for a non-judgemental approach is considered to be fundamental to the delivery of a quality service. Whether Mal would have developed his approach without this experience is unknown. This example illustrates that the learning emanating from experience of violence is diverse but underpins robust efforts to defend people affected by TBI. The key factors contributing to this include insight and empathy.

6.4.4 THEME 4: EXPERIENCE OF ROLE MODELS AND CHAMPIONS

The experience of role models and champions emerged as the smallest theme in the study. Role models and champions refer to the particular behaviours or approaches of people who have influenced participants' conduct of the case management role. Within the overarching theme of role models and champions there are four distinct sub-themes and include negative role models, positive role models, role models affected by TBI and champions. The informal learning arising from this theme contributed to development of a cluster of skills and attributes such as effective interpersonal skills that participants considered necessary for the conduct of the case management role. These are demonstrated in Table 12.

Table 12 Sub-themes within the Theme of Experience of Role Models and Champions

Theme	Sub-theme	
4. Experience of Role Models and Champions	4.1	Negative Role models
	4.2	Positive Role models
	4.3	Role Models affected by TBI
	4.4	Champions

There was no pattern in the experiences described but all participants reported being influenced by a role model or champion and most identified specific people or an individual who fulfilled this function in their lives. The type of connection between the participant and the role model or champion varied widely, ranging from fleeting single encounters to intimate lifelong relationships. Some people described numerous role models or champions whereas others identified only one person. However, the majority of participants described experiences of a role model or champion who had been affected by TBI.

The direction of influence was described in binary terms as being positive or negative; all participants described using these experiences in a constructive way and judged them to be beneficial in the conduct of their role. The informal learning arising from contact with role models or champions appeared to help the formation of attributes and abilities such as effective interpersonal skills that enhanced relationships between the participants and people affected by TBI. This in turn supported participants' case management practice.

Examples include defending a vulnerable person or a family member leaving a well-paid job to train as a health and social care professional. Similarly, participants recalled how their experience of champions provided role models demonstrating attributes of kindness, positive regard, encouragement and support. Participants indicated that they adopted these approaches in their conduct of the role. The influence of role models or champions occurred in all contexts, but many participants described experiences arising within the domestic context. Fewer examples arising in a work context were described. As case management practice frequently takes place within the homes of people affected by TBI, this emphasises the importance of informal learning acquired within a domestic setting. It is difficult to see how formal learning pathways could have provided knowledge of this depth and quality.

6.4.4.1 Theme 4, Sub-theme 1: Negative Role Models

Participants referred to experiences where individuals demonstrated poor behaviour and practice. These instances provided a counterpoint from which participants developed their approach but were fewer in number. Informal learning arising from negative behaviour of role models (learning by default) seemed helpful to participants to enable them to refine the skills and qualities

needed in case management practice. Several participants recalled that observing negative and challenging behaviour of professionals provided informal learning on how not to conduct their role. Several participants reported brief but long lasting experiences of negative role models that continue to influence their lives and practice.

Francis reported a single encounter with a careers adviser whom he did not know that made a lasting impression. The informal learning from this fleeting experience has troubled Francis for 35 years and enriches his practice in a number of ways. The behaviour of this negative role model has helped Francis learn about the importance of listening actively to what people say. He also explained that this experience has reinforced insight, empathy and determination to support people affected by TBI to make their own decisions irrespective of the outcome. This example illustrates the potential of a single experience in generating informal learning and highlights how this contributes to case management practice and the therapeutic relationship. This is illustrated in the following interview conversation.

Interview Conversation 3 Impact of Negative Role Model

Francis 141*:*	*…and it's still with me and I understand that I should let go, but I've still got it. Did you know in our time, we used to have somebody come in from the careers to talk to you about what you want to do? Yeah, and I can always remember, before we did O levels, my ambition was I wanted to go to university, I wanted to do this, this, and this. And even after all these years, I'm talking about what's got to be 35 years ago now, I can still see the man's face that was there and he turned to me and he said, "Oh no, you're not going to do that. You're all going to go to a local college and you're going to learn to be a cook."*
Allison142:	*Tell me…you said you can't let it go?*
Francis 143:	*Yes, yes, yes. [Francis speaking quickly, excitable]*
Allison144:	*Because?*
Francis145:	*I don't think anybody should be told what they can or can't do.* ***Everybody*** *[assertive tone] has the right to experience what they... [Speaking quickly, breaks off]. It's the same with…when working with a client. Okay, a decision may be a bad decision, but they have the right to make a bad decision, but we can* ***work*** *on that afterwards. And you can advise as much as you want, but you don't have the right to say to somebody, "No, you will not," or "No, you cannot." (Participant emphasis)*

Kim described his previous work in oncology where a clinician did not tell a patient the truth. This incident provided informal learning for Kim that may have contributed to the development of insight about the critical importance communicating in a way the other person can understand. The experience also taught Kim the need to hone his ability to listen.

Kim 116: Another man I went to see after the doctor had spoken to him said, "Oh, I'm so relieved. I thought I had cancer. He just told me I've got an ulcer." But in the term for ulcer, what he actually meant is he had a terminal malignancy but the doctor couldn't actually bear to tell him.

Several participants indicated that informal learning experiences of negative role models were amplified when those people were case managers. Billie recalled an encounter with a case manager whose brutal approach toward a man following a severe TBI provided a breadth of informal learning of how not to practice. The informal learning arising from this example of appalling unprofessional conduct taught Billie that the therapeutic relationship is critical and within that, warm, interpersonal interactions based on positive regard are fundamental to the role. It also highlighted the paucity of appropriately experienced TBI case managers. This fuelled Billie's passion to conduct his role to the best of his ability.

Billie 514: I said "What's your level of involvement?" and she said, "I ring him once a month to see if he's got used to being blind". Those were her exact words. ***[angry tone]****...because what I saw is a man who was potentially suicidal... He's got a hemiplegia, he's got no sensation down one side, he can't see, he's got a neglect on the side he can see, you name it, he's a very, badly damaged man and this woman who's just seeing if he's getting used to it. ...This man is so devastatingly, injured I don't think it's bad, I think it's inhumane. I think it's* ***actively*** *driving him to suicide, and ...there's lots and lots of stuff aren't even coming to detail here....this is person has...* ***no*** *community experience,* ***no*** *sense of humanity,* ***no*** *sense of the fact that it's* ***the*** *relationship that makes it work, and, unless, you form that relationship, nothing's going happen for this man.* (Participant emphasis)

Encounters with negative role models seemed to provide participants with a source of informal learning experiences that participants used constructively to support people affected by TBI with whom they worked. Notably many negative role models were professionals and this seemed to heighten the participants' condemnation of their behaviour. Numerous participants referred to their observation of poor case management practice amongst established practitioners. The informal learning provided from negative role models was predominantly concerned with understanding how effective communication skills were critical to the therapeutic relationship. This serves as a troubling reminder that some people who are registered health care professionals and who have worked as case managers for several years may not provide suitable role models for the profession.

6.4.4.2 Theme 4, Sub-theme 2: Positive Role Models

In contrast to participants' experiences of negative role models, there were far more examples of positive role models. In contrast, the informal learning from positive role models appeared much wider with participants reporting the development of more attributes and skills from encounters with positive role models.

Several participants reported positive relationships with role models that subsequently provided examples of behaviour to be imitated. Alex described how observing a colleague's approach to people with TBI provides a breadth of informal learning needed to conduct the role.

Alex 286: She is superb at working with [people affected by TBI]. She reads them like a book, she knows exactly how to interact with them… they love her to bits and they make her laugh and she makes them laugh…she's very self-sufficient so she has the confidence to manage this bizarre array of behaviours and I think that's what you need is self-sufficiency, emotional self-sufficiency that you have no need to be dependent or any form of approval or, erm, congratulations or anything.

Role models were described as an important source of informal learning in the development of effective communication skills needed for the role. In particular, participants referred to role models who provided examples of enhanced communication skills. Yves attributed her ability to listen effectively from being in the company of her father whilst he worked.

Yves 96: His ears were flapping because he was being the boss and you know, listening to what was happening and making sure everything was alright... so anything my dad did, I was going to try to do as well. He was listening in on conversations. I was too. I learned that skill from him.

The positive regard in which participants held their role models seemed to support their efforts in trying to emulate their skills. Taylor explained how her mother provided a positive source of informal learning and in particular how to speak to people. Taylor stated that she continues to apply this lesson in her case management work.

Taylor 170: It's not what you say, it's how you say it. And I think, perhaps again, is a reflection of what I use. That's what my mother told me, it's not what you say it's how you say so I've always tried, I think I'm conscious of that.

Interaction with positive role models appeared to support the development and adoption of a range of attributes that participants considered fundamental to case management. These included approaches, interests and principles that were influential to professional conduct of the role. Chris explained how she had some experience of observing her father who established a new professional role in the UK over 50 years ago. This provided her with an unusual role model from whom to learn about some of the challenges arising from the establishment of a new profession. She did not refer to similarities between the obstacles in developing a new profession experienced by her parent and the challenges she expressed in establishing her role in the emerging profession of TBICM. It is unknown whether her father discussed his work within the environment of their home. At that time, her parent's particular profession was poorly understood and unlikely to have been recognised by other well-established disciplines in allied fields. Thus there are strong similarities between the challenges both faced by Chris and her father in establishing new professional roles albeit 50 years apart. The experience of sharing a home with a parent who was carving an emergent profession may have provided Chris with an insight into some of the work needed to establish standards of practice and conduct in a new role.

Chris 630: My father was an x. He was one of the first in the UK and he later on went to run the x college and his thinking was well ahead of the times.

Participants thus indicated that role models provided informal learning leading to the development of skills and attributes considered necessary for the case management role.

6.4.4.3 Theme 4, Sub-theme 3: Role Models Affected by TBI

Role models affected by TBI provided inspirational examples of resilience and determination that fuelled the development of attributes participants considered necessary for the role. Glen referred to a positive role model whose persistence seemed to provide informal learning supporting her own development of resilience and determination.

Glen 167 One particular family that stands out for me who I did learn an awful lot from… the mum had such a lot of fight in her that I thought blimey! If she could do with all the balls she is juggling…us as case managers should be able to.

The relationship between people affected by TBI and case managers can continue for many years due to the relentless difficulties caused by this injury. Participants' admiration for role models affected by TBI seemed to increase the impact of informal learning experiences when role models affected by TBI and TBICMs shared common interests. This appeared to influence how participants conducted the therapeutic relationship with people affected by TBI Niall reported that listening to a parent of a brain-injured person helped his understanding of the need to develop a warm connection with people affected by TBI with whom he worked. The informal learning Niall experienced arising from this encounter was enriched because Niall was able to relate to the father by drawing on his own insight and experiences as a parent. The connection with people affected by TBI seemed to support the development of attributes such as determination, resilience and the ability to listen effectively.

*Niall 133: He said, "We just want people to come through our door who are real. We want them to talk about the weather and ask how we are and not coming with clipboards and have this formal approach, just drop it because we're real people. This is our home. It's about our family"… and I've said to so **many** people every time I come across a young client, I see my son sitting there. (Participant emphasis)*

The sustained effort needed by individuals to rebuild their damaged lives was reported as inspirational by participants. Some participants indicated that working with people affected by TBI affected them deeply. Rod was moved to tears when describing people affected by TBI and one person in particular who successfully negotiated an overwhelming number of obstacles.

*Rod 107: …complications occurred and he was completely mis-understood… he and his partner who stuck with him through all of this, have got married and he's a trustee of the local headway; he's speaking out. He's a star; I mean how inspiring is **that?**! What else do you need to **do**! [Animated and with emphasis] You know [breathes out deeply] I'm **sorry**. [Rod becomes very emotional] It really*

makes me feel very emotional because [tremor in voice due to emotion] these are people who have been written off. (Participant emphasis)

People affected by TBI who demonstrated commitment and determination to regain control over their lives provided powerful role models for participants. Severely injured people in particular seemed to be a source of informal learning that fostered participants' feelings of empathy and positive regard. This also appeared to encourage participants to maintain their commitment and drive when undertaking the role with challenging people. Mal describes an individual who, with persistence, has re-established control over his life. The informal learning arising from this role model taught Mal that maintaining effort and commitment to people who have challenging behaviour may have positive outcomes. From this, the role model inspires him to continue working with people affected by TBI who exhibit difficulties. This also highlights that the outcome of TBI is far from inevitable.

Mal 79: I have a client who is absolutely wonderful. He is fantastic young man who was a drug dealer and a coke head but a very, very intelligent guy and he has great personality. When I met him he was aggressive, taking drugs, drinking alcohol, fighting, doing all of these things. Today he's just gone to live six months in another country with his partner and his child and he calls me 3 times a week to have a chat.

Several participants described people affected by TBI who had achieved more than anticipated at the time of injury. Nevertheless the impact of TBI will continue to have consequences for the rest of their lives. For Alex, working with people affected by TBI and watching their adjustment provides a constant source of informal learning that encourages her and sustains her enthusiasm and determination considered necessary for the role.

*Alex 237: …that's great help to me and also a comfort in talking to families. Their ability to adapt or adjust or cope is phenomenal …and no matter what they are dealing with …they are **glad** that they are here and although sometimes life doesn't offer them, you know, they get on with whatever's thrown at them, and you know, there are hundreds of awful issues and problems but somehow they just get on with it. I **love** that. (Participant emphasis)*

Some participants may have found difficulty in identifying a source of informal learning from those people affected by TBI whom it may have been difficult to support. However, many participants indicated that role models who are affected by TBI provide a seam of informal learning that appears to foster attributes they deemed necessary for the role. Participants indicated that these role models encourage them to maintain high professional standards when encountering difficult circumstances.

6.4.4.4 Theme 4, Sub-theme 4: Champions

In this study, participants referred to a range of people who supported their professional development. A notable feature of these individuals is that their altruistic actions provided source of unexpected encouragement to the participant. Encounters with champions provided a deep and rich source of informal learning, illustrating that people do not always respond as expected. This seemed to help participants informally learn how to approach and support others with generosity, acceptance and positive regard.

Erin reported support from an unexpected source when she was deliberately approached by a lawyer who disregarded her former employer for not offering a good case management service.

Erin 150: One of the solicitors called me into her office and told me she was really impressed with my cv my, you know, she liked what I was saying but as long as I worked for this particular organisation I would never get any work from them because this company … didn't have a good reputation.

The informal learning from this experience gave Erin the confidence to leave and establish her own case management company. Thus, this single encounter initiated a process that provided multiple sources of informal learning but in particular, the value and importance of encouragement and positive regard. The informal learning was particularly powerful because she now adopts a similar stance with people affected by TBI whom she supports, drawing on her own experience to provide insight.

Erin 269: The way I see it life is really hard and I, you know, I know how much of a struggle it can be without any kind of disability or injury. And sometimes you

just need someone to believe in you to just pick you up and move you on and just help you through facilitating the adjustment from what you were to who you are.

Uzzia explained that because she did not have a champion throughout her upbringing, when she encountered an unexpected champion at university the impact on her was profound.

Uzzia 339: My personal tutor was the first person that ever said to me, "I believe in you". I see all of these other kids but ***you,*** *that I picked you out of the crowd". It was the most amazing thing when I look back. I'm sure she probably said to lots of people, but the fact that she said it to me, and at* ***that*** *time of my life, that* ***meant*** *something.* (Participant emphasis)

From this encounter, Uzzia realised that someone telling her *"I believe in you"* provided her with the encouragement and momentum she needed to achieve her personal and professional goals. Uzzia recalled how this experience continues to impact on her delivery of the role whereby she establishes that she will be a champion to her client at the start of every meeting with them.

Uzzia 362: ...and that's almost how I kind of always start a lot of my sessions, come to think of it.

Thus the informal learning arising from an encounter with a champion seems to have a long lasting effect on the conduct of her professional practice. In contrast, Harrie recalled a deeply distressing experience that was highly significant to her when she did not have anyone to champion or support her following her divorce.

Harrie 483: When I got divorced I ended up being interviewed by social services, it was the most horrendous experience of my life ...What angered me is that I was having problems [with her children]. I asked them [social services] for help and they said I didn't need any". ...I wouldn't go to them for any help in the future but I have to do it for my job...

Whilst this proved to be a harrowing experience for Harrie, it provided informal learning that generated a perspective of what it feels like for people whose requests for help are rejected. As a result, Harrie empathises with people affected by TBI who are facing similar circumstances. Consequently, she actively

uses this knowledge in her practice to ensure that she adopts the role of champion to people affected by TBI who are to be interviewed by social services.

*Harrie 487: [I] keep in contact with someone who knows exactly what's going on.... to reassure [the client]. It's **awful**. I **know** it's awful. (Participant emphasis)*

Thus championing appears to have a positive impact on participants in a way that perhaps cascades into their conduct of the role.

Participants described informal learning arising from interactions with role models and champions. Irrespective of whether the encounter reported was fleeting or long lasting, positive or negative, participants indicated that the impact of this on development of attributes and skills appeared to be constructive. Many examples pointed toward the importance of developing and sustaining the therapeutic relationship. The episodes illustrated in this section highlight the important contribution of role models and champions to informal learning.

6.5 Chapter Summary

In this study a broad range of experiences appear to support informal learning that informs conduct of the TBICM role. No pattern of experience appears from the professional background, type of employer and context in which the episodes occur but a constellation of four major themes have emerged. The themes include "Shaping the sense of professional self", "Experience of illness, injury disability", "Experience of violence" and "Experience of role models and champions". All themes demonstrate a breadth of informal learning occurring across the lifespan. For example, participants reported working as support workers in the theme of shaping the sense of professional self but also described caring for loved ones within the theme of illness, injury and disability. Thus irrespective of whether the experience of caring for others occurred within a domestic and professional setting, the informal learning seemed similar.

The theme of "shaping the sense of professional self" and its sub-themes are important because they indicate that individuals use themselves and their

informal learning experiences in the conduct of the role. This occurs irrespective of the formal education case managers have undertaken. The theme of "shaping the sense of professional self" also demonstrates that participants actively use the informal learning experiences to develop and sustain positive therapeutic relationships with people affected by TBI.

The largest theme of "Experience of injury, illness, disability" indicates its important contribution to the development of insight and empathy. These attributes emerged as being central to the conduct of the case management role. The pervasiveness of illness, injury and disability potentially offers a constant source of informal learning for TBICMs and thus facilitates authentic connections that enhance relationships with people affected by TBI.

The theme "Experience of violence" indicates how disturbing encounters generated informal learning that appeared to support the development of other attributes considered necessary for conduct of the case management role. Distressing experiences with violence were transformed into positive approaches including learning to manage hostility and self-protection. Notably participants drew on their informal learning experiences to defend and advocate for people affected by TBI. Accordingly, this theme suggests that experience of violence appears to generate a rich supply of informal learning that may not be easily available from other sources.

The theme of "Experience of role models and champions" suggests the importance of informal learning from the behaviour and actions of other people and how this influences the positive conduct of the case management role. This theme is important because it demonstrates the invaluable contribution of people affected by TBI as an informal learning resource that enthuses case managers to deliver best practice.

The findings in this study give the impression that informal learning experiences contribute to the development of attributes and skills considered necessary for the role. Nevertheless, there is no specific pattern of informal learning experience that inform the TBICM role.

Insight and empathy are the main attributes that seem to arise from informal learning experiences. These attributes occur in all themes and the majority of

sub-themes. Other attributes that comprise effective interpersonal skills such as confidence, resilience and listening were also found in two or three themes. This indicates that whilst there is no pattern in the type of experiences reported for this group of TBICMs, informal learning appears to support the development of several attributes. Informal learning experiences leading to the development of characteristics such as being streetwise or independent were fewer in number. Although some attributes arose in only one theme their contribution to the professional role is important.

All attributes arising from informal learning appeared to inform and enhance the participants' ability to develop and sustain therapeutic relationships with people affected by TBI. Although participants clearly described informal learning outcomes from some experiences such as empathy, other episodes generated multiple informal learning outcomes that represented a set of attributes specific to the individual. Some experiences reported by participants were dramatic but many occurred within the ordinary routine of daily life. Consequently, some participants describing what they considered to be an informal learning experience would sometimes fail to identify other sources of informal learning. Learning is unique to the individual but there appeared to be broad commonality in the informal learning that seemed to have developed across this group of TBICMs that appeared to contribute to the development of numerous attributes and skills.

This chapter has described the findings and in particular the four key themes and sub-themes to emerge within this study. A detailed discussion of these results follows in Chapter 7.

Chapter 7 Discussion

7.1 Introduction

The previous chapter outlined the emergence of four themes and associated subthemes arising in this study. This chapter will draw this study together by summarising the findings and outlining how the research question and objectives have been addressed. The contribution this research has made to the body of knowledge in the context of the theoretical framework on which this study rests will be summarised. The researcher has set out her reflexive perspective on how she has influenced the outcome of this inquiry to underpin discussion of the strengths and limitations of this work. Implications for future practice and research have been included followed by the conclusions and final reflections.

7.2 Summary of Key Themes

The four themes that emerged in this study indicating how informal learning experiences may have contributed to the case management role include:

- Theme 1 shaping the sense of professional self,
- Theme 2, experience of illness, injury, disability,
- Theme 3 experience of violence,
- Theme 4 experience of role models and champions.

Shaping the sense of professional self appears to differ to the other three themes. This is because participants described how a broad variety of informal learning experiences seemed to shape their sense of professional self. In contrast, the other informal learning experiences considered by TBICMs to inform their practice appeared to be encounters with a type of episode; for example arising from compromised health in the form of illness, injury, or disability.

This section will consider the findings of the study within the context of the literature. Each theme will be discussed in turn.

7.2.1 Theme 1: Shaping Sense of Professional Self

The theme of shaping the sense of professional self seemed to draw on four subthemes. These include previous occupation as a support worker (see paragraph 6.4.1.1), substantial experience labelled as maturity, (see paragraph 6.4.1.2), recognising limitations (see paragraph 6.4.1.3) and chameleon case management (see paragraph 6.4.1.4).

The literature investigating the sense of professional self throughout health care is extensive and usually refers to this as professional identity (Joseph et al., 2017, Rasmussen et al., 2017, Turner and Knight, 2015, Noble et al., 2014). Development of the self-concept is understood to arise from an active complex interplay between different experiences and socially constructed contexts (Kaplan and Garner, 2017, Ellis-Hill, 2011). Further influences that may shape an individual's identity include relationships, ethnicity and occupation (Deaux et al., 1995). Other aspects associated with the identity associated with a professional role include, principles, standards, experiences, formal education and professional practice (Ibarra, 1999, Crigger and Godfrey, 2014, Ibarra, 2005). Thus previous employment as a support worker may have provided a breadth of informal learning encounters that shaped the participants' sense of professional self in some way.

The sense of professional self is considered important because it frequently provides a foundation from which the practitioner practices (Bruno and Dell'Aversana, 2018, Geoffrion et al., 2016, Fagermoen, 1997). In medical specialties, a robust professional identity is associated with a clinician's delivery of good quality practice (Molleman and Rink, 2015). Notably the literature frequently connects the shaping of professional sense of self to formal training pathways (Fergus et al., 2018, Joseph et al., 2017). An occupational qualification is considered to contribute to the professional self (Turner and Knight, 2015, Holden et al., 2015, Crigger and Godfrey, 2014). However, TBICMs do not have this resource to support the development of their sense of professional self.

Without a formal qualification available to filter who may undertake this work, participants in the current study may have used their informal learning experiences as a source of reference from which to scaffold their sense of professional self. Establishing a professional identity as a TBICM may be

important to the participants because the profession is in its infancy compared to other health and social care professions. Consequently, informal learning experiences may be a useful resource from which to establish their own skill base. This may have been helpful to TBICMs in shaping their sense of professional self.

Participants described how working as a support worker in the early stages of their career appeared to contribute to the development of insight, empathy and other attributes they considered necessary for the role. Employment as a support worker prior to professional nurse training has been recommended as a valuable source of informal learning from which to cultivate the appropriate attributes and interpersonal skills needed for the conduct of good quality care (Francis, 2013, Cavendish, 2013). The findings in the current study raise the question of whether other health and social care professionals should work as support workers prior to their professional training to develop attributes that might benefit their respective professional practice.

Health care practitioners' sense of professional self has been linked to their maturity arising from the appropriate knowledge and ability to undertake the role (Alves and Canilho, 2010). Recruitment to the study did not specify the participants' age or numbers of years in practice but most TBICMs implied they were mature practitioners. The case management literature does not state whether staff should reach a minimum age to practice. However, a study in medical education suggests that mature students were more likely to use their informal learning experiences than younger peers (Shacklady et al., 2009). As participants reflected on their informal learning experiences, this may have focused their attention on their own maturity and sense of professional self. The breadth of informal learning experiences gained over many years may have provided practitioners with a perspective that enabled them to consider how these encounters supported their sense of professional self as mature practitioners. The contribution of experience and appreciation of individual shortcomings has been found to be important in the consolidation of nurses' professional identity (Okura et al., 2013). The findings in this study seem to support this position.

The participants self-concept of maturity seems closely linked to their ability to recognise their own limitations. Practitioners indicated that they developed

insight into their own limitations from a variety of informal learning experiences over many years. In this study, supervision was seen as essential to support participants in the conduct of their role but it was not available to all. Although some participants stated that they reflected on their practice continually, Tomlinson (2015), draws attention to the possibility of developing a myopic perspective. This indicates that reflection may not generate the optimum solution if practitioners are too introspective or not sufficiently so. Some participants who recognised that their limitations arose from feeling isolated may have agreed to join this study to make contact with another case manager (Coar and Sim, 2006).

Participants described the importance of establishing a connection with people as fundamental to achieve the best outcomes for people affected by TBI. Practitioners appeared to adjust their presentation of professional self according to the circumstances in which they worked (referred to as chameleon case management); they implied that this is an important aspect of the role. The literature indicates that every individual's identity operates and changes within socially constructed contexts (Kaplan and Garner, 2017, Stryker and Burke, 2000). Some practitioners recalled informal learning experiences that perhaps shaped their sense of professional self, enabling their deliberate change in presentation. In contrast, others described encounters where they recognised that they had altered their behaviour but were unable to explain how they had learnt to do this. The ability for people to attune automatically with others by partly or fully mirroring behaviour is present from birth and is described as social glue (Hamilton, 2015, Marshall and Meltzoff, 2014). The literature emphasises the importance of mirroring emotional and physical aspects of interaction because it fosters empathy and prosocial behaviour (Duffy and Chartrand, 2015, Hamilton, 2015, Bowlby, 2005, Chartrand and Bargh, 1999). Participants in this study reported a variety of informal learning experiences that seems to have provided them with insight to recognise the importance of being able to adjust their self-presentation according to the prevailing context. They gave the strong impression that this was to establish and sustain a connection with whom they were working. This suggests that participants drew on multiple aspects of themselves to enable them to respond in this way.

The informal learning experiences that seemed to shape the participants' professional sense of self appears to involve a dynamic interaction of implicit,

tacit and experiential learning (Kolb, 2015, Jarvis, 2015, Reber, 1989, Polanyi,1967). Participants described how their informal learning encounters as support workers seemed to provide insight they considered helpful to the role. Similarly, participants gave the impression that their extensive experiences contributed to their sense of professional self as mature practitioners. Practitioners recognised their own limitations and described how they were able to adjust their presentation to fit in with the circumstances in which they worked. Thus because participants were able to reflect on many of the informal learning experiences that appear to have shaped their sense of professional self this suggests experiential learning (Kolb, 2015). However, implicit and tacit learning also seems to contribute to the role from the multiple socially constructed influences that participants encounter.

This perhaps suggest that in these circumstances learning is tacit and implicit (Reber, 1989, Polanyi, 1967). Nevertheless, because the interview provided an opportunity for participants to reflect on their experiences this indicates that both experiential learning and learning from experience are relevant in this study of informal learning (Kolb 2015, Vygotsky 1978).

7.2.2 Theme 2: Experience of Illness, Injury Disability

The theme of learning from experiences of illness, injury and disability (Theme 2) drew on four subthemes of providing care (see paragraph 6.4.2.1), loss, (see paragraph 6.4.2.2), isolation (see paragraph 6.4.2.3) and inadequate support (see paragraph 6.4.2.4). Participants referred more frequently to informal learning experiences of illness, injury and disability than any other topic in the study.

Participants described these encounters occurring throughout their lives. This involved being directly cared for themselves, or vicariously by caring for loved ones. Notably, more than half the participants described multiple experiences of illness and disability but the frequency and intensity of illness, injury, disability in relation to attributes needed to support conduct of the professional role does not appear to have been addressed in the literature. Irrespective of where the type of experience took place and/or what it involved, many participants indicated that they felt isolated and a deep sense of loss. The way in which participants explained their encounters suggested that these feelings may have been

exacerbated when professionals or services did not provide an adequate level of support.

Many participants provided details about their experiences with illness, injury and disability that were similar to some of the symptoms and challenges that occur following TBI. These participants indicated that their own experiences enabled them to identify with people affected by TBI facing similar difficulties. This gives the impression that the participants' direct and vicarious encounters with illness, injury, and disability provide a perpetual source of informal learning perhaps not available from formal learning opportunities.

Learning theorists consider that informal learning arises in a constant flow of experiences (Marsick 2017, Jarvis 1987). Participants encountered illness, injury, and/or disability in socially constructed contexts. These sources of informal learning may be explained by experiential learning (Kolb 2015). This contrasts with experience of illness, injury and disability occurring during childhood that participants viewed as part of normal life. This perhaps suggest that in these circumstances learning is tacit and implicit (Reber, 1989, Polanyi, 1967). Nevertheless, because the interview provided an opportunity for participants to reflect on their experiences of illness, injury, and disability, this indicates that both experiential learning and learning from experience are appropriate theories from which to investigate informal learning in this study (Kolb 2015, Vygotsky 1978).

In this study, the informal learning experiences of providing care occurred within the participants' domestic context. This is relevant for their practice because the majority of people who maintain a severe TBI are likely to need some form of care, support or intervention to sustain their independence in the community (Clark-Wilson et al., 2016). These findings also highlight the contribution of informal learning experiences that occur outside of the workplace (Jarvis, 2015). This view is echoed in an investigation into the impact of providing care to family members by medical staff because similar informal learning experiences were considered to increase their insight and empathy (Roberts et al., 2011). In particular, it seems to offer a real world understanding of what it means for people affected by TBI living in a domestic context with all the challenges that may be seldom encountered within the environment of institutional care. This suggests that informal learning experiences of providing care outside of the

workplace may have enhanced the participant's insight and empathy in a way that might be difficult to achieve through formal learning.

Severe TBI leads to multiple experiences of loss that profoundly affect a person's independence, identity and control (Carroll and Coetzer, 2011). Participants indicated that their own experiences of loss provided a source of informal learning that appeared to help them understand this aspect of TBI. The losses described by some practitioners may not have been as severe or extensive as the damage encountered by people affected by TBI. Nonetheless, participants indicated that the memory of their losses enriched their insight, empathy and effective communication skills when supporting people affected by TBI. The concept of the wounded healer describes practitioners who use their own experiences of illness, injury, or disability as a lens to understand and empathise with the loss and suffering of others' (Dowd, 2016, Jackson, 2001, Zosky, 2013). Participants gave the impression that they were able to apply their insight and understanding to tailor their approach to the specific needs of people affected by TBI.

The consequences of severe TBI frequently leads to social isolation for injured people (Fadyl et al., 2017). The complexity of this injury means that many survivors cannot comprehend the extent of the losses they have sustained. This increases their difficulty in understanding and communicating their suffering and anguish often contributing to social isolation (Salas et al., 2016). Participants' informal learning experiences of isolation arising from illness, injury, disability occurred throughout their lifespan. Practitioners gave the impression that they continued to refer to these informal learning encounters in their role to provide insight and empathy for people affected by TBI whom they supported. For the benefits of insight and empathy to be effective for the people affected by TBI, the practitioner must communicate their understanding effectively and act in response to the knowledge they hold (Kelm et al., 2014, Doyle et al., 2014, Francis, 2013, Hojat et al., 2002). Participants also indicated that these experiences of isolation helped them to appreciate the importance of effective communication when dealing with people who perhaps may not be able to articulate their own needs. Effective communication skills involve empathy, approachability, good listening skills as well as appropriate body language, appearance and behaviour (Parnas and Isobel, 2017, Person and Finch, 2009). This suggests that informal learning experiences of isolation appear to support

the generation of several attributes considered by participants to be helpful to their practice.

When participants did not receive sufficient support from professionals and services at times of illness, injury, or disability, their experience of loss and isolation appeared to be exacerbated. Unmet needs due to a lack of assistance is evident amongst many groups of ill and disabled people (Brimblecombe et al., 2017). However, for people affected by TBI, the complexity of their presentation frequently contributes to failure to have their needs identified and met by numerous services responsible for health, social and custodial care (Topolovec-Vranic et al., 2017, Forslund et al., 2017, Williams and Chitabesan, 2016). Informal learning experiences of not receiving a suitable level of support appeared to provide participants with a real world understanding that may have contributed to the development of insight and empathy. These encounters may have motivated practitioners to persevere to achieve the interventions that they felt people affected by TBI needed rather than accept what they deemed to be a less than satisfactory service.

Participants recalled informal learning experiences arising from intimate encounters with illness, injury, and disability more than any other topic in the study. Their descriptions indicated that these encounters supported their practice by contributing to the development of insight, empathy and effective communication. The participants' reflection on how they applied their experience of illness, injury and disability in adulthood to their role suggest that experiential learning theory accounts for this source of learning (Kolb, 2015). This contrasts with experience of illness, injury and disability occurring during childhood that participants viewed as part of their normal life. This perhaps suggests that in these circumstances learning is tacit and implicit (Reber 1989, Polanyi,1967). Nevertheless, because the interview provided an opportunity for participants to reflect on their experiences this indicates that both theories of experiential learning and learning from experience are applicable in this study (Vygotsky 1978, Kolb 2015).

7.2.3 Theme 3: Experience of Violence

The theme of experience of violence drew on four subthemes of managing hostility (see paragraph 6.4.3.1), self-protection, (see paragraph 6.4.3.2),

resilience (see paragraph 6.4.3.3) and defending people affected by TBI (see paragraph 6.4.3.4). Participants' descriptions of informal learning from diverse and disturbing experiences of violence were unexpected in this inductive study. Several practitioners described numerous episodes, some of which continued to cause distress many years after the event.

This is relevant for TBI case management practice because sustaining a moderate to severe TBI is known to substantially elevate the chance of developing aggressive and violent behaviours (Clark-Wilson et al., 2016, Wood and Thomas, 2013, Baguley et al., 2006). Not every person who experiences a TBI will demonstrate these undesirable attributes but the nature of the injury indicates that TBICMs have an increased likelihood of encountering violence in the course of their work at some point. The literature reports that the risk of experiencing workplace violence is greater for health and social care professions compared to many other disciplines (Pinar et al., 2017, Campbell, 2016). A number of factors appear to contribute to increased likelihood of workplace violence for health care staff. Some of these may include:

- Growing numbers of people with complex needs are supported in non-institutional settings (Phillips, 2016, Vladutiu et al., 2016).
- Females, working alone, and/or working with frustrated individuals (Pinar et al., 2017, LeBlanc and Kelloway, 2002).
- People affected by TBI and/or mental health challenges who struggle to control violent and aggressive behaviour (Monahan et al., 2017, Lane et al., 2017, Wood and Thomas, 2013, Rao et al., 2009).
- Inadequate or insufficient staff training in the management of violence (Pinar et al., 2017, Goldblatt et al., 2017, Occupational Safety and Health Administration, 2015).
- Difficulty in accessing appropriate services and staff shortages (Semeah et al., 2017, Sacks and Iliopoulou, 2017, Giannouli, 2017).

The combination of multiple factors indicating the potential for violence seems to suggest that case managers who work alone in the community may be at heightened risk of encountering violence. This means that TBICMs need to be able to manage hostility and deescalate threatening situations to protect themselves.

Victims of violence frequently suffer long-term damaging physical and psychological sequelae that damage job performance and impacts on other areas of their life (Goldblatt et al., 2017, Fujimoto et al., 2017). The literature reports that violence leads to loss of confidence (LeBlanc and Kelloway, 2002, McKenna and Boyle, 2016, Holland et al., 2012). However, confidence has been reported to be a protective factor for health staff dealing with violence (Glass et al., 2017, Dekel et al., 2006, Tee et al., 2016). Studies investigating the impact of training staff to deal with violence indicate that their confidence increases (Allison, 2017, Phillips, 2016, Heckemann et al., 2016). Notably in this study, participants did not mention receiving formal learning in how to manage violence. Instead, they described how encounters with violence provided informal learning in how to behave in a confident manner that appeared to have helped them with managing hostile and violent circumstances. Participants gave the impression that their previous encounters with violence offered some form of protection by preventing a baptism by fire when faced with violent people affected by TBI. It is unclear why this finding does not concord with the literature. For those TBICMs at risk of violence who are unable to access formal learning setting out appropriate responses in situations of threat and violence, informal learning from experience may provide some guidance.

Informal learning experiences arising from violence seemed to hone participants' insight and understanding of their own vulnerability (Weinstein, 1989). In particular, practitioners learnt how to create physical and emotional boundaries to protect themselves. Physical boundaries included withdrawing from the environment and the aggressor but emotional boundaries were engaged to protect participants from harm (Goldblatt et al., 2017, Stiles, 2004). Some TBICMs learnt to protect themselves by remaining silent. This may seem anomalous to the current thrust of encouraging and supporting victims of violence to speak out (Seymour, 2017). However, it may indicate two aspects relevant to informal learning experiences in this study. Firstly, the violence reported took place at a time when victims were not encouraged to discuss their situation. Secondly, for some participants, experience of violence appears to have provided them with a source of informal learning that perhaps enables the individual to manage the situation in a way they think best. This also seems to include establishing a refuge in the form of a settled home and personal life as a source of self-protection from the challenges of work.

The majority of participants indicated that the conduct of TBI case management is challenging and difficult. For some people who have encountered demanding and distressing experiences, the development of positive attributes including resilience has been termed "post traumatic growth" (Calhoun and Tedeschi, 2014, Calhoun and Tedeschi, 2004). Recognition of the importance of resilience (the ability to bounce back following a trauma) has spawned a growing body of literature examining outcomes of formal training to develop resilience in a wide range of professions and patient groups (Sarkar and Fletcher, 2017, Ramey et al., 2017, Loprinzi et al., 2011). However a systematic review of quantitative research investigating the effectiveness of different resilience training approaches reported a positive effect in only 50% of the studies reviewed (Robertson et al., 2015). In contrast, formal training designed to develop resilience in general practitioners indicated that one of the most useful aspects of the course was the opportunity for peer discussion and reflection (Cheshire et al., 2017, Lynch et al., 2016). This indicates that informal learning opportunities to develop resilience need further exploration. The literature investigating resilience recognises the interplay between physical, psychological and social elements that contribute to development of resilience (Fletcher and Sarkar, 2013, de Terte et al., 2014, de Terte and Stephens, 2014, Connor and Davidson, 2003). This suggests that although participants attributed their resilience to the specific experience of violence, this attribute may have arisen from multiple sources.

Nearly every participant described informal learning experiences of violence that appeared to strengthen their commitment and determination to defend people affected by TBI. Practitioners indicated that being victims of violence appeared to have helped their understanding and insight into the needs and perspectives of vulnerable people whom they supported. Several practitioners seemed to connect their informal learning encounters of violence as victims to their ability to defend people affected by TBI. The literature reporting how victims' informal learning experience of violence influences the conduct of their professional role is mixed. Some individuals actively defend victims whom they support whilst others do not (Wood, 2017, Pecnik and Bezensek-Lalic, 2011, Postmus and Merritt, 2010). This study indicates that these practitioners described a proactive approach to defending people affected by TBI irrespective of the level of violence they had encountered in the past. Although participants implied this involved verbally defending people, the language they used indicated a forceful approach.

Nevertheless, several participants described episodes of violence seemingly without recognising the encounter as a source of informal learning. The need for self-protection is innate but threats and violence have been found to increase the development of adaptive strategies in children (Bowlby, 2005, Crittenden, 1999). This may be partly explained by research highlighting the interaction between an automatic biological response to experience of hostile environments and violence that shapes the structure and function of brain circuitry (Cozolino, 2014, Adolphs, 2003). Specific neurobiological structures have also shown connections to individual experiences and empathy that subsequently influences their response (Masten et al., 2010). This indicates that informal learning experiences of violence used by practitioners would appear to arise from tacit and implicit learning (Jarvis, 2015, Yardley et al., 2012b). In addition, participants seem to have developed ways in which to protect themselves indicating that they had reflected on the situation indicating experiential learning (Kolb, 2015). It is beyond the scope of this study to comment on whether the informal learning experiences of violence supported the development of appropriate approaches for participants. Nevertheless, this study illustrates a previously unknown source of learning for TBICMs.

7.2.4 Theme 4: Experience of Role Models and Champions

The theme of experience of role models and champions is the smallest in the study. Four subthemes emerged including negative role models (see paragraph 6.4.4.1), positive role models (see paragraph 6.4.4.2), role models people affected by TBI (see paragraph 6.4.4.3) and champions (see paragraph 6.4.4.4).

The literature describes and defines the actions of role models who provide sources of informal learning contributing to the delivery of professional practice across a number of occupations (Osama and Gallagher, 2017, Jack et al., 2017, Passi and Johnson, 2016). All role models influence conduct of professional practice either by being embraced or rejected according to their standards, qualities and conduct (Osama and Gallagher, 2017, Cruess et al., 2008, Lockwood et al., 2004).

The literature describing people with inappropriate and inexcusable behaviour refer to negative role models, anti-models and poor role models (Sternszus and Cruess, 2016, Mileder et al., 2014, Joubert et al., 2006). Negative role models

represent the antithesis of professional conduct from which professionals learn how not to practice (Passi and Johnson, 2016, Burgess et al., 2015). Several participants indicated that their encounter with a negative role model continued to influence their conduct of practice many years after the event (Mileder et al., 2014). The literature indicates that the impact of negative role models in other health care professions can undermine practitioners' confidence (Jack et al., 2017, Burgess et al., 2015). This finding did not seem to occur in the current study.

By far the most powerful negative role models seemed to be other case managers whose conduct appeared to harm people affected by TBI as well as bring the profession into disrepute. Although participants considered that these adverse episodes were awful, they seemed to provide memorable informal learning experiences in the importance of effective listening and communication (Weissmann et al., 2006). This may have been a useful source of experiential learning for participants in this study by reiterating the importance of positive behaviour and rejecting inappropriate conduct (White et al. 2009, Mutha & Takayama 1997).

The helpful contribution of professionals who are positive role models is documented thoroughly in the literature (Osama and Gallagher, 2017, Brown and Treviño, 2014, Cruess et al., 2008). Positive professional role models have also been linked to shaping professional identity, as well as motivation to conduct the role well (Passi and Johnson, 2016, Morgenroth et al, 2015, McIntyre et al., 2011, Lockwood et al., 2004).

The findings in this study seem to support this perspective as participants recalled a wide variety of experiences describing how they learnt to behave appropriately by copying some of the approaches demonstrated by their positive role model. The informal learning experiences from positive role models seemed to help the development of a number of attributes considered helpful to the role including insight into the need to adjust their approach and communication according to the needs of people affected by TBI.

Notably many participants described a positive role model as a close family member with whom they seemed to have a warm relationship. Although the influence of family role models in career choice has been identified, the

contribution of family members as role models in the conduct of professional practice seems to have been overlooked in the literature (Hoffmann et al., 2015, Whiston and Keller, 2004). Thus, this study indicates that positive role models outside the workplace may offer a valuable contribution to the conduct of practice. Compared to other established professions such as medicine, the TBICM profession is comparatively new. It is possible that TBI case management role models may not yet be plentiful. Secondly, the participants in this study were mature practitioners. In the emerging profession of TBICM, some individuals in the vanguard may have needed to look for other sources of positive role models because these individuals may have been encountered infrequently.

Participants in this study described the profound impact that role models affected by TBI seemed to have made on their conduct of the role. This is important because a warm connection between patients and health care professionals has been reported as contributing to positive and cost effective outcomes (Person and Finch, 2009, Parnas and Isobel, 2017). Those people affected by TBI who demonstrated determination, resilience and persistence in the face of adversity seemed to inspire admiration in TBICMs. Participants did not necessarily wish to imitate all the behaviours demonstrated by role models affected by TBI but recognition of their attributes seemed to enhance the practitioners' respect, appreciation and value of these people. TBICMs gave the impression these encounters provided a poignant source of informal learning that may have contributed to the development of numerous attributes helpful to delivery of practice such as empathy and motivation (Hojat, 2016, Renner, 2017, Lockwood et al., 2002). There seems to be a dearth of studies investigating the contribution of role models who have disabilities or who are patients. Consequently the findings in this study appear to be out of step with literature discussing the important contribution of patient/client role models to practice. This perhaps indicates a new area that merits further exploration.

Some participants illustrated their insight into the extensive challenges faced by their role models affected by TBI by describing the magnitude of their situation (Couchman et al., 2014). This perhaps indicates that understanding the complex and multiple difficulties arising from TBI seems to be necessary in consolidating and sustaining therapeutic relationships with people thus affected. Practitioners' recollection of the dreadful experiences encountered by role models affected by TBI seemed to diminish potential barriers arising from differences in age range,

culture and interests. This has been attributed to the social synapse that describes socially constructed experiences that foster neurobiological structures underpinning effective interpersonal skills (Cozolino, 2014, MacDonald, 2009, Bandura, 1977).

Participants indicated that their encounter with a champion seemed to have initiated a positive change in their approach toward people affected by TBI. The literature describing champions indicates that they are inspirational people who are compelling communicators and foster trust (Seymour, 2017, Balven et al., 2017, Zawawi and Nasurdin, 2016, Flaherty et al., 2014, Greenhalgh et al., 2004). Within healthcare, champions are portrayed as positive forces for good and are often tasked with encouraging others to make changes they deem desirable (Ates et al., 2017, Rogers, 2003, Xiaoyan and Jezewski, 2007, Komajda et al., 2013). Thus, the findings in this study appear to concur with the literature. In particular, the champion appeared to initiate an important change in the life of the participant through an unexpected altruistic intervention. This interaction seemed to lead to a broad range of informal learning experiences that appeared helpful to the TBICMs professional development. Notably, practitioners indicated that they use their informal learning experiences to inform their practice by being a champion to people affected by TBI whom they support. Several participants did not appear to link these two aspects until the interview. Some people felt that not having a benevolent and kind agent of change at a difficult time in their lives seemed to compound their sense of isolation. This perhaps generated an unpleasant informal learning experience for participants. Irrespective of this, participants gave the impression that a champion was a positive agent of change in their lives. This seemed to be emphasised by the TBICMs who described not having a champion when they would have liked one.

The lack of formal learning opportunities for TBICMs highlights the importance of informal learning experiences in the delivery of practice. Social learning partly arises from observing the recurring conduct, behaviour and achievements of role models and champions within a variety of social contexts (Vygotsky, 1978, Bandura, 1977). In addition someone's actions and behaviour may influence others in conscious and unconscious ways (Benbassat, 2014). This may include subtle aspects such as tone of voice, body language and demeanour that may be incorporated into a practitioners conduct without further consideration (Cruess et al., 2008). Thus, encounters with role models and champions appear to have

provided helpful sources of informal learning for TBICMs in this study. The learning seemed to have involved experiential, tacit and implicit learning.

7.3 Overview of How This Research Addresses the Research Question

The research question asks "what informal and personal learning experiences do people providing case management to clients with TBI consider having supported development of their professional role?". The four main objectives pursued to answer this question are:

i. Exploration of the individual perspectives of people undertaking this role.
ii. Identifying any common learning experiences valuable to the role.
iii. Exploring whether there is a pattern of informal learning experiences reported.
iv. Investigating how participants applied informal learning experiences to the conduct of the role.

This exploratory study recruited participants who provided TBI case management irrespective of their job titles, disciplines, organisational configuration, employment sector or geographical locations. Participants were asked to recall their informal learning experiences that they considered helpful to the conduct of their practice. The participants decided which of their informal learning experiences to reveal as informing their ability to undertake the role, thus affirming the importance of these inductive findings. However, as practitioners generated most of the data, this approach could be criticised because it could have been difficult to identify whether there were any common learning experiences. This study did not find specific learning experiences that were common to all participants and no pattern was evident in the experiences generating informal learning. Nevertheless all TBICMs in the study described informal learning experiences from which four strong themes and subthemes have emerged. For the first time, informal learning experiences that TBICMs consider support their practice have been identified.

Investigating how participants applied their informal learning experiences to the conduct of their role showed a broad mixture of experiential, tacit and implicit learning. The interviews provided an opportunity for practitioners to reflect on their encounters. Notably some TBICMs mentioned informal learning episodes

fleetingly. It is unknown whether participants considered these experiences to be supportive in their practice.

Informal learning experiences reported by TBICMs as supporting the development of their role seem to occur in four themes. These are: shaping the sense of professional self; illness, injury, disability; violence and role models and champions. Participants indicated that their informal learning experiences seemed to generate attributes that they believed were essential for their role. The attribute that emerged in every theme and subtheme was insight. Other attributes such as empathy and effective communication skills also emerged.

7.4 Contribution of New Knowledge

Engeström (2001) stated that any theory of learning should determine who, why, what and how people learn. This study has established these four aspects as well as clarifying the socially constructed context where the informal learning experience occurred. A key finding in this study is that a range of encounters arising beyond the workplace also appeared to make important contributions to the conduct of practice. Notably participants felt that the development of attributes they considered necessary for the conduct of their role were supported by informal learning experiences. This responds to the call to investigate the "*antecedents and consequences"* of informal learning (Tannenbaum et al., 2009, p 326).

This exploratory study is the first to take a multi-disciplinary perspective of the contribution of informal learning experiences in the conduct of a TBI case management. This study differs from much of the literature investigating the role of informal learning experiences within a particular occupation because it has gone beyond the boundaries of the workplace. Consequently, this research shines a light on the contribution of informal learning experiences arising in a variety of social contexts that can support and enhance professional practice.

Participants believed that the key attributes arising from their experiences were insight, empathy and effective communication skills. They frequently referred to insight and empathy interchangeably perhaps because the development of these characteristics appeared to be interlinked. Nevertheless, the two attributes are distinct. In this study, insight is defined as the ability to comprehend a diverse

range of situations and feelings encountered by others themselves by reference to their own experiences (Conchar and Repper, 2014, Supiano and Vaughn-Cole, 2011). In specifying the definition of insight for health care professionals, (Neumann et al., 2009) identifies that it is self-awareness arising from the interaction between and individuals multiple experiences throughout life, their personality and the patients and colleagues with whom they work. This perspective is strengthened by several theories including social learning (Bandura, 1977), cultural differences, (Hernandez et al., 2014) and the biopsychosocial model (Engel, 1981). This supports the view that insight is socially constructed from the multiple influences of physical, psychological and societal experience (Cosmovici 1996 cited by Popescu 2014). Nevertheless, participants did not always recognise that it was their insight that fuelled their ability to empathise. This study seems to point toward the little recognised perspective that without insight empathy cannot occur.

Prior to this study there was a fragmented understanding of who provided case management services to people affected by severe TBI. This was exacerbated by different definitions, service configurations and professional focus. This research has adopted a different perspective by focusing on the informal learning experiences of TBICMs based in all settings. The findings in this study establish an initial framework from which to discuss and investigate other sources of learning and knowledge needed by all TBICMs of people affected by severe TBI.

This study is the first to recognise that no body of knowledge has been identified within the case management of people affected by TBI. Therefore, the informal learning experiences of practitioners introduces a different perspective for this newly established profession. In particular each theme in this study indicates new aspects that should be explored to support the development of the TBI case management profession. This includes the value of working as a support worker prior to conduct of the case management role linking closely to providing care. The practitioners' conscious and unconscious ability to change their presentation according to the social context in which they operate has not been described in this profession prior to the conduct of this research. Much of the literature describing the outcomes of violence for victims describes negative outcomes. Surprisingly participants in this study implied they had developed positive attributes from informal learning experiences of violence.

Within the TBI literature, it can be difficult to identify different classifications of severity of injury. The outcomes of TBI differ vastly according to whether the injury was mild moderate severe or very severe. Some literature already describes mild TBI as "mTBI" (Næss-Schmidt et al., 2017, Salat et al., 2017). Consequently, as the field of inquiry into TBI increases there may be merit in the literature clarifying the extent of injury by labelling severe TBI and very severe TBI as sTBI and svTBI respectively.

7.5 Reflexivity

This section is written in the first person to illustrate my reflexive stance as the researcher. In Chapter 5 power and reflexivity are discussed to illustrate the range of factors that shape the design and conduct of this study. Reflexivity involves a critical analysis of the conduct of the study and the subjective influences that I bring to bear as the research instrument (Rae and Green, 2016). In this section my explicit and implicit (where possible) assumptions are exposed and I confront aspects of my work that I would prefer not to consider (Cruz, 2015, Finlay, 2006b). The purpose of this is to illuminate influences that may not be clear. For example if I deliberately or inadvertently encouraged a participant to agree with my view about something, this would be brought to the attention of the reader. Reflexivity also acknowledges the iterative shifts in perception and understanding arising from the perpetual cycle of influence arising from a constant stream of experiences. This also points to the mutability of the findings and conclusions in this study.

I recognise that I am embedded within this study and my impact is, potentially, extensive but a focus on the interview process, data analysis and sharing knowledge provides a range of examples that highlight my far-reaching influence. These are illustrated with excerpts from my research diary.

7.5.1.1 Interview Process

Prior to the start of this study, I had undertaken qualitative research on previous occasions. This experience bolstered my confidence about the prospect of interviewing my peers. However, exposure to literature where other researchers had investigated and analysed numerous aspects of research based on semi-structured interviews highlighted my own personal shortcomings. In particular,

my research diary prior to an interview illustrates my anxiety about interviewing a highly regarded peer.

Pre interview note (Billie)

(sitting on the train on route to conduct the 2nd interview)

- *I have known this participant for several years and hold their expertise in high regard.*
- *As this is one of my first interviews. I am a bit anxious. I'm not sure whether I will be confident in teasing out issues especially because of their level of seniority in this industry.*

The way I refer to Billie, describing him as the participant conveys my efforts to sustain my dual role as a researcher as well as a colleague. Billie disclosed a wide variety of informal learning experiences without the need for much prompting. Whereas I felt that other interviews needed much more intervention. I was aware that how I prompted participants could inadvertently "lead" their responses, something that I was afraid to do (Legard et al., 2003).

Post interview note (Niall)

- *This felt like a really difficult interview.*
- *Seemed reluctant to talk about informal learning experiences but gave me some poignant examples.*
- *He was being open – he said I don't think about it, maybe it's a bloke thing.*
- *I didn't want to lead and the longer the interview went on the more I was afraid of doing that.*

To avoid leading participants, I wrote a note to myself at the start of each interview to prompt with phrases such as *"tell me more*" and a note to myself to "*keep still and shut up*" (Charmaz, 2007a). The prompt of *tell me more* was also a way in which I tried not to assume I understood meanings because of a shared identity (Kanuha, 2000). I also wanted to convey that I was listening to them and was interested in understanding what they meant (McDermid et al., 2014).

Interview (Glen)

Allison 27 : *I'm interested you say second nature: can you tell me a bit more about that?*

My work as a case manager draws on a number of approaches to reassure people affected by TBI. On a few occasions, I unintentionally attempted to reassure the participants and thus may have inadvertently led them to respond in a particular way.

Interview (Uzzia)

Allison170: *Hmm You're not the first person to say that.*

Uzzia 171: *Oh really?*

Allison172: *Hm-mmm.*

Uzzia 173: *Okay. But I can't like…*

I did not want to lead Uzzia into expanding into the topic if she did not want to and my response of "*Hm-mmm"* is a naive attempt to establish what I had hoped was my open approach. On reflection, I may have raised her interest by her response of "*Oh really?"* and my non-committal response could have deterred her from discussing something of relevance to her. This example illustrates the simultaneous influences that I have on the participants and vice versa. Follett summarises this as *"I plus you reacting to you plus me"* (Follett, 1924, p 62).

At times I felt awkward in maintaining two roles as a researcher and TBICM. The skills needed to by TBICMs means that they are highly aware of interpersonal communication norms. Some participants commented that the interview was not the way case managers usually interact.

Interview (Lindsay)

Lindsay 221. If me and you were to continue like this, this isn't right because I'm giving you everything and you are giving me nothing.

Allison 222 I'm sorry but this is the research process

Lindsay 223. No it's alright but what I mean is…

Some participants openly declared intimate informal learning experiences within moments of the interview commencing, whilst others disclosed their sensitive episodes much later. Several reasons for this may include participants feeling nervous or exposed (Coar and Sim, 2006, Pole and Morrison, 2003, Charmaz, 2007a). Several practitioners revealed information that was upsetting for them. As a researcher and clinician, I owe a duty of care to participants in the study. When individuals became tearful, I asked them whether they wanted to terminate the interview. My question aimed to put the interests of the participant first but I now recognise this could be interpreted as a manipulative action to encourage them to continue. Also halting the interview may have implied that I was detached from their feelings being only concerned with the research. I took the decision to halt an interview on one occasion switching off the tape because the participant broke down in tears.

I have reflected on why she insisted on continuing after she had composed herself. This may have been because she needed to offload an emotional episode. She knew that my role as a TBICM involves listening to harrowing information and this may have given her confidence to express herself. She may also have felt compelled to continue for other unknown reasons. Terminating the interview would have overruled her wish to continue and failed to acknowledge her right to be heard.

Several participants provided copious information whereas others seemed more reticent. During what I thought were difficult interviews I made notes as a source of self-discipline to listen carefully. I mistakenly thought some participants avoided discussing their informal learning experiences preferring instead to

discuss people affected by TBI. At the time, I attributed this to me not prompting effectively enough.

Interview (Kim)

Mid interview reflection

This feels like a really tough interview – he keeps talking about clients not his own experiences.

The analysis revealed that people affected by TBI are considered by participants to provide a source informal learning for their role.

7.5.1.2 Data Analysis

At times I struggled with the volume of data and frequently felt uncomfortable particularly when there were multiple demands in my work and personal life but the high degree of trust participants placed in me has been humbling. I did not experience discomfort when participants revealed intimate and sensitive information. Nevertheless when analysing the data several weeks and months later, the gravity of experiences and level of disclosure shared by some participants were moving. This has been helpful in sustaining my commitment and motivation to investigate the data more deeply to do justice to the participants. This has also helped me to seek many examples that exemplify the themes and subthemes emerging from the data and not only those illustrating the themes in Chapter 6.

Use of a generic qualitative research methodology has enabled me to create a bespoke study design. Therefore, clarification of how the research has been conducted is essential to communicate some of the unexpected aspects of the study and my response to these issues. My role in the design and conduct of the study has profound relevance for me. I recognise that this may generate criticism for designing a study to validate my own informal learning experiences. To understand my role and influence on the data more fully, I investigated how the themes were applicable me.

Reflective diary 13.10.14

I woke at 5am this morning and was churning over my life story in my mind. I spent 2 hours going through my history looking for those personal experiences that influence me.

In the end, I drew out my formative years on 4 A3 sheets. I can see the emergent themes in my own life story.

Becoming aware that my informal learning experiences could be applied to each theme was disturbing. Nevertheless, this was a useful insight because I redoubled my efforts to ensure that the themes are data driven (Kanuha, 2000). This reiterated the importance of spending a substantial amount of time immersed in the data to reveal hidden insights.

7.5.2 **Sharing the Findings**.

From the outset I realised that it would be important to share the findings of this research and throughout the process, I have discussed the study with my peers and colleagues. Nevertheless, conducting this study means that I now know intimate details about the participant's lives but they do not know about mine. Consequently, I do not know whether this imbalance of power may cause them to treat me differently in future. This has made me acutely aware of the need to present the findings in such a way that people cannot be identified. Use of pseudonyms was one way in which I could sustain my relationship with the data without breaking confidentiality. However when presenting interim results at meetings, seminars and case management conferences, I realised that I was more likely to recall their pseudonym rather than their name. I did not wish to appear rude to any participant. Therefore I introduced the research with an explanation and a request for the forbearance of my colleagues if I was unable to recall their name spontaneously.

Preparation for CMSUK Conference 11.10.14 [Appendix L]

If there are any participants in this research here today you will no doubt remember me saying that protecting your identity was something I was extremely concerned to do. To ensure I did that, I gave participants a different name. This was to create a protective filter exactly for circumstances such as this so that if your name is Boris I would not (inadvertently) blurt it out.

I had not considered this at the start of the study but will continue to reflect on how this may affect my relationships with participants should we meet in future. From the outset, I have declared my extensive influences on this study. This has affected how I have interpreted the data and in turn this has shaped the production and sharing of knowledge.

7.6 Strengths and Limitations of this Study

All studies have strengths and limitations and this research is no different. The purpose of this section is to draw attention to the strengths and limitations that have arisen in the study. These matters may require scrutiny when considering the contribution of this research to the body of knowledge.

7.6.1 Strengths

An important strength of this exploratory study is that it responds to gaps in the literature. Firstly, it has commenced investigation into how the emerging profession of TBI case management use informal learning experiences in their practice. This may facilitate debate within the profession and perhaps will support and encourage further investigation into this little known area of practice. Secondly, it has highlighted that informal learning experiences occurring beyond the workplace appear to influence the conduct of professional roles. The literature investigating informal learning in the workplace seldom considers this source of learning.

The researcher's professional role as a TBICM is a strength because this facilitated access to peers from all sectors; other practitioners actively promoted participation in this study amongst their colleagues. This has supported

recruitment of a broad sample of practitioners that has enabled collection of a rich thick body of data.

The professional responsibilities as a fulltime TBICM regularly interrupted the conduct of research and reengagement with the research prolonged the length of the study. This has enabled exposure to new literature, ideas and developments that may have influenced the researcher's understanding and interpretation of the study. Completion of the study in a shorter period, may have contributed to a different interpretation of the results.

Learning from experience and experiential learning are the learning theories that underpin this study investigating informal learning experiences. Whilst some participants had planned what they wished to discuss in advance, there were many examples where participants recalled an informal learning experience spontaneously. Comments such as "*I had forgotten about that (Erin, line 344*)" and "*I've just thought of something (Lindsay, line 460)*" suggest that the interview process may have provided a mechanism for some practitioners to reflect on meaningful episodes they had forgotten (Kyndt et al., 2009). This implies that for some TBICMs participation in the interview process could have focused their attention on informal learning from experience. Awareness of informal learning experiences may subsequently promote this source of knowledge (Spaan et al., 2016).

An inductive approach to the topic aimed to hear the voice of the participants to establish informal learning experiences of importance to them. A strength of the study is that the phrase informal learning experience is broad enough to incorporate all sources of learning considered helpful to the role. In addition, using a semi-structured interview asked open questions that generated a vast pool of data from which to distil the themes and subthemes. This study does not limit exploration of the impact a specific informal learning experience on professional conduct such as bereavement (Supiano and Vaughn-Cole, 2011). A strength of this research lies in the approach to identify the breadth of informal learning experiences that the participants deem important in their practice. Thus for the first time, the collective view of all participants are represented in four key themes.

7.6.2 Limitations

The length of time it took to complete the study was a limitation. The research governance system for investigators outside of statutory services involves obtaining an NHS research passport. This document is purported to authorise access to all statutory services. However, each statutory organisation insisted on completion of its own processes that caused delays of several months. In some circumstances by the time access was permitted, organisational changes made it impossible to identify potential respondents. The duplication incurred also wasted NHS staff time that seems inappropriate within financially pressurised statutory services. This study draws attention to some of the difficulties in conducting multi-agency research by independent researchers.

The inductive study design relying upon a diverse sample of TBICMs to determine the type of informal learning experiences may be considered a flaw in the intention to identify any patterns in informal learning encounters that inform the role. This may be a key factor in explaining why patterns were not identified. Prior to this research, it was unknown whether there were informal learning experiences common to all practitioners.

The TBICMs who chose to participate may have differed from their peers. A different sample may have generated different findings. A further limitation of the study is that the phrasing of the question perhaps inadvertently encouraged a positive response because it asked participants to describe how their informal learning experiences contributed to the role. Participants may have felt vulnerable talking to a peer about informal learning experiences that influenced their practice adversely. Nevertheless, a weakness of the study is that there may be many more informal learning experiences that have a profound effect on participants. These remain unknown because participants did not discuss them.

It was necessary to prompt some participants to describe their informal rather than formal learning experiences several times. On reflection, use of the word personal seemed problematic for a few participants in the study. Whilst this word is used in studies investigating informal learning experiences influencing the conduct of practice, much of the literature fails to clarify what is meant by personal (Oates et al., 2017). In this study, what was meant was an intimate, direct or vicarious experience that has meaning for the individual. A clear explanation should have been available from the outset. Failure to clarify this is a

limitation in the study because participants may have interpreted the word personal in different ways.

The data has been interpreted by the researcher using her professional role as a TBICM as a lens. Consequently, some important aspects may have been overlooked because of her perspective. However, this study has identified a number of issues for consideration in the conduct of TBI case management.

7.7 Implications for Case Management Practice

This study has confirmed that unlike other professional roles, a wide configuration of services and broad variety of practitioners provide this service. TBI case management does not have an identified body of knowledge or a regulatory framework that supports and guides practice. Consequently, it is essential for the profession to maintain good standards of practice that include supervision (Ainsworth et al., 2009, Harrison et al., 2008). This is because it is a fundamental aspect of all health and social care professions (Bifarin and Stonehouse, 2017, Tomlinson, 2015). However, in this research participants across organisations and professional disciplines reported not having any supervision. This highlights an on-going area of risk for practitioners and the people affected by TBI whom they support.

This research has provided an opportunity for TBICMs to reflect on their practice. The implications for case management practice are important because reflection is fundamental to enable practitioners generate new perspectives and insights that increase their understanding of their conduct of the role. Whilst a practitioner's reflection should not replace supervision, for those isolated practitioners, it offers an important contribution to consider how practice is delivered. Thus the interview may have provided an initial opportunity for TBICMs to begin to recognise their own body of knowledge and identify gaps. This may be enhanced by the study initiating a debate that considers the body of knowledge needed for this group of practitioners.

Although participants described many examples of informal learning experiences that they considered had supported the delivery of their practice, few people had considered these encounters before taking part in the interview. This implies that informal learning is under recognised and perhaps undervalued. Therefore, this

research may support recruitment of staff who may have much to offer the role but perhaps do not recognise or value their skills and knowledge developed from informal learning.

Several participants in this study reported that participation in the interview provided an opportunity to reflect on their informal learning experiences that validated them as practitioners.

The diversity of professions, employment configurations and sectors from which participants were drawn has illustrated the breadth of case management needed by people affected by severe TBI. The span of TBI case management practice in the UK had not been identified before conduct of this study. This is important to include all representatives of the profession to establish the body of knowledge needed to ensure delivery of good quality case management (Endres and Weibler, 2016). This implies that the time is ripe to develop what will become an agreed body of knowledge for TBICMs working in all settings. This exploratory study may contribute some initial suggestions for consideration of this much-needed process.

7.8 Conclusions

The findings in this study contribute to and extend knowledge within the field of informal learning and TBI case management.

A subset of informal learning theory concerned with the role and function of experience provides the theoretical framework underpinning this study (Follett, 1924, Lindeman, 1926, Dewey, 1938). These theories provide a lens to understand and explain how the encounters reported by participants might contribute to their role. Learning from experience and experiential learning are both applicable to this research (Kolb, 2015, Jarvis, 2015). However, the findings in this study illustrate that informal learning may be messy, complex and dynamic and may be simultaneously tacit, implicit and experiential learning (Kolb, 2015, Jarvis, 2015, Polanyi, 1967, Reber, 1989).

This study highlights the need to extend understanding of how of informal learning experiences impact on professional conduct (Noe et al., 2013). Most of the literature investigating the influence of informal learning experiences in

occupational performance focuses on encounters that occur within the workplace. This study indicates that for the multidisciplinary profession of TBI case management, informal learning experiences over the course of a lifetime seem to influence the delivery of professional practice. Notably some of these experiences arise in non-work contexts.

Further exploration is recommended to establish whether the case management profession should actively seek candidates who have encountered informal learning experiences that appear to have shaped their sense of professional self as well as exposed them to illness, injury, disability, violence, role models and champions. These themes indicate the wide range of informal learning experiences that appear to contribute to conduct of professional practice meriting further investigation.

The findings also illuminate an alternative approach in identifying the development of attributes considered fundamental to professional practice. Notably, further inquiry into the contribution of a wide range of informal learning experiences may reveal a cost effective resource for individuals, the profession and employers (Tews et al., 2016). Therefore an exploration into how best to use informal learning experiences within and beyond workplace settings in the development and conduct of TBI case management is worthy of consideration.

The impressive conduct of some people affected by TBI appeared to provide important role models for TBICM. The literature does not appear to recognise how people who manage complex health issues might support practitioners to develop and sustain attributes considered necessary for the role. This may be of particular importance for TBICMs who spend many years supporting particular people affected by TBI.

Participants highlighted several attributes that they felt arose from their informal learning experiences that they considered necessary for the role. Of these, the two most important characteristics were insight and empathy. Notably it did not appear possible to demonstrate empathy without being insightful but most of the literature concerning the development of empathy rarely mentions insight. As the literature indicates substantial concern regarding an apparent reduction in empathy in health and social care professionals over time, the development of insight and its relationship to empathy should be explored.

Participants indicated that reflecting on their informal learning experiences was helpful to identify their own knowledge. Further investigation may consider how reflection on informal learning experiences outside workplace boundaries in the conduct of other health and social care professions might be useful.

7.9 Final Reflections

The start of my journey into this research filled me with excitement, enthusiasm and fear. The ability to meet practitioners from a wide variety of backgrounds and listen to their informal learning experiences has been a privilege and a source of informal learning for my own practice. Conducting this study has provided me with countless informal learning opportunities but this has been immensely challenging at times. I have risked exposure and criticism by investigating an unknown aspect of case management practice.

Nevertheless, I believe that I have developed new skills that will contribute to my practice as a TBICM. Undertaking this study has given me the confidence to encourage people from all backgrounds to reflect on their own informal learning experiences to understand their own body of knowledge. Thus supporting people to reflect on their encounters that inform their lives and jobs is not limited to a single occupation. Informal learning experiences seem to contribute to the delivery of case management for people affected by TBI irrespective of the professional discipline or context in which they work.

Appendix A Literature Search Strategy

Discipline	First level	Second level	Third level	Fourth level	Fifth level
Past & current political influences on case & care management	the practice of care management case management				
	→clinical governance → → professional bodies →conference papers	standards of practice legislation			
	→ financial issues influencing case management				
	→ education	of case managers	Learning	Formal learning Informal learning Incidental learning	Experiential Learning Learning from Experience
		extended roles of other professionals			
Geographical perspective of case management	→global perspective → UK perspective				
Philosophy	→ ontology → epistemology	→ knowledge → language →Social Construction	Constructivism Constructionism	Constructionism	
Research methodologies	→ quantitative → mixed methods → qualitative →	→ Established methodologies	→ Case study → Ethnography → Interpretive Phenomenological Analysis → Grounded Theory → Narrative Inquiry	Generic Qualitative Research	Generic Qualitative Research methods
Reflexivity	→Researcher/practitioner →my other influences				
Experience	→ Informal learning → Non formal learning → Lifelong learning				
Brain Injury	→Acquired brain injury		Traumatic brain injury		
	→ Brain injury case management		TBI case management		
Topics arising from findings	→Shaping the sense of professional self →Experience of illness injury disability →Experience of violence →Experience of role models and champions		Attributes arising from findings	Use of the self Insight & empathy Effective interpersonal skills	

Appendix B Informal Learning Literature Rejected

Informal Learning Theory	Author	Definition and Theory	Reason for Rejection in This Study
Deliberate learning	(Doornbos et al.2008) (p131)	Activities undertaken intentionally with specific learning outcomes anticipated.	Informal learning is not confined to deliberate activities only.
	(Eraut, 2000) p 115	Deliberative learning occurs when time is allocated for learning.	Informal learning may be deliberate but is not confined only to time allocated for that purpose.
Expansive learning	(Engeström, 2001)	Learning occurs following interaction between the learner(s) and cultural tools, including the language, physical artefacts and local rules. This creates new ways of undertaking activities.	Informal learning may be expansive but this study is concerned with learning that has occurred through all experiences.
	Engeström and Sannino, (2010)	Expansive learning involves *"learning something that is not there yet" (P2).*	
Incidental learning	(Marsick and Watkins, 1990)(p13,14)	Learning from mistakes, covert experimentation. Learner awareness is variable (Dyke, 2015) can occur at any time or location. Incidental learning a by-product. Term used interchangeably with informal learning.	Informal learning may be incidental but is only one aspect of learning.
Inquiry learning	(Jones et al., 2013) (p22)	Learner controls the topic of inquiry and the process of learning.	Informal learning is not limited to deliberate actions by the inquiry.
Meaningful learning	(Cavanaugh et al., 2015)	Learning is active, constructive, intentional. Based on activity theory (Jonasseen 2000).	Informal learning may be tacit, implicit, unintentional an unhelpful to the learner.
Non formal (adult)	(Romi and Schmida, 2009) (p259)	Targeted at subgroups, organised, systematic, as part of a programme but	This does not embrace the contribution of experience within the breadth of

Appendix B

Informal Learning Theory	Author	Definition and Theory	Reason for Rejection in This Study
		outside formal education frameworks.	informal learning that arises throughout life.
Non formal (school)	(Eshach, 2007) (p174)	Voluntary, intrinsically motivated, structured, non-sequential, guided by another person.	
Personal learning	(Higgins and Kram, 2001)	Personal learning leads to increased awareness of personal identity, skills, values, strengths, weaknesses, needs.	This does not encompass all potential found in informal learning from experience.
Purposeful learning	(Pan et al., 2011)	Purposeful learning initiates change in an individual's behaviour.	Behaviour al change does not only occur when the learning is purposeful.
Reactive learning	(Eraut, 2000)	Spur-of-the-moment and unplanned; level of intention varies.	This does not account for the breadth of informal learning from experience.
	((Tynjälä, 2013)	Reactive learning occurs when a rapid response is needed without preparation.	
Situated learning	Lave and Wenger 1991	Learning arising from participation in relationships and groups.	Informal learning from experience may also occur outside of groups and specific relationships.
Spontaneous learning	(Doornbos et al., 2008) p131)	Learning happens when activities undertaken in pursuit of an outcome leads to different learning expected.	This does not account for the breadth of informal learning from experience.
Transformative learning	(Mezirow, 2003) (p 58)	Learning that transforms challenging frames of reference; e.g. assumptions, expectations, perspectives to new, reflective, thoughtful views to provide better operational frameworks.	It is necessary for the learner to reflect on the encounter from which to learn. Transformative learning tends to focus on dramatic episodes. This does not account for all sources of learning without reflection.

Appendix C Ethical Committee Approval

NHS
National Research Ethics Service
NRES Committee South West - Exeter
South West REC Centre
Level 3
Block B
Lewins Mead
Whitefriars
Bristol
BS1 2NT

Telephone: 0117 342 1332
Facsimile: 0117 342 0445
e-mail: Ubh-tr.SouthWest2@nhs.net

10 August 2011

Ms Allison Saltrese
Student
R T Disability Consultants
PO Box 862
Taunton
Somerset
TA1 9GN

Dear Ms Saltrese

Study title: **An exploration of the informal learning experiences of people providing case management to clients with TBI to support their professional role.**

REC reference: **11/SW/0156**

Thank you for your letter of 20 July 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered by a sub-committee of the REC at a meeting held on 4 August 2011. A list of the sub-committee members is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

11/SW/0156	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Kirsten Peck.

Dr Lee Burton
Vice Chair
NRES committee South West - Exeter

Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments

"After ethical review – guidance for researchers"

Copy to: Dr Martina Prude University of Southampton (rgoinfo@soton.ac.uk)
Dr Claudia Fellmer, Southampton University Hospital Trust (Claudia.Fellmer@suht.swest.nhs.uk)

Appendix D National Offender Management Decision

Ministry of JUSTICE
National Offender Management Service

National Offender Management Service
National Research Committee
Business Change Group
BCG Building
HMP Full Sutton
York, YO41 1PS

Telephone: 01759 475099
Fax: 01759 475 073
Email: National.Research@noms.gsi.gov.uk

Allison Saltrese
School of Health Science
University of Southampton
Burgess Road
Highfield
Southampton
SO 171BJ

27 June 2011

Title: An Exploration of the informal learning experiences of people providing case management to clients with traumatic brain injury to support their role

Reference: 11/SW/0156

Establishments: Devon and Cornwall Probation Service

Dear Allison

Further to your application to undertake research in HM Prison Service and our letter dated 2 June 2010. The NRC is pleased to grant approval in principle for your research, subject to you addressing the concerns raised by the committee and compliance with the conditions outlined below:

Terms and Conditions
(No research can start until the terms and conditions have been agreed to formally by email)

- **Prisons -** Approval from the Governor of each Establishment you wish to research in. (*Please note that NRC approval does not guarantee access to Establishments, access is at the discretion of the Governor and subject to local operational factors and pressures)* Researchers are under a duty to disclose certain information to the Prison Service. This includes behaviour that is against prison rules and can be adjudicated against (see Section 51 of the Prison Rules 1999), illegal acts, and behaviour that is harmful to the research participant (e.g. intention to self-harm or complete suicide). Researchers should make research participants aware of this requirement
    - **Subject to clearance of vetting procedures for each establishment.**

- **Probation Trusts -** Approval from the Chief Executive of the Probation Trust you wish to research in. (*Please note that NRC approval does not guarantee access to Probation Trusts, access is at the discretion of the Chief Executive and subject to local operational factors and pressures)* Researchers are under a duty to disclose to Probation Trusts if an individual discloses

information that either indicates a risk of harm to themselves or others or refers to a new crime that they have committed or plan to commit. Researchers should make research participants aware of this requirement

- **Subject to clearance of vetting procedures for each Probation Trust,**

- NOMS reserves the right to halt research at any time (as of the PSI), given the sensitivity of the issues concerned, will not always be possible to provide an explanation. NOMS will undertake where possible to provide the research institution/Sponsor with a covering statement to clarify that the decision to stop the research does not reflect on their capability or behaviour.
- Compliance with all security requirements.
- Compliance with the requirements of the Data Protection Act 1998.
- Research Proposal - Informing and updating the NRC promptly of any changes made to the planned methodology.
- It being made clear to participants verbally and in writing that they may withdraw from the research at any point and that this will not have adverse impact on them.
- The NRC receiving an electronic copy of any research report submitted as a result of the research with an attached executive summary of the product of the research.
- The NRC receiving an electronic copy of any papers submitted for publication based on this research at the time of submission and at least one month in advance of the publication.
- Researchers are under a duty to disclose certain information to the Prison Service. This includes behaviour that is against prison rules and can be adjudicated against (see Section 51 of the Prison Rules 1999), illegal acts, and behaviour that is harmful to the research participant (e.g. intention to self-harm or complete suicide). Researchers should make research participants aware of this requirement.
- HMP staff - Official permission is required from HR Policy and Reward Group in Headquarters before any member of staff, serving or retired, may publish any material relating to the work of the Prison Service, the NOMS Agency, the Ministry of Justice or other Government departments. Permission should be sought from Lynn Carter, HR Policy Manager. Lynn can be contacted at lynne.carter@noms.gsi.gov.uk or on 0300 047 5008. The rules are set out in Chapter 19 (Conduct) of the HMPS Staff Handbook.

When approaching establishments/probation trusts, a copy of this letter must be attached to the request to prove that the NRC has approved this piece of research in principle.

Once the research is completed, and received by the NRC Co-ordinator, it will be lodged at the Prison Service College Library.

Yours sincerely

Simon Walters
Chair of the NRC
Business Change Group

Cc: Other Researchers involved

Version 170211

Appendix E NHS Research Passport

Research Passport Application Form – Version 2

Please refer to the guidance notes before completing the form.

Section 1 - Details of Researcher
To be completed by Researcher

1.	Surname: Saltrese	Prof☐ Dr☐ Mr☐ Mrs[
	Forename(s): Allison	Miss ☐ Ms ☑ Other☐
	Home Address: , LR	
	Work Tel: 01823 Email: A.saltrese@soton.ac.uk Mobile: 0774040651	
2.	Date of birth: 09.05.62	Gender: Male ☐ Female ☑
	Ethnicity: Caucasian	National Insurance number: WM974204b
3.	Professional registration details (if applicable): Nursing and Midwifery Council [illegible] 84	
4.	Employer: R T Disability Consultants Ltd or place of study: University of Southampton	
	Work Address/Place of Study: P O Box 862, Taunton TA19GN	
	Post or status held: Partner/ Clinical Brain Injury Case Manager	

Section 2 - Details of Research
To be completed by Researcher

5.	What type of Research Passport do you need? Project-specific ☑ Multi-project ☐			
	If you will be conducting one project only please complete the details below. If you anticipate that you be undertaking more than one project at any one time, please give details in the Appendix.			
	Project Title: What informal learning experiences do people providing case management to clients w TBI consider have supported the development of their professional role?			
	Project Start Date: 01.09.2011 End Date: 31.08.2013			
	Proposed start and end date of three-year Research Passport: Start Date:01.07.2011 End Date: 30.06.2014			
	NHS organisation(s):	Dept(s):	Proposed research activities:	Manager in NHS organisation:
	This information will not be known until respondents come forward			

Section 3 – Declaration by Researcher
To be completed by Researcher

6.	Have you ever been refused an honorary research contract?	Yes ☐ No ☑
	Have you ever had an honorary research contract revoked?	Yes ☐ No ☑
	If yes to either question, please give details:	

I consent to the information provided as part of this Research Passport and attached documents being used, recorded and stored by authorised staff of the NHS organisations where I will be conducting research.
For researchers undertaking regulated activity as from July 2010, and mandatory as from November 2010: I understand that the information I have provided may be used by my employer and the NHS to access the ISA on-line service to receive updates on my ISA-registration status.

Signed: [signature]	Date: 2 April 2011

	If yes, please provide details of the clear disclosure Date of disclosure: 16/12/2010 Type of disclosure: ENHANCED Organisation that requested disclosure: UNIVERSITY OF SOUTHAMPTON CRB Disclosure Reference No. 001306029841 Researcher's ISA Unique ID:
9.	Have the pre-engagement checks described below been carried out with regard to the above-named individual?

▪ Employment/student screening: o ID with photograph o two references o verification of permission to work/study in the UK o exploration of any gaps in employment	 Yes ☑ No ☐ Yes ☑ No ☐ Yes ☐ No ☑ Yes ☐ No ☑
▪ Evidence of current professional registration	Yes ☐ No ☑ N/A ☐
▪ Evidence of qualifications	Yes ☑ No ☐
▪ Occupational health screening / clearance	Yes ☐ No ☑
Is the named individual on a fixed term contract or is the contract end imminent? Please indicate current contract end-date	Yes ☐ No ☑ Date:

Signed: J.A. Lathlean	Date: 21.2.11
Name: Prof. JUDITH LATHLEAN	Job Title: HEAD OF POSTGRADUATE RESEARCH STUDENTS
Organisation: UNIVERSITY OF SOUTHAMPTON	Department: FACULTY OF HEALTH SCIENCES
Address: BUILDING 67, HIGHFIELD, SOUTHAMPTON, SO17 1BJ	
Tel No: 02380 59 82[illegible]34	Email: J.Lathlean@soton.ac.uk

Please return the form to the researcher.

Section 6 - Instructions to applicants
To be completed by Researcher

Please indicate which of the following documents are attached to this Research Passport:

Current curriculum vitae, including details of qualifications, training and professional registration (please use the template C.V. at http://www.rdforum.nhs.uk/docs/template_cv.doc)	Yes ☑ No ☐
Researcher's copy of criminal record disclosure: Disclosures issued before 26th July 2010 only: Criminal record disclosure includes confirmation of check against the appropriate Barred List(s) Disclosures issued after 26th July 2010 only: Criminal record disclosure confirms appropriate ISA registration. NB where appropriate, ISA registration is mandatory after November 2010.	Yes ☐ No ☐ N/A ☑ Yes ☐ No ☐ N/A ☑ Yes ☑ No ☐ N/A ☐
Evidence of occupational health screening / clearance	Yes ☐ No ☐ N/A ☒
Appendix Letters from University of Southampton confirming (1) Sponsorship & (2) professional indemnity for the Study.	Appendix numbers: 15, 16 N/A ☐ REF. 7539

Salttese, Allison

Please send the completed form and original documents to the Lead R&D office. The completed form and original documents will be returned to you. This package of documents will be used to validate your completed Research Passport form. You may then, and where relevant, provide the Research Passport to other NHS organisations.

You must inform all NHS organisations that have received this Research Passport of any changes to the information supplied above. Failure to do so may result in withdrawal of your honorary research contract or letter of access. As part of the quality control procedures for the Research Passport, random checks on the accuracy of the information held on this Research Passport may be made.

Section 7 **This section should be completed by HR in the Lead NHS organisation, only if additional checks a undertaken**	
The following additional checks have been completed: N/A	
Having confirmed that the necessary additional pre-engagement checks have been completed, I am satisfied th the above named researcher is suitable to carry out the duties associated with their research activity outlined in th Research Passport.	
Signed:	Date:
Name:	Job Title:
Organisation:	Department:
Email:	

Section 8 - For Office Use Only			
This section should be completed by the NHS R&D office that received the initial application. The NHS R&D offic must countersign and date retained photocopies of the documents. The grey section must be completed before th form is returned to the applicant.			
CV reviewed?	Yes ☑ No ☐	Trainipp? GCP outstanding	Yes ☐ No ☐
Evidence of qualifications?	Yes ☐ No ☑	Appendix pages reviewed?	Numbers: 1
Professional registration details reviewed?	Yes ☑ No ☐ N/A ☐	Occupational health clearance reviewed?	Yes ☐ No ☐ N/A ☑
Criminal record disclosure reviewed?	Yes ☑ No ☐ N/A ☐	Date of disclosure: 16 Dec 2010	CRB Disclosure Certificate No: 001506029411
For Research Passport applications submitted after 26th July 2010 only: Confirmation that HEI have subscribed their interest in this individual via the ISA on-line monitoring service, (where appropriate) and have agreed to withdraw the individual immediately, should the individual's ISA registration status change **NB ISA registration, where appropriate, is mandatory from November 2010**			Yes ☐ No ☐ N/A ☑
Enter Electronic Staff Record Number (if issued): not issued			
Confirmation of valid Research Passport: Project specific ☑ Three year ☐ Other End date ☐ 15 Dec 2013			
Signed:		Date:	
Name:			
NHS Organisation Name and contact details	~~Claudia Fellmer~~ Research Governance & Quality Assurance Manager Southampton University Hospitals NHS Trust Claudia.fellmer@suht.swest.nhs.uk		
Date ~~Honorary Research Contract~~/letter of access issued *(delete as appropriate)*			01 Jun 2011

Appendix F Invitation Letter (Employers)

31 May 2011

Ethics committee number 11/SW/0156

UNIVERSITY OF Southampton
School of Health Sciences

By post and email

Xx xxxxx xx
xxxxxxxxxxxx
xxx xxxxxxxx
xx xx xxx

Dear

Recruitment of Research Participants

I am a postgraduate student at the University of Southampton undertaking a study into the informal learning experiences of a range of professionals providing case management to people who have sustained a traumatic brain injury [TBI].

Staff who provide case management to traumatically brain injured people come from a wide range of professional disciplines and bring a variety of skills to the role. I am interested in exploring what informal learning experiences they consider important in the development of their specialist knowledge and role; I am also keen to establish how people apply this knowledge in their work.

The purpose of this letter is to request your permission to invite your staff to participate in this study. The contribution of one or two of your colleagues would be extremely valuable to enable a broad mapping of skills throughout the range of roles and professions who deliver this function.

To protect staff identity, I have prepared an email which would be forwarded from you or your personnel office to your staff inviting them to be participate. By taking part in this research, they would be asked for an interview lasting approximately one hour either taking place in their office or other convenient location for them. All information will be treated in strictest confidence.

Staff interested in participating may contact me by email, telephone or freepost reply. The opportunity for people to reflect in depth on their direct personal experiences may be valuable in helping them to revisit skill development that would be useful in their current role. It is hoped that the results will be used to benefit people with TBI who require case management and the individuals performing this role.

I have included a copy of the email together with information for participants that provides more details, and would welcome the opportunity of discussing my study further with you. If you are happy to allow me to proceed, please let me know, specifying how you would prefer your colleagues to be contacted.

If you have any concerns, please contact Dr Debbie Craddock [research supervisor] on Tel: 023 80595913 Email: d.craddock@soton.ac.uk

Thank you for taking the time to read this letter. I look forward to hearing from you.

Yours sincerely

Allison Saltrese RGN, BA[Hons], Dip Man[Open] MSc

Appendix G Advert – Email / Poster / Flyer

May 2011

UNIVERSITY OF Southampton
School of Health Sciences

The same format and content was used for:
Email invitation
Poster/flier to be displayed (conferences, places of employment
Advert to be placed in professional journals and / or organisational magazines
Recruitment letter or email from employers and case management organisations

Ethics committee number xxxx

Do you provide case management to someone who has sustained a traumatic brain injury?

Individuals with a traumatic brain injury [TBI] have some of the most complex physical psychological, social and vocational problems. Staff who provide case management to traumatically brain injured people come from a wide range of professional disciplines and bring a variety of skills to the role. I am interested in exploring what informal learning experiences they consider important in the development of their specialist knowledge and role; I am also keen to establish how people apply this knowledge in their work.

I am undertaking a study with the University of Southampton and would like to interview a broad range of people from a variety of organisations who provide case management to people with TBI.

All information will be treated in strictest confidence.

The interview should take no more than one hour and I would travel to your place of work although an alternative venue could be arranged at your convenience.

The opportunity for you to reflect in depth on your direct personal experiences may be valuable in helping to revisit skill development that would be useful in your current role. It is hoped that the results will be used to benefit people with TBI who require case management and the individuals performing this role

If you would like further details please email me on A.Saltrese@soton.ac.uk or telephone me on 0774040 6511.

Address of freepost envelopes for employers whose staff choose to contact the researcher by mail.

Mrs Margaret Bush **FAO: Allison Saltrese**
University of Southampton
School of Health Sciences
FREEPOST NAT7537
Building 67 Highfield
University Road
Southampton
SO17 1UA

Appendix H Participant Reply Sheet

UNIVERSITY OF Southampton
School of Health Sciences

July 2011

Ethics Committee number 11/SW/0156

An exploration of the informal learning experiences of people providing case management to clients with traumatic brain injury to support their professional role

I would like more information about this study

Name [block capitals]..... Date.....

Please provide me with information on how you would prefer me to contact you:

Telephone number ..... Yes ❑ No ❑

Email address ..... Yes ❑ No ❑

Please confirm when it would be most convenient for you to be contacted.

Dates .....If there is a "best time" please say when.....

Please would you provide some additional information?

1 Do you case manage people with traumatic brain injury? Yes ❑ No ❑

2 Please state your job title .....

3 Please state your professional discipline .....

4 Please provide the name and address of where you work in your role as a case manager

Name .....

Address .....

.....Post Code.....

Thank you very much for completing this form.

Please now return in the freepost envelope provided OR Email to me at A.Saltrese@soton.ac.uk as soon as possible.

Appendix I Interview Guide

Warm up Questions Professional & Employment Background

Questions	Observations
Please tell me about your professional background…… & qualifications	
How many years have you provided case management to people with TBI	
Please describe the organisation that employs you in this role	
Please tell me about what and/or who brought you into TBI case management	

Please tell me about anything other than formal training and education courses that you think has helped you develop your knowledge and current role as a case manager working with people with TBI.

Personal Background

Please tell me about any personal experience you have had that you think helps you in your case management of people with a TBI e.g. Any member of your family or friends with TBI? When? [**Probe]**	
How do you think this experience/s has influenced your role Explore further with [tell me why/ how what/ more about [**seek examples**]	
Please tell me about any particular resource that you use to support you in this role **[encourage exploration by participant]**	
How does this experience[s] differ from your experience/training/education as a professional PT/OT etc?] [**encourage reflection]**	
Is there anything else you would like to tell me about your experiences that enable you to work as a CM to people with TBI?	

Thank you very much for your time. I will send you a summary of the results.

Appendix J Participant Information Sheet (PIS)

July 2011

UNIVERSITY OF Southampton
School of Health Sciences

Participant Information Sheet

What informal learning experiences do people providing case management to clients with TBI consider have supported the development of their professional role?

My name is Allison Saltrese and I am a post graduate student undertaking a PhD at the University of Southampton.

I would like to invite you to participate in my research study. Before you decide whether to take part, it is important to explain why the research is being undertaken and what it involves. Please take time to read the following information carefully before you decide whether you wish to take part. In making your decision, you may wish to discuss the study with others such as work colleagues. If there is anything that is unclear or if you would like further details, please contact me or one of my supervisors at the University of Southampton.

What is the purpose of the research?

The needs of individuals who have sustained a traumatic brain injury [TBI] are complex. The role of the brain injury case manager is relatively new and is performed by a range of professional disciplines. Staff providing case management to people with TBI require a broad knowledge base to perform this role. Knowledge that arises from personal experience is essential in informal learning. However, the spectrum of informal learning experiences judged by case managers to have been influential in the development of their specialist knowledge and role is unknown.

Why have I been approached?

As someone who provides case management to people who have sustained a traumatic brain injury [TBI], your informal learning experiences will have been fundamental in the acquisition of your knowledge and skills in performing this role. The way in which you have acquired your knowledge will differ from other people. Your involvement in this study is extremely valuable and will enable a comprehensive exploration of informal learning experiences that contribute to

the development of specialist knowledge and roles throughout a range of professions.

Do I have to take part?

No. It is entirely your decision whether you participate and you are at liberty to withdraw at any time without giving a reason. If you take part, you will be asked to sign a form consenting to your participation to record your agreement to take part in the research. A copy of the signed consent form will be taken by the researcher for her records. Completion of the consent form does not in any way change your right to withdraw.

Are there any benefits to my participation in this research?

The opportunity for you to reflect in depth on your direct personal experiences may be valuable in helping to revisit skill development that would be useful in your current role. It is hoped that the results will be used to benefit people with TBI who require case management and the individuals performing this role

Is there any reason why I would not be included in the study?

All studies set out which participants should be included and excluded. This is to ensure that appropriate participants are identified and the researcher is able to provide an answer to the research question. In this study, people who fall into one or more categories below will not be invited to participate:

- Do not provide case management to people with TBI
- Do not have a job description or role profile that refers to the rehabilitation, care, support or management of people who have sustained a traumatic brain injury.
- Do not work in an organisation delivering case management to people with TBI in statutory services, the third or independent sector.
- Provide a case management role but are currently working with the researcher in the management of a client with TBI.
- Work in the researcher's own organisation. [To maintain the researcher's professional boundaries for clients and staff]

What will happen if I take part?

On receipt of an email, reply slip or telephone call from you indicating your wish to participate, I will contact you to arrange an interview with you at a time and location convenient to you and answer any questions you may have. On the day of the interview, I will ask you to sign two identical consent forms, one of which is for your records. The interview will take place following this and will last approximately one hour. I will make some notes during the interview that will be recorded on a digital recorder. The questions will be around your personal informal learning experiences that you consider have contributed to your knowledge and work as a case manager with clients with TBI. You will be invited to share any other information you would like to raise in relation to this topic

I will ask you to clarify your professional background but will not ask personal questions about your salary or views on the organisation where you work. No one but me will be able to attribute your views personally.

You are free to withdraw from the study at any time, without giving any reason and will not be penalised or disadvantaged in any way. On conclusion of the study, I will contact you again to share the results.

Will the information be kept confidential?

If you participate in the research, the record of the interview may be inspected by the regulatory authorities at University of Southampton to ensure that the study is being conducted correctly. Personal details that identify you or the organisation in which you work will not be disclosed and will not be identifiable. I work in a commercial organisation but no details whatsoever will be used for any commercial or personal benefit. At the end of the study the data will be held by the University of Southampton. Following the study, authorised staff from the University only will be able to access the data. Data will be kept by the University and the researcher for 10 years before being destroyed.

What will happen if there is a problem?

If you reveal poor practice, I will advise you of my concerns and will explore the matter further with you. In the interests of your welfare and the welfare of others, it may be necessary to report my concerns to the relevant personnel in accordance with my professional code of conduct.

It is anticipated that there will be minimal risks to participants who take part in this study. However, if a topic is raised which in advertently upsets you such as recalling a troubling memory, I will check to ensure whether you want to continue with the interview. If I am concerned about your welfare, I may suggest that you seek further support from an appropriate source.

If you have any concerns about how you have been approached or treated in any way during the course of this study, or if you feel that you have been harmed, the University of Southampton has a complaint procedure that is available to you. If you wish to make a complaint, please contact Dr Debbie Craddock [research supervisor] on Tel: 023 80595913 Email: d.craddock@soton.ac.uk or Dr Martina Prude, Tel 023 80595085 Email: Mad4@soton.ac.uk at the research governance office.

What will happen to the results of the research study?

The research will be written and submitted to the University of Southampton as a PhD thesis. A summary of the results will be circulated to all participants. The results of the study will be disseminated at relevant conferences and will be published in academic journals. It will not be possible to identify participants or the organisation in which they work in any publications or presentations.

Who is organising and funding the research

The researcher conducting this study is organising the research and is not being paid for this work.

Who has reviewed the study?

This study has been reviewed by independent researchers in the University of Southampton and the Southwest NHS ethics committee and approval to proceed has been given.

Contact for further information

If you would like further information, please contact Allison Saltrese [PhD student] Faculty of Health Sciences

Appendix J

University of Southampton
S017 1BJ Tel 07740406511 Email A.saltrese@soton.ac.uk

Or

Dr Debbie Craddock [research supervisor] on Tel: 023 80595913
Faculty of Health Sciences
University of Southampton
S017 1BJ Tel: 023 80595913 Email: d.craddock@soton.ac.uk

Please keep this participant information sheet for future reference.

Please complete the reply slip and return to me via post in the free post envelope or email me on A.saltrese@soton.ac.uk if you would like to participate in this study.

Thank you for taking time to read this participant Information sheet.

Appendix K Consent Form

31 May 2011

UNIVERSITY OF Southampton
School of Health Sciences

CONSENT FORM FOR RESEARCH STUDY

Informal Learning Experiences of People case managing clients with Traumatic Brain Injury

1. I have read and understood the participant information sheet dated March 2011regarding this study. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason without being penalised or disadvantaged in any way. ☐
3. I agree that any data used from this interview for use in publications & presentations will be anonymised. ☐
4. I understand that all data will be stored in a secure work space for 10 years after the completion of the study for University audit purposes. The data will be destroyed after that date. ☐
5. I agree to the recording of this interview. ☐
6. I understand what is expected of me and my questions have been answered to my satisfaction. ☐
7. I agree to participate in this study. ☐
8. I have been given a copy of this form. ☐

Name of Participant

Signature of participant…….. Date……

Signature of researcher…….. Date……

If you feel you have been treated unfairly, or you have questions regarding your rights as a research participant you may contact Dr Debbie Craddock, research supervisor Tel 023 805 95913 email d.craddock@soton.ac.uk

Appendix L Extract from Coding Frame Development

Date	Stage of Coding	Number of codes
As per interview	Interview transcript, research diary notes and ideas	
February 2012	List of codes for transfer thesis	139
January 2014	First round of coding completed	343
May 2014	Second round of coding completed	409
July 2014	Third round of coding completed	341
August 2014	Fourth round of coding commenced	362
February 2015	No new Codes arising from the data	363

Initial coding	First level	Code Development	Emergent Theme	Sub Themes
Being a patient	Individual experience of illness injury	Direct personal experience of illness injury disability	Illness injury disability	Providing Care
Back injury				
Difficult personal circumstances				
Illness				Understanding Loss
Family illness	Family experience of illness / injury/ disability	Indirect experience of illness, injury, disability		
Disability in the family				
Parental illness				Isolation
Death of close family member	Encounter with Illness disability injury severe or fatal			
Grief and distress				Inadequate Support
Community rehab experience	Work-based experience of disability			

(Joffe, 2012)

Appendix M Caldicott Principles

Fair processing	The data collected will analysed fairly and legitimately in accordance with the principles of professional record keeping.
Used for specified purposes	The data will only be used for research purposes.
Minimum necessary for the purpose	The data gathered has been the minimum necessary to answer the research question. The personal data collected has been anonymised and has been required to enable contact to be made and the summary forwarded.
Accuracy	Interviews has been recorded with the participant's permission and transcribed verbatim to ensure accuracy.
Kept for minimum time necessary	The data has been retained throughout the course of the study and has been kept for the stated period stipulated by the university. This has been for 10 years.
In accordance with rights of data subject	The participants has been informed of the nature of the study and will give their consent to participate freely. If they request that information provided is not used in the study it has been destroyed.
Security and confidentiality protection	The list of participants identifying their name, organisation and location has been retained separately from the anonymised list within the home of the researcher. This has been destroyed once the study has been completed.
Not disclosed outside the EU	The nature and name of the organisation in which they work has been changed to ensure that no connection whatsoever can be made between the participant and their workplace.

Appendix N CMSUK Conference 2014

'Controlling Costs & Retaining Quality in Life & Work'

Speaker Reviews

Allison Saltrese

Director, RT Disability Consultants Ltd

The Role of Personal Experience in the Delivery of Case Management Practice

- Presenting from her PHD Research on Case Management

Allison was an engaging and passionate speaker. Sometimes research presentations can be dry and full of data tables but Alison's presentation was anything but. It included a reflective exercise for the audience which really helped us to engage with the nature and extent of one's personal experience, and how this is utilised in the way we go about our work. She did manage to throw in the terms 'constructivist ontology' and 'interpretative epistemology' without losing her audience, which was quite an achievement!

Her Ph.D. study looked at two emerging themes of illness, injury and disability; and aggression, violence, and abuse; and how these themes affected a case managers work with clients. Personal experience was shown to be 'a vast pool of resources' to be used for one's work as a case manager.

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