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**The recovery experiences of Refugees from Middle Eastern backgrounds with
concussions.**

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Abstract

With the growing number of Middle Eastern refugees in the world, there is a need for more culturally and refugee specific research to examine the ongoing and idiosyncratic nature of the stress and trauma refugees' experience. As a result of the arduous journeys refugees undergo, they become susceptible to a number of mental and physical illnesses, including Traumatic Brain Injuries (TBI) such as concussions. Little research so far has been dedicated to understanding Middle Eastern refugees' experiences of TBI and how understandings of this injury can impact on their journeys to recovery. In this small Australian, community-based, qualitative study six individuals from Middle Eastern refugee backgrounds, who have experienced a concussion in the past five years were interviewed. Participants included two females and four males, aged from mid 20s to early 60s. The interviews focused on participants' conceptualisation of concussions and their experience of recovery. Interview data was investigated through the Interpretive Phenomenological Analysis (IPA) lens. Six main themes emerged from interview data, these related to: *Coping, consequences of injury, professional relationships, conception of brain and brain injuries, refugee related experiences, and experiences of concussion*. All participants stressed the importance of family as a source of support in coping with consequences of injury. Faith in a higher power was highlighted as a core value in Arabic Middle Eastern cultures, common in most interviewee accounts. One source of distress in some participants was the worry that others will perceive them as having mental illness as a consequence of their concussion. Future research is encouraged to examine the stigma underlying mental illness in the Middle East, and the obstacles preventing people with similar backgrounds from seeking help.

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Chapter One – Background and Introduction

The purpose of this chapter is to provide an introduction to the various issues refugees from the Middle East face and how these issues may impact on their experiences of concussion and their subsequent journeys to recovery. Further, background information related to Traumatic Brain Injuries (TBI) in general and concussions in particular will be presented. Additionally, a discussion of the current relevant literature on concussion evaluation and management will be included. The aim of highlighting these issues, is to demonstrate to the reader the relevance of this research project.

Refugee Related Facts

Many countries in the Middle East, such as Syria, Egypt, Iraq and Libya have experienced wars and political upheaval over the last five years. As a result, an increasing number of civilians have had to flee their countries under traumatic circumstances. According to the United Nations High Commissioner for Refugees (UNHCR), the number of refugees worldwide has significantly increased over the past four years, from 10.4 million refugees in 2011 to 15.1 million refugees in 2015, with over 35 000 refugees resettled in Australia. Further, UNHCR 2015 statistics show that due to the current conflict in the Syrian Arab Republic there are now approximately 4.1 million Syrian refugees globally.

Kira and Tummala-Nara (2015) define a refugee as a person who fled their homeland to escape war, genocide, torture and/or persecution. Newman (2013) notes, that Australia is unique in that, asylum seekers are required by law to be detained in remote detention facilities for an indefinite period of time. Phillips (2011) states that the main difference between a refugee and an asylum seeker is that a refugee's claim for refuge has been granted under the 1951 Refugee Convention, whereas, an asylum seeker is a person seeking international protection, but whose claim under the convention has not been determined.

Consequently, some refugees living in Australia will have to endure additional stressors and trauma during their offshore detainment before being granted refugee status.

Yelland et al. (2015), explain that due to the nature of the circumstances surrounding the departure of refugees from their home countries many refugees and asylum seekers confront multiple stressors, including a number of mental and physical health problems upon re-settlement into new host countries and even in post-settlement years. Additionally, they state that the International Human Rights Conventions require that host countries provide refugees and asylum seekers with basic health care. According to Lamb and Smith (2014), specialised refugee services do exist in Australia. However, the majority of health care provided is located within mainstream services. Yelland et al. (2015), found that stressors related to settlement, such as language barriers, social isolation, economic adversity and unemployment, play a role in restricting access to available health services. As a result, refugees experience varied and ongoing trauma that affects both the physical and psychological domains.

The previously mentioned studies paint a complex picture of comorbid conditions affecting refugees, and this requires a more in depth analysis of how these populations experience trauma and respond to it. Newman (2013) examines events such as political oppression, social breakdown, and attempted genocide, whereas Mateen (2010) focuses on the physical trauma combatants and civilians of war-torn countries face such as brain, spinal cord, and peripheral nerve injuries. The following section will specifically consider the various obstacles refugees have to deal with when settling into their new homes.

Refugee Mental Health

A refugee's journey to their host country is wrought with difficulties and dangers. This is compounded by additional difficulties they face when settling into their new homes.

According to Lindragen et al. (2012), one difficulty refugees face, potentially leading to their social isolation in host countries, is a shift from socio-centric societies to egocentric ones. In most cases individuals are likely to be separated from their families, creating uncertainty about their own and their families' future. In a study by Ekbal et al. (2009, as cited in Lindragen et al., 2012), 86% of Arabic-speaking refugees considered separation from family in the asylum seeking process a hardship and major source of stress. Further, authors of the study stated that language barriers can play a major role in poor cultural adjustment. A combination of all stressors experienced before and after arrival in the host country contributed significantly to refugees' mental health. They refer to Silove's (1999) model of Adaptation and Development after Persecution and Trauma which considers refugee or asylum seeker needs that must be met before favourable recovery from mental illness can be observed. These needs include physical and psychological security, reunion of family members and re-establishing community cohesion, presence of justice systems to deal with previous and ongoing human rights violations, establishing meaningful roles and identities (for example, employment, family, social and cultural environment), and enabling environments which allow the individual to express their views and beliefs freely without threat of persecution. This model gives a more thorough understanding of asylum seeker or refugee needs for recovery beyond the basic requirements of food, water, and shelter. The following section will discuss exposure to torture and multiple human rights violations (HRVs), which are common experiences many refugees share. The pathways by which HRVs contribute to poor mental health outcome will also be considered.

Many refugees face countless HRVs before they make the decision to flee their home countries. Lindragen et al. (2012) refer to a meta-analysis by Steel et al. (2009), where 82000 refugees worldwide were found to have suffered from torture and threats of death before leaving their home countries. Nickerson and Bryant (2014) considered the effect HRVs have

on the psychological functioning of survivors. HRVs included being threatened with death or torture, and witnessing the death or torture of others. Consequently, there is a high risk of developing various psychological disorders, but more specifically, Post-traumatic Stress Disorder (PTSD) and Depression. Researchers stated that it is important to understand why some survivors are able to naturally recover after experiencing HRVs, while others develop more serious psychological disorders. Further, developing an understanding of these differences can help inform clinical interventions to facilitate recovery. They identified three key areas by which psychological injury is caused and maintained in an individual following HRVs. These are disturbances in interpersonal processes, decreased perception of control, and disruption in individual and group identities. The following will briefly discuss each aspect and how it impacts on the mental health outcomes of refugees.

Interpersonal process impairment refers to the loss of belief in the altruism of human kind, negatively impacting on interpersonal functioning. For example, individuals who have been exposed to mass violence, or betrayed by friends or family members who acted as informants, are unclear with whom to place their trust. They have learned that trusting the wrong parties can have disastrous consequences. As a result, individuals are unable to feel secure in social situations or form secure attachment relationships. For example, Kaehler and Freyd (2009, as cited by Nickerson & Bryant, 2014) found that exposure to complex trauma characterised by loss of trust in others is highly correlated with an increased incidence of borderline personality disorder. According to Bartz et al. (2011, as cited in Nickerson & Bryant, 2014), exposure to complex trauma and the subsequent development of psychopathology can alter biological processes related to interpersonal functioning. In their study, administering oxytocin (known to enhance trust in healthy individuals) exacerbated feelings of mistrust in individuals with borderline personality disorders. Disturbed interpersonal processes can manifest as attentional bias to events which reinforce beliefs and

expectations of harm or betrayal. In these instances, individuals are more likely to negatively perceive events occurring in ambiguous social situations. Further, psychological processes are also impacted by these negative interpersonal outcomes. Individuals begin to view other humans as potentially threatening, so they engage in avoidant behaviours, or even participate in defensive actions to protect against perceived harm or danger. Consequently, it is possible for these behaviours to contribute to psychopathological symptoms such as avoidance in PTSD, anxiety reactions, or social withdrawal as seen in depression. Additionally, these negatively held beliefs about the world create further impediments for the individual to form meaningful relationships, in turn impacting their expectations of support and contributing to social isolation. Therefore, impaired interpersonal processes prevent the formation of social networks, which are important for recovery from traumatic experiences, further exacerbating psychological symptoms.

Decreased perceptions of control are a result of witnessing or experiencing repeated atrocities perpetrated against the self and/or loved ones. These experiences are often associated with feelings of powerlessness to intervene. Further, feelings of powerlessness can be exacerbated even after arrival to host countries, this is especially seen when asylum seekers are placed in mandatory detention centres (Nickerson & Bryant 2014). According to Nickerson and Bryant (2014), all these events impair an individual's perception of their own ability to exert control over their lives. They observe that perceived uncontrollability and unpredictability of traumatic events are one of the major causes associated with onset of mental illness, because it impacts on the refugee's belief of their own competence and sense of agency. Therefore, in ambiguous situations, the individual has a limited sense of their own ability to engage in effective action to exert control over the situation. As a result, individuals are more likely to overestimate the uncontrollability of the situation and underestimate their ability to deal effectively with problems arising. Subsequently, they

experience further diminishment in their capacity to deal with stressors, further exacerbating their distress.

Exposure of individuals to HRVs often leads the person to question their conception of themselves as a worthy moral being deserving of basic rights afforded to humans. As found, for example, Nickerson and Bryant (2014), refer to the systematic treatment of Jewish people, not as humans, but as vermin by the Nazis. These dehumanising and degrading experiences serve to strip a person of their self-worth and negatively impact on their sense of individual identity. On the other hand, Nickerson and Bryant (2014), note that the denunciation of group identity occurs when persecution is experienced due to the person being affiliated with particular religious, political, ethnic, national or other groups. Psychological distress is experienced when group membership, previously a source of pride, becomes a source of suffering and persecution. An example offered by Nickerson and Bryant (2014), is the persecution of Buddhist monks in Tibet, and the forced conversion of non-Muslims in Iraq, where states implemented genocidal policies; to eliminate local cultures and gain power and resources. Denigrating both individual and group identities impacts on a person's ability to understand and interact with the external world. According to social identity theory, positive group identity creates a sense of meaning and belonging to the individual, where self-identity is shaped by interaction between the person and the group to whom they belong. Baumeister and Leary (1995, as cited in Nickerson & Bryant, 2014) state that a decreased sense of belonging is linked to a range of physical and psychological problems. Failure to see oneself as a worthy person coupled with an impaired sense of belonging, may lead the individual to socially withdraw, compounding pre-existing symptoms of depression, which prevent the individual from being exposed to opportunities to challenge their negatively held beliefs. As discussed previously, refugees are particularly vulnerable to developing a host of psychological disorders as a result of the hardships they

have endured. Some of the most common psychopathological conditions experienced by refugee populations include anxiety, depression and PTSD.

A high number of asylum seekers and refugees suffer from mental health problems. Newman (2013) states that asylum seekers in offshore detention centres hoping to seek refuge in Australia often suffer from anxiety, depression and PTSD. The study pointed to the fact that most of these individuals were placed in situations where there was uncertainty about their futures, which lead to feelings of hopelessness, contributing significantly to their psychopathology. This is an example of one of the consequences refugees face when their sense of control over their own lives is threatened or diminished.

Newman (2013) reported increased incidences of self-harm, motivated by a variety of factors. For example, the authors of the study found that some individuals sewed their lips as a form of protest, while others sewed their mouths shut as an attempt to suicide. Further, she explains that governments often see such behaviour as an attempt at manipulation or an indication of character pathology. Consequently, the government's failure to recognise that conditions related to detention plays a role in these risky behaviours. Newman (2013) further states that inadequate mental health support in detention explains why only some improvement in asylum seekers' condition are observed, after obtaining refugee status and release into the community. As a result of the prolonged nature of the trauma experienced before and during detention, enduring presentations of a number of psychopathological conditions is commonly found among this population. The traumatic experiences refugees face, predisposes them to various psychological disorders, they are also vulnerable to a number of physical injuries which include but are not limited to TBI. Next TBI as a commonly occurring experience in refugees fleeing war torn countries in the Middle East is discussed.

Refugees and TBI

According to Keatley and Rasmussen (2013), refugees who have been exposed to war trauma and torture are more likely to suffer from TBI. In their study 69% of participants stated that they sustained blows to the head as a result of torture and, of this group, 55% reported losing consciousness. The most common form of blunt force trauma associated with TBI in these populations included being kicked, punched or struck with a weapon about the head. Rasmussen et al. (1990, as cited in Keatley & Rasmussen, 2013) found that 64% of refugees resettled in Denmark had experienced neurological damage as a result of an injury to the head. Further, Mollayeva, Shapiro, Mollayeva, Cassidy and Colantonio (2015) posit that 75% of TBI are due to mild or concussive injuries. Given the above evidence, it is reasonable to conclude that mild TBI (mTBI) is commonly found amongst refugee populations. However, the presence of comorbid psychological disorders further complicates a refugee's journey to recovery.

The dangerous and arduous journey, refugees have to undergo exposes them to trauma. As a result, they become vulnerable to a host of health problems. Individuals with TBI can present with varying symptoms depending on the severity of their injuries. The overlapping nature of these symptoms creates additional obstacles the treating physician must consider before an accurate diagnosis can be reached. In a study by Mollica et al. (2002, as cited by Keatley & Rasmussen, 2013), a link was found between Cambodian refugee experiences of TBI and subsequent mental illnesses such as PTSD and depression. They hypothesised that individuals who sustained head injuries due to mass violence and torture were more likely to have comorbid psychological disorders. Keatley and Rasmussen (2013), state that research on non-refugee populations has clearly established a link between TBI and the onset of psychopathology. Keatley, d'Alfonso, Abeare, Keller, and Bertelsen (2015), show that the number of health complaints experienced by refugees and survivors of torture

increased when moderate to severe TBI cases were accompanied by PTSD. They refer to a study by Dolan et al. (2012, as cited in Keatley et al., 2015) where a causal relationship was claimed between mTBI and PTSD in war veterans. They explain that the loss of consciousness and amnesia associated with more severe forms of TBI acted as a protective factor against PTSD. Harvey and Bryant (2001, as cited in Keatley et al., 2015) demonstrate evidence where lower rates of PTSD were found among individuals who sustained severe TBI compared to individuals with mTBI. The presence of psychopathology alongside symptoms associated with TBI thus adds another level of complexity when considering recovery. Some background information will be provided on TBI, mTBI, concussions, post concussive symptoms (PCSM) and post concussive syndrome (PCS).

TBI Facts

Thal and Neuhaus (2014) posit that TBI severity is classified into three categories, based on the duration of the post-traumatic unconsciousness. A patient is given a score on the Glasgow Coma Scale (GCS), which is an objective tool used in hospitals to diagnose unconsciousness. For example, a deeply unconscious person who is non responsive is given a GCS score of 3. On the other hand, an individual who is awake and is able to respond and communicate verbally receives a score of 15. The three levels of TBI severity based on duration of unconsciousness include mTBI (1°) with a GCS score between 13-15 where the individual loses consciousness for 15 seconds or less, moderate TBI (2°) with a GCS score between 9-12, where the individual's loss of consciousness is for less than an hour, and severe TBI (3°) with a GCS score between 3-8, where the duration of the unconscious period experienced is over an hour. According to Edmundson et al. (2015), TBI includes the primary injuries which occur upon impact, secondary injuries which occur days or weeks following injury (such as PCS), and diffuse axonal injuries which occur due to the effects of the initial mechanical forces on grey and white brain matter. Therefore, various cognitive and physical

deficits can be seen in an individual who has experienced a TBI. However, Chen et al. (2013) state that the mode of injury influences the type and severity of consequences experienced by the individual. Thus the differences between blast and non-blast concussions and their respective effects need to be more closely defined.

According to Chen et al. (2013), direct impact concussions are concussions sustained by acceleration/deceleration or rotational forces which act on the brain to cause injury. These types of concussions usually result in small focal lesions in only certain parts of the brain, commonly at the site of impact and at the site directly opposite. They result in shear strains causing neural damage. Blast induced concussions on the other hand, do not induce the same type of injury (linear or rotational acceleration) but instead, the blood-brain barrier and tiny blood vessels sustain damage. As the individual is hit with a shockwave, their blood moves at a fast rate through the larger blood vessels, from their torso to their brain, causing the damage to the smaller vessels. It is worth noting that none of the participants interviewed in the current research project sustained blast induced concussions through their refugee experiences. However, all individuals were refugees, who fled war-torn countries. Consequently, research findings highlight specific related experiences that can be useful, when working with individuals who experience blast induced concussions. Irrespective of the mode of injury, certain pathophysiological changes take place in response to injury.

Pathophysiological changes following direct impact concussions, as commonly seen in motor vehicle accidents, sport collisions and falls, include impaired neurotransmission, ionic channel dysregulation, an imbalance in cell energy metabolism, and decreased cerebral blood flow. In contrast, Lange et al. (2012) state that, the shockwave in blast induced concussions, moves through biological tissue, where a spike in pressure is observed followed by depressurisation, which then leads to rapid compression and expansion of brain tissue. These changes in brain pressure cause shearing-stress diffuse axonal injury (DAI), blood

vessel damage, contusions and haemorrhaging. While the type of injury may differ according to the traumatic event, some researchers question whether there are significant differences between blast and non-blast concussion with regard to symptom presentation.

Lange et al. (2012) state, that there is limited evidence to support the idea that there is a difference in the effects of injury based on the mode of injury, especially with regard to neurocognitive and neurobehavioral consequences. For example, they refer to a study by Luethcke et al. (2011) where researchers used computerised neurocognitive tests on both military personnel and civilians 72 hours post-mTBI. They did not find any significant differences between blast and non-blast groups with regards to memory, reaction times, learning and working memory. Additionally, in the same study, individuals were asked to recall symptoms at time of injury and evaluation. Researchers were also not able to find any significant differences between the groups in terms of symptom reporting (insomnia, PTSD, fatigue, depression). Further, Lange et al. (2012) found that individuals with blast induced mTBI had a higher rate of reporting symptoms of depression than the non-blast group. However, the authors concluded that despite differences in psychological distress, the differences were not large enough to be described as significant. The subsequent section will discuss the different types of deficits associated with TBI.

There are various physical and cognitive sequelae associated with exposure to mTBI, due to the onset of the pathophysiological cascade after injury. Cognitive deficits commonly associated with TBI are impairments in memory, executive function and processing speed. Kinnunen (2011) explains that domains such as memory and executive functioning rely on the functioning of distributed brain networks. When a mTBI occurs, damage is often sustained to long white matter tracts, which normally connect these areas in healthy individuals. So impaired brain connectivity can impact on symptom presentation, where site and severity of injury may not always provide a clear picture of the impairments an

individual will experience. In terms of the physical deficit associated with TBI, Trotter et al. (2015) state that individuals who were exposed to multiple mTBIs were at an increased risk of developing neurodegenerative diseases such as dementia. Keatley et al. (2013), recommend including a TBI screening for incoming refugees to assist health care professionals in their assessment of their patients' conditions because cognitive and physical deficits impede recovery from mTBI. Therefore, it is important to understand the variable factors that can impede diagnosis and recovery before an effective treatment strategy can be conceptualised.

According to Chapman and Diaz-Arrastia (2014), treatment of mTBI can be complex since signs of injury often overlap with other conditions such as PTSD, acute stress reactions and depression. As a result, individuals suffering from mTBI often experience a delay in their diagnosis or inappropriate treatment recommendations. Keatley et al. (2015) explain that one of the main challenges facing health practitioners in diagnosing mTBI is that it is heavily reliant on patient self-report or accounts of events leading to injury by witnesses or family members. Since various cognitive impairments result from TBI, patient accounts of injury and symptoms can be inaccurate. The comorbidity of cognitive deficits with psychological impairments in TBI, and the subjective nature involved in some of the components in assessment, create an ambiguous picture of the well-being of the individual seeking treatment. Consequently, research is a vital resource to assist clinicians in better understanding how the variable impairments as well as the different modes of injury associated with TBI can interact to impact symptom presentation and recovery.

According to Adam et al. (2015), blast related mTBI sustained by war veterans are often accompanied by fears of imminent threats, stress, sleep deprivation and PTSD. The additional psychological injury surrounding this mode of injury complicates symptom presentation of mTBI and recovery. For example, the maximum time where symptoms of

mTBI are expected to resolve in three months. However, Lange et al. (2012) found among military personnel, 20% to 48% of veterans were found to suffer from symptoms between three-to-six months after injury due to comorbid psychological disorders. Therefore, it is expected that refugees who are exposed to similar experiences to war veterans, and who witness violence, HRVs and persecution, will have a comparable chronic presentation. On the other hand, in civilian populations, where individuals are not expected to be exposed to violent and traumatising experiences, the percentage of individuals suffering from PCS was limited to 3% to 5% (McCrea, 2007 as cited in Chapman & Diaz-Arrastia, 2014). Another example of the influence of psychopathology on cognitive functioning following injury is demonstrated by Preece and Geffen (2007, as cited in Massey, Meares, Batchelor, & Bryant, 2015). Participants who suffered from depression prior to sustaining a mTBI performed worse on verbal memory recognition tests. These findings point to the detrimental effect comorbid mental health conditions have in exacerbating concussion duration and presentation which in turn affect a person's perception and experience of recovery.

Snell, Surgenor, Hay-Smith, Williaman and Siegert (2015), state that a person's perception of their condition is heavily implicated in their subsequent journey to recovery. For example, Mollayeva et al. (2015) found, that an important component of recovery from mTBI is the patient's perception of the injury and its outcome. Snell et al. (2015) refer to Leventhal's Self-Regulation Model (SRM) which states that individuals construct representations of their health conditions and symptoms that help them make sense of their experiences and provide a basis for coping and recovery. SRM includes various dimensions thought to influence recovery, including perceived duration and course of illness, degree to which symptoms are experienced and attributed to condition, impact of illness on quality of life, and their perceived control of illness or symptoms. They stated that these components can be utilised to predict mTBI recovery and psychological factors associated with these

components can be targets for treatment. The following will highlight the arguments found in the concussion literature on the interchangeability of the terms concussion and mTBI.

Concussion versus mTBI

The reviewed literature refers to concussions as mTBI while others draw a clear distinction between these notions. Consequently, it is important to consider the arguments put forth by researchers on the appropriate definition and use of these terms. Seymour (2013) uses these terms interchangeably without differentiation. She states that concussions can be defined as blows to the head, as well as the pathophysiological changes that occur after that injury. Further, Barbosa et al. (2012) define mTBI as an acute alteration in brain function caused by a blunt external force and is characterised by a GCS score of 13 to 15, loss of consciousness for 30 minutes or less, and a duration of post-traumatic amnesia of 24 hours or less. On the other hand, the Brain Injury Association of America (BIAM) states that it is more accurate to think of mTBI and concussion as existing on a brain injury continuum where Grade 3 concussions and mTBI overlap. They explain that mTBI only refers to the severity of the initial force of trauma which caused the injury not the resulting consequences, whereas a concussion is defined as the physical injury of the brain that disrupts normal functioning. In both Grade 1 and 2 of the BIAM definition of concussion, there is no loss of consciousness, but for fifteen minutes or less, the person feels dazed, confused and is unable to follow directions. In Grade 2 concussions, the individual also experiences amnesia.

In addition to the debate about the interchangeability of mTBI and concussion, the use of the grade system is also under scrutiny. Shuttleworth-Edwards (2008), refers to the recommendations outlined in the Vienna conference on Concussion Management in Sports held in 2001 as cited by Aubry et al. (2002). Shuttleworth-Edwards (2008), states that experts in the field do not endorse the previously used grading scale, for concussion

assessment. The Vienna statement indicates that these scales were not scientifically validated systems, and consequently they should not be used to inform athlete return-to-play practices. Instead individualised approaches to evaluation and management of concussions are endorsed. However, three years later, the Prague symposium for Concussion Management in Sports, introduced a new classification system representing a simpler version of the previously rejected grading scales (Shuttleworth-Edwards 2008). According to Shuttleworths-Edwards (2008), the Prague statement requires concussions to be classified either as simple or complex, with each classification carrying certain implications for subsequent evaluation and management. She states that the new classification also lacked scientific validity and is in essence another grading scale. It is worth noting that, in the more recent concussion symposium held in Zurich (McCrory et al., 2013), there was no mention of the previously discussed classification system.

For the purposes of this research project I use the term ‘concussion’ to delineate TBI as set out in the Zurich concussion statement. According to McCrory et al. (2013), a concussion is *a subset of* TBI where complex pathophysiological processes affect the brain as a result of biomechanical forces. Concussions are further defined by four of the following commonly observed features: First, caused by direct blows to the head, face, or other areas to the body resulting in an impulsive force that is transmitted to the head. Second, by the rapid onset of neurological dysfunction that resolves spontaneously over a short period of time. Third, that while neuropathological changes may result, leading to functional disturbances, there are no structural injuries present in the brain. Fourth, the presence of a set of clinical symptoms which do not necessarily include loss of consciousness, and symptoms commonly resolve in a sequential manner.

In addition to clarifying the debated definitional differences between concussions and mTBI, we also need to differentiate between PCSM and PCS. According to Morgan et al.

(2015), the DSM-IV refers to PCS as a set of three or more somatic, cognitive, emotional, and sleep symptoms, *lasting at least three months* following a recognised head trauma and which is a significant burden for patients and families. The current DSM-V no longer refers to Post-concussion Disorder, but it is rather PCS which can be found categorised under different severity levels of major or mild neurocognitive disorder due to TBI. There is reference to the neurocognitive symptoms associated with mTBI but these symptoms have to resolve within days to weeks after injury with a complete resolution by the third month since injury. In another study, Sullivan et al. (2015) explain that people who experience mTBI recover within days to weeks of the injury, yet symptoms that persist beyond this period may be indicative of PCS. On the other hand, Brunger et al. (2014) refer to PCSM as a constellation of physical, cognitive, behavioural or emotional changes commonly found in individuals who experience mTBI. According to Arcieniegas et al. (2005), syndromes refer to conditions in which there is *both* consistent symptom linkage (i.e., the presence of a symptom predicts the presence of other symptoms) *and* the coupling of symptom resolution (i.e., after the administration of treatment, the resolution of a symptom predicts the resolution of other co-occurring symptoms). They state, that in mTBI cases there is no strong evidence to support these two conditions. Additionally, they explain that PCSM do not appear to group together in a consistent way, nor is there sufficient evidence to support the coupled response of PCSM to treatment. For example, the presence of somatic symptoms is not linked predictably to the presence of cognitive, emotional, or behavioural symptoms. This may be due to these symptom presentations, being the complex effect of injury on the brain (both focal and diffuse), and the interaction between the individual and their surrounding environment (psychosocial factors). They conclude that it is more accurate to describe, the problems individuals with mTBI experience as PCSM than PCS. The following will provide

information on concussions in particular, and the various pathophysiological and psychological changes that occur following a concussive injury.

Physiological and Psychological Impact of Concussion

Current research points to a number of physiological and neurological changes which occur in an individual with a post-concussive injury. Patterson and Holahan (2012), state that there is no unifying definition of concussion across all medical and research fields. However, they argue that, the majority of clinicians agree that concussive injury is an injury resulting from traumatic biomechanical forces creating a cascade of pathophysiological changes in the brain. Further, these changes can lead to post-concussive symptoms (PCSM) which in most cases resolves spontaneously over time. The following will outline the pathophysiological changes that typically occur after a concussion.

Bharath et al. (2015), state that approximately 5% of individuals presenting with concussions will experience PCS with long-term deleterious effects. The heterogeneous presentation of symptoms amongst individuals creates an added complexity for researchers studying the effects of mTBI. Brunger et al. (2014) found that certain factors play a role in exacerbating PCS leading to long term mental and physical impairment. These include a lack of awareness of PCS, peer and societal pressures to return to pre-injury activities, and a lack of attention by treating clinicians since, in some cases, it does not seem to require urgent intervention. Consequently, a more thorough examination of the aetiology of PCS is required to understand the variety of presentations observed in patients.

MacFarlane and Glenn (2015) found that a concussive event can result in a series of complex pathophysiological changes leading to PCS, including hyper-acute ionic flux, indiscriminate excitatory neurotransmitter release, and diffuse axonal injury (DAI). Hyper-acute ionic flux occurs when axonal stretching causes K⁺ (potassium) channels to open

leading to an efflux of K^+ and an extracellular accumulation of K^+ . These changes lead to the increased release of excitatory neurotransmitters resulting in neuronal depolarization. In order to restore ionic equilibrium, Na^+/K^+ (sodium/potassium) ionic pumps work at an increased rate, demanding increasing amounts of adenosine triphosphate (ATP) which is used as an energy source. The resultant increase in ATP production, leads to the consumption of glucose at a higher rate contributing to further metabolic deregulation. Additionally, increased glutamate release leads to over activation of N-methyl D-aspartate receptors (NMDA) resulting in an excessive influx of Ca^{2+} (calcium) and intracellular accumulation, impairing glucose metabolism and ATP production. These disruptions lead to a period of hyper glycolysis (increased glucose consumption) followed shortly by a period of hypo glycolysis (decreased glucose consumption) creating an imbalance between glucose demand and supply. Further, DAI occurs due to the rotational forces which results in the stretching and shearing of axons and a disruption in neuronal cell membranes. While DAI is more pronounced in more severe cases of TBI, MacFarlane and Glenn (2015) found that it is present in all TBI irrespective of severity of injury. These changes impair neurotransmission and alter synaptic plasticity and protein expression. As a result, individuals are more likely to suffer from cognitive dysfunction, ongoing headaches, emotional lability, visual dysfunction and fatigue. In response to these changes, the brain and the central nervous system (CNS) initiate a series of measures to help counteract the effects of the injury. One of these is to encourage inflammation at the site of injury.

Neuro-inflammation is a consequence of brain injury. According to Loane and Kumar (2016), microglia play an important role in mediating the immune response in the CNS post-injury. Microglia are cells released locally in the brain, which act as the first line of defence in the CNS. They release phagocytes, anti-inflammatory cytokines and neurotrophic factors to control neuronal injury and to restore integrity of brain tissue

following injury. The cytokines released in response to injury are proteins involved in cell signalling which are crucial for sleep cycle regulation, various neuroendocrine functions and neuronal development. Therefore, the activation of these response mechanisms has beneficial effects which aid in the restoration of injured brain tissue. However, over-activation of glial cells can also have deleterious results. Loane and Kumar (2016), state that disinhibited microglial activation leads to the release of pro-inflammatory and cytotoxic mediators which are involved in neuronal dysfunction and apoptosis. The different mechanisms involved in the psychological disability after a concussive injury must be clarified.

Broshek, De Marco, and Freeman (2015) identify two models that attempt to explain the psychological disability experienced by an individual post-concussion. According to Kay, Newman, Cavallo, Ezrachi, and Resnick (1992, as cited in Broshek et al., 2015), a negative cognitive feedback loop is created due to psychological distress from an injury. This distress can impair several cognitive domains such as attention, learning, memory and information processing speed. Consequently, the individual is then vulnerable to anxiety and may engage in avoidant behaviours of tasks that require pre-injury levels of cognitive functioning; this often leading to depression. Therefore, a negative cascade of distress experienced due to injury, as well as, growing anxiety and depression, lead to symptom exacerbation resulting in a more disabling presentation.

The second model was introduced by Montgomery (1995, as cited in Broshek et al., 2015), who proposed that personal and situational factors contribute to a prolonged presentation of symptoms. Personal factors include negative cognitions, fatigue, tension arousal and physical impairments, while situational factors include external distractions, pressure to return to pre-injury activities, and the need for complex cognitive attention. Montgomery's recommendations target rehabilitation efforts to alter these factors in order to

manage PCS. The focus of the above models was to explain how factors surrounding injury can exacerbate cognitive and psychological impairment from a non-organic perspective, whereas the following review will provide examples on how mTBI can lead to psychological impairments from a neurobiological perspective.

According to Barker-Collo et al. (2015), depression is a major cause of disability following a TBI and a risk factor for poor recovery following mTBI. Broshek et al. (2015) refer to Mayberg's Cortical Limbic Model of Depression where the onset of depression is not necessarily limited to injury in one particular cortical area or a disruption of one neurotransmission system. Rather, depressive symptoms may result from a general disruption of multi-functional pathways and a failure to maintain homeostatic emotional control. Consequently, Mayberg's model demonstrates that depressive symptoms can develop from neurobiological injury. However, other factors such as pain, sleep disturbances, and distress caused by injury may interact to exacerbate these symptoms leading to more severe cognitive impairments. Dunkley et al (2015) found that functional neuroimaging was an effective tool in illuminating indicators of TBI. They explained that electroencephalography (EEG) and magnetoencephalography (MEG) were used to determine individuals with mTBI through changes in local spectral power. Study findings suggest that mTBI resulted in diffuse changes to brain network connectivity which may contribute to some of the psychological sequelae individuals with mTBI experience. Although these studies describe some of the complex pathophysiological responses to brain injury and how they lead to different symptom presentation, they do not explain the aetiology of all PCSM. Other commonly occurring symptoms resulting from a concussive injury include fatigue, sleep disturbances, and visual dysfunction.

According to Cantor et al. (2012), approximately 45% of individuals experiencing mild to moderate TBI one year post injury complain of fatigue. They found that individuals

with TBI reported higher scores on the Global Fatigue Index (GFI) compared to non-injured controls. Further, 75% of individuals with TBI reported clinically significant levels of fatigue, compared to 38% in the control group. Insomnia was another consequence of TBI the authors of the study examined. They found that 78% to 93% of individuals with TBI were diagnosed with insomnia one year post injury. Researchers also found that insomnia rarely ever occurred without the presence of post-TBI fatigue (PTBIF). According to Gilbert, Kark, Gehrman, and Bogdanova (2015), sleep disturbances occur due to impairments in the functioning of neural circuits involved in sleep–wake regulation. They also stated that poor sleep may exacerbate symptoms of TBI, comorbid psychopathology, and reduce participation in rehabilitation efforts, leading to more severe cognitive impairments. In addition to fatigue and sleep disturbances, a large number of individuals with TBI experience oculomotor dysfunction which in turn affects their ability to perform various routine activities in their daily lives.

One of the most common consequences to mTBI is oculomotor dysfunction, contributing significantly to symptom presentation post injury. Ciuffreda et al. (2007, as cited by Thiagarajan et al., 2014) found that over 60% of individuals with mTBI suffered from a range of oculomotor abnormalities. Further, Walsh et al. (2015) state that significant visual dysfunction can be observed in concussed individuals. This is mainly due to the fact that about 70% of the brain’s sensory processing is vision-related. They found that the most common visual deficits associated with mTBI were oculomotor dysfunctions (such as accommodation, vergence and version eye movements) resulting in reading problems, photosensitivity, and visual field defects. Oculomotor dysfunction has serious consequences on the quality of life of the affected individual as it impairs their ability to complete various routine tasks they perform in their daily lives such as computer work. Therefore Walsh et al (2015) recommend that health care providers increase community awareness of all potential

types of visual deficits expected in patients with mTBI so that these deficits do not go undiagnosed and that patients can seek appropriate rehabilitation as soon as possible.

Neuropsychological Testing

Cognitive impairments have a disabling effect on an individual's life. As a result, it is important to assess the extent of impairment through the use of neuropsychological testing so that individuals can develop strategies to aid them in returning to pre-injury activities and daily life.

This section discusses the various neuropsychological tests used to determine the extent of cognitive deficits experienced by concussed individuals. Morgan et al. (2015) state that for most individuals, spontaneous recovery occurs between 10 to 14 days post-injury. According to Wylie et al. (2015), a large number of individuals who sustain mTBI do not present to the hospital emergency department. Consequently, complications are created due to the underreporting of mTBI cases and lack of follow up after discharge from hospital. These complications prevent the timely assessment of the presence of any enduring impairments and establishing a clear picture of the consequences of concussion. Wylie et al. (2015) note that despite the growing literature on the post concussive impact of mTBI there is still no known medical predictive measure to elicit who will experience detrimental cognitive, somatic, emotional and physical deficits. There has been an ongoing debate on the centrality of neuropsychological testing in a number of international symposiums on concussion in sports. Shuttleworth-Edwards (2008) presents an argument supporting the guiding principles that came out of the 1st International Concussion In Sport Group symposium held in Vienna, arguing against recommendations, later stated at the 2nd symposium in Prague.

Shuttleworth-Edwards (2008) endorses the guiding principle outlined in the Vienna summary paper, as cited in Aubry et al. (2002), stating that neuropsychological tests in their varied forms, are a critical component of any concussion clinical assessment. She goes on to argue against later recommendations from the Prague international conference as referenced by McCrory et al. (2005), which stipulate that concussive injuries be classified into one of two categories; simple and complex. According to the Prague summary statement, concussions that are deemed simple do not require neuropsychological screening and that it is sufficient to include only a mental status screening. The rationale behind her argument against this classification is that it is in direct opposition to earlier efforts rejecting the concussion grading system. She demonstrates the weak foundation the new recommendations are based on, by referring to a number of studies. For example, Stern (2002, as cited in Shuttleworth-Edwards, 2008) found that individuals with high levels of intellectual ability, with no psychiatric or neurological vulnerabilities, require more rigorous cognitive testing following a concussion, to determine presence of any cognitive dysfunction. Consequently, she surmises that cognitive signs present in 'simple' concussions in these affected individuals, would be missed in the more superficial mental status screening recommended by the Prague statement. Therefore, Shuttleworth-Edwards (2008) recommends a more tailored and individualised approach to concussion assessment and management, with the inclusion of neuropsychological testing on every concussed athlete irrespective of the perceived concussive severity.

The recommendations highlighted in Shuttleworths-Edwards (2008) are significant in populations, other than concussed athletes. Her recommendations for tailored assessment and management approaches to concussion are in line, with refugee and culture specific research that also calls for more sensitive approaches when managing concussions. For example in Kira and Tummala-Nara (2015), researchers call for specific and tailored approaches to

health care intervention, which takes into account refugee unique experiences and needs. The use of neuropsychological testing can provide invaluable insight on the presence and degree of deficits in an individual's neuropsychological functioning.

Neuropsychological tests examine a broad range of areas related to functioning, such as attention, working memory, and information processing speed. While many clinicians choose to administer these tests manually, Khurana and Kaye (2012) state that in recent years there has been a growing move to computerised administration of tests. They go on to say that despite the obvious advantages in terms of the ease and speed of processing computerised test results, the role of the clinical psychologist remains crucial in interpreting findings for a more comprehensive understanding of any observed neuropsychological dysfunction. According to Khurana and Kaye (2012), neuropsychological testing in sports is a mandatory requirement of clinical assessment, where the more commonly used test batteries are the computer based Immediate Post-Concussion and Cognitive Testing (ImPACT) and the CogSport. On the other hand, Bharath et al. (2015) indicate that, in general, the more commonly used neuropsychological tests are the Wechsler adult intelligence scale – III (WAIS-III), the Delis-Kaplan Executive Function System (D-KFES), the California Verbal Learning Test-II (CVLT-II) and the Wisconsin Card Sorting Test (WCST). Administration of neuropsychological tests, if done correctly, can shed light on the severity of cognitive dysfunction experienced by the concussed individual. However, in order to achieve this, attention must be paid to certain factors which vary across individuals and may negatively influence and distort test results if ignored.

According to Ardila (2003, as cited by Ardila 2005) cognitive testing is underpinned by culture-specific activities and that test scores are influenced by a variety of cultural conditions and idiosyncrasies. He cites Puente and Agranovich (2003) who state that cognitive testing is developed within a Western specific cultural context. Ardila (2005)

demonstrates how culture can influence cognitive testing performance by referring to Vygotsky's (1978) principle of extra-cortical organisation of complex mental functions which posits that all types of human cognitive processes are formed with the aid of cultural elements.

Ardila (2005) indicates that neuropsychological testing relies on two sources for assessing intellectual abilities, both located within Western cultures; psychometric and neurological approaches. He identifies several cultural values that guide psychometrically based cognitive testing, for example, the use of an isolated environment for testing and assessment of responses in speed tests. First, testing is performed in an isolated setting, with locked doors, where no persons may be present. It is therefore, performed in an intimate situation, with an examiner who is a stranger to the individual. This may not be appropriate in many cultures, where the examinee will have to accept these conditions before testing can begin. Second, time perception is understood differently across different cultures. According to Goody (1991, as cited by Ardila, 2005), time is a social and a cultural construct, and should not be thought of as a natural phenomenon. Ardila (2005) states that in some cultures speed and quality can be contradictory. On the other hand, as stated in Nell (2000, as cited in Ardilla, 2005) American children are used to time based tests since early childhood, as these schools value support a faster response for better results. Consequently, it is important to recognise various cultural implications when considering neuropsychological cognitive testing, as it would be essential when working with refugee populations.

Iverson and Schatz (2015) report that the time of neuropsychological test administration is an important consideration that may assist clinicians in predicting severity of PCS, recovery speed and suitable treatment plans. The ImPACT website (<https://www.impacttest.com>), recommends the administration of ImPACT 24-72 hours post injury. Some evidence suggests that early testing might prove beneficial in predicting

recovery time. For example, Iverson (2007, as cited in Iverson and Schatz, 2015) reported findings from their study, where high school football players who took longer than 10 days to recover, were more likely to show signs of cognitive impairment within the first 72 hours post injury, compared to athletes who recovered more quickly. Taking into account these variables, clinicians can develop more efficacious and time-sensitive treatment options.

Concussion Management

The efficacy of various treatment options is well researched. Broshek et al. (2015), state that one of the most crucial aspects in any successful intervention is education and reassurance. They found that in a study by Miller et al. (1998, as cited in Broshek et al., 2015), psychoeducation on symptoms of concussion and reassurance were significantly involved in preventing and reducing duration of PCS. Another important feature of successful treatment intervention is the inclusion of moderate exercise. Silverberg and Iverson (2013) indicate that complete bed rest three days after injury will likely encourage the emergence of negative consequence. Instead, the introduction of moderate exercise under suitable supervision can help individuals manage avoidance behaviours. As a result of these measures, the individual will see an improvement in their confidence following injury, aiding them in adapting to limitations caused by their injury. Healthy adaptation to post-injury changes and restrictions prevent the individual from further developing cognitive distortions normally seen in PCS. Finally, psychotherapy was found to be an effective intervention in helping individuals to deal with the anxiety and fear associated with their experience of concussion and PCS, since it has been found to aid individuals in identifying and coping with related psychosocial pressures.

According to Burke et al. (2015), current concussion treatment plans are mainly based on sport-related concussion research. They state that such graduated interventions are heavily

reliant on expert opinion rather than evidence-based practices. Consequently, there is little evidence to prove the efficacy of one treatment method over another. In their review of current concussion related clinical trials, they found that a large number of trials did not specify a cause of injury. Further, in the small number of trials where mode of injury was identified, the focus was mostly placed on military personnel with a few limited to athletes. They stress the importance of examining a homogeneous group of concussed patients with a common mode of injury. They go on to state that more targeted research efforts are required in order to facilitate a more focused assessment of injury and its consequences and inform professionals of appropriate treatment considerations. In the context of this project, Burke et al. (2015), recommendations would be relevant by highlighting the need for targeted research, especially for groups such as refugees.

Concussions sustained by athletes and veterans have been extensively researched. However, the number of studies dedicated to understanding the refugee experience of concussions and recovery is considerably lacking. Saltapidas and Ponsford (2008) found that most research is dedicated to understanding TBI from a Western perspective with little attention paid to building an understanding from the perspective of different cultural and ethnic groups. This creates a gap in the literature which is important to address in order to deepen our understanding of how concussions and the subsequent journey of recovery is experienced by different individuals. This in return helps clinicians become more sensitive to the differing needs of their patients, and develop more effective clinical practices to help treat these individuals.

The next chapter will examine the various challenges facing refugees in relation to physical and mental health issues. Further, an argument will be made for the value of culturally oriented and refugee specific research; by providing examples of studies that take into account not only the ongoing and unique nature of trauma refugees experience, also the

various ways individuals from different cultural backgrounds conceptualise mental health and its impact on intervention planning and application. In the following chapter a discussion on the different ways culture can be conceptualised will be included, as well as, the most relevant cultural values to the current study. The chapter that follows provides a detailed account, of the theoretical framework underpinning the chosen methodology that will also guide interview data analysis and interpretation. The final two chapters will be comprised of the results and discussion chapter, ending with the conclusion chapter. The results and discussion section will present the reader with study findings supported by extracts from participant accounts. Additionally, study findings will be located within relevant concussion and refugee related literature. The conclusion segment will contain a summary of findings, ending with recommendations for health professionals arising out of the study.

Chapter Two – Review of Culturally Focused Research

This chapter will consider the various challenges refugees encounter in relation to their mental and physical health. In addition, a discussion will be included on the different ways refugees understand mental health, and the resultant implications for intervention planning. The final section of this chapter will provide a review, on various culturally oriented refugee studies. The goal of the chapter is to bring to light the culturally sensitive and unique nature of the trauma refugees' experience present in existing literature, especially in regards to concussions.

The cumulative, and therefore complex, effect of the continuous stress and trauma refugees experience calls for a more thorough understanding of their needs. Recently trauma and stress models have been criticised due to “the individualistic, past trauma and single trauma biases” inherent in these models (Kira & Tummala-Nara, 2015, p.451). The diverse cultural background, the ongoing and idiosyncratic nature of the stress, as well as, the unique trauma refugees experience requires more culturally and refugee-specific tailored interventions in order to be effective. To be able to provide these, we need to better understand the experiences of these highly varied populations.

Health Challenges Facing Refugees

The different types of psychological, and physical injuries refugees commonly experience, are outlined in a number of studies. For example, Steel et al. (2009) state, that a large portion of refugees resettled in Western countries suffer from significant physical and psychological disorders including depression, anxiety and PTSD. Their meta-analysis found a 30.6% prevalence of PTSD among various refugee and conflict affected populations, while levels of depression and anxiety were also elevated compared to non-refugee populations. Mateen (2010) found that TBI were the most common form of neurological injury of

combatants and civilians in war torn countries such as Iran, Iraq, Israel and Lebanon. TBI would therefore be a common experience among refugee populations. Researchers identified various reasons for the high prevalence of physical and mental illnesses in refugees with the traumatic and violent events experienced before arrival in their host countries being the primary cause.

The high comorbidity between the different types of physical and psychological disorders among refugee populations adds a further level of complexity. Mollica et al. (2009) demonstrate a relationship between TBI and psychological disorders such as depression, anxiety and PTSD among South Vietnamese former political detainees. A study by Rasmussen (1990, as cited in Mollica et al., 2009) found that 64% of torture survivors from nineteen different nationalities (n=200) had neurological impairments and that two thirds of this group were found to have experienced TBI due to severe beatings to the head. They also found that prolonged and repeated blows to the head resulted in the thinning of the prefrontal-temporal regions, which they argued contributed directly to symptoms of depression and anxiety. Furthermore, dysfunction in the prefrontal cortex, hippocampus and the amygdala was associated with poor stress regulation and response, suggesting that this may be a factor in the development of subsequent PTSD. In addition, Mollica et al. (2014) found that PTSD symptoms (mood regulation, affect and processing of traumatic memories) may have a masking effect on more serious TBI. Therefore, symptoms may appear to be consistent with psychological effects of trauma rather than the actual underlying cause, that is, the direct physical effects of trauma. As refugees are more likely to have experienced TBI, they are consequently vulnerable to further disabling conditions, including an increased risk of poor self-perception of health status and a greater number of physical illnesses.

A number of research papers consider the steep price individuals fleeing war-torn countries pay, especially in terms of physical and mental health. Keatley et al. (2015)

identify refugee populations as particularly vulnerable to head trauma and TBI, as many are exposed to incidents of mass violence and torture. Maier et al. (2010) investigated the rates of psychopathology among refugee populations in Switzerland. They found that psychopathology was prevalent among these groups, with high rates of major depression and PTSD. Various research efforts, such as the Kira and Tumala-Nala (2015) study, discuss the unique nature of refugee trauma experiences and the need for specialised efforts to treat trauma consequences. Swaroop and DeLoach (2015) emphasise the need for culturally sensitive approaches for conceptualising trauma and informing treatment for maximum efficacy. There thus exists a need for both researchers and clinicians to take into account the cultural sensitivities for the traumatised group when investigating and devising treatments. Next, a discussion on the current health care support refugees receive and how responsive it is to their needs.

Access to Health Care: Obstacles and Consequences

According to Maier, Schmidt, and Mueller (2010) access to and utilisation of healthcare in Western countries by asylum seekers is usually restricted and inadequate. Given that asylum seekers and refugees are vulnerable to mental health problems, providing these groups with only basic health care is insufficient. Therefore, the healthcare provided by some host countries, is not sensitive enough to the needs of the individuals within these populations. Maier et al. (2010, as cited in Lindragen et al., 2012) found that in Switzerland, refugees with mental disorders were often under diagnosed and rarely received treatments for mental illness. They found that the healthcare system was not responsive to the needs of these refugees. In the Lindragen et al. (2012) study, 43% of refugees to Sweden were found to suffer from at least one symptom of a mental health disorder, such as sleep disturbances, worry, stress, and somatization. According to Rohlof, Knipscheer and Kleber, (2014), many problems in the therapeutic process arise when treating refugees for medically unexplained

physical symptoms because of a mismatch in expectations. Refugees expect to be treated for these symptoms rather than underlying mental health issues. As a result, many patients from non-Western refugee backgrounds rejected diagnoses they received which in turn interfered with their commitment to treatments prescribed. Further, only nine people from the 555 individuals investigated in the Lindragen et al. (2012) study in Sweden, were prescribed psychotropic drugs, and only an additional nine people were referred to counselling. This is indicative of the poor mental health support refugees receive where the health care system is unable to meet their needs. Lindragen et al. (2012) state that the mismatch between the system and refugee needs is partly due to the provisions outlined by the Swedish Constitution which only allows for emergency health care that excludes mental health unless suicide related.

Refugees in Australia, where the current study is based, also face several obstacles to receiving appropriate health care. Bowers and Cheng (2010) refer to a study by Johnson et al. (2008) investigating the experience of General Practitioners (GPs) who provided primary health care assessments to refugees and asylum seekers in South Australia. The study found that a majority of the GPs felt unprepared in managing the complex health conditions experienced by these individuals, including conditions rarely found in Australia.

Additionally, Lamb and Smith (2014) state that inadequate reimbursement and lack of specialised health services for some refugee groups, such as young and aged refugee people throughout Australia, create further challenges in meeting their needs. Furthermore, the discomfort some health practitioners face when discussing trauma with refugees discouraged them from assessing their patients for mental health and providing support where needed.

While health care providers in refugee related services face obstacles in providing adequate mental health assessment and support, the consequences of chronic psychopathological conditions if no support is received can be significant on both individual and societal levels.

The consequences of improper treatment of traumatised refugees can be far reaching. For example, Dalgaard and Montgomery (2015) discuss the effects of growing up in a traumatised refugee family. They found intergenerational transmission of behavioural patterns and suffering among children in these families. Trauma was transmitted to the children through a lack of open communication about the past and emotional withdrawal by the traumatised parent. Various schools of thought exist as to the style of communication required, depending on the cultural identity of affected individuals. For example, for Summerfield (1999, as cited in Dalgaard & Montgomery, 2015), one of the central tenets of traditional trauma intervention requires traumatised patients to emotionally vent and work through their experiences. Their research indicates that this was not suitable to non-Western refugee patients. This is mainly due to the fact that communication styles are highly contextualised and culturally driven. On the other hand, Rousseau, Maesham, and Nadeau (2013, as cited in Dalgaard & Montgomery, 2015) recommend the use of modulated disclosure as a communication strategy in traumatised refugee families from non-Western backgrounds. This method allowed parents to choose the time and manner of disclosure that is sensitive to their children's mental, emotional and cognitive needs. So the manner of communication is emphasised over content. Their study suggests that this method of talking about traumatic experiences of parents is more favourable to Western paradigms of trauma intervention and may be harmful. Further, Jelinek, Wittekind, Moritz, Kellner, and Mutz (2013) found that parental PTSD impacts the psychological and biological functioning in their children, including lowered levels of cortisol secretions. Cortisol is a hormone involved in many biological and psychological responses to stress. They state that PTSD impacts neuropsychological functioning in domains such as long-term memory and learning. Snell et al. (2015) highlights the value of culture-centred research in understanding the experiences and culturally-embedded constructs individuals have of mental health and trauma. A

culturally sensitive understanding of trauma takes into account the different ways individuals from various backgrounds, conceptualise trauma and mental health.

Refugee Conception of Mental Health

Shannon, Weiling, McCleary, and Becher (2015) examine the different conceptions a number of refugee populations have regarding mental health. They argue that refugees understand mental health in a multi-dimensional way. First, they consider mental health within a political context. In this context, refugees were found to separate the mental distress experienced as a result of political trauma from other types of distress. For example, Bhutanese refugees used a specific word for an individual who suffers mental illness due to imprisonment. Secondly, mental health was defined as any outward expressions of distress. In this context, refugees reported feeling sad, crying or finding themselves speechless as they go about their daily activities. Finally, mental health is understood through the effects it has on daily functioning; for example, some refugees stated that they experienced mild distress; however, their distress did not interfere with their ability to care for themselves or their families, so it was not considered a mental health issue. Shannon et al. (2015), state that results from their study opposed findings from previous literature which found that refugee populations categorised all mental illness under the label of ‘craziness’. They demonstrate the various dimensions by which different refugee populations were able to conceptualise mental health. They also referred to universal and culture-specific expressions of distress. For example, some refugees experienced universal PTSD symptoms in the form of flashbacks as well as avoidance of people and television reminders. However, culture-specific expressions also arose; Oromo refugees expressed feelings of ‘burning from the inside’ in delineating emotional experiences of war trauma. These are important considerations for the health practitioner since some cultures do not have words to express concepts such as depression. For example, in the Oromo culture, ‘depression’ is expressed as not wanting to do what one

usually does in the day. An awareness of these cultural-specific expressions allows for a more accurate assessment for the presence of psychopathology and symptoms associated with TBI.

Understanding Trauma from a Non-Western Perspective

Swaroop and DeLoach (2015) state that Western mental health professionals conceptualise post-traumatic adjustment of individuals across cultures based on diagnoses rooted in Western nosology. Thus, a mismatch exists between culturally specific experiences of trauma and the universal application of Western psychology, which is characterised by a narrow understanding of these unique experiences. Consequently, the experiences of these affected populations are silenced. For example, this was found when Pakistani women refugees discussed symptoms associated with altered states of awareness and consciousness in response to distressing events such as displacement from loved ones. Initially, these symptoms may be interpreted within the Western paradigm of PTSD symptomatology of hyperarousal, dissociation and flashbacks. However, the application of a cross-cultural understanding to the meaning of these experiences changes our perception of these symptoms. In the Swaroop and DeLoach (2015) study, women stated that they lost consciousness following traumatic events. However, their conception of consciousness is vastly different from the Western perspective. In the Pakistani culture, consciousness is expressed in relation to God-consciousness as in the degree by which a person's actions are carried out in awareness of and reverence to God. Therefore, authors of the study state that it is important, to further investigate the underlying meaning of consciousness these women refer to in order to understand whether the loss of consciousness they described is related to a disconnect experienced from God or the loss of consciousness as commonly understood from the Western perspective. Swaroop and DeLoach (2015) thus provide a good example of the value of culturally specific research enriching our understanding of the unique traumas refugees experience.

Trauma Related Ethno-Cultural Research

According to Shannon et al. (2015), a small but growing body of research is dedicated to understanding the ethno-cultural variations in the effects of trauma. As a result, it has become increasingly important to develop culturally valid mental health assessment and treatment plans since there is growing concern about the efficacy of Western treatment strategies when dealing with refugees from diverse cultural backgrounds. They explain that experiences and expressions of distress are socially constructed, influencing the presentation of mental illness. Consequently, they recommend the use of culturally grounded methods to understand these culturally specific experiences of mental health. Shannon et al. (2015) interviewed newly arrived refugees to the US to investigate the cultural embedded conceptions of mental health, and found that refugees valued the role political change played in relieving their distress. For example, some members from the Oromo refugee group asserted that the only cure for their psychological distress was to have political change in their home country. Participants amongst this group had been tortured for speaking about politics. Consequently, authors of the study state that the trauma associated with self-expression must be addressed first and their rights to free speech assured before any collaboration with mental health professionals can take place in the course of treatment. Otherwise the clinician might take for granted that their client is aware of their rights to free speech and not seek to reassure them. Further, these studies allow clinicians to appreciate how different refugee groups conceptualise mental health. The following section demonstrates traditional Western treatment methods might not be the most effective choice in the treatment of PTSD for refugees.

According to Nickerson and Bryant (2014), treatment of PTSD from a Western perspective is primarily concerned with helping the survivor process the trauma in the context of safety and challenge unrealistic appraisals of the traumatic experience, the self and the

world. These treatment strategies implicitly assume that the individual is operating from within a safe environment and that information and necessary support to challenge negatively held beliefs is also readily available in their surrounding environment. However, the arduous and traumatic journey refugees experience for prolonged periods of time presents a challenge to these implicit assumptions of safety. For example, the continued displacement to unstable neighbouring countries or the prolonged detention in refugee camps prevent the prerequisite of objective safety required for these treatments to work effectively. Further, threats to safety are not restricted to experiences before arrival at host countries. Song, Kaplan, Tol, Subica, and de Jong (2015) found that unstable housing was one of the post-migration factors which severely impaired global functioning in refugees.

According to Kaysen et al. (2013, as cited in Nickerson & Bryant, 2014) Cognitive Processing Therapy (CPT) has been adapted to decrease PTSD symptoms in refugee populations and shows great efficacy. CPT was shown to deal with feelings of shame and guilt that are a consequence of denigrated individual and group identities. Nickerson and Bryant (2014), state that recent literature has also demonstrated the efficacy of Narrative Exposure Therapy (NET) in assisting refugee populations. A positive adaptation of this therapy for refugees and sufferers of HRV is the addition of a testimonial component which allows the individual to send their story of torture and persecution to human right agencies. This restores a sense of control and mitigates PTSD symptoms of helplessness and low self-esteem. The researchers state that as of yet there is little research devoted to developing interventions which primarily focuses on the three pathways to psychological injury previously discussed. The following section provide a few examples of studies that take into account the unique experiences refugees have when conducting research on the assessment and treatment of various psychopathologies.

Examples of Refugee Focused Research

Tay et al. (2015) established a comprehensive package of measures to assess all elements related to the mental health of refugees. The researchers developed a Refugee Mental Health Assessment Package (R-MHAP) from a survey of 230 west Papuan refugees residing in Port Moresby, Papua New Guinea. The R-MHAP is an integrated package of measures concerning refugee mental health. It is specifically designed to incorporate key concepts which were found to be shared universally by all refugees such as exposure to traumatic events of war, conditions of post-migration adversity, broader psychosocial changes following conflict and forced migration, as well as, a range of common mental disorders. The aim of the research was to develop a deeper understanding of the role trauma and ongoing adversity play in mental health outcomes for refugees. The researchers were able to incorporate these universal concepts in their R-MHAP, that included specific historical and cultural factors particular to the population under study. For example, they used data from psychiatrists' feedback, as well as, individual and focus group interviews in Papua New Guinea, to develop culture-specific constructs of mental illness and distress. They stated that one of their aims was to provide guidance for future researchers to adapt the package to other cultures and contexts.

According to Tay et al. (2015), the study demonstrated favourable evidence to support R-MHAP's procedural validity, as well as its sound psychometric properties for the constituent modules included in the package. These findings imply that researchers can benefit from use of R-MHAP with other refugee populations. However, it is important to note that a relatively small sample size was utilised and that the authors indicated a lack of consideration of other demographic factors such as gender, age and place of birth when creating R-MHAP. Consequently, future research will have to address these issues to ensure that R-MHAP is as psychometrically valid as possible.

Drozdek (2001, as cited in Drozdek and Bolwerk, 2010) developed a group therapy method called the Den Bosch Model for treating trauma in asylum seekers and refugees. The greatest strength of this model is that it takes into account the unique needs of refugees and asylum seekers through the combination of psychodynamic, cognitive behavioural and supportive treatment approaches. They found that the Den Bosch Model was successful in decreasing symptoms associated with PTSD as well as other psychopathology in refugees and asylum seekers. One of the findings of the Drozdek and Bolwerk (2010) study was that, fluency in the language of host country did not influence the severity of psychopathology experienced by asylum seekers and refugees. Participants involved in the study explained that while not being able to speak Dutch contributed to social isolation, it also served to protect them from gaining insight into host country's culture which led to feelings of depression, anxiety, disappointment and anger. These findings contrasted with other studies referred to by Drozdek and Bolwerk (2010) where Marshal et al. (2005), for example, found that Cambodian refugees with poor English speaking abilities were more likely to have higher rates of PTSD and depression. Drozdek and Bolwerk (2010) further hypothesised that participants living with families would show reduced psychopathological symptomatology compared to individuals separated from their immediate families. Study findings indicate that no differences in symptom levels were observed. They found that the presence or absence of family was not the deciding factor for reduced symptomatology, but rather the quality of relationships between family members and individuals seeking treatment influenced symptom levels.

Meffert et al. (2014) provide an example where psychological intervention that takes into account the unique needs of refugees has been successful. In their randomized control study, Sudanese refugees in Cairo received interpersonal psychotherapy (IPT) for PTSD. According to their study, the use of IPT for treating PTSD is a novel approach since

IPT is more commonly used with individuals experiencing major depressive disorder. However, the emphasis the Sudanese refugee community placed on interpersonal conflict, loss and role transition as major sources of psychological distress prompted researchers to consider IPT. Further, they considered previous research that suggests social support played a key role in PTSD recovery. Since IPT focuses on interpersonal relationships, its role in improving social adjustment was used as additional evidence to support the use of IPT for this population.

White, Solid, Hodges and Boehm (2015) identified many barriers for success in psychological referrals for traumatised refugees. These include stigma associated with mental illness, perceived lack of mental health services in the native country, competing cultural practices, lack of knowledge about services and language barriers. They found that if refugees sought medical assistance in Western countries they were more likely to present in urban medical clinics with a large number of predominantly somatic symptoms. Symptom presentations were often complex and varied, including headaches, abdominal pains, sleep difficulties, and TBI. Primary care providers rarely included trauma in their assessment due to a lack of knowledge or comfort in dealing with traumatic histories. Consequently, the authors of the study found that even with proper referrals, refugees failed to follow through, resulting in recurrent presentation of symptoms and deterioration of mental health. Study recommendations for effective treatment of refugees included a need for specialised language interpretation, a deeper understanding of the differing cultural conceptions of mental disorders between clinician and patient, as well as an examination of the effects of the individualistic orientation of psychotherapy when used with individuals from predominantly collectivistic cultures.

Aside from refugees experiencing stressors and trauma before leaving their home countries, Kira and Tummala-Nara (2015) state that refugees face further stressors in their

host countries, such as adjusting to their new home, crossing language and cultural barriers, overcoming physical and mental illnesses, and integrating into society. They found that many clinicians are trained in interventions, which focus on individuals who have experienced interpersonal trauma and past trauma, but do not take into account the repeated and chronic trauma refugees experience. This oversight could be understood as a result of little research so far dedicated to understanding refugees' experiences of TBI and how the resulting neurological and psychological injury can contribute to difficulties faced in their acculturation to the host country. Therefore, additional measures should be considered in treatment planning. For example, an individual who suffers from mTBI but has a PTSD diagnosis may benefit from exposure therapy. However, an individual with repeated mTBI and a PTSD diagnosis cannot be treated in the same manner. Wolf, Storm, Khele, and Afsoon (2012) found that exposure therapy was successful in treating veterans with repeated mTBI; these results achieved with the proviso that the ET programme was altered to meet the special needs of the veterans with mTBI. Certain strategies were undertaken such as memory enhancing tools (electronic calendars) and increased session times to compensate for any cognitive deficits. Therefore, refugees who have suffered repeated blows to the head require tailored treatment and rehabilitation plans that may include elements of traditional evidence-based interventions. However, extra effort must be made to cater to their special needs in order for ongoing success and efficacy of these plans.

Nickerson, Bryant, Silove and Steele (2011) state that few studies have researched the efficacy of multidisciplinary approaches to the treatment of psychological distress among refugees. The wide range of stressors and repeated trauma refugees experience, have rendered interventions which only focus on trauma ineffective. For example, the use of exposure techniques with refugees who are already in a heightened state of stress (due to resettlement) has been questioned since it can exacerbate psychological distress. Therefore, wrap around

interventions that take into consideration psychosocial stress, health problems, resettlement and acculturation challenges were found to be more effective. Another example demonstrating the need for specialised efforts to developing effective treatments for the complex trauma often found in refugee populations was provided by Sonne, Carlsson, Elklit, Mortensen, and Ekstrom (2013). This study examined the efficacy of antidepressants with dual action effects (acting on both the serotonin and norepinephrine pathways) such as Venlafaxine. Results of dual action medications are showing promising results in clinical case reports. This study stresses the need for dedicated research efforts in order to uncover the best methods of treatment for these traumatised populations.

Understanding refugee experiences is important as it helps identify the different factors aiding and impeding recovery as well as those factors contributing to their successful integration into their new home countries. Saltapidas and Ponsford (2008) state that cultural norms guide an individual's conceptualisation of health, illness and how physical symptoms are interpreted and expressed. For example, in Islamic Pakistani culture, an individual's well-being is comprised of the four components that make up the individual, being mind, body, self, and soul/spirit (Swaroop & DeLoach, 2015). Thus a healthy individual is one who feels that all four components of their being are well and free of pathology. A failure to appreciate these norms and their interactions with physical illnesses undermine the effectiveness of interventions. In another example, Zander, Mullersdorf, Christensson, and Eriksson (2013) found that the health of Iraqi refugees in Sweden to be particularly complex, this preventing health care providers from effectively treating this population. White et al. (2015) found that compared with non-refugees, refugee patients received less psychotherapy, had greater dropout rates, and had poorer outcomes with mental health services. Furthermore, Kira and Tummala-Nara (2015) found that one of the barriers to acculturation in refugees suffering from multiple traumas included fear of cultural extinction.

While fear is a subjective experience, refugees share a number of fears that range in severity, from loss of life, ongoing torture and pain, loss of loved ones, and loss of home and identity. As a result of these traumatic experiences, Kira and Tummala-Nara (2015) found that it is not uncommon for refugees to suffer from comorbid psychological disorders such as PTSD, depression and anxiety disorders at any stage during the resettlement process, irrespective of whether these psychological disorders were present before or after the mTBI. According to Garber, Rusu, and Zamorski (2014), evidence of the effect of mental disorders on PCS is well documented, where the presence of psychopathology serves to complicate the process of recovery and indicates an increased likelihood for persistent post concussive symptoms.

Given the above complexity and lack of relevant research, the study proposed here seeks to understand how refugees from the Middle East understand concussions and explore how their understandings of concussions, as well as their experience of interventions across multiple settings (home and host countries, refugee camps) by medical and psychological professionals have impacted on the process of recovery. As will be described in more detail later, Interpretive Phenomenological Analysis (IPA) will be used to answer the proposed research question and bridge the gap identified in the literature. The first half of the following chapter will discuss the different ways culture can be conceptualised. The second half will provide an overview of the most relevant cultural values observed in this study, chosen to reflect Hofstede's (1980) cultural dimensions.

Chapter Three - Cultural Values in the Arab World

The purpose of this chapter is to introduce some common values found in Arabic-speaking countries in the Middle East. This is important, as it provides a background against which themes later uncovered from interview transcripts can be seen in a clearer light, and provides a deeper understanding of interview findings and implications. The three cultural values most relevant to themes emerging from interview data will be explored in this chapter. In addition, Hofstede's (1980) cultural dimensions were used to guide the cultural values chosen for discussion in this chapter. These include the ideas of free will and predestination (Qada and Qadar), the important role family plays in an individual's life (family interdependence), and the power relations within a family, particularly in relation to gender roles. However before examining these cultural values, a brief discussion is required on the different meanings the word 'culture' carries. It is beyond the scope of this project to analyse all aspects of cultural theory, the aim instead is to present the reader with the different ways culture can be conceptualised, so a richer awareness can be provided of the different factors influencing the dominant cultural values in the Middle East.

The Concept of Culture

Sewell (2005) finds that talk about culture tends to stereotype people's way of life and naturalises their differences in relation to white middle class Europeans and Americans. He identifies two meanings for the word 'culture'. First, culture as a theoretically defined construct of social life abstracted from the complex reality of human existence, and secondly, culture as a well-defined set of beliefs and practices. Using the latter, culture is said to belong to or represent a certain society, or a group within a society, for example; American culture or middle-class culture. In this sense, cultures are contrasted against one another, for instance, American culture versus Samoan culture or upper-class versus middle-class culture.

He states that the distinction between the different meanings is rarely made, despite its necessity for a clear understanding when engaging in cultural analysis. In his first definition, culture is instead contrasted against another equally abstract aspect of social life such as politics, economy or biology.

Sewell's (2005) first definition of culture includes the understanding of culture as learned behaviour. It is used to refer to the body of practices, beliefs, institutions, customs, habits, and myths constructed by humans and passed from generation to generation. Culture is contrasted against nature, where humans possess culture as opposed to animals that do not. Using this understanding of culture, Sewell (2005) examines aspects of learned behaviour concerned with meaning. Culture can then be conceptualised in a number of different ways. The first, as an institutionalised sphere dedicated to meaning creation. Using this definition, assumptions are made that social ties built through a group of institutions devoted to a number of specialised activities, such as spheres of politics, economy, and culture. In this sense, the term *culture as an institution* is preoccupied with producing, circulating and using meanings. Consequently, culture can be broken down to enable the study of different activities these institutional spheres engage in for meaning production. The limiting factor of institutionalised culture is that only certain meanings within a certain number of institutions, expressed in certain artistic or literary systems, are highlighted. Further, institutionalised culture allows for political and economic institutions that control the majority of societal resources to restrict the different ways culture can be conceptualised. The second way for culture to be conceptualised according to Sewell (2005) originates from Talcott Parson's 'cultural system', which allows for a degree of abstraction of social relations, through a system of symbols and meanings.

Sewell (2005), argues the concept of culture as a system of norms and institutions, dominated the field of American Anthropology in the 1960s. As a mode of cultural analysis,

this concept recommends, abstracting meaningful components of human action from the interactions in which they occur in. The purpose of conceptualising *culture as a system of symbols and meanings* is that it allows for the disentanglement of semiotic influences on action from other influences such as demography, geography, technology, and biology. This is important as these influences are often mixed in any sequence of behaviour, as opposed to the previous conception of culture as an institution that is predominantly concerned with assigning and examining meaning to activities that occur within specialised spheres such as economy and politics. A third concept of culture identifies culture, more accurately belonging within the sphere of practical activity.

The concept of *culture as practice* became increasingly popular in the 1980s and 1990s, since, according to Sewell (2005), the previous decade and a half witnessed a pervasive reaction against the semiotic notion of *culture as a system of symbols and meanings*. The major criticism of conceptualising culture as a system semiotically is that, culture is portrayed as logical, coherent, shared, uniform, and static. Instead, analysts argue that culture belongs to a sphere of practical activity instigated by action, power relations, struggle, contradiction, and change. Sewell (2005) argues much of the theoretical writing on culture during the previous decades assumed that a semiotic concept of culture is opposed to the praxis concept. However, while writings on culture adopt an either/or approach to differing conceptions, Sewell (2005) reconciles both concepts, in that to engage in cultural practice means to utilise existing cultural symbols to accomplish an end. The reason why the use of a symbol is expected to achieve a particular goal is due to symbols having determinate meanings. Consequently, practice implies system. Alternatively, it can also be said that system has no existence apart from the sequence of practices that reproduce, or transform it. Therefore, in this sense, system implies practice. Sewell (2005) states that the issue is not whether culture is conceptualised as a *system of meanings* or as *practice*, rather emphasis

should be placed on how to articulate these systems or practices. He argues for culture to be understood as *a dialectic of system and practice*, as a dimension of social life autonomous from other dimensions, that is characterised by *a loose coherence continually subject to transformation*. Further, culture and the worlds of meaning it exists within, should be thought of as being *contradictory, loosely integrated, contested, mutable, and highly permeable*. As a result, the very notion of cultures as coherent and distinct entities is widely disputed. Instead it is more fruitful to think of cultures as inherently contradictory.

The implications of understanding culture as a contradictory and permeable entity for the current research project is that it facilitates, a deeper appreciation of the changing nature of cultural practices and meaning assignment. Since the Middle East is comprised of over 20 countries, it is unreasonable to expect all populations within the Arab world to follow one particular and a highly specific set of cultural practices. Instead, the cultural values discussed in this chapter can be used to guide the researcher to discern beyond what in the first instance may be construed as meaningful or not. This is followed by using the participants' own accounts to draw a more detailed and specific picture of how meaningful a certain idea is and why, and how it is used to make sense of life's events. The following will briefly detail Sewell's (2005) ideas on how culture should be defined. Sewell's preferred conceptualisation of culture is included to present the reader with the most consistent meaning of culture. Through Sewell's (2005) analysis of the different conceptualisations of culture discussed earlier, a deeper appreciation can be gained on the changing definitions of culture and its uses. However, the following provides the cultural definitions he describes as most 'fruitful.'

Sewell (2005) posits that human practice in all social contexts is structured simultaneously both by meanings and by other aspects of the environment in which they occur such as power relations or the availability of resources. It is a semiotic dimension of

human social practice in general. He recommends for culture to be thought of as a network of semiotic relations found in a society. The meaning of a symbol in a given institution may be subject to redefinition by dynamics entirely foreign to that institutional domain or spatial location. He provides the example of an impoverished worker facing the only manufacturer seeking labourers in their district. The worker will have no choice but to accept the offer of employment. However, in accepting the offer they are not simply submitting to the employer, but entering into a culturally defined relation as a wage worker.

Second, the cultural dimension is profoundly embedded in a multitude of contexts, bound only by their demands and constraints. Sewell (2005) argues that the meaning of a symbol, in an abstract sense, then transcends the particular context, because it can also be used in different ways in a number of other instances of social practice. As a result, the worker enters into a relationship of "wage worker" that carries certain recognised meanings, such as deference, independence from the employer, and solidarity with other wage workers. These meanings are brought to life through other contexts in which the meaning of wage work is determined. So the meaning inherent in the term 'wage worker' is not solely restricted to meaning derived from hiring but rather from other contexts such as statutes, legal arguments, strikes, socialist tracts, and economic treatises.

The above conceptualisation is relevant to the current project since concussions can be given different meanings based on the various contexts surrounding the experience of injury. For example, being diagnosed with a concussion may carry with it certain meanings such as being ill, and the inability to perform daily chores, which may evoke feelings of anxiety or worry, within the specificity of that context. Meanings attached to the experience of concussion arise from various (material and institutional) contexts that determine their construction. For instance, the emergency room at the hospital, the doctor's office rooms, site of the accident, and the home. Each of these different contexts lends a different meaning

to the concussion experience. The next common issue is where the geographic locale of meaning systems.

Systems of meaning cannot be found within well-defined national or societal boundaries. According to Sewell (2005), the concept of 'society' and 'nation' contain a multitude of overlapping and interwoven cultural systems. It is important to remember that cultural practice is concentrated in and around powerful institutions, such as religions, media, and business corporations. These large, centralised, and wealthy institutions act as cultural actors, whose agents use the institutions' considerable resources to order meanings. Dominant institutions do not seek to establish cultural uniformity; rather they are more interested in manipulating differences between the cultural dimensions present in a given population. To impose certain coherence onto the field of cultural practice, institutions engage in activities to homogenise, hierarchize, encapsulate, exclude, criminalise, and marginalise practices and populations that diverge from the sanctioned ideal. When authoritative actors distinguish between high and low cultural practices, or between those of the majority ethnicity and minorities, or between the legal and the criminal, or the normal and the abnormal, they bring widely varying practices into semiotic relationship. Authoritative cultural action, launched from the centres of power, has the effect of turning what otherwise might be a babble of cultural voices into a semiotically and politically ordered field of differences. Such action creates a map of the culture and its variants, one that tells people where they and their practices fit in the official scheme of things. Therefore, the current study's participants' experiences take place in and react to the boundaries of the Middle Eastern and refugee specific cultural map that is outlined by institutionally organised cultural meanings and practices.

In conclusion, it is not logical to divide the world into a number of discrete and well-defined societies, each with a corresponding well-integrated and uniform cultural entity.

Culture in the sense it is more commonly used in its bounded set of beliefs and practices should only aim to provide a shape to the world of meanings present at a particular time and place. Despite variances and conflicts inherent in any given population, these worlds of meanings all seem to share the same sphere, no matter how strong or loose their associations are with each other. Sewell (2005) concludes that the resulting cultural landscape is *partially coherent and constantly shifting*. Against this conceptual background, the following will look at the three most relevant cultural values to the current study in accordance with Hofstede's (1980) cultural dimensions as outlined in Chun et al. (2015). These dimensions include collectivism and individualism, uncertainty avoidance, power distance, as well as masculinity. The cultural values included in the following discussion will include an examination of human agency as it relates to free will versus predestination (Qada and Qadar), then family interdependence, ending with power relations within the family hierarchy, paying special attention to gender roles.

Free Will versus Predestination

There is a popular belief in Arabic countries that humans are impotent in the face of God's power and cannot do anything unless He wills it. On fate and how Arabs conceptualise it, Cohen-Mor (2001) states that the appeal of believing in fate is due to people looking for an explanation or purpose for their lives. She explains that the belief in a superior power (fate) which has the power to shape the course of an individual's life, and determine its outcome, helps people to interpret and adapt to their circumstances. Consequently, individuals that adopt this belief are able to fulfil a basic human need for order and harmony. However, the major issue present when dealing with the concept of fate is the idea of free will and the role it plays as opposed to predestination.

According to Cohen-Mor (2001), the belief in fate is very powerful in Arabic countries in the Middle East and is a major driving force of human action to this day, despite

advances in science and technology. This is predominantly due to the strong influence Islam on the Arabic culture in the Middle East. Cohen-Mor (2001) states, that in Islam, God's will is inexorable law that has absolute control over a person's life and can determine major life events. As a result, people are expected to submit to God's will and whatever he has decreed for them in their lives. Fate carries a number of different meanings in the Arab world, all of which influences people's way of life.

Cohen-Mor (2001) relates two aspects of fate. First, it is what in events will become or has become of a person or a thing. Second, it relates to the unalterable power that predetermines events, and affects a person's lot in life. In Islam in particular, she finds that fate controls everything in peoples' lives, as a set of patterns determined by God, beyond human control. The Arabic expression for fate is 'Qada wa al Qadar', in Arabic-speaking countries. This is a binary term where the first word Qada refers to God's eternal decree concerning all existing things, whereas the second term Qadar, refers to destiny and predestination. While many interpretations for these two terms exist, the most common way of understanding the meaning behind these terms is that Qadar (destiny, predestination) is the divine application of Qada (God's eternal decree) over the course of a person's life. The phrase Qada wal Qadar is used to refer to the absolute nature of God's will. The root of the word Qadar is Qdr, which means to measure, estimate, to assign specifically by measure. In this sense, God is seen to measure out his decrees in a person's life. Qadar is mentioned in several verses in the Quran, for example, "Verily thy Lord doth provide sustenance in abundance for whom He pleaseth, and He provideth in a just measure" (Cohen-Mor, 2001, p. 6). Therefore, Qadar and its root word Qdr relates to God's divine decree, setting fixed limits for all things in this world in accordance with his will. This idea is further supported by a verse from the Quran, which states that "God will surely bring about what He decrees; God

has set a measure for all things” (Cohen-Mor, 2001, p. 6). Another intertwined concept that is often discussed alongside issues related to fate is the idea of predestination.

Cohen-Mor (2001) defines predestination as a doctrine where God has foreordained all the events that will occur in the world, including the fate of each and every individual. She states that there is a crossover between the ideas of fate and predestination in the Muslim Arabic world. A common factor that the concepts of fate and predestination share in the Middle East is that all things are predetermined by God. The Quran makes an explicit reference by stating that “if God afflicts you with evil none can remove it but He, and if He blesses you with good fortune know that He has power over all things” (Cohen-Mor, 2001, p. 3). Predestination is a strongly held belief that is frequently mentioned in the Quran, where there is a common reference to events being written in a book before they happen. For example, “Say Nothing will happen to us except what God has decreed [written] for us” (Cohen-Mor, 2001, p. 4). While most people in the Middle East can have a good grasp of the differences between fate and predestination, there is a great debate on how much agency or free will a person has over the course of their lives, as opposed to simply submitting to God’s will in all things.

Cohen-Mor (2001) argues that Islamic scholars have not come to a consensus on the roles predestination and free will play in a person’s life. For example, the Asharites Islamic school of thought reconcile the notion of predestination with free will. Their view is based on the Quranic verse “God will not burden any soul beyond its power. It shall enjoy the good which it hath acquired, and shall bear the evil for the acquirement of which it laboured” (Cohen-Mor, 2001, p. 7). They believe that people acquire responsibility for their actions, despite these actions being willed and created by God. On the other hand, the Jabarites are advocates of predestination where there is no room for free agency among humans, where all people are inevitably compelled to act in accordance to God’s will. Alternatively, the

Qadarites advocate free will, where humans can act freely and independently in accordance to their choice. The Asharite school of thought is the most popular in the Middle East as it adopts a middle ground. The view that certain events are predestined but humans can choose how to respond to those events, allows many Arabs to respond with patience in the face of misfortune. According to Salem (2014), misfortunes and blessings are placed in an individual's life to test their faith, and determine how they will respond to these events. There are verses in the Quran which emphasise the importance of patience in a human's life, and the great rewards awaiting individuals who exercise patience in response to painful events.

The Arab culture's reliance on fate and predestination to explain an event in their lives is in line with one of Hofstede's cultural dimensions; uncertainty avoidance. According to De Mooij and Hofstede (2002, as cited in Chun et al., 2015), uncertainty avoidance is used to refer to the extent by which people feel threatened by uncertainty and ambiguity in their lives and seek to avoid them. Further, they state that in a strong uncertainty avoidant society, such as the Arab world, people value stability and avoid ambiguous situations. Further, Lamoreaux and Morling (2012) find that in high uncertainty avoidance societies, people prefer stricter law, safer environments and have certainty in religious beliefs. Societies with low uncertainty avoidance are more tolerant to ambiguity and dealing with a larger number of options and answers. The following will examine the important role family plays in Arab cultures, and how it impacts on people's actions and behaviours.

Family Interdependence

Joseph (1996, as cited in Haboush & Alyan, 2013) indicates that due to the many invasions and wars Arab countries have experienced, the collectivistic nature of these societies played a pivotal role in helping people survive and endure dark times. As a result,

as Haboush and Alyan (2013) explain, strong family ties provide physical, economic, and social protection. The emphasis on maintaining the family unit includes the extended family. Protecting ties within the immediate and extended family, preserves and strengthens emotional bonds, creating further interdependence. Therefore, individuals are concerned with their behaviour and how it impacts family's honour. In the US, for example, Haboush (2007, as cited in Haboush & Alyan, 2013) recommends that psychologists tailor their interventions to take into account Arab American family cohesiveness, and the degree of acculturation, so there is a greater likelihood that treatments will be accepted. Patriarchal and collectivistic values in the Arab world extend beyond the home and relationships within the family, to the wider society.

Social institutions in the Middle East also reflect the values and dynamics observed within Arab families. According to Barakat (1993, as cited in Ibrahim & Howe, 2011) patriarchal relations and values, are also present at work, school, and in religious, political, and social associations. Al-Makhamreh (2005, as cited in Ibrahim & Howe, 2011), argue that the characteristics of traditional Arab society are reflected in daily interactions, where fictive kinship language is used between strangers. For example, people of the same age refer to each other as sister and brother, and all young people, both traditional and non-traditional, call older members of society aunt, uncle, grandmother or grandfather. Essentially, with or without genuine intention, everyone is, or is meant to be, treated with respect and as part of a wider family. The collectivistic nature of Arab cultures demands certain priorities in an individual's life, in order for individuals to prove familial loyalty.

Zakaria (2003, as cited in Chun et al., 2015) explains that Arab cultures revolve around common cultural values. These values include collectivism, family honour, and hospitality. According to Wilson (1996, as cited in Chun et al., 2015), one facet of these values is reflected in one's loyalty to family, even at the expense of their personal needs.

Kalliny, Saran, Ghanem, and Fisher (2011) describe Arab cultures as collectivistic in nature, where Arabs are seen as successful only by what individuals can do for their families, rather than personal accomplishments. A feature of collectivistic cultures is discussed by Singelis et al. (1995, as cited in Chun et al., 2015) who state that among these cultures, relationships are highly important. For example, maintaining relationships is considered a priority in an individual's life, even if the cost exceed the benefits, and individuals are more likely to protect this relationship. On the other hand, in individualistic cultures, the focus shifts to the individual, who is more likely to drop a relationship when the cost of maintaining it exceeds the benefits. According to Frost, Goode and Hart (2009, as cited in Chun et al., 2015), collectivism is a term used to refer to interdependency between individuals and groups. This term is further explained by De Mooij and Hofstede (2002, as cited in Chun et al., 2015) who state that in a collectivist society, individuals belong to groups, and these groups look after their well-being. In return individuals are expected to repay this care with loyalty to the group. Another important value shared amongst Arab cultures is the authoritative role parents play in their children's lives, regardless of their age.

According to Mourad and Abdella Carolan (2010, as cited in Gorforth et al., 2015), in a collectivistic society parents are expected to maintain an authoritarian household with the paternal figure as the head. Discipline within the home is maintained through the use of shame. Halperin (2015), states that another important value in Arabic societies is the filial obligation to elders, thus maintaining traditional kinship structures. This is in line with a high power distance society as defined by Hofstede's (1980) cultural dimensions. According to Singh et al. (2009, as cited in Chun et al., 2015), in a high power distance society people respect the elderly and place great value on authority figures. Further, Halperin (2015) explains that adult children are committed to the care of their older parents economically, also providing for their daily needs. In her study, she finds that both Jews and Arabs refer to

their families as the meaning of life, with respect to their accomplishments in life and in the course of their daily existence. All participants she interviewed stressed the importance of family, and how their families were a great source of satisfaction, joy, as well as, support. An important finding in her study, comparing attitudes and expectations toward their families from both Arab and Jewish backgrounds, she observed that older Arabs have clear expectations regarding the obligations of adult children toward their aging parents, expressing traditional norms of filial piety. On the other hand, older Jews were more concerned with the pressures of daily life their children had to deal with, expressing only minor expectations. The collectivistic nature of the Arab world imparts a particular code of conduct or expectations imposed on the members by their families.

According to Abudabbeh (2005, as cited in Shalabi et al., 2015), all Arab family members are expected to be committed to the well-being of the family, supporting the family in any way they can, whether it is emotionally or financially. The success of the entire family is measured by the choices individuals make in their lives. As a result, children will need to defer to their families' choices of education, marriage partners, and career. Abudabbeh (2005, as cited in Shalabi et al., 2015) states that in most Arab families, age and gender hierarchical roles set the terms of social engagement. For example, women are expected to serve as housewives and men as breadwinners. Consequently, men have authority over internal family matters and financial resources. Shalabi, Mitchell and Andersson (2015) posit that the status and honour that a family holds sets up the social interactions the family has with the larger society. Further, the larger society has the power to perceive, judge, and even monitor a family based on its declared status and honour. If a family's honour is defamed, a traditional Arab society could exclude that family and place social boundaries around it.

Shalabi et al. (2015) discuss how maintaining honour is a crucial element in the dynamics of an Arab family. In line with rigid gender roles, men and women's expression of

honour are vastly different. For example, for men, honour is attached to attributes of masculinity and the ability to protect his family. Subsequently, virtues of being honest, respected, and brave are high values for men. On the other hand, a woman's honour is largely dependent on her sexuality and how she behaves around men. As a result, behaving in a chaste manner, and maintaining her virginity until marriage is how women protect their and their families' honour. The greatest instigator to exert control over the behaviour of female members, so they do not jeopardise the family's honour, is the fear of attaching stigma to the family. Shalabi et al. (2015) also argue that, as seen in most patriarchal societies, Arab societies provides males the role of ensuring female family members act within the social boundaries around honour. Additionally, older females such as grandmothers and mothers-in-law can also ensure that a female family member is behaving according to their code of honour.

Some studies have examined the rigidity of the hierarchical nature of relations within Arab families, and the resultant expectations for family members. Peleg and Rahal (2012) find that the Arab minority in Israel (20.3%), maintained hierarchical and authoritarian relations within the family, so the roles of family members were clearly defined. Dwairy (2009, as cited in Peleg & Rahal, 2012), found that social relations are built on duty and faithfulness to family and friends, rather than on individual needs. Family members are not encouraged to be independent or to fulfil their desires and expectations; rather an individual's priority is to adhere to community norms. Rasmi and Daly (2016) describe the typical structure of an Arab family as patriarchal and patrilineal. Fathers are the family leaders and mothers are the primary caregivers and disciplinarians. Abi-Hashem (2008, as cited in Rasmi & Daly, 2016) states that one of the main responsibilities of the parents is to teach their children to be obedient and interdependent, emphasising family obligations and filial piety. Dwairy et al. (2006, as cited in Rasmi & Daly, 2016) explain that the resultant family

relations are warm, interconnected, and hierarchical in nature. Therefore, parents gain the ability to intervene in all aspects of their children's lives from childhood into adulthood.

While the degree of adherence to these hierarchies may differ among families in the Middle East, according to their own individual values and beliefs, it still remains the prevalent force in Arab societies. One factor, closely linked to the hierarchy of Arab families, is the different roles and expectations, placed on men and women within the family unit.

Gender roles

Middle Eastern cultures have a long history of placing women in the secondary citizen category, where they are brought up to believe that she is less than a man, and essentially incomplete. A sexist discourse reinforces a woman's inferior position in society. For example, according to Haddad (1998, as cited in Stephan, 2006) words such as 'aura' (Arabic for genitalia) can be used to describe a woman's voice, parts of her body or the woman her-self. They state that the woman as an 'aura' symbolises shame, weakness and immaturity. Stephan (2006) explains that in Arabic-Islamic cultures a woman's body is considered a shameful entity that needs to be protected. Her husband owns her body by law rather than through an emotional bond. Further, Cohen-Mor (2001) finds that women in the Arab world are far from experiencing rights bestowed upon them by an egalitarian society; this, a result of widespread practices, such as segregation, veiling, seclusion, arranged marriage, and crimes of honour. Early on in life, a distinction is drawn between the sexes, even prior to the child's arrival in the family. For example, it is customary to wish a newlywed couple many sons, but not daughters. Another example is that, when a boy is born there is a celebration in the house, but if the child is female, the mother is likely to be disappointed and the father displeased. This is usually due to the fact that he must bear the burden of guarding his daughter and family's honour, and now responsible for finding a suitable husband when he deems she is of marriageable age. Traditional values impact on

women in almost all areas of their lives, including employment and the roles they occupy within the family.

Influence of age old values and traditions of patriarchal and religious institutions are still prevalent in the Arab world. According to Tlaiss (2014), women are bound to their domestic duties, with their roles restricted to being mothers, wives and caregivers. She explains that societies in the Middle East can be described as patriarchal, defining gender roles and creating stereotypes, in particular with regard to occupations considered appropriate for men and women. She provides an example of traditional gender stereotypes in the Arab world, which revolves around what occupations to which women are most suited to. In most cases, it is common for women to be categorised as caregivers, whereas men are seen as breadwinners. Therefore, the number of women in entrepreneurial positions in Arabic countries is negligible. These values have a restricting influence on women's lives, where their responsibilities only go as far as the domestic arena and to attending to her family's needs. Consequently, Eroglu and McCrohan (2008, as cited in Tlaiss, 2014) find that traditional cultural values of the Middle East are among the most prominent barriers preventing women from entering the workforce in fields that do not reflect their role as caregivers.

According to Ibrahim and Howe (2011), Arabic cultures can be described as patriarchal in nature. Kulwicki (2002, as cited in Ibrahim & Howe, 2011) states that family honour is dependent on the generosity of its members, honesty of the individuals, the men's courage and bravery, and women's sexual purity. Kawar (2000, as cited in Ibrahim & Howe, 2011) describes the role of parents and men in the family as being responsible for their female kin and controlling the sexuality of their unmarried daughters and sisters; this, considered the greatest threat to a family's honour. As a result, young unmarried females are considered more of a burden than males in conservative communities. Further, single living

among both genders for the sake of asserting their independence is uncommon. Young women leave the parental home in conservative communities only when they marry, at which point they become the responsibility of their husband and his family. Hofstede's construction of the masculinity dimension is useful in understanding male gender roles in Arabic cultures.

Chun, Singh, Sobh, and Benmamoun (2015) define Hofstede's masculinity dimension as highlighting how different male and female gender roles are in a given society. According to Lamoreaux and Morling (2012), in high masculine cultures, valued achievements include assertiveness, competitiveness and ambition. Alternatively, in a feminine culture, more emphasis is placed on caring for people, quality of life and nature. Chun et al. (2015) posit that Arab cultures are highly masculine cultures that emphasise traditional gender roles, restricting women to their homes and families. McElwee and Al-Riyami (2003, as cited in Chun et al., 2015) find that the reason behind these restrictions is that values which emphasise the gender differences are clearly stipulated in the Muslim holy book (the Quran) and Islamic law (the Sharia). These sources state that women's primary roles in life are to be mothers and wives. Islam is the dominant religion in the Middle East, where people irrespective of their religious beliefs adopt cultural practices or values that are heavily influenced by Islam.

To conclude; most Arab speaking countries in the Middle East thus share more than a common language. Islam is the dominant religion in most countries in the region, playing a major role in promoting values that are more in line with what is decreed by the Quran. For example, Kabasakai and Bodur (2002, as cited in Chun et al., 2015) explain that the reason behind the widespread influence of values related to piety is due to the Islamic principles shared among most Arabic countries. They state that most Arabs are Muslim, guided by the Quran and the oral traditions of Prophet Mohammed. Consequently, Elashmawi and Harris (1998, as cited in Chun et al., 2015) find that religious values and traditions play a vital role

in Arab cultures, influencing most people's decisions in both their personal and professional lives. This chapter has provided the cultural context which impacts the beliefs and attitudes of the current study's participants of the impact of concussion on refugees. The next chapter provides a detailed account of the theoretical frameworks and practical considerations underpinning the chosen methodology for this study.

Chapter Four - Method: Theory and Practice

According to Denzin and Lincoln (2011), qualitative researchers should have a critical ontological outlook toward their proposed area of research. This understanding guides the complex process of knowledge production, which requires the observation and interpretation of phenomena in the world not readily apparent to the ethnographic eye. From a critical ontological perspective, all physical, social, cultural, psychological and educational dynamics are interconnected into the larger web constructing reality. Observers in this web, explore their object of inquiry from their own perspectives. As a result, different researchers will produce different descriptions of the object under study, based on what part of the web they have elected to focus on. Being aware of the various factors involved in conceptualising the different realities individuals have, helps researchers keep an open view of the object of their inquiry, avoiding the production of reductionist forms of knowledge. It is important to note that epistemology and ontology are linked. Since, the design of methods, and mode of data analysis of the various interconnecting elements involved in an individual's understanding of their reality, cannot be separated from the way reality is constructed.

Denzin and Lincoln (2011) discuss how qualitative research has become increasingly focused on the socially constructed aspect of lived realities. They state that, according to post-modernist and post-structuralist theories, there is no clear window into the inner life of an individual since the world we live in, and our perception of it, is brought into being through the filtered lenses of language, gender, social class, race and ethnicity. Therefore objective observations are not possible. Instead, only observations that are socially situated in the worlds existing between the observer and the observed can take place. Consequently, researchers must develop an intimate relationship between what is studied and the situational constraints surrounding their inquiry.

For Smith and Eatough (2012), qualitative research can be represented by means of various epistemological frameworks. According to Reicher (2000, as cited in Smith & Eatough, 2012) there are two overarching types of qualitative research; experiential and discursive. Experiential research is primarily concerned with the way individuals understand and make sense of their world and lived experiences. On the other hand, discursive research is concerned with the way language constructs people's worlds and their understanding of it. IPA is situated within experiential research, yet IPA can also be said to carry elements of discursive research, as it recognises the role language plays in helping individuals make sense of their worlds. However, unlike other forms of discursive research, IPA does not view language as the only means for constructing meaning.

This chapter provides an overview of the various research steps and considerations utilised in this study. The study seeks to answer research questions through IPA; accordingly, special attention will be paid to the epistemological frameworks which underpin this approach. Further, a discussion of the methods the researcher used to collect, analyse and interpret data will be provided to aid the reader in understanding how responses to the proposed research area were reached. The aim of the final section of this chapter is to provide study limitations, as well as, an understanding of how the researcher ensured the trustworthiness of the research findings and the various ethical issues considered in the planning and completion of this project.

Interpretive Phenomenological Analysis

Firstly, it is important to clarify the term method and methodology since, according to Willig (2013), these terms are often used interchangeably despite the fact that they refer to different approaches to carrying out research. Brinkmann and Kvale (2015), state that contemporary qualitative interviews can be described as a method. A method in this sense

means a strict set of rules which the researcher follows to reach a certain goal. This definition of method, according to Elster (1980, as cited in Brinkmann & Kvale, 2015), excludes any creative or artistic input on the part of the researcher. Rather, it is similar to a *blueprint* that must be adhered to, so a certain outcome can be produced. However, Elster (1980) goes on to say that the production of data in a qualitative interview is the result of the interaction between interviewer and participant going beyond a rigid adherence to a set of rules. Rather, it depends on the interviewer's skills and personal judgement in the manner they choose to pose their questions. This fluid approach to the role methods play within a qualitative study is closely aligned with Silverman's (1993, as cited in Willig, 2013) definition of methodology. Silverman (1993) defines methodology as a general approach to studying a topic in research. Consequently, qualitative researchers are encouraged to use guidelines for knowledge production, where the method is allowed to grow and adapt in order to provide the information needed. This study follows recommendations made by Brinkmann and Kvale (2015) to avoid the mechanical following of rules when conducting qualitative research, instead making the method subservient to the topic of research. As stated above, the chosen method of data analysis is IPA, which is believed to fit the researcher's aims, to articulate the cultural sensitivity of the refugee experience of concussion, thus enabling the researcher to collect the data needed and explore the texts generated.

Smith and Eatough (2012) explain that IPA is well established within the discipline of psychology as it focuses on sense making from the point of view of both researcher and participant. Guba (1990, as cited in Denzin & Lincoln, 2011) points out that an individual's interpretive framework (IF) is a basic set of beliefs guiding their actions where each researcher's IF influences the type of questions asked and the way the data is interpreted. Consequently, with reference to Smith and Osborn (2007), IPA is a suitable tool when a researcher is trying to understand how individuals perceive a particular event and how they

make sense of their personal and social worlds. This is achieved by an in depth examination of the individual's account of their world and their personal experiences. To Smith and Eatough (2012), IPA views people as self-interpreting beings where individuals are actively involved in interpreting and making sense of the events, objects and people in their lives. Furthermore, IPA explores how individuals' points of view interact to influence their perception of a particular event or phenomenon. This study proposes to investigate how refugees conceptualise mTBI and their recovery from such an injury, including the experience of the interventions used to assist them in this process. According to Flowers, Davis, Larkin, Church, and Marriott (2011), IPA enables the researcher to gather rich and insightful data, through their focus on the individual's own understanding of these experiences.

Unlike nomothetic studies that analyse data at the level of groups and populations, Smith et al. (1995, as cited in Smith & Eatough, 2012, p. 443) explain that studies utilising IPA have an idiographic focus that investigate the "particular rather than the universal". Once the researcher identifies their research methodology, they turn their attention to, the research design best suited to answering the questions proposed in their project. Research design is best described by Denzin and Lincoln (2011) as a set of flexible guidelines which connect a number of theoretical paradigms to strategies of inquiry and methods for data collection. LeCompt, Preissle and Tesch (1993, as cited in Denzin & Lincoln, 2011) explain that a research design requires a clear focus on the research question and the project's purpose. These considerations are important since they guide the researcher in utilising the most appropriate data collection strategies that will yield the most relevant information. Since individuals are not capable of giving full explanations of their actions or intentions, all they can offer are accounts or stories about what they did and why. Therefore, no single method can fully grasp the subtle variations in the ongoing human experience. However, the

advantage of using IPA as a methodology is that it is made up of both descriptive and interpretive components (Clare, Rowlands, Bruce, Surr, & Downs, 2008) .

First, in an IPA study, researchers can generate descriptive data that seek to understand participants' perceptions of an event, to develop a credible account of these subjective experiences (Clare, Rowlands, Bruce, Surr, & Downs, 2008). Second, IPA's interpretative elements come into play when it acknowledges the role the researcher's own interpretations have in data collection and analysis. Consequently, IPA is said to be grounded in two epistemological frameworks; the phenomenological and hermeneutic. There is much debate on the interchangeability between the phenomenological and hermeneutic phenomenological approach to knowledge production. What follows will give a brief overview of Edmund Husserl's phenomenology in contrast to Martin Heidegger's hermeneutic phenomenology. Some of the arguments put forth by researchers regarding the distinction between these two approaches will be discussed. It is important to note that this is an ongoing debate, and it is beyond the scope of this study to critically analyse each approach. Instead, the reader will be presented with the predominant arguments in the field to enable an appreciation of the complexity inherent within these two research methodologies.

According to Lavery (2003), Edmund Husserl's phenomenology questioned the psychological approach to objective observation, stating that methods utilised in the natural sciences do not work with the living subjects usually found in psychological studies. Phenomenology, according to Husserl, is a study of lived experiences as understood by the individual. He does not separate the world the individual lives in from these experiences. Rather researchers seek to understand these lived experiences or life worlds as they unfold in every day existence, pre-reflectively and without conceptualisation. In this sense, Lavery (2003) explains that Husserl was hoping to study these taken for granted experiences so that

phenomenology could shed light on new or hidden meanings. Husserl viewed consciousness as a medium which existed in the interaction between a person and the world. Further, Lavery (2003) points out, access to structures of consciousness was regarded as directly related to a person's grasp of a phenomenon which is actively guided by their intention. Edie (1987, as cited in Lavery, 2003) define structures of consciousness as essences which give objects their identities as a certain object, event or experience, unique from others. Through this intentional activity, the mind can be directed to the object of study, so conscious awareness can be built from an individual's knowledge of reality. Lavery (2003) describes Husserl's core method, the bracketing process, as a process used to achieve contact with these structures of consciousness. Bracketing purportedly takes place when a person brackets out their biases, as well as the outside world. In other words, researchers must keep themselves open to the study of phenomenon under investigation, suspending all judgement, so they are able to attain a clearer picture.

Similar to the Husserlean approach, Lavery (2003) argues that Martin Heidegger's hermeneutic phenomenology is concerned with understanding of taken for granted aspects of lived experience. However, unlike Husserl who focused on understanding phenomena, Heidegger was more concerned with Dasein (the mode of being human). According to Martin and Sugarman (2001), Heidegger views human existence as having a hermeneutic structure, where humans are self- interpreting beings who care about their own lives. It is through care about our lives that things in our sphere can be given meaning. Lopez and Willis (2004, as cited in Banister, 2011) explain that his approach is not concerned primarily with human subjectivity but what the resulting narratives imply about everyday experiences. Additionally, Lavery (2003) argues that, for hermeneutic phenomenology, consciousness cannot be separated from historically lived experiences. So understanding is not a means for individuals to learn about the world, rather it is the way they are in the world. She explains

that, for Heidegger, a person's history, culture and background present ways of understanding the world. People and the world cannot be separated and are related through cultural, social and historical contexts. Therefore, meaning is uncovered as we are constructed by our world at the same time as we construct the world through the lens of our own backgrounds and lived expression of that culture.

The above briefly considered the differences between Husserl and Heidegger's approaches to their understanding of lived experiences. On the one hand, similarities do exist between both approaches as they both rejected the notion that observation of living subjects without some influence from the researcher is possible. On the other hand, considerable differences remain which should prevent the researcher from using the terms phenomenology and hermeneutic phenomenology interchangeably. According to Lavery (2003), Husserl's work is more focused on the relationship between the knower and phenomenon under investigation (epistemologically oriented) while Heidegger's work is more concerned with the nature of reality and Dasein (ontologically oriented). Further, Lavery (2003) argues, Husserl saw consciousness as being accessible through intentionality and bracketing, whereas Heidegger did not separate the individual and its experience, meaning that bracketing is not possible. Another major difference can be seen through the methodological perspective. She explains that phenomenological studies are descriptive in nature, focusing on the structure of experiences, while hermeneutic research is interpretive and focus on the historical meaning of experiences and their effects at individual and societal levels. In hermeneutic inquiry, interpretation is a crucial process since interpretive activity is a necessary part of being human.

The differences between phenomenology and hermeneutic inquiry are further illustrated by Smith and Eatough's (2012) reference to Heidegger's interpretation of human experience. According to Heidegger, human experience is materialistic in nature and situated

within a certain context in the world that enables interpretive activity to be constructed and understood. As a result, IPA seeks to understand these experiences and the meaning behind them through systematic engagement with interpretive activity. The interpretive activity requires the researcher to understand what it is like to stand in the shoes of the participant, recognising at the same time that it is not entirely possible. Additionally, Smith and Osborne (2008) refer to the double hermeneutic process found in IPA, where the participant both tries to make sense of their world and the participant's own interpretation of their experiences. Consequently, as Martin and Sugarman (2001) point out, psychology cannot ignore the agency reflected in the human interpretive activity. Psychological studies must utilise both human insights and prejudices in a dynamic process of interpretation, enabling the researcher to critically challenge our existing understanding. The following will discuss the different steps utilised in this approach.

Research Process

Denzin and Lincoln (2011) identify three key elements that comprise the qualitative research process; theory, method, and analysis. The research process ties these three components together through the understanding that the researcher's voice is situated within a particular gendered, classed, racial, cultural and ethnic perspective which influences their approach to the world and the subsequent set of ideas they would choose (theory, ontology). This in turn specifies a set of questions (epistemology) that are then examined (methodology, analysis) in specific ways.

According to Denzin and Lincoln (2011), qualitative research views the participant as a real individual who is present in the world and is able to report on their experiences. The researcher, who is part of the process, can then blend their own observations with the data provided by the participants. The chosen method of interpretation must rely on the subjective

verbal and written expressions of meaning as experienced and expressed by the participants. Therefore, it is important for researchers to select a method that allows them to record their observations accurately while also enabling them to uncover the way participants understand and make sense of the phenomenon under investigation. Further, it is crucial for the researcher to approach the research process with an open mind since, as Denzin and Lincoln (2011), state there is no single interpretive truth. Subsequently, keeping an open mind will assist the researcher to gain a clearer picture of the inner lives and experiences participants choose to share. Before that can take place, the researcher must ascertain the participant selection criteria as well as the sample size that will provide them with sufficiently rich and detailed information.

Participant selection and sample size are important considerations in any study. According to Smith and Eatough (2012), an IPA study often utilises a small sample size so that each case study can be given a sufficiently detailed and thorough analysis. Sargeant (2012) recommends that the number of participants should correlate with new information elicited. Consequently, once a study has employed too many participants, data saturation has occurred. To avoid inadequate or unnecessary interviewing, the analysis of data should take place alongside the data collection phase. Turpin et al. (1997, as cited in Pietkiewicz and Smith, 2014) state that six to eight participants is usually an appropriate number in an IPA study as it provides the researcher with sufficient depth without overreaching the point of data saturation. Further, one of the aims of an IPA study, as discussed by Smith and Eatough (2012), is to have a homogenous sample that selects participants from a closely defined group for whom the research questions will have particular relevance and significance. In applying these standards, the current study sample will be narrowed to include only people from the Middle East who identify as refugees, and who have suffered from at least one episode of mTBI during the last five years.

Smith and Eatough (2012) look at data collection and analysis in an IPA study as an open and inductive process. Instead of constructing hypotheses, the researcher is advised to use open ended questions so as to gather data that is rich with detailed accounts of the phenomenon under investigation. In their findings, an IPA study is primarily concerned with understanding the significance that an individual will place on an event, or an experience at one point in their lives, that is often related to their sense of identity and self. They state that open ended IPA questions can help the researcher tap into hot or cool cognitions, the former being emotive and related to issues which many pose a dilemma, and the latter involving long-term reflections. However, all questions used in the study should be chosen in a meticulous manner to aid the researcher in investigating the participants' lived experiences of a particular phenomenon.

Clare et al.'s (2008) research project outlines the data analysis process comprises a series of five steps: First, transcripts are individually analysed by reading each transcript multiple times and performing line-by-line coding. This step allows the researchers to become familiar with the data generated and helps them to identify key points. Second, all key points are listed and clustered together according to emerging themes. Third, a group level analysis is conducted where all themes previously identified across each individual transcript are further clustered together across all transcripts based on their similarities. Fourth, the resultant groups are refined to identify and label main themes and their subthemes. The researcher makes every effort to use the participants' own words through the use of a representative quote or extract to label these themes. Finally, the authors of the study record all the transcripts according to the list of themes and subthemes identified, listing relevant extracts under the appropriate thematic headings. The following sections will provide a more in depth look at the processes of data collection and analysis used in this study.

According to Smith and Eatough (2012), IPA studies require a flexible approach to collecting data revolving around participant experiences. They state that the use of semi-structured interviews is the best choice for data collection in an IPA study. Fontana and Frey (2000, as cited in Smith & Eatough, 2012), state that the main goal of the interview is to facilitate the giving of an account in a sensitive and empathic manner while recognising that an interview is based on a human to human relationship. Mills (1959, as cited in Brinkmann and Kvale, 2015) recommends that the research interviewing not follow a rigid set of procedures and to avoid the fetishism that can be imposed by method and technique. Further, Banister (2011) explains that the researcher must maintain an open phenomenological attitude as it allows the interviewer to be aware of the multiple domains brought to bear on any single experience. Additionally, through reflexive practices, Fisher (2009, as cited in Merrick, Camic, & O'Shaughnessy, 2016) state that the researcher can identify and set aside their assumptions, personal experience, and cultural factors. This step is important as it mitigates any potential sources of bias that can influence how the data is viewed. Consequently, Smith and Eatough (2012) point out that IPA asks of the researcher to critically assess the words offered by the participants, while at the same time trying to understand the experiences from the point of view of the individuals. So while the researcher is required to show empathy, they must remain sufficiently critical by asking questions when appropriate. The dual focus of the interview will allow the researcher to gain a deeper and more nuanced understanding of collected data. A major advantage of using semi-structured interviews as a means for data collection is that interviews are conducted in real time, providing the researcher with the opportunity to follow up on interesting or unexpected issues that might arise during the interview. The type of questions the researcher uses reflects on the quality of the information collected, minimising the need for follow up sessions to clarify

meaning. So, the researcher will need to pay attention to the quality of interview questions as well as the data collected.

An interview question is evaluated on two fronts; the first is whether the question is able to produce knowledge (the thematic dimension) and the second is how it affects the interpersonal relationship in the interview (the dynamic dimension). Brinkmann and Kvale (2015), state that a good question will contribute to both dimensions by prompting the participant to share pertinent information as well as contributing to promoting good interviewer interaction. Interviewers should ask questions that reflect their awareness of the purpose of the interview, in addition to the ongoing analysis that takes place during the interview. Further, researchers should attempt to clarify the meanings relevant to the project during the interview. This provides a more secure foundation for subsequent analysis. Brinkmann and Kvale (2015) point out that an advantage for clarifying meanings during an interview is that the interviewer is communicating to the participant that they are listening to them and interested in what they have to say; this strengthens rapport, and but contributes to data quality shared by the participant.

Brinkmann and Kvale (2015) discuss at length the various factors which influence interview data quality collected. They argue that, current research interviews are often excessively long and filled with idle chatter. Instead, they say that if a researcher knows the purpose behind the interview and how to collect the information then the interview can be brief and rich in meaning. To ascertain the quality of an interview, a variety of factors related to the way the interview is conducted, the characteristics of the interviewer, and the type of questions asked have to be considered. They propose three criteria to assess interview quality: Whether there is ongoing interpretive activity throughout the interview, whether the interviewer continuously attempts to verify their interpretation of the participant's answers, and whether the interview is a self-reliant story that requires minimal additional explanations.

The characteristics of a good interviewer includes knowledge of the interview topic, mastery of conversational skills, proficiency in the language the participant speaks, and sensitivity to the participant's linguistic styles. Finally, they explore the efficacy of using leading questions during the course of the interview, and how this impacts the data quality collected. They emphasise that even a slight rewording of a question in a questionnaire can influence the answer elicited. Leading questions in qualitative research interviews can be used to the interviewer's advantage to check the reliability of answers and verify interpretations. Once the researcher has constructed an interview schedule that satisfies both thematic and dynamic dimensions, the interview process can begin.

Smith and Eatough (2012) described the interview process as commencing with the researcher, who is guided by a set of questions they prepared beforehand. They begin with general questions, geared toward making the participant feel more at ease and to encourage openness about the topic. The interviewer is careful not to start discussing potentially sensitive information too quickly which can result in the participant feeling uncomfortable, thereby inhibiting disclosure of important information. By starting with open and general questions earlier on, the interviewer is able to establish rapport and trust with the participant setting the interview pace. However, they also recommend that if the researcher perceives the participant is opening up a novel and interesting area of inquiry, they should feel free to pursue this course during the interview. This is because unprompted glimpses into participant experiences can be the most valuable as they are offered spontaneously, an indication that the information shared is of special importance to them. On the other hand, while the participant to some degree leads the conversation, the interviewer has to ensure that they do not stray too far from the topic by guiding them back to relevant issue. The role the participant plays in this exercise is that of the experiential expert of the topic under investigation. Smith and Eatough (2012) found that a successful interview is one containing

both general and specific questions, where the interviewer is able to move easily between those two interrogative types. They state that there are no definite rules on how an interview should be conducted, rather the interviewer can choose what questions to ask and in what order based on the information that the participant has already shared. Following the conclusion of the interview, the researcher can then turn their attention to transcribing the conversation recorded.

Denzin and Lincoln (2011) state that face to face social interaction (or other live interactions using technological media) is the most frequently experienced social reality. Video and audio recordings of these interactions provide the richest possible data. Once the researcher has access to the audio recording of the interview, transcription can take place. Brinkmann and Kvale (2015) define transcription as the conversational interaction between two physically present persons, translated from one narrative mode (oral discourse) into another that is abstract and written. They specify the various requirements that need to be met in order for transcription to take place. For example, the interview has to be audio recorded and audible, with the interviewer ensuring that the participants speak up so they are heard clearly, with background noise minimised. They recommend researchers transcribe their own interviews as, in the process, they will learn about their own interviewing style. Further, since they were present during the live interview, they will better have the social and emotional aspects of the interview situation present during transcription and a head start on interpreting the meaning of what was said. Further, Smith and Eatough (2012) recommend researchers leave a margin on both sides of the page when transcribing an interview for their analytic comments. They found the transcription process can be lengthy and time consuming, and can take upwards of seven hours per hour of interview to complete. Adapting the above, the research project presented herein, collected data through the use of semi-structured interviews. Open ended questions were used in order to gain an in depth

account of the participants' experiences. The researcher is a native Arabic speaker. Therefore, the interviews were conducted in Arabic, where all documents and questionnaires pertaining to participant recruitment and interviewing were also translated to Arabic; to avoid any language barrier issues. Translated documents were checked by another native Arabic speaker, to ensure documents accurately reflected meaning found in the original copies. Interviews were recorded using a voice recorder and data collected was simultaneously translated from Arabic and transcribed manually by the researcher. A description of the method of data transcription analysis now follows.

The purpose of data analysis is to uncover recurring themes and subsequently abstracting conclusions. Denzin and Lincoln (2011) state that evidence is not related to facts only but is also an argument or a narrative the researcher develops appropriate for the purpose at hand. Therefore, evidence can be seen as information that goes through a number of filters and nuanced meanings compatible with study findings. On the other hand, Altheid (2009, as cited in Denzin & Lincoln, 2011) explains that evidence that is not used as part of an argument for a particular issue is not sufficient and will likely be resisted if not rejected. This suggests, that all information the researcher chooses to present must serve the purpose of constructing a particular argument.

At the same time one cannot ignore evidence that counters one's argument. Potter and Wetherell (1987) demonstrate this point by highlighting the different ways terms taken for granted to delineate particular mental states, may be incorrectly used given certain contexts. The term to 'understand' is used to illustrate this point. In the first instance this term, may seem to describe an inner experience. However, according to Ryle (1949, as cited in Potter & Wetherell, 1987) 'understand' is often used to indicate an individual has had a moment of insight, upon which they have a feeling that they have cracked a particular problem. He

states that to correctly use the term, two criteria must be met; practical tests and public assessment.

According to Ryle (1949), the individual must be able to test their claim of understanding by solving another problem, through applying the ideas based on their previous moment of insight and successfully reaching a resolution. Failure to do so indicates that the individual held a mistaken belief of having ‘understood’ a particular problem. Second, assessment by other people must be employed to examine the claims of ‘understanding’ made by the individual. The public might decide that the individual does not truly ‘understand’ rather they think they ‘understand.’ In this instance the individual fails meeting public criteria for the correct use of this term. This example was used to demonstrate the different meanings inherent in participant accounts, and how the researcher should be wary of taking for granted one meaning or one argument over another. Rather the researcher should apply their ‘understanding’ of a particular meaning by testing it in other contexts (providing more than one example to demonstrate a certain point), and by consulting with others to confirm or deny the validity of a particular argument.

Smith and Eatough (2012) state that it is important for the researcher to immerse themselves in the data as much as possible so that they can give evidence of participants’ sense making and at the same time document their own sense making. Smith and Osborn (2007) recommend a five stage data analysis process. First, the researcher must familiarise herself with the interview transcripts by reading them multiple times. During this stage it is important to record any emerging ideas which seem significant. This stage is vital since it allows the researcher to gain a holistic perspective of the data; grounding future interpretations within participant accounts. Second, emerging themes are documented utilising notes from the previous step to assist in this process. Here the researcher attempts to move to a deeper interpretive process. Third, identified emergent themes are listed and the

researcher then is required to look for commonalities and connections within these themes. Fourth, all themes are grouped in coherent clusters where these clusters are named to represent superordinate themes. Finally, data analysis is reported by explaining identified themes (emergent and superordinate) supported by direct extracts from participant interviews to back the researcher's arguments. A critical element throughout each of these steps, involves the researcher engaging in a continuous activity of rechecking interpretations against participant accounts. This stage ensures accuracy of interpretations so the researcher does not deviate from the essence of the stories participants shared. There are other quality assurance approaches to data collection and resultant interpretations.

Lincoln and Guba (1985, as cited in Clare et al., 2008) recommend that more than one researcher review the interview transcripts, so researchers are assured themes uncovered are credible and warranted. This is further supported by Smith et al. (2009, as cited in Merrick et al., 2016) who suggest that the first few transcripts be closely read and interrogated by more than one reader. This step is important to ensure that data interpretation was performed in a clear, logical sequence leading to theme development. Further, the use of IPA demonstrates an appreciation of the interaction between the interviewer and participant and must indicate that sufficient care was given to the way data was collected and analysed.

According to Banister (2011), lived experiences are highly personal and differ between individuals. The uniqueness of lived experiences between individuals is critical when considering phenomenological research. Interpreting data will involve the assessment of information through the lens of the phenomenological framework. Banister (2011) identifies four important elements that all individual lived experiences share: Embodiment (subjective experience of the body); spatiality (impact of lived space on experience of self and others); intersubjectivity (understanding of the social world through connection with others); and temporality (awareness of the changing nature of time, and its impact on notions

of self and others). The following discusses various validity considerations arising from qualitative studies. Unlike quantitative studies, alternative criteria to validity and reliability are used to assess study design and findings.

Validity Considerations

According to Ryan and Hood (2004, as cited in Denzin & Lincoln, 2011), positivist evidence-based epistemology researchers employ a rigorous, systematic, and objective methodology to obtain reliable and valid knowledge. This research often involves causal models using independent and dependent variables aiming for the replication and generalisation of findings. Brinkmann and Kvale (2015) state that rather than generalise interview findings, the researcher should consider whether the knowledge gained during a specific interview is transferable to other relevant situations. Consequently, the criteria for ascertaining the quality of findings from a qualitative study differ from those sought in their quantitative counterparts. A qualitative study must satisfy the criteria of trustworthiness, so researchers are assured findings contribute positively to the greater body of research. Guba (1981, as cited in Shenton, 2004) suggests the term *trustworthiness* instead of validity for use in, naturalistic inquiries. For a study to be considered trustworthy, four criteria must be met: Credibility, transferability, dependability and confirmability.

The first criterion stated by Guba (1985, as cited in Suzuki, 1999) is *credibility*, which is concerned with demonstrating that a study actually investigates its objective. Credibility is related to the concept of internal validity in quantitative research. Researchers are encouraged to engage in a number of strategies to ensure findings are credible; these include investing sufficient time in observation and data collection, checking the accuracy of data by using different sources, and engaging with peers for review of the research process and study findings.

The second criterion according to Guba (1985, as cited in Suzuki, 1999) is concerned with *transferability*, which ensures that sufficient contextual information is provided so that the reader can relate to the research findings if they judge that enquiry situations of perceived common interest share similarities. Suzuki (1999) considers transferability as similar to external validity. The task of the researcher applying this criterion is to ensure that the data collected is sufficiently rich and detailed, so that a person interested in conclusion transfer is able to consider whether such transference is possible.

The third criterion is *dependability*, which is comparable to reliability in a quantitative study. Dependability relates to the likelihood of another researcher achieving the same results if the study was repeated within the same context. Suzuki (1999) explains that the concept of dependability in a qualitative study may seem challenging. She indicates that dependability can be achieved by ensuring the researcher provides as detailed an account of the study processes as possible so that future researchers can conduct the research in the same way even if study findings differ.

Finally, *confirmability* in a qualitative study ensures that the findings presented are reflective of participants' experiences and views, not the researcher's own preferences. Guba (1985, as cited in Suzuki, 1999) points out that reflexivity is crucial to ensure a study's confirmability; it refers to the extent to which a researcher is transparent with their own biases and how their biases may have contributed to data collection and analysis. A study must clearly and transparently demonstrate all steps taken to ensure these four criteria are met throughout the research process, beginning with establishing appropriate theoretical frameworks, to detailing the methods used for data collection and analysis (Shenton, 2004). The concluding chapter will detail the steps taken to illustrate how each of the previously discussed validity considerations were met during the course of the research project. The

final component of this chapter will focus on the ethical issues that arose during the course of this study and steps taken to ensure the study satisfied ethic concerns.

Ethical Considerations

Every researcher must demonstrate their project satisfies a thorough consideration of potential ethical issues arising from the course of their research. According to Emanuel, Wendler and Grady (2006), these considerations apply to the rigor of the process itself. Research that is careless and is unable to produce interpretable data is a waste of time, resources, and consequently is unethical. There are several points the researcher has to consider in order that their research is deemed ethical. Willig (2013) identifies five requirements that were applied to the research project described herein, as follows.

Willig (2013), states that both qualitative and quantitative research have common ethical constraints. Her five criteria are informed consent, avoiding deception, the right of participants to withdraw, debriefing, and confidentiality. Additionally, Suzuki (1999) includes the need for a favourable balance of benefit versus risk ratio. She notes that other requirements may be found depending on the nature of the research. However, for the purposes of this project, the researcher primarily considered Willig's five main criteria in research design and subsequent application to the Massey University Human Ethics Committee (MUHEC).

Informed consent required the researcher to provide participants with sufficient information about the project and what their participation will entail before data collection commenced. This criterion was met through supplying the participants with a project information sheet which outlined all relevant project details, including the purpose of the research as well as their rights, concerning participation. Second, avoiding deception; in the current project there was no deception as participants had full access to information about the

project and the role they played in the process. The third criterion of voluntary participation was met in two ways; in the first instance, the invitation letter to potential participants advised that their participation is voluntary and that they had a right to withdraw at any time without any negative consequences. In the second instance, the project information sheet, subsequently provided after acceptance, reiterated the same points to participants. Fourth, the criterion for debriefing participants was met by advising participants of the aims of the research early in the process and subsequent provision of a summary of study findings. Fifth, issues relating to privacy and confidentiality were met by ensuring the individuals' participation was anonymised using pseudonyms in the interview transcripts and any subsequent referral to the information they provided during the interview. Further, all information collected in any format was stored in a secure physical location and electronically saved information was password protected. Finally, the researcher was able to demonstrate that the proposed research questions were sufficiently valuable with the aim of adding to the growing body of knowledge regarding recovery experiences of refugees with concussions.

This project received approval from MUHEC. MUHEC required the researcher to answer questions proving due thought and consideration were given to avoid or manage any ethical issues. The MUHEC application included all the ethical information described, and demonstrated the researcher's cultural competence. That required the researcher to consult a senior member from the relevant cultural group or demonstrate that she had a satisfactory level of understanding of that group. The researcher demonstrated cultural competence in two ways. First, that the researcher belonged and was raised in the cultural group from which she sought to recruit participants. Second, the researcher consulted a senior member of the cultural group who reviewed the proposed research questions and methods of recruitment. All efforts were made to ensure the five ethical criteria were met. Consultation with the

research supervisor over the course of a few months prior to the application to MUHEC was submitted thereby ensuring that all aspects of study design was ethical. Further, participant recruitment did not commence until MUHEC provided full approval. Dealing with ethical issues is a crucial step, especially considering the ethical implications the researcher had to consider as she undertook the role of interviewer in the current study.

Brinkmann and Kvale (2015) discuss the role of the interviewer and how it can impact the ethics of the project. They state that morally responsible research behaviour requires more than an abstract knowledge of ethics and choices. It requires the researcher to demonstrate empathy, sensitivity, and commitment to moral issues. Since the interviewer is the main instrument for obtaining knowledge from the interview process, their integrity plays a central role in the choices made which impact the study ethics. Additionally, related to the integrity of the researcher is a commitment to generating a transcript of the interview that faithfully represents live participant interviewer interaction. Researchers must demonstrate that all efforts were made to check and validate findings, outlining a transparent process, and detailing how conclusions were derived.

In conclusion, Emanuel et al. (2006) state that all research purposes and efforts must show that if research question is answered using the appropriate methods and techniques, it generates valid information, positively contributes to the greater body of knowledge and can improve the well-being of people in some way. As a result, does notice of research must be pertinent, and findings must have a practical outcome; otherwise even if new knowledge is produced, but without practical benefit to others, the study ethic is questionable. The proposed study examined the underlying assumptions of Middle Eastern refugees regarding their recovery experiences and concussion as well as the consequences this poses for professional engagement.

Limitations

Participants were recruited through a refugee welfare organisation, affiliated with the researcher's church. Participants represented a diverse mix of individuals of Muslim and Christian backgrounds, from a number of Arabic speaking Middle Eastern countries. Their ages varied from 24 to 61 years of age. Two participants were female and four were male. Details related to participant injuries such as mode of injury, and times for symptom resolution are presented in Table 2.

Limitations experienced revolved around barriers to participant recruitment relevant to Australia. Refugee welfare organisations contacted advised that in Australia research projects are commonly backed by the university, where research students are linked to university affiliated organisations; and this aids the participant recruitment process. On the other hand, the experience of the research student was that participant recruitment was the sole responsibility of the student, rather than the degree granting university. The different approaches experienced between New Zealand and Australian universities in regards to the degree of university support and involvement in the research project, presented a significant hurdle to participant recruitment. Organisations were hesitant to respond to queries regarding a research project they did not perceive as sufficiently legitimate since it lacked formal university backing. Further, organisations such as Foundation House, and Baptcare that the research student initially contacted responded by advising they had their own ethics board, that required independent ethical review and approval before proceeding to participant recruitment. The process was time prohibitive, since obtaining ethical approval can take months, especially since these organisations' ethics committees only met a few times every year. Given the time constraints of this project, the research student chose to approach organisations that were connected to her community instead, who were willing to accept MUHEC approval as evidence of the project having passed ethical requirements.

Another obstacle related to participant recruitment was the limitation in individuals' understanding of brain injuries in general and concussion in particular. The process required a more detailed discussion on concussions, possible symptoms and common modes of injury than initially anticipated. Misconceptions about brain injuries, and perceived severity of concussive injuries, limited the number of volunteers, until misconceptions were subsequently addressed. The next chapter provides a detailed analysis of interview data.

Chapter Five – Results and Discussion

Six main themes emerged from the interview data. Themes are presented in the order they arose during the interviews. Superordinate themes included how participants coped with their brain injuries, consequences experienced due to their concussions, experiences of their relationships with medical professionals involved in diagnosis and treatment of their injuries, how they understood the role of the brain as a bodily organ; their conceptualisation of brain injuries; unique experiences related to participants being refugees; and participants' experiences of concussive symptoms and their concussion management strategies.

The chapter presents each superordinate theme in detail, providing an analysis that includes constituent themes, as well as facets that comprise them. It is important to note that any sense making by participants is culturally embedded. Consequently, cultural reflections will be woven throughout the entire chapter, and across all themes. A summary of all the themes discussed in this section is presented in Table 1. Additionally, a summary of facts related to each participant's experience of concussion is provided in Table 2. This provides sufficiently detailed contextual information from which the analytical results are derived.

Coping: Support Systems

All participants provided accounts of a number of strategies and resources they used, to cope and manage the consequences of brain injuries that highlighted certain cultural values. For example, family played a central role in the recovery process for all participants. In all but one interview there is a sense that family members 'surrounded' the participants, to provide them with all they needed to allow them to recover as swiftly as possible. This is typified by one interview, when the participant described how his family and friends supported him during his recovery. He says:

‘They surrounded me; it really comforted me to have them around me.’ (Interview 1, Lines 139-140)

The participant described being surrounded by family, as a comforting experience, of being wrapped up in a community of care, where a safe family environment manifested; providing participants with physical and emotional support. Another example is observed, when one participant states:

‘In the home when I was recovering, my family supported me emotionally and physically, they were concerned that I take my medicine on time, that I sleep well, I was comfortable, eating well, my children helped me, they would cheer me up when they saw I was feeling down, talking about general things, joking and being silly, they didn’t mention anything about the accident or my pains, they tried to lift me up from my mood completely.’ (Interview 2, Lines 189-194)

The examples discussed above illustrated how family members sought to show their support. This mirrors findings found in literature relating to strategies Middle Eastern people use to cope with a number of issues in life. For example, in the Khamis (2014) study, family hardiness was positively associated with adaptation and facilitation in both Palestinian females and males. She states that the internal strengths and durability of a family were linked with a lower incidence of psychological distress. McCubbin and McCubbin (1996, as cited in Weiss et al., 2013) define family hardiness as the familial ability to recover by maintaining its integrity as a unit while insuring, and where necessary restoring, the well-being of family members and the family unit as a whole. However, there were instances when participants did not receive the support they needed to aid in their recovery.

One participant indicated that she did not receive the support she needed from her family. She explains that the family discouraged her from talking about the symptoms she

endured after her concussive injury. For example, when describing how her parents supported her at home, she states:

‘that’s sort of going back to my parents not bringing it up you know, not focusing on it, after those initial two to three days, life went back to normal, and I had to power through I just had to endure ... So I think what they wanted to do is sort of get me in a routine where I forget about the accident as soon as possible, so I wouldn’t say that there were not there to support me, it’s just that the way they supported me was, you know it’s not how people support each other in Australia for example, and again I can’t generalise about my country of birth, that’s how thing happened in our family.’ (Interview 4, Lines 95-97, 110-115)

To feel supported by family, the participant indicated she needed to feel the care of her family. She also expresses the need for a safe space, where she could talk about her physical and emotional needs; feeling assured that all efforts will be made by her family, toward meeting them. The participant experienced her family’s response as getting back into a routine, downplaying or ignoring the effect of the injury. She found the strategy of ‘moving on’ as difficult; this contrasted with the vivid recognition, support and discussion provided by the families in other participants’ accounts. According to Gagnon et al. (2008), mTBI is often perceived as a silent condition, with no visible signs. In their study, some adolescents with mTBI encountered problems because their concerns were ignored. They were not able to receive adequate support, and felt pressured to return to regular activities. As a result, some adolescents failed to keep up with the high academic demands of their schools. Another facet of family influence on participant’s responses was the responsibility they felt towards their families, this acting as a strong promoter for recovery.

All participants expressed a strong sense of responsibility toward their families. In most cases, they stated that other family members depended on them to fulfil certain chores. For example, one participant states:

‘I couldn’t take care of my home, and do the chores, I take my girls to school, I buy groceries, the family depends on me, ... I had a lot of responsibilities toward work and my family and home ... I had a family I want to return to and live in.’ (Interview 1, Lines 40-43, and 93)

The sense of responsibility the participant felt toward his family, prompted a positive shift in focus from being injured, to recovering. This motivated him to recover as quickly as possible. The shift in focus is mainly due, to the participant’s choice to adopt and maintain familial responsibilities. However, in interview four, the shift in focus was not voluntary; there was a sense the family downplaying the participant’s symptoms, focusing on returning to daily life. As a result, the participant was not given the chance to express her emotional and physical needs; she was not able to ask for and receive the support needed. The participant in interview four shared the same familial value and responsibility, with the earlier participant. Yet, the impact on her was negative, as opposed to the value serving as a positive agent to drive recovery, as seen in the other interview.

The idea of feeling responsible toward the family is extended to include work, friends and the wider community. Returning to work and fulfilling duties impacted by the injuries was a core value that emerged across five out of six interviews. For example, one participant was eager to return to work; he felt joy and experienced an alleviation of symptoms and worries that the concussive injury had caused. He described his return to work, as follows:

‘I love my work, so the unique thing is that once I returned to work, I was very happy and I almost forgot everything that happened, all the pain the incident caused, and I started feeling happy, and refreshed, motivated to start working again, it was a trial that I passed, and thank God I am done with it and it passed, maybe that feeling of happiness of returning to work, made me forget a lot of the troubles I experienced or the negative consequences I felt due to the accident.’ (Interview 2, Lines 60-66)

In this example, the participant's return to work allowed him to re-engage in meaningful activities, which aided recovery. According to his account, he not only experienced alleviation of physical symptoms but also of psychological distress. The idea of meaningful engagement as a method of coping with consequences of concussion is endorsed by concussion management literature. According to Hooson et al. (2013), failure to return to work following a TBI can lower motivation, impacting negatively on an individual's social life and contribute significantly to emotional distress. Additionally, Coelho (2002, as cited in Hooson et al. 2013), suggests that recovery from TBI can only occur when a person is able to test reality and that can be achieved when they are able to do psychological work. Aside from the important role work plays in motivating recovery, feeling responsible towards people in the participants' lives, is another important value. This value was observed in all interviews, prompting the interviewees to share their experiences with others, including their willingness to participate in this research.

Family, friends, the wider community and work colleagues were described as valuable resources important for recovery. In four out of six interviews, participants describe a desire to educate their friends, colleagues at work, and people in the wider community in general, so similar injuries can be avoided. For example, one participant states:

'the only thing I would change is spend more time with my friends to teach them about this head injury... if someone from their own families or their friends had a similar experience then they would know what help to offer.' (Interview 5, Lines 259-263)

In this case, the participant highlighted the positive and meaningful outcome of his painful experience, and how it can be used to benefit others. The desire to find good in an otherwise painful experience, is in line with another coping strategy that was frequently observed in several interviews. Johnson, Thompson and Downs (2009) found that participants in their

study from non-Western cultures who were exposed to trauma were able to maintain a sense of self-worth and self-esteem through religion and by helping others.

Coping: Focus on the Positive

Participants chose to focus on the positive, through the use of humour, and cultural-specific expressions. In five out of six interviews, there was a tendency for participants to look for the silver lining in their painful experience. Different individuals achieved this, using different techniques. However the outcome was the same; despite the pain, something positive or meaningful resulted. For example, in one interview when discussing expectations around recovery, the participant states:

‘I didn’t have any doubts that I will recover, I didn’t have thoughts that I will stay sick and become disabled, no no, I didn’t think like that, because we as Arabs and as Palestinians specifically, we saw a lot of disasters, the person then develops this attitude that no matter what happens to him, he says ‘ok, no matter, I am in a better situation than someone else, this thinking may not be logical or realistic, unfortunately we were forced by circumstance to think this way, so we can continue with this life and move forward.’ (Interview 1, Lines 79-86)

In this example, the individual coped by placing his experience relative to an imaginary other’s, who is comparatively worse off. The participant’s way of thinking helped him deal with the challenges encountered while recovering from his car accident and the injuries he sustained. Using a different strategy, another participant used humour as a way to shift the focus back on the positive when he mentioned how the elderly in his culture supported him. He states:

‘There is something that I laugh when I remember and reflect upon it, I remember the old people who visited me, more than one would focus on how someone else they know had a

serious condition and they died ... it felt like they were trying to convey that when you hear about problems other people have, more serious than your own, it feels like your problem is not so serious ... this is a tradition I felt with the older generation that they do when someone is sick, I feel like this is their way of supporting me, it was helpful for me.' (Interview 2, Lines 234-244)

An example of using cultural-specific idioms to highlight the positive is seen in the above interview as well, when the participant before beginning to describe his experience of concussion states

'We have a saying in our country 'may it be mentioned but never repeated.' (Interview 2, Line 18)

The cultural reference allowed the participant to discuss painful details while focusing on the positive, which in this case, is the fact that he overcame the experience by locating it in the past with the hope it will never occur again. While participants used different techniques to find the positive in otherwise negative experiences, the strategies used served to highlight their resilience in managing their injuries. According to Roaldsen, Sorlie, and Lorem (2015), the use of humour is an effective coping strategy beneficial to the person's spiritual, cognitive and social well-being. They state that since humour is associated with positive thinking, it can alleviate tension, maintain normality and create distance from the illness. They found that literature from various disciplines discussed how humour enhances coping abilities, and helps mitigate effects of psychosocial stress.

Coping: Faith in a Higher Power

Faith in God is another important coping strategy that most participants indicated they relied on when dealing with difficult experiences in their lives. Four out of six interviews referred to God frequently when discussing events leading to their concussive injuries and

how individuals coped with resultant symptoms and interruptions to daily life. As discussed in chapter three, there is a common belief among Arabs in predestination. For example, one participant states:

‘Depressed as in feeling like something bigger and stronger than you happens to you, something that is outside of your control, here happens what we believe is ‘Qada’a and Qadar’ something I have no control over, was forced upon me, which in turn forced me to go to the hospital, or on lying on the ground until the ambulance arrived, things I couldn’t imagine as a healthy person it would happen to me.’ (Interview 1, Lines 100-104)

The participant articulates his experience from a cultural point of view, where he felt powerless to change events because it was predestined by God. However, while in this instance he describes feeling depressed, believing in Qada and Qadar was seen as a coping tool to help the person in accepting the painful event that occurred in his life. Consequently, when discussing coping strategies he states:

‘We say, we say, I am a Muslim man, I have faith in God, even if someone had whatever difficulties in life, no matter how severe, we say God help me, and God doesn’t magically lend his hand and wipe all the pain away, but He can help to recover quickly, it helps the person on the inside, my faith in God, it is a spiritual issue.’ (Interview 1, Lines 75-79)

Here, the participant drew support and guidance from his faith and beliefs, describing recovery as a spiritual issue; that while God can preordain painful events to occur in our lives, he had faith that he will not be left alone to deal with the pain, that a helping hand would be provided.

According to Johnson et al. (2008, as cited in Johnson et al., 2009) there is some evidence that cultural factors such as religious beliefs may play a protective role in a person’s ability to cope with trauma effects. In the Johnson et al. (2009) study, participants from non-

Western countries believed that whatever happened to them was the will of God.

Consequently, the traumatised individual was better able to accept the painful experience.

Coping: Relation to Others

The final subtheme connected to coping is how participants looked to others to validate their experiences and act as repositories of self-knowledge. By relating to others in their lives, all participants were helped to cope. Support was provided in the form of the validation of experiences and through others acting as reminders of who participants were, especially at a time when participants felt overwhelmed by the consequences of their injuries. Receiving assurance and validation of the painful event experienced, that they were on the road to recovery, and they could cope with the challenges their injuries created, assisted participants in effectively dealing with their experiences. For example, one participant says:

‘I am very grateful to all my friends and community even if it was just encouraging words, just words were of a great help and support they would remind me that I overcame so much in my life and I coped with them, that I can deal with this hiccup in my life with ease, that I was strong enough to do so.’ (Interview 3, Lines 284-287)

According to the above account, the participant felt overwhelmed, so her friends and community helped her cope by acting as repositories of her self-knowledge, reminding her of who she was, and what she had overcome in her past. In a sense, injury trauma unsettled her sense of self (identity) and others, stepped in to act as the scaffolding that allowed her to reclaim her identity. When people are injured, it is a common experience to look to others to seek reassurance and assist in gauging the severity of their injuries. This is especially true in the initial stages post- injury individuals may feel overwhelmed by the causal event and associated pain.

Social Identity Theory (SIT) as discussed in Freeman, Adams and Ashworth (2015), contends that membership in social groups influences a person's sense of identity. This is achieved through a process of internalising perceived social identities, which can play a protective role in preserving that identity. Freeman, Adams and Ashworth (2015) examine the implication of SIT when applied to the experience of brain injury. They refer to Jones et al. (2010) who found that individuals construct their sense of self through social connections. These relationships act as powerful factors in shaping how a person views themselves when faced with health concerns. Further, Johnson et al. (2009) found that normalisation of participant experiences by their communities helped them cope with their trauma because the experience was transformed into a shared one. Additionally, this form of support benefited the individual by enhancing their sense of group membership.

Consequences of Injury

During interviews, participants discussed events leading to their concussion and were also asked to reflect on their experiences, think of adversity after their injuries and detail any interruptions they suffered to daily life. The second main theme which emerged across all interviews thus related to the consequences participants suffered from their injuries. Each participant had a unique way of expressing how the physical consequences and symptoms of concussions impacted their lives. For example, five of the six participants expressed a sense of loss of their selves, and a desire to hold on to who they are when they felt their sense of self was threatened by the concussion. Further, acceptance and growth was an experience all participants described.

Consequences of Injury: Loss of Self

Concussive injury led all but one participant to experience a loss of control over their selves. This was articulated in a number of different ways. One participant uses an analogy

of becoming like a child to describe how she felt when taken to hospital following her accident:

‘I knew the results of the accident on my health, on my body, it was clear to me, I didn’t need a doctor to tell me, I felt them ... When a person is weak or injured their psychology is not that of a normal person, it becomes more like a child, the person would feel scared, anxious.’

(Interview 3, Lines 146-147, 303-304)

In another interview, the participant described her experience of symptoms following her concussion, she states:

‘A feeling of maybe disconnect between my body and my mind, where we weren’t cooperating to a shared goal that we had.’ (Interview 4, Lines 241-242)

In both examples, participants felt a loss of control over their own bodies, where they experienced the immediacy of being an embodied subject. In a sense they became the manifestation of their symptoms rather than experiencing these symptoms from a minimal distance.

Another expression of feeling a loss of self as a consequence of the concussive injury was observed in interview five, where both the participant and his family were worried that he would sustain more serious injuries in the future if he continued to play football. As a result, he decided to sacrifice playing a sport he loved, rather than risk future injury. When describing the impact his injury had on him he states:

‘psychological effects the most important one was the fact that I loved to play contact sports but now I hesitate to participate, that’s the most negative effect I think ... so I didn’t feel like I can take the risk and stop working for a week or two if something like this happened to me again or God forbid, if it happens again it will be more serious or I might need more time for

recovery like a month or two, so I decided better to take care of my health and family that is more important.’ (Interview 5, Lines 127-136)

Therefore, as a result of his injury his sense of self was changed, and he lost the aspect of himself that loved to play contact sport. Instead, his new sense of self is that of a person who wished to focus mainly on his health and supporting his family.

The sense of loss of control over one’s body following the participant’s concussive injuries can be understood using Heidegger’s modes of engagement, as discussed by Packer (1985). The three modes are the ready to hand (RTH), the unready to hand (URTH) and the present at hand (PAH). Packer (1985) states that, people enter into the RTH mode, when they are actively engaged in their daily lives, for example, mailing letters, and talking to friends and family. During the RTH mode a person’s awareness is holistic. The person is aware of the situation globally, not of distinct objects and entities. The situation, the person’s presence, the surrounding environment and the activities they are engaging in are experienced as a network of interrelated projects and tasks. The network exists in the background, where certain aspects of it are brought to focus when needed. For example, a person hammering a nail into a wall does not have an independent awareness of their bodies and the tools they are using to accomplish the task. Instead they become at one with the activity being performed.

On the other hand, when presented with a problem, individuals are then prompted to reflect on their actions, allowing them to see the interrelated network of practices, skills and habits which support everyday actions. As a result, a person enters the URTH mode. Through this mode, a person’s experience changes as their awareness of the problem grows and they become aware of its nature. Consequently, the source of the obstacle becomes the primary focus in a way not present previously in the RTH mode. However, the person in this mode sees the source of the problem as another aspect of the project they are involved in.

Packer (1985) again uses the example of a person hammering a nail into a wall, where the hammer proves to be too heavy. In the URTH mode the person experiences the hammer as too heavy to successfully complete the task, yet they are not aware of the objective weight of the hammer. The awareness of the objective weight of the hammer, is developed in the final mode, the PAH. This mode is entered into when the individual is able to detach themselves from the activity they are engaged in. This often occurs because the person is unable to find an easy or direct way of handling the problem. As a result, the person is required to reflect, turning to more abstract modes of thinking such as logical analysis and calculation to solve the problem. During the PAH mode the person's awareness changes again to recognise the hammer as an independent entity, with a distinct set of definite measurable properties such as mass, weight and material.

It can be argued that each of this study's participants existed within the aforementioned three modes. For example, their lives before their injuries reflect their engagement with their surroundings within the RTH mode. The events leading to their concussive injuries, presented each individual with a challenge, an interruption to their daily lives, where they had to stop and bring into focus the network of interrelated but distinct aspects of their lives and actions through the URTH mode. Some participants experienced a complete cessation of work and familial responsibilities. Others continued with their daily lives despite experiencing pain, which, in turn, served to highlight details of skills and habits they often took for granted for task completion. Finally, the PAH mode can be observed, as participants reflected upon their experiences to describe how they overcame challenges their injuries presented to them, and their journeys to recovery. As a reaction to having an individual sense of control over the threatened self, participants employed a number of strategies to regain and maintain control.

Consequences of Injury: Holding on to the Self

All participants described the different ways through which they were able to regain the loss of control they experienced due to injury. Holding on to their agency and sense of themselves was an important component in their coping styles. For example, four out of six participants discussed feelings of responsibility for their recovery, choosing to strictly adhere to the doctor's recommendations to expedite recovery. For example, one participant states:

'the medicine is often bitter, for a person to get better they have to take it, naturally a person to recover they have to control themselves for a specific period of time so they get better and not suffer more severe consequences because they didn't take care.' (Interview 5, Lines 160-163)

The above example illustrates how recovery is regarded as primarily in the hands of the injured individual, where through their own efforts recovery can be determined. Another means by which participants sought to hold on to their sense of self was observed when one participant states:

'yeah I was hit on the head, but I didn't lose my memory, or become crazy, or mute, when I was hit, and I didn't lose consciousness and I breathed through the pain, yes it was hard to think or focus but I was still me, so I didn't think I needed to go to the ER or anything like that. I was breathing, I could hear, I could think, I could move, so I thought 'it's not that serious.' (Interview 6, Lines 58-63)

In this example the participant's sense of self was synonymous with his consciousness; he equated being conscious and in control of his mental faculties to being in control of his body and sense of self. Therefore, since there was no perceived threat, he decided not to seek immediate medical assistance.

The final way of maintaining a sense of self in the face of a concussive injury was one participant's insistence on collecting information about their condition. He states:

'Because I want to know everything that relates to me in as much detail as possible, I don't like to only hear what meds I should take... because this is related to ME It is important so I can assess whether I am receiving the correct treatment and support, as a fully functional adult, it is my decision to make, and I can't decide if I don't communicate with people and exchange information.' (Interview 1, Lines 153-159)

Here, it is important for the participant to articulate that he has agency over himself; needing more information in order to exercise that agency. In addition to trends observed in the interviews concerning their sense of self threatened or changed, and employment of different strategies to hold on to sense of self, themes of acceptance also emerged. These primarily concerned individuals recognising their fragility and accepting the consequences they endured.

Consequences of Injury: Acceptance

All participants expressed their acceptance or having learned to accept the events surrounding the injury and the consequences. Two of the six participants expressed their acceptance of injuries by stating:

'Life will go on no matter what, so you shouldn't lose confidence in your abilities to deal with this, life is stronger than us, and it will go on.' (Interview 3, Lines 218-219)

Acceptance, for this individual, took the form of a general appreciation of the fragility of human beings, how accidents can strike suddenly and that life will go on; so it is best if the person accepted, adapted and moved on as well. The participant sought to locate her painful journey in the past; no longer affecting her.

Another facet of acceptance was demonstrated when participants shifted their focus to recovery and the future. For example, one participant states:

‘I always told myself that I have to focus on recovering properly because it could have long lasting effects for 20 or 30 years later if I didn’t take care to ensure my complete recovery.’

(Interview 5, Lines 149-151)

In the previous extract, the participant elected to focus on recovery, accepting the experience of injury, which enabled him to endure symptoms.

Lennon et al. (2014) states that after a crisis point in life, an individual is often required to go through a self-reconstruction process. Individuals with acquired brain injuries (ABI) have to go through this process of reconstructing their sense of self, while suffering ongoing cognitive, emotional and behavioural difficulties, resulting from an injury to the brain. As observed in interview four, a feeling of disconnect between body and mind was experienced. Lennon et al. (2014) explain that initially the injured person experiences a discontinuity between their sense of self pre- and post-injury. Following the experience of a discontinued state, the individual then experiences a sense of loss, or of senses being shattered following the injury. This was observed in several participant accounts, who stated they felt ‘broken.’ For example, the participant in interview three describes how she felt following the car accident that caused her concussive injury:

‘I felt broken, I felt it was unfair, I was at a red light, it wasn’t my fault!’ (Interview 3, Line 173)

After experiencing loss of self, the individual moves on to rebuilding their sense of self to create a new post-injury identity.

Lennon et al. (2014) reviewed two studies which examined the modes by which individuals reconstructed their sense of self following crisis points in their lives. Firstly, they

referred to Yoshida et al. (1993, as cited in Lennon et al., 2014) who configures the self-reconstruction process for individuals with ABI, by means of a pendulum shaped model. Yoshida et al.'s (1993) model describes a process based on continuation of former self with any acquired disabilities. They explain that the process of identity reconstruction must be seen as a continuously evolving and adapting process that swings, between an individual's pre- and post-injury identities.

The second study by Muenchberger, Kendall, and Neal (2008) proposes another non-linear model for self-reconstruction, comprising contraction and expansion periods. During the period of contraction of the self the individual experiences a sense of a diminished self. This diminished self can be seen when there is an over-emphasis on regaining functionality by the individual and their support network. Diminishment was an effect observed in the interview data where participants stated a determination to get better as quickly as possible. For example, the participant in interview two stated a 'focus on getting better quickly and get over this experience,' when describing his recovery process. The second period includes an expansion of self. During this phase, the individual focuses on taking a positive meaning from their experience, on being given a second chance, and a desire for a stable outcome for work and relationships. This effect was reflected in several participant accounts, who expressed that they were 'lucky to be alive,' of having a strong desire to return to work, and help others learn from their own painful experience. Muenchberger et al. (2008) explain that, in accordance with their model, the reconstruction process does not evolve from a contraction to expansion period. Instead, they describe self-reconstruction as a dynamic process, which moves back and forth. Finally, the individual is able to achieve a tentative balance between their contracted and expanded selves; continuing to rebuild their sense of self throughout their lives. It is important to note that the periods of contraction and expansion of self reflects a movement between a person's positive and negative self-narratives.

Consequences of Injury: Growth from Experience

The final subtheme related to acceptance in the interview data was growth from the experience, which all participants reported was due to injury. Interview data revealed that, due to their experiences leading up to and because of the concussive injury, a change occurred in participants' priorities and philosophies on life. For example, one participant states:

'I am a lucky person, despite the pain, when I left this accident I was alive, and I could see my children again, that the person shouldn't let fear grow, that we have to be stronger and not lose confidence in our abilities, and not allow these feelings to disable my life.' (Interview 3, Lines 215-218)

This observation shows what the participant learned from her painful experience. She asserts her strength in having dealt with and successfully overcoming any obstacles her injuries presented in the way of her recovery and return to her life and children.

Finally, one participant expressed his willingness to help others; seeing the positive in his painful experience, he states:

'I feel good to be able to share what happened and that it can be of help, why not?'
(Interview 6, Lines 227-228)

Here his desire to help prompted him to agree to be interviewed, as he wanted his experience to serve as a benefit to others by the information he shared. All participants showed resilience in dealing with the consequences of their injuries, whether the effects were physical or emotional. Their inner strength saw them all recover and return to daily life. The examples provided, were in line with Calhoun and Tadeschi findings (2006, as cited by Shakespeare-Finch et al., 2014), where the three domains of the self that are more likely to

change demonstrating post-traumatic growth are the individuals' philosophy of life, their perceptions of personal strength, and interpersonal relationships.

Professional Relationships: Negative Aspects

The third main theme emerging from interviews was linked to the positive and negative aspects of the professional interaction between participant experiences as patients with their doctors. Three of the six interviews discussed negative experiences with medical professionals and how this impacted their journey to recovery. For example, one participant geographically locates her negative experience, comparing medical professionals in Arab countries, such as the United Arab Emirates (UAE), with Australia. When describing her experience, she states:

'In Arabic countries unlike here (Australia), they don't tell you what is wrong with you, or the details of what is wrong with you, they don't say anything. Seriously they don't explain! They only give you medicine and pain killers, and all you have to do is take the medicine.... only if it is serious they would sit down with you and explain, for example you need an operation, okay why didn't you talk to me earlier, and suddenly dropping this bomb on me.'

(Interview 3, Lines 137-146)

This extract articulates a lack of communication, between medical professionals and this patient that exacerbated the sense of loss of control she felt due to the accident. The type of communication she experienced was paternalistic. The second half of the extract further illustrates the lack of information provided to the participant, that she required surgery for her back without satisfactorily explaining her condition. Consequently, the participant felt left in the dark, without guidance, anxious and afraid.

In another interview, the participant described a feeling of being treated like an object, where doctors did not take the time to connect with the patient at a human level. He states:

‘the doctors I can’t describe as good or bad, because they are in a role where they treat patients as a case, as a material from a medical way, they think wrongly, the patient should listen to them, not question them, and only answer when spoken to, in a way I don’t know how to say, in a succinct way without details... It is not a comforting way, not comforting at all, when the doctor communicates with me, that only he knows what is going on with me, okay but I am also a human being, I am the one who these questions are related to, I am the one who is suffering, please explain to me what happened, from a moral perspective, this affected me a little, but in terms of medical equipment and facilities, it was very good.’

(Interview 1, Lines 127-137)

The extract exemplifies the patient’s experience of being objectified by the doctor, as opposed to an empathic approach to a suffering human being. He lacked the opportunity to ask questions. However, it is important to note he was discussing his impression of events taking place in the emergency room (ER) where some urgency in treatment and diagnosis can be expected. Nevertheless, despite the conditions surrounding this context, the participant indicated being impacted negatively by his experience with doctors in that setting. Further, he stated his belief that doctors have a moral responsibility toward their patients to be kept in the loop, and provide sufficient information to apprise them of their condition. This would mitigate patient anxiety and facilitate care by recognition of the patient as a suffering subject, not an injured object.

The final example of the negative aspects participants described in their interactions with medical professionals is found in interview four. The participant discussed her impression of the treating doctor when taken to hospital after falling off her bike. She states:

‘by the time my dad got there, the doc didn’t really, speak to me that much, so he sort of got the initial information of how I was feeling, and then he turned to my dad and had a conversation with him about how, you know ‘she’s doing ok, there are no bones broken, or

she doesn't have a crack in her skull' so I didn't really, I was sort of left out of the conversation so I wasn't sure what exactly It didn't feel wrong at that moment, the reason on why I am sort of focusing on it now is because right now I am living in a place where, the way that situation would go would be different, I would be the focus of the attention and I would have a say, and you know and I would.... The first, they would ask me first what was going on, and they would tell what's going on to my face, not to my dad's, but at the time that's how things always happened in our family, dad was the head of the family so he needed to know if there was something wrong with me so he could make a decision on what to do and how to proceed.' (Interview 4, Lines 40-56)

The excerpt provided draws a picture of an injured patient, having her injuries assessed with minimal communication between her and the doctor. There is a shift in power relations, first when the doctor does not speak to the participant except to gather factual information about her injury and second, when the doctor addresses her father rather than her. The shift creates the impression that, the participant is not being treated as an adult. One culturally-based explanation for the shift in power dynamics is due to the fact, that the participant was an unmarried woman at the time of injury. Consequently, the doctor may have felt that the conversation had to be held with the decision maker in the family, which, in this case, was the father. As discussed in chapter three, Middle Eastern families are patriarchal. Additionally, the family dynamic described by this participant is also a common aspect of the culture in the Middle East, especially when it pertains to younger adults and single women, who, in most cases, are required to live with parents until marriage. Further, a transition in perspective can be observed, from the participant accepting her interaction with the doctor in Egypt, to her description of what a doctor-patient interaction should be like in comparison with a country such as Australia. This is an example where the participant creates a clear distinction between patient-doctor relations in the Middle East and Australia, highlighting the importance of examining cultural and geographical factors.

All the examples above describe the negative aspect of interactions participants had with their doctors. Elements of patient-doctor relations, which contributed to these negative outcomes, revolved around the perceived lack of attention by the treating doctor, not allowing patients the opportunity to voice concerns, and objectifying the patient as opposed to them as a person. As a result, participants described feeling overwhelmed, anxious and fearful. These factors contributed to a lack of trust in the medical professional. For example, one participant reports:

‘the person would feel scared, anxious, so they need to have someone understand and empathise with what is happening with them and the closest people to provide this kind of support are the doctors that are treating this person, so this thing when the doctors would casually say you’re okay, nothing serious happened, I felt like they were brushing me off and what happened to me, they treated me in a condescending manner, how can I be okay, when you are giving me medication intravenously, I don’t know what is happening to me, how is that okay?!’ (Interview 3, Lines 304-311)

Here the participant expressed feeling lost and overwhelmed by events following the accident, and the lack of knowledge of her own condition contributed to feelings of powerlessness and anxiety. Consequently, the importance of empathy and the satisfactory provision of information by the health care professional were vital to her. McCormack et al. (2010, as cited by McCance, Gribben, McCormack & Laird, 2013) define patient centeredness as an approach to practice underpinned by forming and fostering therapeutic relationships between care providers, patients and others involved in their care. Patient centeredness is built on respect for the individual their right to self-determination, as well as, mutual respect and understanding. Further, McCance et al. (2013) describe the person-centred approach as a standard of care revolving around patients, focused on building relationships that are holistic and collaborative. In addition to these aspects concerning

patient-centred care, the above examples cited, illustrated the importance cultural context plays in enriching the understanding of participant experiences. For example, two participants placed their negative experiences within a geographical context. Negative interactions occurred in the Middle East, and more positive experiences with medical professionals occurred or were expected to occur in Australia.

Professional Relationships: Positive Aspects

The following will look at how positive aspects in doctor-patient interactions with participants experienced impacted on their journeys to recovery. Five out of six participants described some aspect of their interactions with their doctors that they found positive or helpful. For example, when describing the series of acts the doctor performed in diagnosing and treating him, one participant states:

‘I do remember the doctor, being experienced and knowledgeable I am sure he treated a lot like me ... I was scared, I asked the doctor to explain a little, he was helpful and calmed me ... what made me feel better is that he said there is no internal bleeding, which from my understanding can be life threatening, he said to take it easy and to stay in the hospital under observation for 24 hours and that calmed me, that I was under their expert observation if something, God forbid were to happen ... he said something that really affected me and I tell it to my friends and family, the doctor said that I should focus on getting better on recovering, from a psychological perspective, this really helped me to get better quickly it shifted my focus. He also said jokingly that you were not conscious so you didn’t feel us giving you the 11 stitches that you needed at the site of the injury, to be honest now when I remember what he said I still laugh, because even losing consciousness there is a bright side to, I got stitches without feeling pain.’ (Interview 2, Lines 94-116)

The experience of dealing with the doctor for this participant was positive. He received the information he needed to make sense of his injuries. His doctor explained the expected symptoms. The information about his condition, gave the patient a sense of control

of somatic symptoms he was already starting to experience. As a result, the participant was left with feelings of calm, support and reassurance despite any discomfort experienced.

Another positive aspect demonstrated in the above extract, is observed when the doctor displays social emotional skills through the use of humour. In highlighting the positive aspects of an otherwise painful experience, the doctor invited the participant to adopt a positive attitude. Not only was humour a powerful tool; leaving a strong impression with the participant years after the experience, it also helped strengthen the rapport with his doctor. Another helpful tool used to shift focus from the negative to the positive, was the doctor's advice to focus on recovery. Shifting the patient's focus from pain to having a positive outlook toward recovery, served to motivate, and build the participant's determination to effect recovery. Through empathic communication, the doctor was able to alleviate anxiety and to help in coping with the consequences of his injuries. In the Saab, Nouredine, Huijer, and Dejong (2014) study, participants found the support received from their physicians and other healthcare professionals, crucial to raising their hope in successfully managing cancer, alleviating anxiety associated with their condition. Consequently, positive rapport between a doctor and their patient has beneficial effects in helping the individual cope with their injuries.

Conception of the Brain and Brain Injuries

The fourth master theme emerging from interview data relates to participants' understanding of the brain as an organ, its functions and the way brain injuries are conceptualised. It is useful to refer here to Leventhal's Self-Regulation Model (SRM) as discussed in Snell et al (2015). According to the SRM, individuals make sense of their experiences of injury through constructing representations of their health conditions and symptoms, thus providing a basis for coping and recovery. The SRM includes a number of

components that affect individual recovery; these components are perceived duration and course of illness, the degree to which symptoms are experienced and attributed to condition, the impact of illness on quality of life, and perceived control of illness or symptoms. Consequently, how participants interpret and conceptualise their injuries through the above mentioned dimensions impacts on the way they cope and subsequently recover from these painful experiences.

Two of the six participants talked about the importance of the brain as a physical organ. For example, one participant states:

‘it’s your head, it’s where you form your thoughts, where you form your feelings, and to have a ... to have your head hit the pavement as hard as mine did, it’s just you know, I don’t know what the consequences can be , but you know it’s one of the most important parts of your body.’ (Interview 4, Lines 146-149)

The above extract demonstrated this participant’s view of the role that the head or, more accurately, the brain plays in shaping who she is as a person. The brain here is seen as the source of her thoughts, feelings and what makes her unique as an individual. As a result, injuries that threaten this organ are taken seriously and, as we will see, tend to be catastrophised.

Conception of the Brain and Brain Injuries: Catastrophising Injury

Given this perception of the importance of the brain as an organ and the role it plays in forming a person’s identity and personality, it is unsurprising that any threat to the brain, no matter how minor, invokes feelings of fear and anxiety. According to Ralph and Derbyshire (2013), numerous public misconceptions exist about ABI, especially mild brain injury such as concussions. Therefore, it is more likely for participants to react with fear and

worry, when confront with injuries of which they have little knowledge. For instance, one participant states:

‘I would ask them to tell me more about my concussion, I was scared, it is a head injury after all, not a joke! They (doctors) would say it is mild you will be ok, don’t worry! How can I not worry it’s my head!’ (Interview 3, Lines 86-88)

The participant’s own beliefs related to head injuries, is in direct contrast to reassurances received from her doctors. She views any injuries related to the head as potentially severe. Since, the head is the site of the mind, if threatened implies brain damage, and subsequently a threat to the self. This belief is mirrored in other interviews, where participants felt fear when receiving a concussion diagnosis. This is seen in the following extract:

‘when I heard it (concussion diagnosis) I forgot everything I knew about concussions or had heard about them before, I was dazed and out of it, it was like I was hearing it for the first time, I was scared that it is a permanent and serious injury which will alter my memory and who I am ... The person in this situation within seconds they think of many scenarios that are serious for example, when the doctor said that I might experience memory loss, my mind immediately catastrophised what the doc was saying so I didn’t hear him when he said partial and it may or may not happen or that it was temporary, my mind is so dramatic! I started thinking that I will lose my memory I won’t know who I am, who my family is, what my work is, all this happened within seconds as the doctor was explaining things to me, but thank God it was fine.’ (Interview 2, Lines 123-134)

In this interview, the participant describes thoughts going through his mind at the time the doctor was discussing his condition with him, providing valuable insight into his experience at this point. Catastrophising of concussive injuries can be explained through Leventhal’s SRM. Participants constructed catastrophic representations of their health, to

make sense of their experiences of concussion. According to the above quotes, they perceived the duration and course of illness as severe and significantly impacting on their quality of life, resulting in a sense of lack of control over the illness and consequent symptoms. As a result, feelings of fear and worry emerged. This is important as it can be used to guide how health professionals relay news of head injuries to patients. Bryant (2011) recommends the use of neuropsychological education to reduce catastrophic attributions associated with post-concussive symptoms. He suggests that, when patients are overly concerned about symptom presentation, that health practitioners normalise these reactions in order to minimise distress caused by these sensations. In the extract above, the hospitalised participant was overwhelmed by the accident and his injuries and, as a result, catastrophised his injury, imagining a scenario where he is no longer himself this; contributing to feelings of loss of control. He reacts with fear when he regained consciousness in a strange place, surrounded by strange people, and not knowing what occurred.

Conception of Brain Injuries: Altered Self

The previous interview extract provides insight into the participant's thoughts and anxieties, and sheds light on his underlying culturally-grounded values. For example, when imagining a scenario of total memory loss, one of the first considerations were his family and work, indicating the importance of both in his life. Another important point is that head injuries, tend to be catastrophised because of the critical role of the brain as an organ, and that injuries to the brain can potentially alter the self. McLellan, Bishop, and McKinlay (2010) state that in addition to numerous misconceptions held by the general public in relation to brain injuries, there is significant stigma attached to these type of injuries as well. They found that the term 'brain injury' carried a more negative connotation when contrasted with 'head' injuries. As a result, individuals with brain injuries are more likely to react with fear of acquiring this stigma. This is shown by one participant, when she states:

‘I thought really if you have a head injury it would always be serious, you would become crazy or can even die.’ (Interview 3, Lines 190-191)

Further in another interview when asked about participant’s knowledge of concussions and symptom presentation, she states:

‘I don’t know it might, in my head it might alter the way I think about things, I don’t know, I’m sorry I never thought about what those lasting consequences can be because in my head I always go to worst case scenario where I can’t think anymore where you know something like that it’s my head it’s one of the most important parts of my body and I never think it’s a good idea when you hit something that hard.’ (Interview 4, Lines 151-156)

The idea that any injury related to the head is often severe or potentially life threatening was reflected in other interviews. These quotes indicate a need for building awareness in the wider community to challenge commonly held beliefs about head injuries. Consequently, attitudes towards head injuries end up on two ends of the spectrum. The first reaction is for friends, family and participants to catastrophise the injury and its consequences as seen in the above quotes. The second reaction is in direct opposition, which is to dismiss the injury as inconsequential. This is observed in the following, when a participant states:

‘I knew I needed to see a doctor, I just didn’t think it was life threatening, I mean yeah I was hit on the head, but I didn’t lose my memory, or become crazy, or mute, when I was hit, and I didn’t lose consciousness and I breathed through the pain, yes it was hard to think or focus but I was still me, so I didn’t think I needed to go to the ER or anything like that. I was breathing, I could hear, I could think, I could move, so I thought it’s not that serious.’
(Interview 6, Lines 57-63)

Here, the participant reported that unless his injuries were life threatening, there was no need to visit the hospital. He explained his conception of brain injury, as risks to altered personhood, memory, sanity and ability to communicate. Since he felt in control of those

faculties, he surmised that his injuries were not severe. Consequently, he did not require immediate medical attention. In the Aubry et al. study (1989, as cited in Ralph & Derbyshire 2013), participants expected individuals with ABI and who have lost consciousness to experience more symptoms, compared to individuals with ABI who had no loss of consciousness. Study findings indicate that the majority of lay people interviewed used the individual's state of consciousness as a measure of injury severity and enduring symptom presentation.

In another example, the participant's family reacted to her injury as bearing no serious consequence she described her family's reaction by stating:

'I think that's basically it honestly, I would appreciate it if they (family) were the ones who would tell me I had to lie down and take it easy, the ones that would insist on knowing how I was feeling, would ask me how I was feeling everyday not just in the first few days, and acknowledging that if I wasn't feeling good that they would encourage me to go see a doctor again, and maybe choosing a doctor that would pay more attention to my symptoms vs sort of sweeping them under the rug so to say, just feeling like you know they take me seriously that's what I would like ... from what I understood my dad from what my dad told me was that yea 'she was just playing she was just riding her bike, kids will be kids, she had a couple of bruises she's fine, everything will be ok', it was not a conversation where a lot of the questions were asked, I don't know about my medical history, or how hard I hit my head or how long you know I was out of consciousness it was a very quick exchange and a very superficial exchange of information.' (Interview 4, Lines 344-358)

Conception of Brain Injuries: Seen versus Unseen Injuries

The participant in the above interview expressed her lack of satisfaction with family support she received following her concussive injury, stating that support was not sufficient to help her cope with the symptoms. One explanation for the reactions observed in the above

quotes is that in the absence of visible injuries such as open wounds, where there might be bleeding or bruising, it is easier for people to dismiss the injury as inconsequential. It is unseen, therefore it is not serious. Shannon et al. (2015) states that one of the ways refugees conceptualised mental health, was through any outward expressions of distress, as well as effects it has on daily functioning. Therefore, distress that does not lead to crying, tears or impairment in their ability to go on with their daily lives is not considered a mental health issue. Parallels can be drawn from this study to reflect the attitude of individuals to concussive injuries that do not necessarily have any outward signs of injury, such as bleeding. As a result, in the absence of outwards expressions of distress or injury, visible to the outside world, the existence of mental pain or injury is questioned. Ralph and Derbyshire (2013) explain that ABI is sometimes referred to as an invisible disability since the symptoms individuals sustain post-injury are not immediately obvious to others. Further, study findings from Kempe, Sullivan, and Edmed (2013) indicate that the public perceived a concussion as less severe than a brain injury, which may interfere with receiving the earliest and most appropriate interventions to support concussion recovery. This idea is illustrated by one participant's interview, where she states:

'I think that same thing happened with my family I don't think anybody took it seriously enough, me included, again it's only now that I sort of am removed from the situation I can look at it and I can remember feeling umm not great, during and after the event, but you know it was just a funny thing that happened, that I fell and everybody laughed that the scrapes healed and it was done.' (Interview 4, Lines 210-214)

The subtheme of unseen injury is present in four of the six interviews. It is related to the perception of injury severity based on its visibility. For example, some participants chose to downplay the consequences of the head injury because the injury and symptoms were not

clearly visible as one would expect of an open wound, or broken bones. One participant expressed this view when he states:

‘I wasn’t bleeding or anything, and yes I was in pain, but a cricket bat hit my head of course I was in pain, I just had to focus on breathing and I was sure the pain would go away.’

(Interview 6, Lines 26-28)

The participant does not perceive his injury as serious. He used the absence of external cues such as bleeding as a clue to assess its severity. In the absence of these cues, he decided not to seek immediate medical attention. On the other hand, using the same reasoning, conceptualising concussions as an unseen head injury, can be a source of anxiety.

This was observed in the following:

‘the first year I had doubts about all these injuries, the superficial wounds I could see them repairing, but the unseen injuries like my head and back pain I was worried that I won’t recover, but it’s really not a question of having doubts about my recovery, I was thinking more along the lines of this is my life, this happened, life goes on and I have to learn to cope with it.’ (Interview 3, Lines 225-229)

In this extract, the participant compared her unseen injuries such as her concussion, and back injuries, to superficial wounds. She does so to contrast the ease by which progress in healing with seen injuries can be observed, as opposed to recovery from a concussion, where progress is subtle. Consequently, there was an implication that it is easier for individuals, as well as their friends and families, to focus on the healing of visible injuries such as scrapes and wounds.

Fear and a lack of awareness might motivate two types of responses to head injuries. The first, when some participants can catastrophise their unseen injuries. The second, when others might choose to disregard their injuries, downplaying the severity of their pain.

Foster, McClure, McDowall, and Crawford (2013) state that the visibility of a person's disability or injury influences how people perceive and judge them. For example, if a person has obvious signs of disability such as a scar, they are held to a different set of expectations, compared to an individual without any outward signs of disability. As a result, people are more likely to categorise individuals with no visible signs according to their stereotypes, expectations and life experiences.

Refugee Related Experiences

The fifth main theme highlighted by the participants related to their experiences of being refugees in Australia. All participants have lived in Australia for over two years, some having sought refuge approximately a decade ago. Three of the six participants spoke about the challenges they faced in their home countries and their journeys to Australia. The remaining three briefly discussed where they came from; however none felt comfortable talking about their experiences as refugees. The subthemes which emerged revolved around participants having to cope with being strangers in a new land, dealing with consequences of injuries now that they were living in a safe place, and the assertion about their love of life which motivated them toward recovery and self-growth.

Refugee Related Experiences: Strangers in a Strange Land

Refugees leave their homelands for many reasons, including persecution and wars. As a result, they are forced to migrate and seek refuge in a foreign country. According to the United Nations High Commissioner (2015, as cited in the Kirkwood, Goodman, McVittie & McKinlay, 2016), the war in Syria contributed to almost half of the entire Syrian population being displaced internally and externally, often with nothing but the clothes on their backs, due to extreme fear for their lives. One participant described her reasons for leaving Syria, she states:

‘I was a Muslim woman, but my affiliation with Islam was by name only, I didn’t choose to follow that religion, I was born into it, so I had to search for my own path, and the search took me my whole life, and came at a steep price, it cost me my home, and my family, my sense of belonging and feeling settled and safe, my husband left me, and he was abusive and aggressive towards me due to my changing beliefs and ideals, and we got divorced, he would threaten me through my family, and he would complain to my brothers about my thoughts in seeking to change my religion, during that time I decided to leave Islam to become a Christian, and I decided to seek refuge in Australia because I was threatened with death.’
(Interview 3, Lines 15-22)

The above excerpt demonstrates the difficulties the participant faced to make choices about her life freely; the price was the loss of her community, family, feeling of safety and exposure to abuse from her partner. The participant experiences persecution due to her being affiliated with a particular religious group, in this case her conversion from Islam, a religion she was born into that all of her family and community belong to. Instead she adopts a new individual and group identity separate from the ‘norm’ in her community, leading to persecution. This is discussed in Nickerson and Bryant (2014) where psychological injury occurs in individuals who are exposed to HRVs, impacting on their individual and group identities. They state that distress is experienced when group identity that was previously a source of pride becomes a source of suffering and persecution. This idea is clearly reflected in the participant’s account, when she states that her life transformed from being an accepted member of her family and community, to a person who was abused and threatened by the same people.

One participant described the positive impact he felt after people who he perceived as ethnically different helped remove him from the car after his accident. He states:

‘Yes they helped, there was a strong move to help rescue me from the car by these strangers, they were motivated by their strong emotions and strong desire to help, this person who is hurt and in pain, who is locked in a twisted car and can’t escape it, this person who was on the ground, they would always ask me ‘are you ok, is there anything we can do for you’, until the ambulance came, they would say ‘lift his head, etc.... check he is breathing’, I remember this, but I don’t remember in detail it was all woozy, but I remember hearing that, ‘check his pulse, check his breathing’ they would say, and these are strangers, and they were only helping, this really affected me deeply to this day, if I can meet this person who broke open my door and got me out, this person who is not from my nationality, and I am very grateful and very grateful, emotionally it impacted me deeply.’ (Interview 1, Lines 216-226)

This extracts demonstrates how the presence of strangers at the accident scene positively impacted the participant. He described a sense that people cared about his well-being, that he was not alone. Further, the participant linked the kindness of strangers to nationality, drawing a picture of a person who does not share his roots, yet one whom still made all possible efforts to help get him out of the car and ensure he was alright. The extract describes a deeply moving and confirming experience that resonated with him, since he is a stranger living in a strange land.

The integration process is complex. This is observed in Kirkwood et al. (2016) when they reviewed studies relating to the integration experience of asylum seekers and refugees in the UK. The studies reviewed by Kirkwood et al. (2016) presented a mixed picture when examining the degree of satisfaction asylum seekers and refugees experienced in the UK. For example, Bowers, Ferguson and Sim (2009, as cited in Kirkwood et al., 2016) examined the views and experiences on service providers in Glasgow. They reported that many refugees and asylum seekers had a mixture of good and bad experiences of integration, stating that while in general the feedback was positive, many also reported incidents of harassment by

locals. A study by Mulvey (2011, as cited in Kirkwood et al., 2016), found that a large portion of surveyed refugees and asylum seekers indicated difficulties in finding paid employment, and were exposed to discrimination in Scotland.

Refugee Related Experiences: Consequences of Injury

The second experience unique to refugee highlighted in the interviews was the consequence of the injury, resulting from the participants' experiences as refugees. All participants interviewed came from a refugee background, however some participants were more inclined to catastrophise consequences of their concussive injuries because it disrupted their belief that they were now in a safe place. According to Durrheim and Dixon (2005, as cited in Kirkwood et al., 2016), refugees often construct place identities by referring to countries of origin as terrible places where there is a high risk of being killed. Subsequently, a favourable contrast with host countries is made. Kirkwood et al. (2016) state that asylum seekers present the UK as a safe place in order to explain their being in the UK. In all the discourse analysed by the authors of this edited volume, safety was presented as the most important reason for living in the UK. While security was a common motivation across all interviewees, some participants identified limitations to their construct of the UK as a happy and good place to live in. These ideas are reflected in the current study, when one participant described his interaction with his mother after returning from the GP's office. He states:

'John drove me home, mom was there and of course she went crazy, she started yelling that we survived Lebanon only to be felled by a cricket bat, she overreacted, but she's a mother, I guess that's their job to worry about their kids, but honestly, that week I was home, let me tell you, I am not complaining, I love my family, but I was treated like I lost a limb or something ... I feel like if I was injured in Lebanon from the violence there, they would have coped better, I don't know, it is expected that you will be hurt there, but here, it is safe and you can live your life as you wish peacefully, so even though my injury wasn't severe or serious they

reacted as if it was, I think it was more shock than anything else.’ (Interview 6, Lines 72-76, 120-124)

Here, the mother’s emotional response reflects the trauma of the family’s experience in Lebanon and their experience as refugees. They survived war and the risks associated with fleeing their home country. From her reaction, as described by the participant, she had expectations of safety and security now that the family was living in Australia. The mother’s belief in safety was threatened by her son’s injury, articulating a kind of irony life had presented them with, shaking family members to the core. The extract also highlights a core cultural value all participants shared, the importance of family this; relates to how the injury of one member affects the entire unit. It is also important to note that in contrast to other interviews, where most participants’ were themselves overwhelmed by the consequences of their injuries, in this case the family reacted more strongly to the participant’s injuries than he did.

Refugee Related Experiences: Motivation for Growth

The final refugee related theme observed was the participants’ love of life. Five of the participants described growth from their experiences as refugees in one form or another. A core value underlining their motivation for self-growth and moving forward was their love of life and the hope that they could now start a new chapter in their lives. For example, one participant described his life in Lebanon and how it has changed when he came to Australia. He states:

‘Actually I graduated not too long ago, but I studied IT, I’m thinking of post grad now ... Ha! I tell you, for me to think along those lines, to choose to study at university, do post grad, well I mean that is a great thing, I would never take for granted, I am just grateful to be here ... Aside from the war, our village bordered Homs, so we were right on the border with Syria,

the cost to go to Beirut to study would have been unbelievable, and if I had left, then I couldn't help take care of my brothers and my family, it just wasn't possible, so I thank God every day that we were able to leave, that I can actually consider different options of study and work, it is a gift from God that we thank him daily for, our loved ones are safe and if we work hard we can live a good life, I mean seriously what more can a person ask for ... When you hear stories about these atrocities happening in the Middle East, and you are safe in your home, with your friends and family, playing cricket! How could you not appreciate the life you've been given.' (Interview 6, Lines 198-215)

This extract shows the participant's love for life, his appreciation for the opportunities provided; as opposed to how his life would have been had he remained in Lebanon. His positive attitude after his experience of being a refugee, demonstrates his resilience as well as, his and his family's ability to adapt to their new host country. This is given by his statement that their success in life is determined by their efforts. The resilience and the reaffirming relationship he has with life is linked to his experiences; enabling him to cope with his accident. Block and Block (1980, as cited in Sleijpen, Boeije, Kleber and Mooren, 2016), define resilience as a trait that helps an individual to function well despite their exposure to adversity. According to Masten (2001, as cited in Sleijpen et al., 2016) resilience reflects evidence of positive adaptation despite significant life adversity. In the Sleijpen et al. (2016) study, one of the factors influencing the resilience of young refugee participants was their hope for the future. Their sense of hope acted as a strong motivator to maintain their positivity and enable coping with difficult life circumstances.

Experiences of Concussion

The final theme is related to the universal experiences of concussion the participants shared. The term 'universal' is used as these symptoms of concussion are shared among all similarly affected persons irrespective of their cultural or personal background are the

physical symptoms of their injuries. Participants sustained their concussive injury through different modes: Two participants were injured in car accidents. Two participants' injuries were sports related. One participant was injured when falling off her bicycle, while the last participant's injury was work related. Four of the six participants interviewed were injured in Australia, the participant in interview three sustained her injury in the UAE while on vacation, and the participant in interview four in Egypt before fleeing to Australia.

Experiences of Concussion: Symptom Presentation

All interview questions required participants to discuss their symptoms, their experiences of these symptoms and journeys to recovery. Table 2 lists all the symptoms relating to participants' concussive injuries. Symptom categories were taken from the classifications as discussed by McCrory et al. (2013). They recommend that any suspected diagnosis of concussion should assess one or more of the following clinical domains: symptoms (somatic, cognitive, emotional), physical signs (loss of consciousness, amnesia); behavioural changes (e.g., irritability); cognitive impairment (e.g., slowed reaction times); and sleep disturbance (e.g., insomnia). Medical professionals who encounter any of these signs should then consider the presence of a concussion. The following provides participants' own accounts to explore how they conceptualised their experiences of these symptoms, impact on their recoveries, and the different strategies utilised for managing their concussions. One participant described his symptoms as follows:

'It was a hospital, there were doctors and nurses, it was a busy environment, I was in a daze to be honest with you, but what I do remember is after I was released from the hospital and went home, I had a headache and I felt my body was heavy, I didn't feel like moving, I didn't feel like eating, I didn't want to talk to anybody, my sleeping habits got disturbed, I slept very little, not even felt like reading or watching TV, I felt down most of the time, I only felt comfort when I listened to music I don't know if I am being fanciful now but sad songs

especially resonated with me, as I was in pain, I also sometimes felt like I lost focus, so I'd be talking to someone for example, and trying to remember someone's name and it just feels out of my reach for a second or so, and in a few minutes I would remember it, it felt natural, but I couldn't when I concentrated, anyway these were my main symptoms and thank God I got over it and I am ok now.' (Interview 2, Lines 33-44)

Here, the participant described common symptoms associated with concussions, such as clouded consciousness, headaches, fatigue, loss of focus and appetite, disturbed sleeping patterns, as well as, low mood. He mentioned finding solace while listening to sad songs, since they seemed to resonate with his emotional experience. In another interview, the participant described her symptoms, as follows:

'I found myself in the hospital, hmm maybe not completely, completely out of it, just very hazy and out of it, if I had to guess maybe I was out of it completely at the beginning about 15 min or so? I am not sure, but I remember when I was in the ambulance being moved to the hospital, one of my children who arrived at the scene, was shouting 'mama mama' I remember hearing her calling my name.' (Interview 3, Lines 58-62)

During the interview, the participant described her experience of the accident and loss of consciousness (LOC). It is important to note that consciousness can be more accurately thought of as belonging to a continuum, rather than a state where a person enters and exists as described above. Blume, Giudice, Wislowska, Lechinger, and Schabus (2015) explain that consciousness requires awareness of the self, the environment, and arousal at brain level. Both arousal and awareness are necessary for a conscious experience to take place and neither of them is sufficient on its own. According to neuroscientific studies as discussed by Blume et al. (2015), awareness can be conceptualised as a continuum with different levels. However, accuracy of symptom presentation takes a back seat in this interview as the participant's experience of symptoms and events is the primary focus of the interview.

Consequently, there is a sense that she is unsure and confused by what occurred, even when recalling events years later. A possible explanation for her poor recall is retrograde amnesia; however, it is difficult to surmise that with any degree of certainty given the lack of reference by her doctors or herself to indicate an experience of amnesia. She went on to state:

‘I was tired physically and emotionally ... They (doctors) said that I lost consciousness due to the accident. When you get pain, they said to take a deep breath and to sit in a quiet area, and to relax, after the accident I remember having some problems with focusing, focusing while reading, my memory for a couple days after, I would say was slow, I would be talking about something and I would just feel like the information is coming to me slowly, I don’t know why, and this annoyed me and embarrassed me.’ (Interview 3, Lines 69-70, 110-115)

The participant’s description of her initial experience of symptoms; reflected the impact post-concussive symptoms can have. According to Sharp and Jenkins (2015), affective symptoms such as depression and anxiety are common in all forms of traumatic brain injury. This extract also illustrates her poor understanding of her condition at the time, and the consequences of her injury, contributing to her feelings of annoyance and embarrassment.

Experiences of Concussion: Symptom Resolution

The second subtheme that surfaced during the interviews was the way participants described symptom resolution, as well as different changes they adopted to aid recovery. Participant recovery from concussive injuries varied between total symptom resolution within two weeks, as expressed in four out of six interviews, and within two months as found in the remaining two interviews. The latter were both involved in serious car accidents and sustained injuries to their necks, and backs. While their accounts reflect mild trauma to the brain, one reason for the persistence of symptoms was the accompanying injuries so close to the head which may have resulted in similar symptoms as commonly observed in concussive

injuries. According to Montgomery (1995, as cited in Broshek et al., 2015), personal factors are one of the factors contributing to prolonged presentation of symptoms post-concussion. Personal factors include negative cognitions, fatigue, tension arousal and physical impairments. In this case, the presence of other physical impairments, such as the neck and back injuries may explain the persistence of post concussive symptoms beyond what is expected. McCrory et al. (2013) state that in the majority of concussions, around 80 to 90 percent of cases, resolve in a short period, not exceeding ten days. Further, they state that the initial period of acute pain should settle within two months after injury. On the other hand, Sharp and Jenkins (2015) found that it is not uncommon for headaches to continue for several months following an mTBI. They refer to a prospective study by Hoffman et al. (2014) of more than 200 patients, where 50% experienced migraines one year following their injuries. Symptom resolution was discussed by a participant, as follows:

‘After a week I started getting better slowly ... I didn’t go to the doctor, yes I went to work, because I was taking pain killers, the pain would go away or dull for a few hours and I could work even though at a slower rate because I couldn’t focus very well, but I have also a problem with my blood pressure , so I am used to having headaches, and I am used to working with my headaches, so I thought my blood pressure was high and that was the cause of the headaches and that’s why I didn’t go to the doctor after the accident.’ (Interview 5, Lines 40-41, 52-57)

This participant initially did not seek medical help after sustaining his concussive injury, despite the pain. This resulted from sharing a common symptom with blood pressure that, allowed him to explain the ongoing pain in a way that is predictable or manageable for him. The continuation of his symptoms, beyond what he was used to, alerted him to the need to see his GP. Brunger et al. (2014) cites a lack of awareness of symptoms associated with concussions, as well as peer and societal pressures to return to pre-injury activities, as some

of the reasons that contribute to symptom exacerbation. According to this account, the participant experienced gradual symptom resolution over a two week period. The participant commonly experiences headaches as a result of his blood pressure condition. Therefore, there is a sense of acceptance and endurance of the pain he feels after his injury.

Experiences of Concussion: Recovery

The final subtheme revolved around participants' conception of, and experiences related to, their recovery from the concussive injury. All participants expressed varying degrees of frustration, acceptance and endurance toward their post concussive symptoms. They chose to shift their focus toward recovery, ensuring that they did everything in their power to recover as swiftly as possible. Different strategies were employed to manage post-concussive symptoms across participant accounts. For example, one participant states:

‘So I went to my GP and he said it might be a minor head injury, a concussion, recommended I take some time off work for about a week ... it (concussion) affected my vision for a while after I woke up, when I close my eyes afterwards it would help a little, but if I am in a bright room where there is sunlight I would get pain, I was sensitive to light even if I want to watch TV I couldn't, if I want to go outside I had to be careful the sun wasn't harsh, there is a big interference in a person's life when you have an injury like that ... The stages were relaxation, he (GP) said it was broken up into two stages, the first stage of relaxation is to relax the body and to avoid sports or contact sports that can lead to another head injury, and the other stage is to relax my mind, so if for example, well I like to read books, but now even reading books can be annoying and taxing, because it requires thinking and that doesn't help quick recovery, the week he told me to do these things and avoid contact sports or heavy exercise, and to consider this week as a vacation, to not burden my brain.’ (Interview 5, Lines 36-41, 63-67, 73-79)

Consistent with the previous account, a period of relaxation was advised by the GP, as well as avoidance of heavy exercise and mentally taxing activities. This view is endorsed in the literature where, for example, Vargo, Vargo, Gunzler and Fox (2016) note that the conventional strategy for concussion management requires early recognition, rest, and surveillance, with progressively guided return to usual activities. The rationale behind the recommendation for physical and cognitive rest is based on the metabolic and vascular stresses caused by the concussive injury, which require time to stabilize. Failure to provide an appropriate period of rest, evidenced by the increased energy demands of exercise and other activities can lead to an exacerbation of symptoms. They refer to Makdissi et al. (2013), who state that no benefit of rest is observed beyond the initial ten day period. In addition, they note that engagement in light aerobic exercise, and cognitive behavioural therapy, have all been found to aid in concussion recovery.

In the above account, one of the post-concussive symptoms the participant suffered from was light sensitivity. He managed this by avoiding certain activities that could exacerbate his symptoms such as direct sunlight and watching TV. Consequently, he adhered to concussion management strategies found in literature by resting and avoiding activities that could exacerbate symptoms. All participants received recommendations from their treating physicians on ways to manage their concussions. Among all accounts was a requirement for rest, avoidance of heavy exercise, and any mentally or physically strenuous activities that could potentially lead to symptom exacerbation.

The concluding chapter of the thesis will summarise important findings from the research interviews. Additionally, recommendations for health care professionals treating concussed individuals from Middle Eastern refugee backgrounds will be presented. The final segment will end, with a brief discussion on future directions for research arising out of this project.

Chapter Six - Conclusion

The aim of this research project was to gain a nuanced understanding through IPA of how individuals from Middle Eastern and refugee backgrounds conceptualised and understood concussions and their subsequent journeys to recovery. The rationale was to uncover underlying assumptions participants made about concussions and its consequences, and possible implications for professional engagement.

The current study was primarily concerned with interpreting the interaction between a neurological event (concussion) and how it is understood by someone from a Middle Eastern and refugee background. Consequently, throughout the analysis, cultural influences were understood as being ubiquitously interwoven in interviewee accounts. These culturally related factors aided in highlighting the common values of people from similar backgrounds and how these influence a person's perspective on life events. Since all participants' were from Arabic speaking Middle Eastern backgrounds with refugee experience, commonalities in core values were observed throughout. These core values revolved around the particular importance of family, faith in God and work.

Summary of Findings

All participants indicated that family support played a crucial role in coping with and overcoming the consequences of their concussive injuries. Faith in a higher power is a core value in Arabic Middle Eastern cultures that was pervasive in most interviewee accounts. Cultural expressions reflecting this core value were widespread. Faith in God's mercy and belief in God's presence and aid, helped participants deal with the negative consequences they faced as refugees, and subsequently with their injuries. The importance of work was another key value which motivated all participants to recover as quickly as possible. Common to all interviews was a sense of responsibility to complete chores and return to work

as soon as possible. All these values played an important role in participants' lives to facilitate recovery and accept the consequences of injury. The following briefly summarises findings related to each main theme.

Four core themes were the main focus of the study and represent aspects which participants spent most time reflecting upon. The first related to participants' experience of concussion, how they made sense of their injuries, and their conceptualisation of brain injuries. The second was linked to the consequences participants suffered as a result of their concussive injuries. The third centred on interviewees' coping strategies, as well as different aspects of participant experiences that served as promoters of and obstacles to recovery. The final theme dealt with participants' experiences of the professional relationship as patients with their doctors at the time. Two supplementary themes also emerged and were included in the findings: The first highlighted symptoms of concussion commonly experienced across all interviews, and the second related to participant experiences as refugees.

The focus of the study was to examine individual's experiences of concussion and their journeys to recovery through the interviewees' perspectives, which are tempered by their cultural backgrounds and experiences as refugees. Consequently, the bulk of the results chapter was dedicated to examining participant accounts of their experiences of concussion, rather than focusing on a list of concussive symptoms already established in the literature. The aforementioned supplementary themes were included to provide a more enhanced picture of participants' experiences. As a result, details of concussion symptoms one is expected to observe in concussive injuries were included, as well as some refugee related experiences participants went through which played a part in shaping their unique perspectives on life and the obstacles they face.

All participants demonstrated resilience in the face of injuries, utilising a number of coping strategies to help them overcome challenges and interruptions to their daily lives as a consequence of their concussions. The first core theme related to coping with concussive injuries and consequences. Participants demonstrates coping in two different ways: External coping strategies by relying on families, friends, colleagues and the wider communities to validate and support them through the challenges their injuries presented and the recovery process. Another external coping strategy was the dependence on faith and religious beliefs to give meaning to the painful experiences. A potential explanation for participants' desire to seek meaning in the painful experiences through their reliance on their faith is to mitigate decreased perceptions of control as discussed in Nickerson and Bryant (2014). They state that a consequence to exposure to HRVs as commonly observed in refugees and asylum seekers is a decreased perception of control in the individual's life. Psychological injury occurs through the sense of helplessness that is born out of a person's inability to intervene and stop the witnessed violations. Consequently, in the present case, participants sought to cope with feelings of powerlessness through relying on the belief that all events in life are according to God's will and so they are not able to alter that which is not within the realm of their control to begin with.

Internal coping mechanisms relied predominantly on use of humour, acceptance, and finding opportunities for self-growth. Internal coping mechanisms such as humour, acceptance and seeking opportunities for self-growth were used to deal with the negative aspects of the concussive injury. Humour and acceptance were used to highlight positive instances among the often painful times participants endured. For example, one participant described getting stitches for a wound on his head, following his injury. In his account, the doctor helps him view his unconscious state in a humorous light, explaining that since he was unconscious, he did not feel pain when the doctor was applying the stitches. The other

commonly used strategy was acceptance. Facilitating the sense of acceptance was the participants' religious beliefs in predestination and their faith in God that things in life happen for a reason.

Several references were made, where participants stated they were common ways of providing support in their culture. These cultural references reminded participants of other's injuries, illnesses and challenges. This served as an external coping strategy by which family and friends, helped participants view their own experiences in more positive light by way of comparison. For example, one participant reflects on a common saying in his culture which is 'may it be mentioned but never repeated'. Using this cultural expression the participant is according to Sewell (2005) utilising existing cultural symbols to accomplish some end. The reason why the use of a symbol or, in this case, a specific cultural expression is expected to achieve a particular goal is due to this saying having a determinate meaning. Therefore, the participant expresses his appreciation that he overcame this painful experience in his life, using this saying to demonstrate his resilience and successful recovery from concussion. Another coping mechanism was the participants' ability to see opportunities for self-growth. All interviewees demonstrated growth in their abilities to cope in one form or another. Some viewed their experiences as an opportunity to help educate others on concussions and the consequences. Others learned to speak up and voice their concerns when they would not have done so in the past.

The second core theme discussed the consequences. The main finding was the effects resultant symptoms, and challenges, had on participants' perspectives and emotional well-being. In five out of six interviews, individuals described experiencing a threat to their sense of self since they were no longer able to participate in the daily activities and responsibilities. As a result, participants expressed a sense of loss of being able to engage in the daily tasks they were familiar with at work and in their personal lives. The worries and anxieties

experienced by participants in response to their experiences of concussive symptoms and inability to perform daily chores can be understood through the 'psychological disability following concussion' model by Kay, Newman, Cavallo, Ezrachi, and Resnick (1992, as cited in Broshek et al., 2015). They state that a negative cognitive feedback loop is created due to psychological distress from an injury, where distress may impair attention, learning, memory and information processing speed. Distress experienced due to injury, growing anxiety and depression, result in symptom exacerbation leading to a more disabling presentation. In reaction to the sense of loss, and to mitigate feelings of anxiety and worry, participants chose to maintain sense of self by strict adherence to doctors' recommendations and by gathering information from multiple sources to inform them of their condition. The following stage involved participants expressing their acceptance of events and the consequences they have had to bear, relying on the understanding that life is so much bigger than their singular experience, choosing instead to focus on recovery and the future.

The third main theme highlighted the critical role medical professionals played in alleviating negative consequences experienced by participants. The findings indicate that participants looked to their doctors to provide information about their concussion, what to expect in terms of consequences, and how to manage symptoms. They also expected doctors to provide them with reassurances regarding their recovery. The underlining idea repeated throughout the interviews was that doctors should communicate with their patients in a caring and empathic manner, treating the individual with respect rather than an object. According to White et al. (2015), the effective treatment of mental health issues in refugees requires that clinicians offer specialised language interpretation, have a deeper understanding of the differing cultural conceptions of mental disorders between clinician and patient, and appreciate the effects of the individualistic orientation of psychotherapy when used with individuals from predominantly collectivistic cultures. While the current study focused on

concussion experiences and recovery of individuals from refugee backgrounds, the White et al. (2015) study is useful in underlining the need for specialised services and additional training requirements for clinicians in order to meet the needs of individuals within refugee populations. Two participants located their negative experiences with medical professionals within geographic boundaries, stating that doctors in Egypt and the UAE failed to treat them in the manner required to cope with their injuries. They contrasted their negative experiences overseas to positive experiences with their GPs in Australia. The importance of good rapport between doctor and patient was stressed in all interviewee accounts. Participants who had good rapport with their doctors were able to trust in advice given and rely on their recommendations. Additionally, participants who had positive experiences with their treating doctors did not express the same level of anxiety compared to those who encountered poor communication. As a result, it is reasonable to conclude that a positive experience when dealing with medical professionals has the capacity to act as a protective factor against feelings of anxiety and stress patients may experience.

The fourth superordinate theme was linked to participants' conceptualisations of brain injuries in particular and the brain as a body organ in general. Predominant in all interviews was the understanding that the brain is a vital organ in the body which acts as the seat of emotions and a person's identity. Consequently any threat to the brain resulted in fear and a tendency to catastrophise the concussive injury. When asked what their understanding of the consequences of concussions were, five out of the six participants indicated that consequences would be severe; posing a threat to their identities, impeding their ability to live their lives, and permanently disabling their memories. Further, concussions were viewed as invisible injuries, where recovery was more subtle than more visible injuries such as open wounds or broken bones. Three participants contrasted their 'unseen' injuries with other types. One participant spoke about the different attitude her family had towards visible

injuries (scrapes and bruises) she sustained from her fall, as opposed to her concussive symptoms which were more subtle. In that example, the family chose to focus on the wounds obviously healing rather than the gradual resolution of concussive symptoms. Another participant expressed his frustration at the subtle and gradual nature of recovery experienced, referring to the pivotal role of the brain for daily functioning. Here effects of injuries, despite their severity, are pervasive, as opposed to broken limbs where effects are more localised to the site of injury.

Study findings indicate participants had a good appreciation of the role the brain plays in daily functioning. However, there was a lack of understanding of concussion, in particular and of brain injuries in general, and the difference between different types of brain injuries and consequences. Broshek et al. (2015), notes that a critical aspect of successful interventions is education and reassurance. Miller et al. (1998, as cited in Broshek et al., 2015), explains that psychoeducation on symptoms of concussion and reassurance were significantly involved in preventing and reducing duration of PCS. The findings indicate a lack of awareness concerning concussions and appropriate ways to manage symptoms, highlighting the need for psychoeducation. In two out of six interviews, participants elected not to seek medical advice following their concussive injuries. Another interviewee chose not to vocalise the presence of her concussive symptoms, 'sweeping them under the rug', and to continue with her chores despite her being negatively affected by the concussive experience.

The fifth main theme dealt with experiences related to refugees. All participants interviewed came from refugee backgrounds. Four out of six participants shared stories of how their refugee experiences impacted on their philosophies on life and influenced the way they coped with their injuries. One participant discussed the irony of life he and his family experienced to have been injured in Australia as opposed to Lebanon. This challenged his

and his family's beliefs about the safety they assumed they would find in Australia. The final two participants were able to transform the struggles and persecution they experienced before and after fleeing their home countries to reaffirm their love for life and hope for the future as a motivator to cope with their injuries. Participants in interviews one and four, expressed an awareness of strangers helping them after the concussive event, before they were taken to hospital. One discussed the positive impact he felt as a result of having been aided by people who did not share his ethnicity or cultural background, alluding to his feelings of being a stranger in a strange land. According to Nickerson and Bryant (2014) one of the modes by which psychological injury occurs following HRVs is a disturbance in interpersonal processes. This disturbance leads to a loss of belief in the altruism of human kind, which in turns affects interpersonal functioning negatively. The above participant expresses a sense of surprise that people who rushed to pull him out of the site of the car accident were from a different ethnic background; resulting in a long lasting impression in the goodness of strangers and a rejection of racism. The degree to which this event impacted the participant may reflect some previously held negative beliefs on the altruism of human kind, for strangers to help a stranger. In the face of events challenging this previously held belief, the result is a strong positive influence that is long lasting.

The final main theme listed concussion effects reported by participants. Discussion in this section was kept brief as it pertained to universal experiences of concussive symptoms individuals have irrespective of cultural or personal backgrounds. However, a synopsis was presented of the particulars of injury to provide; a richer account of the different modes of injuries, severity of symptoms and a timeline for symptom resolution. Of note, two out of the six participants interviewed stated that their symptoms resolved within a two month period. According to concussion literature, that recovery period is longer than the majority of cases who typically experience symptom resolution within the first ten days following injury. The

mode of injury and severity of other accompanying injuries sustained by these two participants potentially explains the longer than predicted period for recovery. Both individuals were involved in car accidents that resulted in back and neck injuries. The next section will provide examples of the commonalities observed in participants' lived experiences.

Shared Experiences

According to Banister (2011) lived experiences are highly individual and personal. However, there are a number of commonalities that exist between these individual subjectivities. The common features of the participants' life worlds include four elements previously discussed in the methods chapter. These are embodiment, spatiality, intersubjectivity, and temporality. The following will provide examples to demonstrate each of these factors.

Banister (2011) states that embodiment takes place when meaning is created out of our felt senses and our bodies. This feature was, for example, observed in interview three when the participant described how her symptoms were a part of her, as this was how she felt them. She expressed feeling frustrated when the doctors did not take the time to talk about her symptoms and discuss her injuries in detail. She also stated that later she did not require confirmation from them, since she felt and thus knew how the accident affected her, in that she felt the consequences in her body. In this example, the participant learned about the symptoms and consequences of her injuries by the impact on her body. In that instance, she was transformed into her symptoms, becoming an embodied subject, rather than seeing herself as an individual living a particular experience. These experiences of embodiment are found in all interviews, where participants expressed how their sense of self was altered as a result of the symptoms they felt in their bodies. This indicates that the body is integral to the

sense of self, since it moves from the periphery into the foreground of experience when injured.

Van Manen (1997, as cited by Banister 2011) states that the nature of lived space that gives a particular experience a quality of meaning. Spatiality was an important feature common to least four of the six interviews. The refugee experience lends a particular significance to the individuals' experience of their location as opposed to their home countries. For example, in interview six, the participant shared how his concussive injury was catastrophised by his family because it was sustained in Australia as opposed to his war-torn village in Lebanon. He stated that because his family believed Australia to be a peaceful country, his injuries threatened their assumption of safety. On the other hand, he stated that his injuries would have had less of an impact on his family had he been injured in Lebanon, because his village was exposed to wars and expectation of harm was part of the risks of daily life. Therefore, the geographical (spatial) location the participants found themselves in carried with it a set of expectations and assumptions that shaped their experiences of concussion.

Banister (2011), notes that intersubjectivity is observed when creation of meaning takes place within a web of connections with others. Intersubjectivity of experience was thus present in one form or another in all interviews. For example, in interview four, the participant shared how her understanding of concussive injury changed after visiting a doctor in Australia and discussing her medical history. The doctor asked questions concerning concussions and asked her to discuss the symptoms she endured. She used the attention that the doctor gave to her previous experience of concussion as a cue to re-evaluate her own assessment of her brain injury. She stated that afterwards she learned to take her injuries seriously and not ignore symptoms. Through her interaction with her doctors, she made sense of her injury and reshaped her understanding of brain injuries and their consequences.

Temporality as reported by Banister (2011) refers to the individual's awareness of the finiteness of time; this feature was present across several interviews. For example, in the third interview, the participant stated that she must learn to cope with her injuries because the car accident happened (locating her experience in the past); that she is suffering from a number of symptoms (locating herself in the present); and that life goes on (referring to the future). There is a sense that time will not stop because she is in pain or unable to move forward with her life. Instead of succumbing to her present condition, she chooses to cope with it and not miss out on the process of living which is always moving forward.

Validity and Ethical Considerations

It is important for any study to demonstrate that it is valid and ethical. Proof supporting these two overarching criteria ensures that all individuals involved in the study are treated with respect and that any potential harm is minimised. Ensuring the validity of a study is a critical component of ensuring a study's ethicality. A study that is invalid is unethical. The current study was approved by the MUHEC after a thorough analysis of study rationale and all the steps involved in data collection and analysis. Further, by meeting validity requirements, study findings can be deemed valuable in the sense that they are credible, transferable, dependable and that results are reflective of participants' points of view rather than the researcher's. The following will outline how each of these four validity related requirements was met.

According to Guba (1985, as cited in Suzuki, 1999), credibility ensures that a study examines what it intends to examine. Credibility was ensured by creating an interview questionnaire that asked participants to reflect on experiences directly related to the topic of research. Every step in the research process from preparing a research proposal to the results analysis was reviewed by the project's supervisor. Further, an appropriate theoretical

framework was chosen that allowed the researcher to collect information pertinent to the research question. Fortnightly meetings were held to discuss study progress, data analysis and any issues encountered. These steps helped ensure that the resultant findings were ethical and credible. The data collected reflected participants' perspectives on concussions and detailed their experiences of injury and recovery, using their own cultural and refugee specific backgrounds to highlight their unique points of view.

Guba (1985, as cited in Suzuki, 1999) identifies transferability as the second criterion required to ensure the current study met the validity concerns mentioned earlier.

Transferability is ensured when a study provides sufficiently detailed contextual information so findings can be transferred to another context if it is judged that the situation is similar.

Participant particulars, such as age, gender, details surrounding their injury, symptom specifics and resolution times were provided. Also, information about the countries participants originally came from, as well as the time they arrived to Australia, were provided to create a sufficiently detailed picture on whose, findings can be deemed transferable. All contextual information was presented in Table 2.

According to Guba (1985, as cited in Suzuki, 1999) ensuring a study's dependability is a challenging endeavour especially in qualitative studies. The methodological approach this study adopted was IPA, which sought to examine the unique perspectives of each participant. Further, how their own cultural backgrounds and life experience as refugees coloured their perspective on their concussive injury and subsequent journey to recovery. Therefore, it is difficult to ascertain in an absolute sense whether a research project that recruits participants from similar backgrounds and experiences will express the same views and perspectives in other studies. However, sufficient contextual details as well as information about the way the study was conducted were provided to ensure that, if a similar study took place, researchers could be guided using the same steps of the current study. For

example, a copy of the interview questionnaire is included in Appendix C, details about methodology utilised to analyse findings were provided, and commonalities in experiences were discussed in depth.

Confirmability is the final criterion discussed in Guba (1985, as cited in Suzuki, 1999), and that requires the study to meet all validity related concerns. As noted, confirmability is concerned with ensuring that a study's findings are reflective of the participants' points of view rather than the researchers. This was ensured by providing interview excerpts before analytical commentary is added. Providing extracts using participants' own words allows the reader to match the comments with the subsequent analysis. This is important because it demonstrated that the findings were grounded in the participants' own accounts using their own words, rather than the researcher's own opinion. Additionally, to ensure transparency, all interview transcripts were added in Appendix G so the reader can refer to them and confirm authenticity as required. Further, each interview transcript was sent back to the participant to check, edit and approve a draft that was then used for analysis. The following section presents the researcher's own reflexive comments on the experience of the project, taking into account her position as a researcher.

The researcher shares the same cultural background as the interviewed participants. As a result, it was important to maintain an open and reflective attitude in each stage of the research process to ensure that the researcher's own opinions and assumptions did not influence participants' accounts of their experiences. This was mainly achieved by having an awareness of researcher's own assumptions related to concussions and what study findings are expected to demonstrate. Further, consulting with the project supervisor who comes from a different cultural background than the researcher was helpful, since he was able to point out ideas that were not readily visible to the researcher as unique or of note because the researcher belonged to the same culture as the participants. One of the most significant

experiences the researcher had of the project in general was related to the translation of the term concussion from English to Arabic, and the set of assumptions the Arabic term carried with it.

Researcher Reflections

The Arabic term for concussion literally translates to a ‘shaking of the brain’; concussion is not expressed as a single medical term as it is in English. Instead the Arabic term seems to give the impression of understanding what a concussion is. For example, when asked what a concussion was, one participant states:

‘I knew what concussions were, I mean how can you not? It is shaking of the brain, the term is pretty self-explanatory, don’t you think? But I didn’t REALLY know what that meant, what the symptoms were, how long they lasted, consequences thing like that, I just thought it was something that happened to rugby players, soldiers and in car accidents.’ (Interview 6, Lines 126-130)

This extract illustrates how some people from Arabic speaking Middle Eastern backgrounds understand concussions. It demonstrates that the understanding of concussions was based on a direct reading of the Arabic term, consequently resulting in a lack of appreciation of the symptoms following a concussive injury or the time frames for symptom resolution. As discussed earlier, there was also a tendency by participants to catastrophise concussive injuries by fear of permanently losing their memories or altering their identities in such a way they would be labelled ‘crazy’. Further, the translational issue related to concussion may have played a role in the manner by which doctors communicated with participants about their injuries. For example, in the two interviews where participants were injured in the Middle East, both expressed anxiety of not being briefed in detail about their conditions. A number of explanations can account for the lack of information communicated,

however, one potential reason behind the lack of communication can be due to the Arabic doctors' own assumptions about the term 'concussion'. As the term seemed 'self-explanatory' there was no need to go into detail about the injury, choosing to focus instead on steps needed to ensure recovery. Therefore, having an awareness of cultural-specific expressions allows for a more accurate assessment for the presence of psychopathology and symptoms associated with TBI.

Another noteworthy experience the researcher was exposed to was assumptions related to brain injuries within the Arabic Middle Eastern community and their impact on participant recruitment. In the initial stages of recruiting participants there were three misconceptions encountered in the recruitment stage. First, when starting recruitment, the majority of people who stepped forward to take part in the research project either sustained more severe forms of TBI or had experienced strokes. There was an implicit understanding amongst people in the community that brain injuries equated more severe conditions. Brain injuries in this sense were synonymous with more disabling conditions. Second, when receiving a detailed explanation about concussion, another misconception became apparent. The potential participants, who then stepped forward, were individuals who experienced brain injuries accompanied by open bleeding wounds. For example, initially, the participant in the fourth interview did not consider herself as having met the criteria to take part in the research project. This despite her having experienced a concussive injury and that, on her arrival to Australia, the doctor advised that she might have sustained a form of brain injury based on symptoms presented. However, the participant believed that, since she did not sustain open head wounds, she did not have a concussion. So in a sense, brain injuries irrespective of their severity, were injuries accompanied by external indicators of injury such as bleeding wounds. The final misconception observed was related to the concussive mode of injury. This misconception was apparent when those seeking to help the researcher find

potential participants made comments regarding who they knew had car accidents or were injured when fleeing their countries. The modes of injury offered for consideration necessitated a violent event of some sort that led to bleeding, such as serious car accidents. These misconceptions prevented people from identifying those who had experienced a concussion. It was only through uncovering each of these misconceptions and making an effort to clarify what concussion criteria were, that participant recruitment was successful.

The process of interviewing participants required ongoing reflection, and interpretive activity from the researcher. During the first interview the researcher adhered strictly to the interview schedule, attempting to order participant responses to reflect the sequence of topics found in the questionnaire. This was due to inexperience on the part of the researcher, where upon reflection there were cues from the first participant's story the researcher could have explored further. However, through reflection and discussion with project supervisor, the following interviews were more fluid, and the interviewer continuously attempted to verify interpretation of participants' answers, ensuring the interview contained as much relevant detail as possible. It was observed that in male participants, rapport building occurred during the interview process, where the participants felt more relaxed towards the end of the interview as opposed to when starting. On the other hand, with female participants rapport building began very early, even before scheduling a time for the interview to take place. This could be a reflection of the fact the interviewer shared the same gender, so these participants were more comfortable in sharing details during the interview compared to their male counterparts. In Middle Eastern cultures where gender roles are clearly defined and in some cases rigid, having interviewers of the opposite sex may present an obstacle to obtaining a richer more detailed account.

A potential limitation for this research was it did not take into account the temporal dimension of participants' experience as refugees. Research eligibility criteria did not

specify how recent the refugee experiences had to be. As a result, some participants, while fulfilling the criteria of coming from a refugee background, had been residents in Australia for over 9 years. Their experiences of being a refugee would not have been at the forefront of their life experiences, as opposed to someone who had recently sought refuge in Australia. Consequently, the interaction between participants' refugee experiences and its impact on their concussive experience may differ significantly. Further subsequent research could seek to define a temporal dimension to address these differences, by specifying a time period within which potential participants were refugees, for example, by only recruiting individuals who have arrived in Australia, within the previous five years. Participants' experiences elicited useful ways of interacting with this particular population, as outlined in the following study recommendations for concussion management.

Study Recommendations

Practical guidelines from the study emerged for health care professionals relating to concussion management and for working with people from Middle Eastern and refugee backgrounds. Five main recommendations became apparent after analysis of the interview data was completed. These guidelines can prove useful for anyone working with people from similar backgrounds. They mainly revolve around the stigma associated with mental illness and ways health professionals can improve communication to help alleviate patient concerns and anxieties.

The first recommendation is related to the stigma attached to any issues pertaining to the brain, where people were concerned of being perceived as 'crazy.' According to Gearing et al (2014, as cited in Dardas & Simmons, 2015), there is stigma attached to mental illness in the Arab world. Stigma related to mental illness is one of main reasons that negatively impact Arab patients accessing psychiatric services. It was evident in the interview data

collected that brain injuries are feared and catastrophised because they threaten the person's sense of self and their ability to function in the world. Consequently, it may be useful when discussing concussive injuries with patients, to explicitly locate the concussion as a physical injury, differentiating it from mental illness.

The second recommendation relates to understanding the cultural complexity inherent in Middle East countries. Arab countries in the Middle East are comprised of 22 countries that have diverse and interconnected histories, ethnicities and religious beliefs. Consequently, it is important to be aware of this diversity when treating people from Arabic countries. For example, while the majority of people in Egypt have an Islamic background, there exists a different set of beliefs and practices when compared to people from Iraq, which is another mainly Islamic Arabic country. Another example refers to women's rights in society, where the attitude toward women in Lebanon for instance, is vastly different compared to Saudi Arabia. However, both countries are considered part of the Arab world. Therefore, it is important to be cognisant of these differences, take cues from presenting individuals themselves and be guided by this in the consultation. Rather than assuming similarities between individuals based on stereotypes of cultural background.

The third recommendation for health care professionals is linked to the need to follow a collaborative consultative style when dealing with people from Middle Eastern backgrounds. According to the interview data, some participants expressed a sense of frustration when their treating doctors did not take the time to discuss their concerns. Most participants felt anxious, and were prone to catastrophise the consequences of their injuries. As a result, an empathic and collaborative approach to communication would be beneficial. This will engender trust and alleviate anxiety related to a patient's trauma experience.

The fourth recommendation pertains to recognising the central role faith plays in a person's coping strategy for people from the Arab world. Taking into account the individual's faith when coping with painful events in life, can be a powerful motivational tool to help the person deal with any obstacles or challenges. Faith is an integral part of life for people in the Middle East where, according to Dardas and Simmons (2015), 90% of people in the Arab world identify as Muslim. Exploring with the individual the impact their faith has on their particular experiences can have a positive effect in their overall coping strategy and outcome.

The final recommendation is related to participants' experiences of being refugees. Participants took the time during the interviews to assert their uniqueness, their individuality and their desire to have a voice that is heard and respected. Health care professionals must be aware of these needs; they also must be able to appreciate the difficult journeys people from refugee backgrounds have overcome. Shannon et al. (2015) notes that trauma associated with self-expression must be addressed first and refugees' rights to free speech assured before any collaboration with mental health professionals can take place. This is relevant since, clinicians might take for granted that their client is aware of their rights to free speech and not seek to reassure them. This understanding can be reflected by providing a safe space for individuals from these backgrounds to voice concerns in a secure and confidential manner, without fear of reprisal. For example, one participant stated the powerful and positive impact she experienced as a result of the conversation she had with a doctor on her arrival to Australia without the presence of her family. Another participant described some of the reasons behind his strong trust in his GP, stating that his doctor gave him room to express himself and respected his concerns even if, the patient was incorrect in his assumptions. In Dalgaard and Montgomery (2015), the use of modulated disclosure was recommended as a communication strategy when dealing with refugees from non-Western backgrounds.

Modulated disclosure emphasises the manner by which communication occurs over the content. This is relevant, since the participant stresses the positive impact the manner by which his GP communicated with him; through respect and empathy. Refugees flee from persecution and wars from countries where they do not feel safe, from a place where there is little to no room to freely and without fear express their opinions. It is especially important to afford such people the opportunity to voice their concerns safely and in a respectful manner.

Conclusion and Future Directions

In conclusion, the research project was able to produce valuable findings with important implications for health care professionals working with people from Middle Eastern and refugee backgrounds. Consequently, the project fulfilled one of the main ethical requirements in that it produced something of use. A potential direction for future research, would seek to explore experiences of individuals with similar backgrounds to the current study, who sustained concussions as a direct result of their refugee journeys. For example, during flight from their home countries or while in transit, potentially including blast induced concussions, and concussions as a result of torture and HRVs. Further, given the stigma associated with brain injuries (i.e., the perception of having a mental illness as a consequence of a concussion) was a source of distress for some participants, another fruitful future direction of research would be exploring how people from Middle Eastern and refugee backgrounds understand mental illness in general and their experience of psychopathology in particular. The proposed research would be helpful in uncovering assumptions underpinning stigma attached to mental illness and the potential obstacles preventing people from these backgrounds in recognising mental health issues they might confront and subsequently seeking professional help.

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Table 1. Summary of Main Themes

Main Themes	Subordinate Themes	Facets
Coping	Support Focus on the Positive Faith in Higher Power Relation to Others	Family, Friends, Work, Community Humour, Culture specific sayings and expressions Predestination vs. Free will God’s grace and protection Acceptance of God’s will Validation of experiences, Repository of self-knowledge
Consequences of Injury	Loss of Self Holding on to self Acceptance Growth from Experience	Sacrificing activities, Disconnection between body and mind, becoming a child Following doctors’ recommendations, No LOC, Collecting information about condition Fragility of humans, Can happen to anyone, Focus on recovery and the future Positive outcomes to painful experience, Learning from experience, Personal strength, Appreciation for life
Professional Relationships	Positive Aspects Negative Aspects	Respect, Trust, Ability to create a medium where patients feel heard, Demonstrating care and empathy Lack of information, Lack of attention to patient, Not allowing room for patient to voice their concerns, Treatment as a case not as a person
Conception of the Brain and Brain Injuries	Brain Catastrophising brain injury Altered Self Seen vs. Unseen Injuries	Where feelings are formed, Where self is created, Significant consequence impacting life Injury can threaten sense of self Injury can change personality, memory, Fear others will think injured is crazy Attitudes towards seen injuries (open wounds), Attitudes towards unseen injuries (concussions),
Refugee Related Experiences	Strangers in a Strange Land Consequences of injury Motivation for growth	Perceived lack of interest by host country, Fitting in, Adapting to new life, Expectation of harm Gratitude for opportunities Determination to survive and prosper, Lessons in life
Experiences of Concussion	Symptom Presentation Symptom Resolution Recovery	Post concussive symptoms Timeline for symptom resolution Concussion management strategies, Feelings attached to recovery

Table 2. Description of Concussion Experiences

Symptom Participant	Somatic Symptoms	Cognitive Symptoms	Emotional Symptoms	Physical Signs	Sleep Disturbances	Other Signs	Duration for symptom resolution	Mode of Injury/ Location concussive event
<p>One</p> <p>Palestinian 53 years of age Male</p> <p>Concussive injury One year ago</p>	Headaches	Dizziness	<p>Feelings of frustration and annoyance</p> <p>Feelings of Depression</p> <p>Ongoing trauma due to accident</p>	LOC	None	None	<p>Symptom resolution gradual</p> <p>Complete resolution In 45 days</p>	<p>Car Accident</p> <p>Melbourne, Australia</p>
<p>Two</p> <p>Syrian 55 years of age Male</p> <p>Concussive injury Nov 2014</p>	Headaches	<p>Fatigue</p> <p>Loss of Focus</p> <p>Feeling dazed</p> <p>Transient Anomia</p>	<p>Low mood</p> <p>Feelings of frustration</p>	LOC for approx. one hour	Present	Loss of appetite	<p>Symptom resolution gradual</p> <p>Complete resolution in 10 days</p>	<p>Work Related Accident Wood beam fell on head</p> <p>Brisbane, Australia</p>
<p>Three</p> <p>Syrian 61 years of age Female</p> <p>Concussive injury 2012</p>	<p>Headaches (Migraine)</p> <p>Nausea</p>	<p>Fatigue</p> <p>Slowed reaction time</p> <p>Impaired focus and attention</p> <p>Anterograde Amnesia</p>	<p>Low mood</p> <p>Ongoing trauma due to accident</p> <p>Feelings of annoyance and embarrassment</p> <p>Feelings of anxiety</p>	LOC between 15 to 30 minutes	None	None	<p>Headaches and dizziness persisted for two months</p> <p>Impairments in focus and attention resolved in less than two months</p>	<p>Car Accident</p> <p>United Arab Emirates</p>

<p>Four</p> <p>Egyptian 24 years of age Female</p> <p>Concussive injury 2013</p>	<p>Headaches</p> <p>Nausea</p>	<p>Dizziness</p> <p>Impaired focus and attention</p> <p>Fatigue</p>	<p>Feeling of embarrassment</p> <p>Low mood</p> <p>Lack of motivation to engage with people</p> <p>Feelings of frustration</p>	<p>LOC</p> <p>Blurred vision</p>	<p>None</p>	<p>None</p>	<p>Symptom resolution gradual within 2 weeks</p>	<p>Fell off bike</p> <p>Egypt</p>
<p>Five</p> <p>Syrian 36 years of age Male</p> <p>Concussive injury Five years ago</p>	<p>Headaches</p>	<p>Dizziness</p> <p>Impaired focus and attention</p> <p>Fatigue</p>	<p>Feeling of anxiety</p> <p>Feelings of frustration</p>	<p>LOC for approx. 5 min.</p> <p>Blurred vision</p> <p>Light sensitivity</p>	<p>None</p>	<p>None</p>	<p>Symptom resolution was gradual, resolving completely within a 2 week period</p>	<p>Sports related injury Soccer, impact with another player's head</p> <p>Melbourne, Australia</p>
<p>Six</p> <p>25 years of age Male</p> <p>Concussive injury Three years ago</p>	<p>Headaches</p>	<p>Impaired focus and attention</p> <p>Feeling shaky</p> <p>Fatigue</p>	<p>None</p>	<p>No LOC</p> <p>Light sensitivity</p>	<p>None</p>	<p>Loss of appetite</p>	<p>Symptom resolution was gradual</p> <p>Symptoms resolved completely within one week</p>	<p>Sports related injury Impact with a cricket bat</p> <p>Melbourne, Australia</p>

Appendix A - Massey University Human Ethics Committee (MUHEC) Approval

15 December 2015

Ruba Zaytoun

4/146 Wantirna Rd, Ringwood,

VIC 3134,

Australia

Dear Ruba

HUMAN ETHICS APPROVAL APPLICATION – MUHECN15/057**The recovery experience of refugees who have experienced a concussion**

Thank you for your application. It has been fully considered, and approved by the Massey University Human Ethics Committee: Northern.

Approval is for three years. If this project has not been completed within three years from the date of this letter, a re-approval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely



Dr Andrew Chrystall

Acting Chair

Human Ethics Committee: Northern

cc Dr Cliff van Ommen
School of Psychology
Albany Campus

Professor James Liu
Head of School of Psychology
Palmerston North Campus

Appendix B – Participant Invitation Letter

Dear.....

My name is Ruba Zaytoun. I am originally from Syria, but my family immigrated to New Zealand when I was 13 years old. I currently live in Melbourne. I am deeply interested in learning about the different issues people from the Middle East face when they leave their home countries. This is one of the main reasons which prompted me to study Psychology. I am currently undertaking a Masters research project at Massey University in Auckland, New Zealand. My supervisor is Dr Clifford van Ommen.

With the current political upheaval in the Middle East, it is unsurprising that the number of people fleeing that region is on the rise. My hope is that with your help, I can help bring to light some of the difficulties refugees from the Middle East face. In particular, their journeys of recovery from concussions, and what factors act as impediments or promoters of recovery.

I have asked..... to pass on this invitation to persons she/he feels might be interested participating in this study. Please allow me to briefly explain to you the goal of my research project, and how your participation can positively contribute to the body of knowledge in Psychology.

In my study I hope to examine the recovery experience of Middle Eastern Refugees who have suffered from a knock on, or shake to the head that has left them with a chronic headache, feeling ill, or dizzy for a time afterwards (a concussion). The purpose behind my research is to help develop a deeper understanding of how refugees from the Middle East experience concussions and how various interventions by medical and psychological professionals in their home countries, refugee camps and host countries have impacted psychologically on their process of recovery.

If you are interested in participating then I will ask you to partake in a 1hr tape recorded interview session, where you will be asked questions relating to your experience of head injury and the subsequent recovery process. Upon completion, the interview data will be transcribed, and another meeting will be arranged to provide you with the opportunity to review the data, change or delete any information you deem necessary, and give your final approval of what information I can share in my final report.

Please be advised that your participation is completely voluntary and that you are able to withdraw from the study at any time without consequence. Your information will be kept confidential, a pseudonym will be used in all transcripts, and interview recordings will only be heard by myself and if need be, the supervisor. All these steps will be taken to protect your anonymity.

I hope I was able to communicate to you how valuable your participation in this project would be. I am more than happy to respond to any queries or concerns you might have before you make a final decision.

Please feel free to contact me on my cell (0410270623) or email (zaytoun.massey@gmail.com) for a further discussion. I am available any time from Monday to Friday during working hours.

Once you have advised that you would like to participate, we can set up a time for the interview. During this meeting you will have a chance to review all confidentiality and privacy documentation pertinent to this project, and if you are happy to proceed, you can sign them and we can commence the interview.

Thank you for your time and consideration, I look forward to your feedback.

Kind Regards

Ruba Zaytoun

Appendix C – Interview Schedule

Introduction – Factual information

Can you tell me a little about where you come from?

Can you tell me a little about your family?

Can you tell me how many concussions you have had?

Can you tell me about the first (second etc.) concussion? When did you have the first concussion? What happened?

Can you tell me about the process you went through?

What did you notice first?

When was it over?

Understanding Experience

Can you tell me about your experience of your concussion?

How did the concussion interfere in your daily life?

What was your experience of recovery from the concussion?

Understanding participants' knowledge of concussion and recovery

What is your understanding of a concussion?

What is your understanding of recovery?

Asking participants to reflect on experience

What were your thoughts about these experiences? (Interferences in daily life)

What do you think are the consequences of your concussion?

What were your expectations for recovery from your head injury? (Physical and emotional) (What your body would feel and how you feel)

What do you think assisted/hindered your recovery?

Looking back to your experience of head injury and subsequent journey to recovery, what would be the most important factor(s) you can think of that helped in dealing with the consequences of your injury?

Social/Professional Supports

Did you have any support to assist you in recovering from your concussion? (Family and professional)

Have you talked about recovery with someone else?

What were your family's/partner's thoughts about your concussion?

How did talking about it make you feel?

How did talking to your family/friends/professional supports help/hinder your experience of recovery?

What do you think was the most important aspect in receiving support which you found helpful?

If you can go back in time and change the type of support you had, what would you change? Why?

Appendix D – Information Sheet about Research Project

Dear

My name is Ruba Zaytoun. I am originally from Syria, but my family immigrated to New Zealand when I was 13 years old. I currently live in Melbourne. I am deeply interested in learning about the different issues people in the Middle East face when they leave their home countries. This is one of the main reasons which prompted me to study Psychology. I am currently undertaking a Masters research project at Massey University in Auckland, New Zealand. My supervisor is Dr Clifford van Ommen. With the current political upheaval in the Middle East, it is unsurprising that the number of people fleeing that region is on the rise. My hope is that with your help, I can help bring to light some of the difficulties refugees from the Middle East face. In particular, their journeys of recovery from concussions, and what factors act as impediments or promoters of recovery.

I have asked.... to pass on this invitation to persons she feels might be interested participating in this study. Please allow me to briefly explain the goal of my research project to you, and provide you with all pertinent information so that you can make an informed decision regarding your possible participation.

The purpose of the study is to help develop a deeper understanding of how refugees from the Middle East experience concussions and how various interventions by medical and psychological professionals in their home countries, refugee camps and host countries have impacted on their experience of the recovery process.

If you are interested then I will ask you to participate in a 1hr tape recorded interview session, at a mutually agreed upon time and place. Please be assured that your participation is completely anonymous, a pseudonym will be used in all interview transcripts and subsequent reports. Only myself and, if need be, my supervisor will have access to the audio recordings and written interview transcripts. You will be asked questions relating to your experience of the concussion and the subsequent recovery process. Upon completion, the interview data will be transcribed, and you will be provided with a copy to review. Should you wish, then another meeting will be arranged to provide you with the opportunity to review data, change or delete any information you deem necessary, and give your final approval of what information I can share in my final report. Should you not wish to change any details then you will also be able to give your permission without a further meeting. You will have one week after receipt of the transcript to make any changes. Please note that once you have given your final approval on the interview transcript, data analysis will begin and you will not be able to withdraw or amend any further details.

I hope to recruit 6-8 participants from a Middle Eastern background, aged 18 years and over, who have suffered a concussion in the past five years, and who are willing to discuss their recovery experiences with me.

I need to indicate that some discomfort may take place due to your participation in this project, since some questions might remind you of events you no longer wish to dwell on. Please be advised that plenty of opportunity to take breaks, or withdraw from the interview will be provided.

Also, should you feel your participation has negatively impacted upon you then you can contact your counsellor through Eastern Christian Welfare. Alternatively, you can contact a crisis support organization which has translator services available, such as Lifeline (13 11 14), and Beyond Blue (1300 22 4636). If you need to seek medical consultation you can contact Health Direct, which offer free of charge on the phone GP support for after hours or for individuals who have difficulties accessing their local GP (1800 022 222)

Hard copies of the data will be stored securely in my home office, where no one but me will have access to that space. Further, an electronic copy will be password protected and I will ensure I have updated antivirus software to prevent unauthorized access.

Once the project is completed, a summary report will be provided to inform you of research findings. All data collected during the interview including the audio recordings, consent forms and transcripts will be stored for a period of 3 years. At the end of the project, all documents and recordings will be sent via email and post to my supervisor, who will then be responsible for storage and destruction of materials. I will delete all electronic copies of interview transcripts, consent forms and audio recordings from my computer, as soon as the project has ended.

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study before final approval of interview transcript has been received and the data analysis stage has begun;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.
- ask for the recorder to be turned off at any time during the interview.

I am more than happy to answer any further queries regarding this research, or your potential participation. You can reach me via cell (0410270623) or email (zaytoun.massey@gmail.com.) Alternatively, if you wish to contact my supervisor Dr Clifford Van Ommen, you may reach him via email (c.vanommen@massey.ac.nz).

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR 15/507. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Chair, Massey University Human Ethics Committee: Northern, telephone 00649 4140800 x 43317, email humanethicsnorth@massey.ac.nz.

Thank you for the time and effort you have taken to review this information, I look forward to your feedback.

Kind Regards

Ruba Zaytoun

Appendix F – Transcript Release Authority Form

I confirm that I have had the opportunity to read and amend the transcript of the interview conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

I understand I will be provided with a report summarizing the findings of the research at the conclusion of the project

I understand that my participation will be anonymous, where I will be assigned a pseudonym which will be used in all documents referring to all the experiences I share in the interview.

Signature:**Date:****Full Name - printed**

Appendix G – Interview Transcripts

1 Transcript G1

2 R. Thank you for your time and for agreeing to do the interview

3 P. It's ok, glad I can be of help

4 R. If you can please, start by telling me which country you came from and give me an
5 idea on your background, family and how you came to Australia.

6 P. I am a Syrian from a Palestinian background, I came to Australia as a refugee, I have
7 my two girls and wife living with me at home, I am living in Sydney, thanks to God

8 R. Can you tell me what happened to you in regards to your head injury, the details of
9 the accident?

10 P. I was in a Mercedes, the traffic light for my lane turned green, and perpendicular to
11 me from my side the car hit me, the air bags were deployed they all opened, they took
12 me to the hospital...

13 I was on the floor I couldn't move, the ambulance came and took me to the hospital

14 They took x-rays, I was in a lot of pain, nothing came up with the x-rays, so they sent
15 me home the next day, I had severe pain when I came home, at the hospital they

16 probably gave me pain medication so I didn't feel my injuries, but when I came home

17 I was in a lot of pain, the doctor gave me some medication in case of pain,

18 I couldn't get out of the bed, I had severe head ache, and neck pain, since my head hit
19 not the steering wheel, I think I imagine due to the severity of the accident, that my

20 head hit somewhere, you know when someone is in an accident the person doesn't

21 know where they hit their head, I just know I hit my head somewhere at the back of
22 my head,

23 Anyway, I returned home and on top of the severe neck and head pain, I also couldn't
24 stand up since I had tearing in my muscles, I stayed one and a half month in the
25 house, I couldn't move easily, I had to force myself to go to the bathroom

26 R. Which muscles did you experience pain in?

27 P. I had tearing in both my back and neck muscles, because the hit from the other car
28 was very strong, the car I was in was forced into many turns by the impact of the
29 other car,

30 R. Do you remember how long you suffered from your symptoms, the head ache, as a
31 result of the accident you were in?

32 P. Of course of course, the symptoms I suffered from almost on a daily basis, as I told
33 you, for all the symptoms to have dissipated and for me to have returned to a normal
34 life, it took about 45 days, about a month and a half, not more than two months,

35 I am ok now, I don't feel pain due to the accident, until now I have fear from the
36 accident, I feel a shock that is still inside me, because the accident was very scary,

37 R. Of course, you told me you couldn't move, the pain was severe, you had muscle
38 tearing, severe headaches, what impact did this have on your daily life, aside from
39 restricted movement

40 P. I couldn't go to work, I couldn't take care of my home, and do the chores, I take my
41 girls to school, I buy groceries, the family depends on me, my girls weren't adults,
42 they were in school, the oldest is in the first year of university, the young one still at

43 school, so I had a lot of responsibilities towards work and my family and home, it also
44 impacted my social life, the nature of my work requires me to do a lot of networking
45 and attend many social events, building relationships, as a result I couldn't connect
46 with people, unless by phone, and I am used to visiting clients and seeing them, and
47 all of this stopped

48 R. Can you please tell me when this accident happened?

49 P. The accident happened not too long ago, it was about a year ago,

50 R. Can you tell me in as much detail as you remember, the steps you went through that
51 were involved in your journey to recovery

52 P. The journey to recovery, hmmm. You know I was in the hospital first, they gave me
53 the necessary meds after all the x-rays, I left the hospital the next day, after that, I told
54 the doctors I had a lot of pains, so they referred me to a physiotherapist, and I
55 continued about ten sessions there, not continuously, but there were long breaks
56 between sessions, and now it is ok, and I got better, almost to the point I don't feel
57 pain, but at that time it was very annoying from a physical and psychological
58 perspective, it was very frustrating and annoying

59 R. in relation to the head injury, you only got headaches? Did you notice any other
60 symptoms?

61 P. I had sometimes, at the beginning, early on after the accident, I would feel dizzy, but
62 the duration wasn't for long, the pain was in my head and neck, and my head hit
63 somewhere, and now it is ok, I think I passed this period and got out ok, now I am ok

64 R. Ok, now these questions will ask you to remember the accident and the recovery you
65 went through, and reflect on them, what was your impression of that experience, what
66 were consequences of this accident?

67 P. I learned that human beings are weak, until now I can't imagine, I would have such
68 fear in my heart, I still carry the shock of the accident with me, I don't know what it
69 is, I have fear from the accident, I don't know it was terrifying, and it really affected
70 me, at that time, I was thinking of my family, of my girls, I was worried then, but
71 until I passed that difficult period and recovered and now I am ok

72 R. Ok, did you have any doubts that you were going to recover physically or the fears
73 you had would go away, from this accident, what were your expectations for recovery
74 from this experience?

75 P. We say, we say, I am a Muslim man, I have faith in God, even if someone had
76 whatever difficulties in life, no matter how severe, we say God help me, and God
77 doesn't magically lend his hand and wipe all the pain away, but He can help to
78 recover quickly, it helps the person on the inside, my faith in God, it is a spiritual
79 issue, and affects my psychology, and I think that helped, and I didn't have any
80 doubts that I will recover, I didn't have thoughts that I will stay sick and become
81 disabled, no no, I didn't think like that, because we as Arabs and as Palestinians
82 specifically, we saw a lot of disasters, the person then develops this attitude that no
83 matter what happens to him, he says 'ok, no matter, I am in a better situation than
84 someone else', this thinking may not be logical or realistic, unfortunately we were
85 forced by circumstance to think this way, so we can continue with this life and move
86 forward

87 R. Ok, what were the things that helped you recover or you felt were obstacles in your
88 journey to recovery?

89 P. The obstacles?

90 R. and the promoters to recovery, things that helped you recover

91 P. The obstacles were the pain, the disability, the things that were outside of my and the
92 doctors' control to change, the accident itself, it was depressing

93 The promoters, I had a goal to my life, I had a family I want to return to and live in,
94 that was my main promoter, and on a personal level I had an ambition to return better
95 than I was before the accident, I have a love for life, that is great, that is why I move
96 forward and continue no matter what

97 R. Ok, you said that of the obstacles that the accident happened and it was outside of
98 your control, you said you felt depressed, can you tell me a little what you mean by
99 depressed?

100 P. Depressed as in feeling like something bigger and stronger than you happens to you,
101 something that is outside of your control, here happens what we believe is 'Qada'a
102 and Qadar' something I have no control over, was forced upon me, which in turn
103 forced me to go to the hospital, or on lying on the ground until the ambulance arrived,
104 things I couldn't imagine as a healthy person it would happen to me, but when the
105 accident happened, I was very weak, I couldn't protect myself, because it happened in
106 a second, in an instant, and you know no one plans to have an accident, it happened
107 suddenly, and it is often painful, it affected me, that I started thinking I could not
108 complete my responsibilities at home and at work, it was a lot of psychological
109 pressure, not just physical health,

110 R. ok the questions I will ask you will revolve around the social and medical support you
111 received, did you get any support from family? Specialists? What support did you
112 receive until you recovered ?

113 P. The support I got from the beginning when I was carried out of the car and placed on
114 the ground at the scene of the accident,

115 R. Who carried you? The paramedics?

116 P. No before the ambulance, the ambulance came in about 3 to 5 minutes

117 R. So the people who witnessed the accident?

118 P. Yes the people on the street, they broke the car door, and pulled me out, the door
119 wouldn't open it was jammed because that is the side I was hit from, but they got a
120 crow bar and broke through, they were people from all over, it is then I felt relief and
121 comfort, that people I didn't know came en masse and started trying to force the door
122 so they can get me out, so they can rescue me, of course I would've done the same if
123 there was a person in need, but in this instance I felt calm, I told someone can I get a
124 phone I want to call my family, a stranger quickly provided me with his, he said 'here
125 you go, call whoever you want' people normally are suspicious and wouldn't lend you
126 their phones, but he didn't hesitate, he just gave it to me, we arrived at the ER, and the
127 doctors immediately attended me, anyway, the doctors I can't describe as good or bad,
128 because they are in a role where they treat patients as a case as a 'material' from a
129 medical way, they think wrongly, the patient should listen to them, not question them,
130 and only answer when spoken to, in a way I don't know how to say in a succinct way
131 without details

132 R. Ok so you don't feel like they are talking to you as a person?

133 P. It is not a comforting way, not comforting at all, when the doctor communicates with
134 me, that only he knows what is going on with me, ok but I am also a human being, I
135 am the one who these questions are related to, I am the one who is suffering, please
136 explain to me what happened, from a moral perspective, this affected me a little, but
137 in terms of medical equipment and facilities, it was very good, and after that, my
138 friends and family came to visit and console me, my friends would say 'don't worry,
139 tomorrow you will get better, you are going to recover' they surrounded me, It really
140 comforted me to have them around me,
141 Socially I received that support like that

142 R. Did you talk to anyone in your social sphere about your recovery?

143 P. Of course, I consulted my friend, he is a doctor, he saw the x-rays and test results, he
144 told me there is nothing to worry about, there is nothing more to be done than what
145 the hospital did for me, but I wanted more care, I wanted to confirm that I received
146 the correct medical attention, as you know I had constant pain,

147 R. So your friend supplied you with the medical explanation to your injuries that you
148 were looking for?

149 P. Yes, Yes, more than the doctors at the hospital,

150 R. So this explanation that you received and gained a clearer picture of your injuries and
151 their consequences, what did that make you feel, why was it important for you to
152 understand what happened to you?

153 P. It mattered to me because I want to know everything that relates to me in as much
154 detail as possible, I don't like to only hear what meds I should take, the docs they give
155 you the medication, they prescribe how to treat a condition, but they should describe

156 my case, because this is related to ME, I am not asking for details about a person I
157 don't know, this is about Me, it is important so I can assess whether I am receiving
158 the correct treatment and support, as a fully functional adult, it is my decision to
159 make, and I can't decide if I don't communicate with people and exchange
160 information,

161 R. What was your information about the nature of this injury, before the accident, did
162 you have any information? Or did you learn through your experience from the
163 doctors?

164 P. Of course I learned through the experience, there were internal things, psychological
165 things, that the person can't imagine until it happens to them, they can't articulate it,
166 the nature of the sensations not feelings, but sensations, whether physical or
167 psychological, no one experiences those sensations but the patient themselves, and
168 every case is different from the other, and the situations are different, and all patients
169 experience things differently, depending on their psychology and pain, and this is
170 what I think, no matter what I heard from people, my experience wasn't like any of
171 the stories I heard from other people, I heard a lot of stories, but my personal
172 experience was different, it happened to ME, and related to ME directly

173 R. and this knowledge that you received was it also applicable to your knowledge of
174 recovery from this type of injury? Did you know that this type of injury was treated in
175 this way before the accident?

176 P. In a way, because I fell in my past when playing sports and when skiing, as it happens
177 to all people, you fall on your back, hit your head, as a result you develop an
178 awareness from your family and your surroundings, I imagined that there should be
179 more testing, I had doubt because they didn't' do an MRI I was scared because I felt

180 that I needed an MRI I wanted more tests to confirm I am ok, but they said at the
181 hospital there is no need, because you are ok, but I had a lot of head pain, and asked
182 for more testing, I told them I was in pain, and they said ‘we know you are in pain,
183 but that medically speaking is expected’

184 R. Ok, what was the impression of your family and friends of this experience that you
185 went through?

186 P. They were in shock, but they then were happy that I am ok, when they saw pictures of
187 the accident and my car, they said ‘thank god, you survived’ no one who saw the
188 pictures of the accident expected that I would be alive, that I can walk after a while,
189 so people in my life were happy that I didn’t sustain more severe injuries, and wasn’t
190 disabled

191 R. and you said you stayed in the hospital for a brief time, you mentioned you were
192 released on the same day?

193 P. No the next day,

194 R. How did you feel when you talked to friends and family of your experience, did you
195 talk to them?

196 P. Of course, when someone talks of a matter, they would carry fear worries and
197 pressure, but when they speak they feel relief, they release these worries, but of
198 course I am saying when someone speaks to people closest to him, such as my wife,
199 my mother, my siblings, my friends, I told them of course, that all is ok

200 R. So you felt comfort and relief

201 P. Yes... I first called my friend at the scene of the accident when I regained
202 consciousness on the ground, because he would understand better what to do more so
203 than my wife, or my brother who lives far away from me and couldn't come quickly, I
204 called my friend who would deal with me not in an emotional way but do what had to
205 be done, in a more objective way, he came over quickly, this was in the first instance
206 after the accident,

207 R. Ok so this question might seem strange but what was the opinion of the others on your
208 journey to recovery and how did it affect you, did their opinion affect you? Was it
209 positive or negative?

210 P. No no no, it was a positive effect, all the people, well normal people when they see
211 someone hurt or in pain, they always wish him the best, even if it is only said to be
212 nice, so, and when a person wish it from their hearts, it is even more positive of an
213 effect, so it had a supportive role to my recovery

214 R. What was the most positive influence or impact that others left in you? You said
215 strangers gathered to pull you out of the car?

216 P. Yes they helped, there was a strong move to help rescue me from the car by these
217 strangers, they were motivated by their strong emotions and strong desire to help, this
218 person who is hurt and in pain, who is locked in a twisted car and can't escape it, this
219 person who was on the ground, they would always ask me 'are you ok, is there
220 anything we can do for you', until the ambulance came, they would say 'lift his head,
221 etc.... check he is breathing', I remember this, but I don't remember in detail it was
222 all woozy, but I remember hearing that, 'check his pulse, check his breathing' they
223 would say, and these are strangers, and they were only helping, this really affected me
224 deeply to this day, if I can meet this person who broke open my door and got me out,

225 this person who is not from my nationality, and I am very grateful and very grateful,
226 emotionally it impacted me deeply,

227 R. You said he wasn't of your nationality this person who helped, why is this important
228 to you? Why did it affect you that he is not of your nationality and he helped you?

229 P. Because we are humans, you feel there is no difference between people, here you feel
230 it in situations like this, maybe sometimes things stand in the way of this, and I think
231 it is a type of retardation in society, racism, which differentiates between Me and
232 Him, but when there are humane issues, that affect a person and their soul, their lives,
233 then all these obstacles, all the racism is swept away, like doctors for example, a
234 doctor can help save their enemy when they need it, and so this side of people, them
235 helping me like this was very beautiful to experience and I make sure to instil this in
236 my children, that there is no difference between people, they are all human beings and
237 deserving of the same respect, this is something I experienced and I also carried these
238 values before the accident too

239 R. Ok so if time went back do you want to change any type of support that you received,
240 how and why? What would you change?

241 P. No no I wouldn't change a thing, except the way the doctors treated me, in a more
242 open way, they were only doing their job, but in a more understanding and respectful
243 way, not only that they understand what is going on and that's it, but if time went
244 back and I can choose whether the accident happened or not then of course I wouldn't
245 wish for it to happen in the first place

246 R. No, of course of course, ok so this is the last question, I know you said your faith in
247 God helped you accept the consequences of the accident in your daily life, are there

248 any other things that you can think of which helped you accept the experience and the
249 consequences of injury

250 P. Of course the motivation that I belong to my family and they belong to me, is a great
251 motivation to get better, because for them I mean, my family the people who love me,
252 my closest and extended family then, the familial and social connections motivated
253 me to get better, to accept and focus on improving

254 R. Ok that's it, thanks again for your time and the information you shared

255 P. No worries, it's all good

1 Transcript G2

2 R. Thank you for agreeing to participate in this interview, and for your time, your
3 participation is an important contribution to my research, and I hope my questions
4 don't cause you any discomfort

5 P. No problem, and I hope that if my answers help other people, then my participation is
6 worthwhile, and it is my duty to do so

7 R. I want to start by gathering factual information about your situation, your background
8 and where you came from, and your family...

9 P. I am a Syrian refugee, I arrived to Australia about 3 years ago, I work as a
10 construction worker, my main family, I of course have two families, my current
11 family and my main family, my main family is my father and mother, and I have
12 seven brothers and a sister, my current family is made up of my wife, and three
13 children,

14 R. Are your children adults? How old are they?

15 P. They are at different ages, the three range from 15 years old, to 18 and 21 years old,
16 about three years difference between them, roughly not exactly

17 R. can you tell me about your experience of concussion, what happened?

18 P. Yes, we have a saying in our country 'may it be mentioned but never repeated' I was
19 at a building site, I wasn't wearing the protective helmet, which was my mistake no
20 one is responsible for that but me, a piece of wood, a wood beam fell on my head the
21 thick type, this wood we place at the edges of the walls on either side of the walls, that

22 we pour concrete in, and the accident happened, about one year ago, yes about a year
23 or so, I remember the month exactly it was November, in 2014

24 R. what happened with you when you got injured?

25 P. Of course at the time of the incident, I lost consciousness, my colleagues told me that
26 of course, I was lucky because the floor I fell in didn't have any solid objects, or tools,
27 or my injuries would have been more serious, I lost consciousness, I bled at the site of
28 injury, they give me first aid, they bandaged my head at the site of bleeding to stop it,
29 I don't remember the time before I was moved to the hospital, I was treated, and I
30 regained consciousness in about an hour or so, anyway this is what happened

31 R. and when you regained consciousness what do you remember happened? Do you have
32 any recollection of where you were? the doctors or anything?

33 P. It was a hospital, there were doctors and nurses, it was a busy environment, I was in a
34 daze to be honest with you, but what I do remember is after I was released from the
35 hospital and went home, I had a headache and I felt my body was heavy, I didn't feel
36 like moving, I didn't feel like eating, I didn't want to talk to anybody, my sleeping
37 habits got disturbed, I slept very little, not even felt like reading or watching tv, I felt
38 down most of the time, I only felt comfort when I listened to music I don't know if I
39 am being fanciful now but sad songs especially resonated with me, as I was in pain, I
40 also sometimes felt like I lost focus, so I'd be talking to someone for example, and
41 trying to remember someone's name and it just feels out of my reach for a second or
42 so, and in a few minutes I would remember it, it felt natural, but I couldn't when I
43 concentrated, anyway these were my main symptoms and thank god I got over it and I
44 am ok now

45 R. these symptoms happened after you were released from the hospital, how long did
46 you stay at the hospital?

47 P. I stayed at the hospital 24 hours, they put me under observation, to make sure that
48 there is nothing serious about my head injury, they said I didn't have internal
49 bleeding, but they wanted to be sure, this is my understanding, and after that day I
50 was checked over again, and then sent home, the doctor recommended I take time off
51 work for a week, and just relax and recuperate, he said to come back if I felt any other
52 symptoms,

53 R. do you remember how long the symptoms that you mentioned earlier lasted?

54 P. To be honest with you I didn't record what happened to me so I can't give you exact
55 times, but a while, nothing major happened for me to remember specifically how
56 long, it was a smooth recovery period, everything was fine, people helped me and
57 their encouragement for me to get better, thank god I got better quickly, but honestly
58 speaking I don't remember how long they lasted

59 R. Do you remember if they lasted for long, or your improvement was gradual or sudden?

60 P. Yes there was improvement, it was gradual, personally I love my work, so the unique
61 thing, is that once I returned to work, I was very happy and I almost forgot everything
62 that happened, all the pain the incident caused, and I started feeling happy, and
63 refreshed, motivated to start working again, it was a trial that I passed, and thank god
64 I am done with it and it passed, maybe that feeling of happiness of returning to work,
65 made me forget a lot of the troubles I experienced or the negative consequences I felt
66 due to the accident

67

68 R. and when did you return to your work? After the accident

69 P. After the accident they said I should stay home for a week, to recuperate, I was given
70 pain killers if my head hurt too badly, I stayed home for a week and thank god I didn't
71 need to go back to the hospital, nothing urgent happened, but after a week I went to
72 my GP and he said that everything seems to be ok and you can go back to work with
73 no problem, in that time I remember it was just before the weekend, so the following
74 Monday I started work, I was very happy I went back to work,

75 R. I know you said that roughly a week passed by before you went back to work, when
76 you came back to work, did you still suffer from some symptoms or did they resolve
77 completely?

78 P. I wasn't completely Hmm ... Maybe my feelings of being happy that I am back at
79 work helped me forget everything else, my motivation to go back to work as soon as
80 possible and to catch up on paperwork that piled up in my absence made me forget
81 my pains a little, my colleagues were very supportive and that also helped me forget
82 all about the accident and the consequences, the pain, everything, for me I am back at
83 work and that is the most important thing for me

84 R. When you went back home after work, you didn't feel any headaches or any other
85 symptoms?

86 P. No. No, maybe in the first two or three days, I was tired, just got tired easily, maybe
87 from work, but nothing serious that stands out in my memory, or obvious,

88

89 R. The questions I will ask you, about your journey to recovery, and what happened in
90 the hospital to assess the severity of the injuries, do you remember what happened
91 when you regained consciousness in the hospital?

92 P. I mentioned earlier that when I regained consciousness I was already in the hospital,
93 from what my colleagues told me that once I entered the hospital, they demanded x-
94 rays, blood tests, ultra sounds I guess..., I didn't understand for what, but I do
95 remember the doctor, being experienced and knowledgeable I am sure he treated a lot
96 like me, he told me that I have a concussion,
97 to be honest, that name I have previously heard about concussions, but when he told
98 me that I might have a concussion, after having just woken up and I was at the
99 hospital, I was scared, I asked the doctor to explain a little, he was helpful and calmed
100 me and said that this is a consequence of the nature of the accident, he said the
101 symptoms vary depending on the severity of the injury and the site of injury, he said
102 there are a lot of factors that influence the type of symptoms which may manifest, but
103 what made me feel better is that he said there is no internal bleeding, which from my
104 understanding can be life threatening, he said to take it easy and to stay in the hospital
105 under observation for 24 hours and that calmed me that I was under their expert
106 observation if something, god forbid were to happen,
107 they were there, but he did say that I could lose focus, I could experience some partial
108 memory loss, especially just before the accident, he didn't specify a time, he said
109 something that really affected me and I tell it to my friends and family, the doctor said
110 that I should focus on getting better on recovering, from a psychological perspective,
111 this really helped me to get better quickly it shifted my focus

112

113 P. He also said jokingly that you were not conscious so you didn't feel us giving you the
114 11 stitches that you needed at the site of the injury, to be honest now when I
115 remember what he said I still laugh, because even losing consciousness there is a
116 bright side to, I got stitches without feeling pain

117 P. So I stayed in the hospital for 24 hours, and I was released, with some pain killers,
118 which were helpful for my headaches, after I took them about 30 min or so the pain
119 dulled significantly, so it was good,

120 R. I just want to return to something you said earlier that when you said that the doc said
121 you had a concussion, you felt scared, can you tell me more why you felt scared when
122 you heard the word concussion, what were your thoughts when you heard that word?

123 P. First thing, when I heard it I forgot everything I knew about concussions or had heard
124 about them before, I was dazed and out of it, it was like I was hearing it for the first
125 time, I was scared that it is a permanent and serious injury which will alter my
126 memory and who I am

127 R. So you were scared that it was a head injury with permanent consequences?

128 P. The person in this situation within seconds they think of many scenarios that are
129 serious for example, when the doc said that I might experience memory loss, my mind
130 immediately catastrophized what the doc was saying so I didn't hear him when he
131 said partial and it may or may not happen or that it was temporary, my mind is so
132 dramatic!, I started thinking that I will lose my memory I won't know who I am, who
133 my family is, what my work is, all this happened within seconds as the doctor was
134 explaining things to me, but thank god it was fine

135

- 136 R. You mentioned that you felt the doctor who treated you was very supportive and
137 experienced, and took the time to explain things to you.
- 138 P. Yes, he said that you came to the hospital and got treated quickly, so I should focus
139 on getting better, and to me the most important thing is that I didn't have internal
140 bleeding, you know internal bleeding is serious, I could have been paralysed I didn't
141 want to be paralysed. Anyway god forbid anything like this happens to us or your
142 loved ones
- 143 P. I accepted that this happened to me, and that I had to endure any pains, but I feel a
144 person in similar shoes has to be confident that they will get better, and to hold it
145 together to be strong so they can face any negative consequences and overcome them
146 quickly
- 147 R. The questions I will ask you, will ask you to reflect back on your experience of injury
148 and recovery, what was your impression of that experience and the effects that
149 experience had on you?
- 150 P. The first impression, the first thing that comes to mind, is that this is a lesson to me to
151 be careful, to take safety seriously not only at work but also everywhere, I always
152 remember that the doctor explained things simply in an easy to understand manner,
153 which made me have trust him, so I followed his instructions, and I was optimistic
154 that I will recover quickly, it happened, but I was confident in myself that I will return
155 like I was before the accident and it motivated me to get better
- 156 P. The scar I had on my head that was treated I feel it there sometimes, my hair covers it
157 now, but I feel it there sometimes, that's the only physical effect I can say, but after
158 time has passed I don't recall anything obvious happened or worth mentioning, or

159 difficult situations, in the beginning I was frustrated and had pain in my head, I would
160 take the pain killers and the pain went away so I was ok,

161 R. Ok so the doctor told you to try and relax and that you should focus on getting better,
162 which gave you the confidence that you will get better, was this your expectation of
163 recovery?

164 P. In the beginning I didn't think about all these things, the way the doctor explained
165 things, gave me trust in him, which allowed me to believe everything he said, and
166 made me feel optimistic I will get better

167 R. What were the promoters or inhibitors to recovery which you faced?

168 P. To be honest the biggest obstacle was staying away from work and not being able to
169 go back to work quickly, but my manager and my colleagues their support and
170 encouragement helped me recover and accept the consequences to focus on getting
171 better quickly and get over this experience, this is what happened,

172 R. What things helped you accept the consequences of the accident in your life?

173 P. First thing, we have faith in god, and we believe in Qada'a and Qadar, which
174 lightened the load and the feeling of being in pain, the doc also played an important
175 role in helping me come to terms with what happened, I really am very grateful to
176 him, and pray for him, also my family support and friends was also important they
177 made me feel like this is a temporary thing that happened that it will pass and I will
178 recover quickly, and things will return to normal, that things weren't serious and I am
179 ok, all of this helped me accept the consequences of this accident

180

181 R. You said you have faith in Qada'a and Qadar, can you tell me a little about this?

182 P. In my country we believe that there is a thing called Qada'a and Qadar, that when
183 something happens good or bad, it is destined and we have to accept it, so from a
184 spiritual perspective if this is what god has deemed to happen to us, we have to accept
185 it and live with it and be patient, this helps you cope with any trouble or pain that you
186 are feeling, or anything negative in life

187 R. The questions I will ask you will revolve around the supports you received, can you
188 tell me about some of the supports you received?

189 P. In the home when I was recovering, my family supported me emotionally and
190 physically, they were concerned that I take my med on time, that I sleep well, I was
191 comfortable, eating well, my children helped me, they would cheer me up when they
192 saw I was feeling down, talking about general things, joking and being silly, they
193 didn't mention anything about the accident or my pains, they tried to lift me up from
194 my mood completely, also the doc was nice I trusted him, he said I will feel better
195 after a time, and I believed that absolutely

196 R. Did you talk to another doctor, or consult a specialist other than what your received
197 from your doctor at the hospital and your GP?

198 P. No, not really, like I said I trusted my doctors, so I didn't feel like I needed to consult
199 someone else so I had no doubts that I would recover quickly if I rested enough and
200 took things easy for a while

201 R. So you felt supported and they helped you recover quickly, so when you got back
202 home from the hospital you mentioned earlier that you felt down, that you couldn't
203 read, how did that make you feel not being able to read,?

204 P. I always read before going to sleep, even if for ten minutes, but at that time I couldn't
205 so I felt down and felt frustrated my family would just talk to me and get me to forget
206 that I couldn't read

207 R. What thoughts did your family and friends have of your experience and recovery?

208 P. To be honest, the family they got affected, I noticed they were trying hard not to make
209 me feel like they were affected by what happened, but even so I felt that they got
210 affected, they were scared, but they were supportive, and tried to say that this is a
211 simple injury and it won't have long lasting consequences, that this is a good
212 opportunity to relax from work, that I should think of it as a vacation, all these things
213 made me feel better, and helped me cope

214 R. You said you had a supportive environment, did you talk to someone about your
215 experience?

216 P. For me this is an important issue, the people at work I felt were very interested in
217 hearing details of my experience because it might happen to them, so they wanted to
218 know what it was like to have an injury like this, and of course I was more than happy
219 to share my experiences with them, so they can avoid such an accident or injury, as
220 for others like my family and friends, I wanted to share that experience, if the
221 opportunity presented itself, maybe because I felt that this bad experience happened to
222 me, if something good can come out of it, it would have been worth it, in educating
223 them, in helping them avoid such an injury, or to be careful of head injuries, I hope it
224 doesn't happen to anybody else, so that motivated me to share whenever people asked
225 me about what happened,

226

227 R. Did other people's thoughts have any effect on your recovery positive or negative?

228 P. First of all, nothing stopped my progress in recovery, but they helped my progress, the
229 family support and kind words and their encouragement, that soon you will forget this
230 ever happened and life will return to normal helped, and all of this returns to my faith
231 in god that I will be ok, and I will recover

232 R. What can you say is the most important positive effect that other people left in you
233 after this experience?

234 P. There is something that I laugh when I remember and reflect upon it, I remember the
235 old people who visited me, more than one would focus on how someone else they
236 know had a serious condition and they died, or someone they know had an injury and
237 had to stay at home for a long time, and it had long lasting consequences, it felt like
238 they were trying to convey that when you hear about problems other people have,
239 more serious than your own, it feels like your problem is not so serious, and I feel this
240 is logical, I felt like I was lucky compared to these other people, that thank god I don't
241 have cancer, I didn't break any bones, I don't have long lasting effects, this in
242 particular stands out in my memory, this is a tradition I felt with the older generation
243 that they do when someone is sick, I feel like this is their way of supporting me, it was
244 helpful for me,

245 R. So it helped you remembered that there are people worse off than you, which
246 comforted you?

247 P. Of course, what happened to me compared to them, I have my family, we are all ok, I
248 have my work, so these matters I thought of,

- 249 R. If you can go back in time would you change anything about the support you
250 received?
- 251 P. First thing, if I can go back in time, I of course I wouldn't want to have the accident in
252 the first place, but after that what I wish for, but I received a lot of support from the
253 hospital, my family, work, I don't feel like I need to change anything, I don't think
254 there is anything to add to the support I received
- 255 R. I just want to go back to your knowledge about concussion; before the accident did
256 you have an idea about this type of injury or consequences?
- 257 P. I heard this word but not really I didn't think about it, or what the consequences I
258 didn't ask myself or thought about it, I thought it happened to rugby players, or
259 mainly in sports, I once heard that it happened to a friend or so, that it made me think
260 of it, but I didn't have concrete information on what it meant
- 261 R. Where are you living now?
- 262 P. I am living in Brisbane, it's a nice city, I like it here,
- 263 R. Nice but maybe too hot?
- 264 P. Well you are living in Melbourne so you are missing out on summer weather all year
265 long....
- 266 R. That's true, that's it thank you so much for your time I hope I didn't burden you with
267 these questions.
- 268 P. No worries, I am sorry I was coughing a lot but I hope I was of help, it is my duty as a
269 human being to help others, so I hope I was able to do that.

1 Transcript G3

2 R. Thank you for agreeing to be interviewed, I really appreciate the time you are giving
3 to help me with my research

4 P. It's ok, I am glad I can help

5 R. Can you please give me some information about your background, where you came
6 from, how long you have been in Australia?

7 P. I have been in Australia for about ten years now, to be honest I came here from Syria,
8 in Syria in general there is no religious persecution, however in my case it was
9 personal, because for me I had a lot of questions regarding my religion, and
10 comparing it with other religions, especially between Christianity and Islam, the
11 differences between them.

12 P. I was always questioning whether I was on the right path ever since I was a young
13 girl, but life got in the way, I got married, had kids, and I tried to teach them how to
14 be more inquisitive and learn to question their beliefs, not just accept them as facts

15 P. I was a Muslim woman, but my affiliation with Islam was by name only, I didn't
16 choose to follow that religion, I was born into it, so I had to search for my own path,
17 and the search took me my whole life, and came at a steep price, it cost me my home,
18 and my family, my sense of belonging and feeling settled and safe, my husband left
19 me, and he was abusive and aggressive towards me due to my changing beliefs and
20 ideals, and we got divorced, he would threaten me through my family, and he would
21 complain to my brothers about my thoughts in seeking to change my religion, during
22 that time I decided to leave Islam to become a Christian, and I decided to seek refuge
23 in Australia because I was threatened with death, since in my culture if you are a

24 Muslim, you are not allowed to change religions, the penalty is death, while the
25 persecution is not from the government, it is more of a social persecution of the
26 people around me, from your family, your neighbours, there is no reason for it, it is
27 just not allowed for a person to leave Islam, and this is clearly stipulated in the Quran
28 that if you leave your religion you should be killed, so I had no choice but to apply for
29 refuge to Australia through a church in Syria

30 P. Thanks to God, it went alright and I came here.... Now about my head injury, you
31 see a few years ago I visited an Arabic country, I had friends in the UAE, oh about 4
32 or 4.5 year ago, during that time, I was driving a rented car on a major highway, and I
33 was in an accident, the car I was in was damaged completely, the hit was from the
34 back, the driver was speeding, the police report said he was on drugs, his speed was
35 240km/h, and my car was stationary at a red traffic light, my car, and five cars in front
36 of me got affected, but the hit was directly to my car first,

37 P. So this hit, no one saw the car and believed that I can leave it with minimal harm,
38 however God's mercy for me and my children, thank god I was ok, ok....

39 Participant is visibly upset

40 R. Do you want to take a break?

41 P. Hmm....

42 After a short break

43 R. Ok we shall continue, first of all how are you feeling? Are you ok?

44 P. I am good, thank god, I am still alive, I didn't have serious injuries, I had broken glass
45 in the back of my head, my scalp, my neck,

- 46 R. Were the injuries from the glass deep?
- 47 P. No they were superficial, the problem was when the hit happened, the air bag was
48 deployed and it helped me from hitting my head further, but I remember when I got
49 hit how my head hit the air bag, and from the force was pushed back and then forward
50 again, my neck also was affected, and I had disc problems, I also lost consciousness, I
51 am not sure how long, or how I was moved from the car, I am not sure how they got
52 me out, because all the doors were jammed as a result of the accident,
- 53 P. Anyway, they took me to the hospital, and after they started checking me, I started to
54 regain consciousness, it didn't feel like a long time, if I had to guess I would say
55 maybe 30 min or so, I am not sure,
- 56 R. So you were completely unconscious after the accident for about 30 min or so? And
57 then when you regained consciousness?
- 58 P. Yes, I found myself in the hospital, hmmm maybe not completely, completely out of
59 it, just very hazy and out of it, if I had to guess maybe I was out of it completely at the
60 beginning about 15 min or so? I am not sure, but I remember when I was in the
61 ambulance being moved to the hospital, one of my children who arrived at the scene,
62 was shouting 'mama mama' I remember hearing her calling my name,
- 63 R. Ok, so you don't remember anything before getting into the ambulance and then you
64 remember one of your children calling your name?
- 65 P. Yes, yes, then I guess I lost consciousness again and that's when I found myself in the
66 hospital,
- 67 R. Ok, ok, and how long were you in the hospital ?

68 P. Two days, and I was out on the third day, of course in the beginning there were
69 injuries in my face due to the glass, my face was swollen, it was a very scary time, I
70 was tired physically and emotionally,

71 P. As a result of the accident I developed a fear from getting into a car, for about 6
72 months I wouldn't drive my car, I just couldn't, I didn't have confidence that I can
73 drive my car safely

74 R. And your injuries, can you tell me a little about them?

75 P. The most.... Aside from the superficial injuries due to the glass, the thing that lasted
76 with me and became chronic was my headache, which came on suddenly, it would
77 start from one side,

78 P. And they told me that I had a concussion, they said a mild head injury due to the force
79 of the accident on my head, and that's what the doctors diagnosed it as, from more
80 than one doctor....

81 Participant phone rings

82 R. Let's take a break.....

83 After a short break

84 R. So you were saying about the doctors' diagnosis of your concussion and the reasons
85 behind it

86 P. I would ask them to tell me more about my concussion, I was scared, it is a head
87 injury after all, not a joke! They would say it is mild you will be ok, don't worry!
88 How can I not worry it's my head!

89 And this chronic headache and back pain would fluctuate in severity, sometimes I
90 would go to the hospital my children would take me to the ER, I would get a severe
91 back pain and I would feel nauseous, and at the hospital they would give medication
92 intravenously to calm my stomach and relieve the pain, I am not sure what meds

93 Anyway these pains lasted for a long time,

94 R. Ok, and in this case, your headaches started only after the accident?

95 P. Yes, I never had headaches like that before, maybe tension headaches, but nothing
96 chronic where the doctors would recommend I go to a dark room and try to relax to
97 help ease the pain, or not try to think too hard! how can you stop thinking!

98 P. Sometimes these recommendations would help, but not always, only pain killers
99 helped me with the headaches

100 R. Ok, so when you were in the hospital, what did the doctors tell you about your
101 injuries, did they explain them to you?

102 P. Yes they did of course they did, they said I had a concussion, and that my back was
103 also affected where the discs in my back were shaken by the force of the accident,
104 they said that I could have surgery for my back to fix the pain there, or I could learn to
105 live with the pain, to be honest with you I am a coward, I didn't want to have an
106 operation, so I chose to adapt to this pain that was forced upon me, that I didn't
107 choose, and I took pain killers, and god helped me

108 R. Did they give you any more details about the concussion, or the head injury you
109 sustained due to the accident?

110 P. They said that I lost consciousness due to the accident, when you get pain, they said to
111 take a deep breath and to sit in a quiet area, and to relax, after the accident I remember
112 having some problems with focusing, focusing while reading, my memory for a
113 couple days after, I would say was slow, I would be talking about something and I
114 would just feel like the information is coming to me slowly, I don't know why, and
115 this annoyed me and embarrassed me

116 R. Why do you say it embarrassed you?

117 P. Well, I mean, hmmm.... I guess when you are talking to someone and they seemed
118 out of it, they might think there is something wrong with your head, like you are not
119 quite bright you know...

120 R. So this time after you were released from the hospital, when you were recovering,
121 what were your symptoms, you said you had headaches, what else can you
122 remember?

123 P. I had dizziness, started for no apparent reason, like I said I couldn't focus very well, I
124 just felt tired, I mean my whole body felt like it belonged to someone else

125 R. And how long did these symptoms last?

126 P. It wasn't a long time, but it happened more than once

127 R. Do you remember roughly how long?

128 P. I would say about a couple of months of the headache, and dizziness, the loss of focus
129 I had hmmm I am not sure, but it didn't last as long, that one resolved quicker than the
130 others.

131 R. And when you went to the hospital, the doctors what did they tell you?

132 P. They said take pain killers, for the headache I think they did an MRI, I am not sure
133 you had to lie down and was placed in a little enclosed space,

134 They said that there were no problems showing on the scan

135 R. Did they explain the process to you, or the results with you aside from what you said
136 earlier?

137 P. In Arabic countries unlike here, they don't tell you what is wrong with you, or the
138 details of what is wrong with you, they don't say anything

139 Seriously they don't explain! They only give you medicine and pain killers, and all
140 you have to do is take the medicine,

141 R. So the doctor didn't tell you the details of the results of the tests they ran?

142 P. No they didn't,

143 R. But if there is something of concern they would tell you?

144 P. Yes only if it is serious they would sit down with you and explain, for example you
145 need an operation, ok why didn't you talk to me earlier, and suddenly dropping this
146 bomb on me, but I knew the results of the accident on my health, on my body, it was
147 clear to me, I didn't need a doctor to tell me, I felt them!

148 R. You said earlier that the accident happened about four, four years and a half, do you
149 remember roughly what year it was?

150 P. Hmm, let's see.... it would've been in 2012, I can't remember in October or
151 November, I don't remember, something like that

152 R. Can you tell me you are now living in Australia, are you living by yourself?

- 153 P. I am living with my family,
- 154 R. Your children are young?
- 155 P. No they are adults but they are living with me, they look after me when I need them
- 156 R. Did you get any other head injuries?
- 157 P. To be honest I didn't no, no
- 158 R. What was the impact that this accident left with you? In your daily life? you said you
159 didn't drive the car for six months.....
- 160 P. The main one is fear, I am not a person prone to feel fear over everything, my nature
161 is I don't like fear, but after this accident I started to have feelings of terror from
162 driving, until my friend who is close to me, would say you have to get over this fear,
163 and she would slowly get me to go on short drives with her in the car, and she
164 encouraged me to start driving again.....
- 165 Oh, and I have to say that during that time, I saw a psychologist, because I needed to
166 start driving again, and I was frustrated by my fear preventing me from doing so, it
167 took more than six months before I could drive again,
- 168 In terms of my daily life, nothing major changed, but until now when I get on a high
169 speed motorway I would feel scared, even though I am in control of these feelings,
170 but I feel fear inside of me,
- 171 R. Do you remember how you felt when you were released from the hospital, having to
172 recover from the consequences of these injuries?
- 173 P. I felt broken, I felt it was unfair, I was at a red light, it wasn't my fault! and my car
174 was the first car that got hit, I had children, I had chores, I had responsibilities, I was a

175 mother, I had a lot of responsibilities, aside from the physical symptoms, I was feeling
176 down, beaten down, I was very tired, I had feelings of fear, injustice, frustration, I
177 can't do my chores towards my family my responsibilities, grocery shopping... stuff
178 like that

179 I had these symptoms, this headache and no one gave me a good enough reason to
180 why I was suffering from them, to cure this pain, it seemed at the time much worse
181 than it actually was

182 R. The doctors what were their recommendations?

183 P. Nothing special like I said, take these meds, these antibiotics for these glass injuries,
184 to protect against infection, but nothing special, and that's it

185 R. The questions I will ask you will be regarding the knowledge you had about this type
186 of head injury before the accident, so if someone asked you for information about
187 concussions before the accident what information did you have about this? Its
188 consequences?

189 P. No I didn't I didn't hear anything about it, to be honest no I didn't have an idea, I
190 thought really if you have a head injury it would always be serious, you would
191 become crazy or can even die,

192 R. So anything related to injuries with the head, gave you the impression of a severe and
193 serious injury?

194 P. Yes absolutely, I didn't know that this thing can happen to anybody, someone just
195 stopping at the red traffic light and then this.... It happened, it happened...

196 R. Do you have any idea about recovery from concussion or head injuries?

197 P. No I didn't have before the accident

198 R. And most of your information came through your experience from the medical
199 professionals?

200 P. Yes from the hospital, from the doctors, and also from the GP when I came back,
201 everyone gives you a piece of information, advice on how to manage the pain..

202 R. Did the GP here in Australia give you more information about your injuries especially
203 your concussion?

204 P. Well he showed me this diagram of a person who hit their head and explained my
205 symptoms, He was very nice, but to be honest I felt like by the time I went to see him
206 it was too late, I wanted to have this information at the hospital in the UAE, while I
207 was still experiencing the majority of my symptoms.

208 R. Did you research yourself about the injuries you sustained?

209 P. Why would I research, the doctors gave me the information

210 R. You said earlier, you had feelings of depression and fear, and of course this is a
211 terrible experience that you went through, but now what is your impression of that
212 experience? Now that you have seen the psychologist and some time has passed since
213 the accident

214 P. My thoughts about this injury, or any injury or accident a person has, is that I am a
215 lucky person, despite the pain, when I left this accident I was alive, and I could see
216 my children again, that the person shouldn't let fear grow, that we have to be stronger
217 and not lose confidence in our abilities, and not allow these feelings to disable my

218 life, because life, life will go on no matter what, so you shouldn't lose confidence in
219 your abilities to deal with this, life is stronger than us, and it will go on

220 R. Did you doubt that you will recover physically or psychologically from this accident?

221 P. At that time to be honest in the first year I had doubts in regards to my back and neck,
222 I had constant fear that my condition will worsen, I was waiting for something more
223 serious to develop as a result of the accident but thank god, He had mercy like we say

224 R. So what were your thoughts regarding your recovery from the head injury?

225 P. Like I said in the first year I had doubts about all these injuries, the superficial
226 wounds I could see them repairing, but the unseen injuries like my head and back pain
227 I was worried that I won't recover, but it's really not a question of having doubts
228 about my recovery, I was thinking more along the lines of this is my life, this
229 happened, life goes on and I have to learn to cope with it,

230 R. And the recovery that you have seen from these symptoms did you expect these
231 results?

232 P. To be honest, I am proud of myself that I could say maybe more than 75% of the
233 person before the accident returned in the same strength, I went back to driving, I do
234 light exercise, I like aqua jogging, these things that remind me that I can live my life
235 normally, but always I have this caution, this fear that I would develop pain in my
236 back and neck pain again because they lasted longer than the headaches and other
237 symptoms

238 R. So I just want to try to separate between the symptoms you experienced as a result of
239 the back and neck pain and the head injury, if you remember you mentioned

240 headaches, dizziness, a loss of focus, do you remember how long these symptoms
241 lasted?

242 P. About a month and a half or two, they resolved almost completely while I was still in
243 the UAE, but I was worried for a while after it for like a year that I would get that
244 pain again

245 R. So what would you say are the main obstacles and promoters to your recovery?

246 P. To be honest, at the time, my then partner wasn't very understanding at home, when I
247 had the headache he wasn't sympathetic, as if I am a sick person and I am a burden,
248 this really got me depressed and gave me a psychological pain, the lack of
249 understanding and sympathy from my partner really hurt me, at the same time this
250 same point, it gave me the strength to be stronger than the situation I found myself in
251 and not to give up and go on for my children's sake, so I wouldn't need his help

252 R. So this was an obstacle and a promoter at the same time

253 P. Yes, yes, both, I had to be stronger than my pain

254 R. What were the things that helped you accept the consequences of the injury in your
255 life?

256 P. I had my children around me, and the second is my best friend, the community also in
257 Australia my neighbours and friends were very supportive, they encouraged me, the
258 GP also supported me he would say you are ok, you can do aqua jogging, you can live
259 life like before, but before all this, more importantly than anything else is my faith
260 that God is with me, He who was with me from the beginning when I learned about
261 Jesus from the beginning until the last day of my life I am grateful that He allowed me
262 to stay with my children and my community here

263 R. You said you got social support from the church, friends, and the community, and the
264 GP here in Australia, but in the UAE the docs weren't supportive?

265 P. They were understanding, they treated you like any other patient, I don't want to
266 make it sound worse than it actually was, but there is a difference of how a doctor
267 views you as a patient and a human being in the UAE compared to Australia, there
268 they focus on what you have to do, the medicine you have to take, they don't explain
269 what is wrong with you and how to cope with the consequences, you know, this
270 personal humane touch between the docs and the patient is missing, but I feel it is
271 here in Australia

272 R. Did you talk about this experience and your recovery with anybody else aside from
273 your best friend?

274 P. No not really

275 R. What were the impression of family and friends about this experience you had?

276 P. They were supportive, a lot of people said you were lucky you were alive, that I
277 should've been dead, they would always say I was lucky even if I was in pain, that I
278 should be stronger and to recover quickly and go back to my life

279 R. How did you feel when you talked to your friend about this experience?

280 P. Of course no doubt, this friend I talked to I am until now grateful for her support and
281 help, because as you know human beings are weak and they are always in need of a
282 helping hand to support them, we all need each other from one time to another

283 R. And what effect did you feel their support left with you?

- 284 P. Like I said I am very grateful to all my friends and community even if it was just
285 encouraging words, just words were of a great help and support they would remind
286 me that I overcame so much in my life and I coped with them, that I can deal with this
287 hiccup in my life with ease, that I was strong enough to do so
- 288 I am also grateful to God that he got me alive out of this
- 289 R. So you felt you weren't alone during this tough experience?
- 290 P. Yes, I didn't feel alone, I felt that God surrounded me with loving people who
291 supported me
- 292 R. If you can go back in time what would you change about the support you received?
- 293 P. God forbid, I wish the accident didn't happen in the UAE, it happened here, that there
294 was more cooperation between me and the medical professionals, even though they
295 took care of me there, but there is a type of arrogance in dealing with patients that I
296 am the doctor you are the patient and you have to listen to everything I say, there is a
297 gap between the doc and patient there is no cooperation for him to sit down with you
298 and explain what happened, no I would like to change this
- 299 But thank God, it happened and I am ok now
- 300 R. You mentioned this more than once, I feel like it impacted you strongly, the fact that
301 you didn't feel the doctors supplied you with sufficient information about your
302 injuries and symptoms
- 303 P. Yes, yes, yes, when a person is weak or injured their psychology is not that of a
304 normal person, it becomes more like a child, the person would feel scared, anxious, so
305 they need to have someone understand and empathise with what is happening with

306 them and the closest people to provide this kind of support are the doctors that are
307 treating this person, so this thing when the doctors would casually say you're ok,
308 nothing serious happened, I felt like they were brushing me off and what happened to
309 me, they treated me in a condescending manner, how can I be ok, when you are
310 giving me medication intravenously, I don't know what is happening to me, how is
311 that ok?!

312 I feel fear, I feel pain, but they don't explain to me why,

313 R. And this exacerbates your feelings of fear?

314 P. Yes of course this anxiety you have

315 R. I see, ok well these are the questions I had, thank you so much for your time,

316 P. No problem it is nothing, glad I can help, you reminded me how I successfully coped
317 with this, how strong I am, thank you.

1 Transcript G4

2 R. So thank you so much for agreeing to do this interview you with me, I know you are
3 quite busy, and I really appreciate you taking the time to have this chat with me

4 P. Oh, no worries, you don't get a lot of people interested in refugees so I am glad that
5 you are taking an interest

6 R. Ok, so I just want to start with a few questions, gathering some factual information,
7 can you tell me a little bit about where you came from and your family?

8 P. I am originally from Egypt I was born in Cairo, and I have a brother and 2 sisters
9 there, we had to flee for political reasons that I'd rather not get into,

10 R. Ok

11 P. Uh, but we originally fled to Lebanon where I had some family, we stayed with them
12 for a while, and just recently after a long long process we ended up in Australia

13 R. Ok, Ok, so you mentioned that you've had an experience of a concussion, can you tell
14 me a little bit about that?

15 P. Sure, we ... it was me and my sister, we were um back in Egypt I think it was 2013,
16 probably, um we were riding our bikes just on the streets, I think I was going a little
17 bit too fast and I didn't really see a huge boulder in the street, and I drove right into
18 that and got thrown off my bike

19 P. And ended up landing I think on my head and my back, and I think... again my
20 recollection of that event is vague, because I think I blacked out for a bit, and when I
21 came to, there was a bunch of people sort of surrounding me and um, tried to make

22 sure I was ok, um yeah and then the whole mass of people saying ‘are you ok, are you
23 ok?’

24 R. Ok, and so what happened afterwards do you remember?

25 P. Yes they actually umm props to the guy who found me, there was a guy who was very
26 socially active ‘well how are you feeling, we have to take you to the hospital,’ and I
27 think I was a little bit overwhelmed by all the attention, I think I had torn my clothing
28 so I was a little uncomfortable, but he insisted that I be taken to the hospital, and he
29 drove me and you know thank god the hospital was about ten minutes away, so it
30 wasn’t a long drive and um yeah he got me there, I got to see a doctor, pretty much
31 within the next ten minutes, umm at the same time my sibling was there with me and
32 the guy who drove me there asked for some sort of personal information so he could
33 call my dad, which he did and my family got there, shortly after, so it was a whole
34 event,

35 And then I think I got to see the doc, and he mostly as far as I remember and again I
36 was in pain and embarrassed, just too much attention for me, and I think the doc
37 mostly examined my head, he touched it, and he looked if there was any swelling or
38 bleeding, which there wasn’t and he sort of shifted his focus to the cuts and bruises
39 that I had, on my arms and legs and stuff

40 And then by the time my dad got there, the doc didn’t really, speak to me that much,
41 so he sort of got the initial information of how I was feeling, and then he turned to my
42 dad and had a conversation with him about how you know ‘she’s doing ok, there are
43 no bones broken, or she doesn’t have a crack in her skull’ so I didn’t really, I was sort
44 of left out of the conversation so I wasn’t sure what exactly

45 R. What's going on...?

46 P. Yea yea,

47 R. And it just sounds a little bit unusual that you were sitting right there, how did that
48 make you feel

49 P. Well, again you have to.... It didn't feel wrong at the moment, the reason on why I
50 am sort of focusing on it now is because right now I am living in a place where, the
51 way that situation would go would be different, I would be the focus of the attention
52 and I would have a say, and you know and I would.... The first, they would ask me
53 first what was going on, and they would tell what's going on to my face, not to my
54 dad's, but at the time that's how things always happened in our family, dad was the
55 head of the family so he needed to know if there was something wrong with me so he
56 could make a decision on what to do and how to proceed.

57 R. And you were an adult when this happened?

58 P. Yes I was, I was an adult when this happened, but I don't really think that my parents
59 ever think of their... you know of their children as adults

60 R. Yup, ok, that's fair

61 R. So that was your experience of your concussion and what happened afterwards, can
62 you tell me a little bit about the symptoms that you were experiencing, you mentioned
63 that you blacked out and then you don't know how long it lasted but you woke up and
64 you were surrounded by people, what other symptoms did you feel as a result of the
65 injury

66 P. Well in terms of immediate symptoms I'd say, again it was just a throbbing in my
67 head, I'd say I was feeling definitely dizzy, definitely out of it, umm I would say I
68 remember feeling nauseous but I don't think that I don't want to give you the wrong
69 impression because I think it was a little bit later on, it just in my head it's been a long
70 time, the symptoms are blurring, in terms of the timeline of when they happened, but I
71 think I was feeling nauseous for a few days after that, and just not really wanting to
72 get out of bed that much, due to I don't know if it was the pain of the bruises or the
73 overall feeling of my body you know....

74 R. Of having been injured...

75 P. Yeah, so but yea again just a general feeling of pain everywhere and my head too, and
76 I remember when I was trying to turn my head and just sort of stare at something in
77 the distance it would be like my vision would get blurred and all the colours would
78 blend into one, it was a reaction that happened in the second of just turning my head
79 to the left, or to the right and looking at something, but I remember it being a very
80 surreal feeling

81 R. And do you recall how these symptoms lasted before you felt 100 percent again?

82 P. God, I'd say and again that is something, you are probably the only person that's
83 asked me that because after the initial assessment, sort of the doctor asked me how I
84 was doing and if 'you feel the symptoms worsening you'd have to go to the hospital',
85 that's what he said to my dad, and then my parents were asking me in a day or two
86 after how I was feeling and I was giving them an honest reaction on you know just a
87 little bit dizzy not feeling that well, but now that I am thinking about it, I would say
88 that I really didn't feel 100 percent for God! a few weeks after the event, the
89 symptoms were milder for sure, but it was still, there was still throbbing, there were

90 occasional headaches, and just the feeling of being out of it, I can't really find a good
91 term to describe it, just feeling out of my body, a little bit

92 R. That's interesting, ok... and you mentioned that it lasted for a few weeks, I'd imagine
93 that it had quite an impact on your daily life, how would you say that impacted your
94 daily life or what you did?

95 P. Oh well, and that's sort of going back to my parents not bringing it up you know not
96 focusing on after those initial two to three days, life went back to normal, and I had to
97 power through I just had to endure, you know I had to do my chores I had to go to the
98 market, we had to do you know everything that we were supposed to do, you know
99 regardless of whether I was feeling in pain or not feeling well, so the symptoms were
100 there but I had to sort of ... things needed to happen and I had to help out with things
101 at home, so it didn't really affect my daily routine, because I had to get things done,
102 but I definitely felt less than a 100 percent

103 R. So would you say that you lacked support from your family or the people around to
104 help in recovering from your concussion?

105 P. You know I think well yea you can sort of label that as not having support but I think
106 what they were trying to do is not bring attention to it, in the sense the more you
107 pester somebody, 'well how are you feeling how are you feeling', the more that
108 person feels badly about how they are feeling

109 R. Oh, ok,

110 P. So I think what they wanted to do is sort of get me in a routine where I forget about
111 the accident as soon as possible, so I wouldn't say that there were not there to support
112 me, it's just that the way they supported me was, you know ...

113 R. Not what you needed...

114 P. Yeah, it's not how people support each other in Australia for example, and again I
115 can't generalise about my country of birth, that's how thing happened in our family,

116 R. Ok that's fair, and can you tell me what your understanding of concussion is, did you
117 have an idea that a concussion is a type of head injury and that it had so and so
118 symptoms, which lasted so and so, before your experience?

119 P. To be honest with you no, before I sort of met you and started talking about it, I
120 personally it was something that I just brushed under the rug, I didn't know that
121 concussion can have serious consequence at all, in terms of symptoms not really it
122 was just a feeling that not complete as a person, it's just it's just...I keep going back to
123 the idea of feeling not 100 percent, that's the symptom that stuck with me and I know
124 you can you know dissect into many symptoms that can contribute to that overall
125 feeling but I can't honestly place them separately, I remember feeling Blargh, not like
126 myself that's the best I can describe it.

127 R. Ok, and so you mentioned you didn't really have an understanding of concussion
128 before speaking to me, did the doctor at the hospital you were taken to, explain what
129 happened or your father after he had a discussion with the doctor have a discussion
130 with you about the injury?

131 P. No, you know when I sort of had a feeling there was more to it, just a hit to the head,
132 when I got to Australia we went to see a doc he paid much more attention to that
133 injury that the doctor back home did and all the questions that they asked me here,
134 about what were the symptoms did you feel nauseous did you experience blurred
135 vision, how is your sleeping, how is your headaches, and there were so many

136 questions that nobody has asked me before, it sort of helped me understand the
137 gravity of the situation, the issue was again, they couldn't really, the way I understood
138 it, is they couldn't really do much about it because it happened a while ago, and again
139 because my recollection of it is somewhat blurry so there is not a ... I don't know if
140 there is a way they can trace the pattern here I don't know... it was just It gave me
141 pause, when the doctors here paid so much attention to that, and that was something
142 that again neither my doc back home did nor my father did we didn't think it can be
143 so serious or it can have such lasting consequences

144 R. So when you say lasting consequences what do you mean by that, what is your
145 understanding of these consequences?

146 P. I, you know it is very, it's your head, it's where you form your thoughts, where you
147 form your feelings, and to have a ... to have your head hit the pavement as hard as
148 mine did, it's just you know, I don't know what the consequences can be, but you
149 know it's one of the most important parts of your body, you know

150 R. It's ok take your time

151 P. Yea I am not sure how to explain it, but I don't know it might in my head it might
152 alter the way I think about things, I don't know, I'm sorry I never thought about what
153 those lasting consequences can be because in my head I always go to worst case
154 scenario where I can't think anymore where you know something like that it's my
155 head it's one of the most important parts of my body and I never think it's a good idea
156 when you hit something that hard

157 R. That's fair, and so this is your understanding of concussion and possible
158 consequences, what would you say your understanding of recovery from such an
159 injury is

160 P. I think what I have learned from this is that you have to pay attention to what you are
161 feeling, pay attention to the symptoms that you have, to the way things work or don't
162 work or to the way you are feeling emotionally even, and to never sort of and I don't
163 want to bad mouth my family in any way because I think that they that's how
164 sometimes the approach they have works, in certain situations but I think that it's
165 important for your family and yourself to take the time and not sort of beat those
166 symptoms into submission, but to pay attention to what you are feeling and to what
167 your body is doing, and speak up if you are feeling worse or if you are feeling out of
168 place, you know not a 100 percent, and again don't sort of put a timeline how quickly
169 you have to recover if you are not feeling like you are not recovering quickly enough,
170 don't try to force yourself into doing more chores or performing everyday tasks you
171 have to speak up , you have to ask your family to see a doctor again, you know just
172 sort of be aware of your body I'd say

173 R. That's really good, being aware of your body and what it's trying to tell you...
174 And so you mentioned what your understanding of concussion and recovery is, so the
175 next few questions I will ask you is to reflect back on these experiences, and if you
176 can tell me what your thoughts about these experiences were, for example what are
177 your thoughts about how it interfered with your daily life, I know that you mentioned
178 that you powered through and you continued with your daily chores, but you were in
179 pain and you weren't feeling 100 percent so in a way even though you carried out
180 your chores that is still some sort of interference

181 P. Oh absolutely, again I mentioned it before, I had to do my tasks but I did them slower
182 , it took me more time, to wash the dishes or clean up or take care of my brother, and I
183 definitely didn't feel especially in my interaction with my brother, he is younger and I
184 was just taking care of him, helping mom, I definitely wasn't present there, I didn't
185 laugh at his jokes the same enthusiasm I would if I didn't have a pain of my own, it
186 was just, everything I did felt almost 2 dimensional, it was grey, things were
187 happening but I wasn't feeling them, I wasn't present in the moment, so it absolutely
188 affected me, I can't remember anything that happened, I don't remember having any
189 positive memory from those two weeks, even the smallest things like seeing
190 something funny on T.V, laughing with my family, I don't remember anything good
191 except my feeling just not at my best

192 R. Ok and you mentioned you weren't feeling your best can you tell me about that, do
193 you remember how you felt back then, how did you feel about this experience being
194 injured and just struggling through your chores, how did that make you feel?

195 P. It made me, feel, umm, like I was alone in this, it made me feel like I was keeping this
196 secret or I was going through something by myself, umm like you, because nobody
197 asked me on how I was feeling so whatever it is that was going on, it was it was my
198 issues that I had to handle, so I just remember walking around keeping this secret
199 from everybody else not even a secret, but something that nobody wanted to know

200 Yea, yeah

201 So I would say a feeling of being alone with this you know, that's as far as I can
202 remember

203 R. Ok, ok, did you talk to anybody about how you were feeling or your symptoms,
204 friends that you shared these feelings with?

205 P. No it was, aside from just initially my friends asking me how I was doing, um I just
206 you know those two or three days after the crash happened, sort of it maybe came up
207 in conversation as a joke of how I fell, ha-ha that was funny, but in terms taking the
208 time and asking 'hey are you still feeling bad', nobody nobody asked me that

209 R. And why do you think that is, did they perhaps not take it seriously enough?

210 P. Yea, yes absolutely I think that same thing happened with my family I don't think
211 anybody took it seriously enough, me included, again it's only now that I sort of am
212 removed from the situation I can look at it and I can remember feeling umm not great,
213 during and after the event, but you know it was just a funny thing that happened, that I
214 fell and everybody laughed that the scrapes healed and it was done

215 R. Ok, can I ask you why do you think people around you and your family and yourself
216 included didn't take it seriously is it a lack of knowledge or is it just a way to cope
217 with this?

218 P. I think it was both, because again, I myself didn't know how serious concussion can
219 be, I think none of us did, I think that also connected with the fact it was something to
220 sort of not talk about, not feel, the less you pay attention to it the quicker it will go
221 away, so I would say it is both

222 R. Ok and at the time you were recovering, did you have any expectations about how
223 well you are going to recover and how long it's going to take you to feel 100 percent
224 physically and emotionally?

225 P. Absolutely, you know again, same with my family, I wanted this thing to go away as
226 quickly as possible so I can get back to my normal life, so every day I would be like,
227 why am I still feeling bad, why is this not going away, so I really honestly thought
228 that it would take me more to recover from the bruises not being able to you know to
229 bend my knee because there was a scab on it, but I never expected for my head to feel
230 out of sorts for as long as it did

231 R. Ok, how about how you felt rather than the physical symptoms how long do you think
232 before you started feeling ok again, I know you mentioned feeling lonely in that you
233 were having all these experiences but you didn't feel comfortable sharing them, how
234 did you deal with those feelings?

235 P. It was very, it's hard to place a timeline on that, it was just I was very frustrated with
236 myself, not even with my family, I don't know I was frustrated with the whole
237 situation because things weren't going the way that I or my family wanted them to go,
238 and it wasn't sure I was lonely but I was also frustrated because I wanted things to go
239 a certain way and they weren't going a certain way ,and I don't know if there was a
240 timeline and then I stopped feeling that way, or something happened, in my head it's
241 sort of it's hard to remember when that stopped it's just a feeling of maybe disconnect
242 between my body and my mind, where we weren't cooperating to a shared goal that
243 we had I don't know, I am sorry I just can't it's hard to talk about feelings where you
244 are only now you are trying to umm understand them and label them properly, so I
245 think that I am not quite there yet

246 R. Can I ask you, when you having similar types of feelings what helps you cope, what
247 do you think helped you cope with those experiences when you had the injury?

248 P. I think and it's sort of it's going back to why I am doing this why I am talking to you
249 it's the way I am coping with things is talking through them now, even when they
250 don't expect that something is wrong I always go to my family and I always tell them
251 that 'no something is wrong, and I am feeling a certain way and you have to
252 acknowledge that at least this is the way I am feeling' , yea it gives it, it makes it
253 sound real to me when I speak about things

254 R. So you say not having your feelings or your symptoms acknowledged hindered your
255 recovery, is that right?

256 P. Yes absolutely

257 R. Did anything happened that you felt assisted your recovery?

258 P. Not really no, it was umm I wouldn't say I can't remember any milestones that sped
259 up my recovery or made me realise what I was going through, it was just not a good
260 time, I don't remember how it ended it just naturally resolved itself, but there wasn't
261 anything that I can remember that helped in any way to speed up the process

262 R. So there is nothing you can think of that helped you deal with the consequences of
263 your injury?

264 P. No.... umm.... No... the only thing that helped me deal with the consequences or not
265 even the consequences , acknowledging that I had an injury and it was a severe one
266 the fact that when we were, when we came to Australia and I got to see a doctor there,
267 he made a big deal out of it, not a big deal but he took the time to ask me questions,
268 and that in my head, made what I went through real, and made it significant and I
269 think that helped, it was just a random man, and took such an interest, you know and
270 it made me feel like I needed to pay attention to it too

271

272 R. Ok, so you mentioned the support you received from your family and that the doctor
273 really you just saw when you went to the hospital and never again until you saw a
274 medical professional here in Australia.

275 P. Yup,

276 R. Have you talked to anybody else on your experience and your recovery?

277 P. Not really I mentioned something after we went to see the doctor in Australia, I
278 mentioned something to my family and um I think I made a joke about how you
279 should've paid more attention to it, they did acknowledge it but I didn't have a full
280 blown serious conversation about it with them

281 R. You mentioned that your family didn't acknowledge the seriousness of your feelings
282 or the symptoms at the time of injury, do you remember what thoughts they had about
283 this experience?

284 P. Nothing again, the only thing I can remember them asking it was a couple of jokes
285 about how I fell, how I should be more careful it was questions about you know
286 scrapped knees whether they were hurting do you want me to put more ointment on it,
287 or something that's the extent of it

288 R. And so as a way of coping with what happened or coming to terms with what
289 happened, is your talking through things, is that right? So how does talking about it
290 make you feel?

291 P. Again it makes me feel like what I am going through is real, it is not just thoughts in
292 my head or feelings that I can't put into words, but as soon as I start naming feelings

293 or at least naming symptoms or naming pain and you know something that doesn't
294 feel right , it makes it real in my head and it sort of, it helps me think more about what
295 I am feeling you know what else is going on with those feelings that I can't put into
296 words suddenly become words, when I speak them I make them real

297 R. That's fair, and can you tell me what did talking with the doctor here in Australia
298 about this experience make you feel? I know you felt acknowledged in what you went
299 through happened, and that it felt good for someone to take an interest in this
300 experience you went through that affected you.

301 P. Yes absolutely that's that's what it was

302 R. Did you have any other feelings about that interaction with the medical professional?

303 P. No it was unusual because my, Ah.... That's something that is coming back to me,
304 maybe that's something that's important, my family wasn't there, for the visit, they
305 were waiting outside, usually my mom is in the room with me for moral support but
306 she couldn't make it that time, so my dad waited outside, and it was just me and the
307 doctor, I don't know why I don't know if the doctor would talk more with my dad if
308 he was in the room, or not, but it was just me and him and he was, I recently came to
309 Australia and I didn't really feel at home, or that I am being noticed a lot, you move
310 somewhere and everything is new and people don't necessarily know how to talk to
311 you, or pay attention to you and the fact that, this medical professional took the time
312 to ask me questions that I didn't' ask myself necessarily it really made me feel, it gave
313 me, pause, it gave me a feeling that maybe something good will come out of this, it's
314 a start in a place where you know you can be heard, I've sort of made a decision to
315 speak up more about things that bother me, maybe I will be heard here

316 R. So the last few questions, what would you say was the most important aspect in
317 receiving support that you found helpful, I know you mentioned that your family
318 didn't really acknowledge what happened with you, but in a way it was there way of
319 supporting you, what was their way of supporting you that way they did you found
320 helpful?

321 P. Sorry who are they, you broke up for a second with skype,

322 R. It's ok, so I mentioned that you received support from your family even though it
323 wasn't as perfect as you wanted it to be, what aspect of their support you found most
324 helpful?

325 P. Hmm, I don't know, it's such a , my family is hard to describe in the way our
326 interactions work, again it is not, I can't really give a good description of how it
327 works or doesn't work for me, but I think what I am trying to do is I am trying to
328 make them listen to me more, and that at least some of my family members are open
329 to it like they will sit down with me and they will not crack jokes at what I am saying,
330 so I think it's helpful that at least some of them are keeping an open mind and
331 listening to what I am saying

332 R. So them taking the time listen to you, you find helpful, and taking what you are
333 saying seriously?

334 P. Yes yes,

335 R. Would you say this is a recent development or is this something you have experienced
336 in the past?

337 P. No I would say this is a recent development, and this is partly because myself I wasn't
338 ready to talk about it or be more open, I am making an effort now, and I feel like they
339 are making an effort too

340 R. So the last question is asking you to reflect back, if you can go back in time and
341 change the type of support you had, what would you change? Aside from the ones we
342 already discussed of having someone listen to you and take what you said seriously
343 and not sort of expect you to power through.

344 P. I think that's basically it honestly, I would appreciate it if they were the ones who
345 would tell me I had to lie down and take it easy, the ones that would insist on
346 knowing how I was feeling, would ask me how I was feeling everyday not just in the
347 first few days, and acknowledging that if I wasn't feeling good that they would
348 encourage me to go see a doctor again, and maybe choosing a doctor that would pay
349 more attention to my symptoms vs sort of sweeping them under the rug so to say, just
350 feeling like you know they take me seriously that's what I would like

351 R. And you mentioned that neither doctor nor your father actually explained what
352 happened to you?

353 P. Yes, but you know it was from what I understood my dad from what my dad told me
354 was that yea 'she was just playing she was just riding her bike, kids will be kids, she
355 had a couple of bruises she's fine, everything will be ok', it was not a conversation
356 where a lot of the questions were asked, I don't know about my medical history, or
357 how hard I hit my head or how long you know I was out of consciousness it was a
358 very quick exchange and a very superficial exchange of information

359 R. That's all the questions I have for you, thank you so much for your time

360 P. You are welcome I hope this was helpful I am sorry if I wasn't more clear in
361 answering certain questions, this is all sort of my first attempt in understanding my
362 feelings and trying to talk about them , so thank you for listening

363 R. No thank you, thank you, ok, thanks, bye

364 P. Thanks bye.

1 Transcript G5

2 R. Thank you so much for agreeing to be a part of this interview, and for your time

3 P. No problem

4 R. First of all I would like to start by asking some questions about your background, your
5 family, if you may, what country you came from, and what brought you to Australia/>

6 P. Ok, I am a Syrian refugee, about 9 years ago, my family, I have two sisters and my
7 father and mother, they came with me, we live in Australia

8 R. And you were migrants or refugees?

9 P. No we were refugees,

10 R. You are living in Australia since that time, yes?

11 Can you tell me about your head injury what happened?

12 P. Yes, about five years ago, I was playing football and during the play, I hit my head
13 with the head of another player, and I fell to the ground I lost consciousness for about
14 5 minutes, I don't remember exactly what happened immediately after the hit, but my
15 friends said that for about five minutes I was out of it, and I remember I stopped
16 playing at the time , after the match in a couple of days I would have daily headaches
17 and varies in severity to an extent where I would take pain killers, but aside from the
18 headaches, sometime, not always, I wouldn't be able to focus, I would feel like my
19 vision was a little hazy too

20 R. How long did these symptoms last?

21 P. They continued for about this is going back to five years ago, I think it was for about
22 3 or 4 days

23 R. What happened when you regained consciousness your friends took you to the
24 hospital? What happened?

25 P. When I woke up, they said it's a good idea to sit out the game not to play anymore so
26 I sat at the bench and they continued with the game, it was however obvious there was
27 a head injury because I had a severe headache even then, but I didn't feel like I
28 needed to go to the hospital because maybe I didn't have an experience with these
29 sorts of things, so I didn't see a doctor for about 4 days after the accident.

30 R. And what made you decide to go see a doctor?

31 P. The headache that didn't go away, the pain killers I can't live off of them, I would
32 take Panadol, Neurofin, the headache would dull but after the pain killers went
33 through my system it would come back in an almost continuous way, whenever I am
34 at work when I get home there is a headache when I want to relax and go to bed I
35 would have a headache, it was a very annoying situation and after four days I started
36 to worry that I might have something serious or dangerous from the injury, so I went
37 to my GP and he said it might be a minor head injury, a concussion, recommended I
38 take some time off work for about a week, and not to do anything that needs to use
39 your brain in a way like focusing, or thinking or studying, even with friends if we are
40 doing something that required focusing I was advised not to, so after a week I started
41 getting better slowly

42

- 43 R. Ok, so you said that you hit your head with another player's head, do you remember
44 what happened to him?
- 45 P. Not really I was just overwhelmed with my own pain, when they took me to the bench
46 the headache was severe, as you know it is hard to focus, I couldn't even follow the
47 game that was still playing at the time, but it was like I was very distracted, I would
48 think I am watching the game but I just couldn't keep up, it was really hard to think, I
49 didn't even think of the other player to be honest
- 50 R. You said in about 3 to 4 days in pain, you didn't seek medical help immediately after
51 injury, and that you went to work?
- 52 P. I didn't go to the doctor yes I went to work, because I was taking pain killers, the pain
53 would go away or dull for a few hours and I could work even though at a slower rate
54 because I couldn't focus very well, but I have also a problem with my blood pressure
55 , so I am used to having headaches, and I am used to working with my headaches, so I
56 thought my blood pressure was high and that was the cause of the headaches and
57 that's why I didn't go to the doc after the accident
- 58 R. How would you say it impacted your daily life, when you have a headache like
59 you've mentioned it makes performing tasks difficult from having to deal with the
60 pain?
- 61 P. The headache if it was light you can continue your life normally, you can handle it,
62 but the headache I got after the hit it was very severe and it was sharp pain in my
63 head, it affected my vision for a while after I woke up, when I close my eyes
64 afterwards it would help a little, but if I am in a bright room where there is sunlight I
65 would get pain, I was sensitive to light even if I want to watch T.V. I couldn't, if I

66 want to go outside I had to be careful the sun wasn't harsh, there is a big interference
67 in a person's life when you have an injury like that, and of course the tasks at work
68 you are not able to well, I wasn't able to perform as well as I did before, that I was
69 used to, that is a very negative consequence at my work I felt,

70 R. Can you tell me what your doc said to you, he advised you to take time off work for a
71 week, and he gave you some pain killers, what were the stages of recovery from this
72 injury that you experienced?

73 P. The stages were relaxation, he said it was broken up into two stages, the first stage of
74 relaxation is to relax the body and to avoid sports or contact sports that can lead to
75 another head injury, and the other stage is to relax my mind, so if for example, well I
76 like to read books, but now even reading books can be annoying and taxing, because
77 it requires thinking and that doesn't help the recovery, quick recovery, the week he
78 told me to do these things and avoid contact sports or heavy exercise, and to consider
79 this week as a vacation, to not burden my brain

80 R. So you relaxed during this week per your doc's recommendation and afterwards did
81 you feel better?

82 P. The improvement was gradual in the first week, when I stopped the exercise and
83 reading books and relaxed my brain, I noticed that the meds I was taking I relied on
84 them less for the pain and the following week, I stopped the painkillers completely,

85 R. And can you say that you went back to normal life as you were before the injury?

86 P. I went back to normal life except for one thing the sport, any sport I felt had
87 possibility where there is contact around the head or neck I avoided completely,
88 basketball was fine but rugby and football I avoided completely

89 R. Ok, you said your information about this type of head injury before the incident there
90 weren't any information that you had, is that correct?

91 P. I heard about head injuries and concussion on TV for rugby players, but it didn't
92 happen to me or my family or friends

93 R. Ok and did you have any information about how to recover from this type of head
94 injury?

95 P. No, not really...

96 R. But now you do after this experience?

97 P. Yes when the doctor told me the name of the head injury, that it was a concussion,
98 and explained how it happens, and how to recover from it, I did research myself and
99 started reading about it so I have good information I think not bad at all,

100 R. And the doc didn't do any further tests for your injury? Like any scans?

101 P. He mentioned it, he said if after a couple of weeks, I still experienced severe
102 headaches still, or dizziness or hazy vision, so then he said to do further tests, but he
103 felt that from what I told him about my injury it was a minor head injury and there
104 was no need for further testing or scans

105 R. The questions I will ask you will require you to reflect back on your experience of the
106 injury and journey to recovery, what was your impression about that experience, what
107 were the effects that resulted from it?

108 P. Truth be to god, the effects of the injury and the recovery, the injury the person will...
109 well it is not the first time for me to be injured and to feel pain , but the difference
110 between this injury and any other type of injury is the person's most important organ

111 in the body you can't use, which is the brain, and that is for me was the most
112 annoying and frustrating part, more so than if I had broken my arm or leg, or to not be
113 able to move from these broken bones for a month, but any injury to the brain is more
114 difficult to handle I think, so this is from the experience of injury

115 From the recovery, it is also difficult for a person to go from a routine life where they
116 go to work six days a week, to taking a week off and for a few weeks after that, just
117 doing things slowly and taking it easy, this was hard for me, but in the end it is
118 important to care for your health and you have carry this burden and cope with it

119 R. Did you have any doubts that you will recover physically or emotionally from this
120 injury?

121 P. No not really no doubts, because my doc I have been going to see for years now so I
122 trust him completely , so when he told me that you will recover sooner or later I trust
123 him, so, I had hope that it would not require any scans and that it wouldn't require
124 complicated procedures and tests

125 R. Can you tell me what effects this experience had with you emotionally or
126 psychologically?

127 P. Psychological effects the most important one was the fact that I loved to play contact
128 sports but now I hesitate to participate, that's the most negative effect I think

129 R. And why do you avoid playing these types of sports now?

130 P. From fear that something like this will happen again, from my understanding from my
131 research injuries to the head or neck there is a high percentage of likelihood to happen
132 to people who play these type of contact sports, so I didn't feel like I can take the risk
133 and stop working for a week or two if something like this happened to me again or

134 god forbid, if it happens again it will be more serious or I might need more time for
135 recovery like a month or two, so I decided better to take care of my health and family
136 that is more important

137 R. Ok, what can you say were the obstacles and promoters to your recovery?

138 P. Nothing I can think of as obstacles, the difficulty in overcoming the self the self is
139 always telling you to go play again a little that it will be ok and I won't be injured
140 again, so there is a need for a person to have control over themselves that is the
141 biggest obstacle, because during the first two weeks after the injury I was supposed to
142 relax completely and this presented a challenge for me

143 R. And what about the promoters?

144 P. The family surrounded me and they really helped me,

145 R. What would you say were the most important things that helped you accept the
146 consequences of your injury, what made you think, 'ok this happened I will be
147 patient...'?

148 P. The most important thing is that this injury was in my head, and the head is not an
149 easy matter, so the person is always, well I always told myself that I have to focus on
150 recovering properly because it could have long lasting effects for 20 or 30 years later
151 if I didn't take care to ensure my complete recovery, so this thing made me follow doc
152 recommendations strictly

153 R. So the idea that the consequences of the injury could become worse if you didn't take
154 care with your recovery and follow doc recommendations is what made you accept
155 the consequences of the injury?

156 P. Yes yes, this is what made me bear this burden and to persevere and to do what the
157 doc said to do,

158 P. There was nothing else that made you think ok this happened and I am not happy but I
159 have to be patient and to persevere

160 In general, this is how life is, the medicine is often bitter for a person to get better they
161 have to take it, naturally a person to recover they have to control themselves for a
162 specific period of time so they get better and not suffer more severe consequences
163 because they didn't take care god forbid dangerous things

164 R. The questions I will ask you now will revolve around the social and medical support
165 you received following your injury, what was the type of support you received?

166 P. The medical support was from my GP, as I said I have known him for years I trust
167 him and he was fully supportive and I was happy and comforted by the way he treated
168 me and spoke with me in an empathic and professional manner, he took everything I
169 told him seriously, differently from when I would visit him for a flu or cold, he treated
170 it as a serious injury, and this attitude helped me, it comforted me, after wards he
171 helped me to start on my journey to recover quickly

172 In regards to my family, they all stood with me and encouraged me to relax and not to
173 overexert myself and to focus on following doc orders

174 R. Did you feel your community supported you as well? To get over this injury, how
175 about your friends, neighbours the wider community, people at work what were their
176 reactions?

177 P. The friends in general terms none of them had this experience of head injury, they
178 didn't have the background to know the impediments that affect a person who has this

179 type of injury, so maybe they weren't very understanding of my situation, but at the
180 same time they said 'ok take it easy relax and we will see you in a week or two', and
181 that was it, but because they don't know about this injury they weren't able to
182 appreciate the pain I was in and how difficult it was for me during the first week

183 R. Can you say that because they didn't have this knowledge of these types of injuries
184 that they didn't take you to the doc immediately after you woke up?

185 P. Of course, in the field if an injury happened, if people who had an experience of this
186 injury they would know, or if they had a member of the family who was a sports doc
187 who can know what the consequences are, and appreciate the pain, they would have
188 more info they would've taken me immediately to see a doc, but in my case there was
189 no big effect or consequences, it was simple, but there are more serious cases where
190 you would lose consciousness for 30 min, taking him to the doc as soon as possible
191 can help save their lives

192 R. Ok, did you consult anybody else about your recovery? Or the injury you had?

193 P. I didn't need because like I said the doc I knew and trusted, I didn't feel the need to
194 consult anyone, my doc has a lot of experience and he is old,

195 R. What were the impression of friends and family about this experience of yours?

196 P. Truth be to god, the most important thing is my family agreed with me to avoid
197 playing contact sports

198 R. Ok.

199 P. So this was the most relieving thing for me despite it being a difficult decision,
200 because I enjoy playing these sports but everybody was in agreement that there is no

201 need to take a risk with these matters, especially since I wasn't playing professionally,
202 we are amateurs it was just for fun

203 R. And you didn't think of replacing your sport with another type where there is no
204 contact, did you have a desire to do so?

205 P. Well now all the sports I play they aren't contact sports, like individual sports not
206 group, like bowling and table tennis these type of sports

207 R. When you talked to your friends and family about this experience how did that make
208 you feel?

209 P. It's a little bit painful to remember the details, but it's not my first major injury, I've
210 broken a few bones my hand and leg, not the first painful experience in my life so it
211 wasn't frustrating or annoying, it wasn't very painful

212 R. So you went through some painful and tough experiences in your life, you didn't feel
213 like this experience impacted you as strongly is that right?

214 P. Yes exactly, that's it, I remember I had more serious injuries with more pain, but
215 because breaking bones in certain areas where the pain was more severe but after
216 treated it stopped, that is the difference between those injuries and this one, I had
217 ongoing headaches for a while afterwards

218 R. Can you say the opinions or thoughts of other people impacted your journey of
219 recovery? In a positive or negative way?

220 P. The only opinion that I took seriously was the doctor and his recommendations, I used
221 to listen to my family but my family were more of a support role, they didn't give me
222 any recommendations, that's it, the only person I listened to and who affected me,

223 was my doc I wouldn't question why he said to do this or that, I would just do them
224 without questioning them

225 R. What can you say the most important positive influence other people left in you as a
226 consequence of this injury or experience?

227 P. The most positive thing is the support in the recovery period, for me the recovery
228 period was very difficult in that I was sitting not able to do anything at all to use my
229 brain, in other words, you can't do anything so when you have supports around you to
230 help you during not a short time one or two weeks is not a short time, their support
231 really helped me I don't think I could've coped as well without their help if I was
232 alone for example.

233 R. You said that your family supported you and it impacted you positively, can you give
234 me an example of how your family supported you?

235 P. The most important thing is to remind me, so for example when I would try to do
236 something or read a book, or watch T.V, they would remind me that these activities
237 would require your brain to focus and to be patient, and 'see what the doc said after
238 you go see him in a week or so, so you can go back to normal life, so bear this burden
239 a little be patient this week so you can get better' , this is the most important thing that
240 helped me

241 R. The doctor, you said you trust him that you knew him for a long time and he had a lot
242 of experience, was it the way he explained things to you that comforted you that you
243 understood easily?

244 P. Naturally that is so, like I moved house more than once, I had more than one chance
245 to change my GP, but this doc I really liked his style of communication,

246 R. Can I ask what is this style that you find worked for you, and helped you develop trust
247 in this doctor?

248 P. There is more than one thing, the most important thing is when I am talking even if I
249 am saying something that could be medically wrong, he would listen and wait until I
250 am finished talking and doesn't interrupt me, this makes me feel at least the person
251 who is sitting in front of me respects me and my opinions, even if they are wrong, he
252 would let me continue and then he would correct my information, these things help
253 you when you are dealing with injuries and trying to cope with them, and recover
254 from them, where you need to build a relationship of trust so the patient actually
255 listens and follows your recommendations, he also helped me quit smoking some
256 years ago, so that's another reason I trust him

257 R. The last question I want to ask you if you could go back in time and you can change
258 the type of support you received what would you change?

259 P. Truth be to god, the only thing I would change is spend more time with my friends to
260 teach them about this head injury, at least with me they didn't really help me a lot
261 because I had my family who surrounded me, they did enough, but maybe if someone
262 from their own families or their friends had a similar experience then they would
263 know what help to offer, that they didn't offer me, it could be of a great help, aside
264 from saying 'we don't know anything about this injury and its recovery, and good
265 luck' if I could give them some information I would have preferred that

266 R. This is the only head injury that you experienced, is that right?

267 P. Yes it is the only one

- 268 R. Well, these are my questions, thank you so much for your time and the details you
269 have shared it is really a lot of help, thank you for your time
- 270 P. No problem at all, none at all.

1 Transcript G6

2 R. So I am going to start by asking you some questions about your background, where
3 you come from and your family, can you please tell me a little bit about that?

4 P. I am originally from Lebanon; we came as refugees to Australia in 2011, about five
5 years ago.

6 R. Ok perfect, and can you tell me a little bit about your family, so how many siblings do
7 you have?

8 P. I have two brothers, both of them are younger than me, I am 25 years old, John is 22,
9 my other brother Peter is 18

10 R. So you've had the injury, how old were you when you had the injury?

11 P. At 22, almost three years ago

12 R. Ok, so what so what happened? When you were injured, what were you doing?

13 P. I was playing cricket, I don't know what happened exactly but I was the wicket
14 keeper, and I was stupid because I wasn't wearing a batting helmet, so his bat flew
15 from his hand when he swung, it hit me in the head.

16 R. What happened after you were hit?

17 P. Well I don't think I completely blacked out, I just remember falling, and it hurt so
18 much! It was like in the cartoons you know, I saw black spots, and I couldn't focus, I
19 could barely breath from the pain! My brother John was there, and all my friends
20 started shouting, they surrounded me on the field, yeah

21 R. What happened after wards? Did they take you to the hospital?

22 P. No, they didn't. Hmm, well, from my perspective, well, it is hard you see, I'm
23 trying to remember exactly the series of events, but it was like I was swimming in a
24 sea of pain, I think I laid down on the floor for about 30 min or so, just focusing on
25 breathing, my brother asked if I wanted to be taken to hospital, I told him no, I didn't
26 feel it was serious, I wasn't bleeding or anything, and yes I was in pain, but a cricket
27 bat hit my head off course I was in pain, I just had to focus on breathing and I was
28 sure the pain would go away

29 R. Alright, so you fell, you didn't really lose consciousness, you saw black spots, and
30 couldn't focus, you stayed on the ground and waited for the pain to pass is that right?

31 P. Yes, that's it, after some time on the ground, I think I got my breath back, I was still
32 in pain, but I could breath, my brother insisted we go to the family GP at least, so he
33 called the Doctor and I was able to see him on the same day, later in the afternoon.

34 R. Ok, so what happened between the time you were hit, and before seeing your GP?

35 P. Yes, well... They sort of helped me get to my feet, I couldn't stand by myself, I was
36 shaky, I remember looking to the ground it was just too hard to try to raise my head,
37 my head was pounding, my eyes I kept them closed I couldn't open them, when I try,
38 it was hard to focus on anything, just remember pain, pain and more pain, so they laid
39 me down on the benches, and sat with me, I only had to wait for an hour or so to see
40 the doctor, my friends and my brother stayed with me, just making sure I was ok, if I
41 needed anything, they were really good that way.

42 R. Can you tell me what happened at the doctor's?

43 P. Ok, well hmm, he checked my head, I didn't have any bleeding, he checked my eyes,
44 asked me how I was feeling, he did his doctor thing you know, just looked me over,

45 then he said it looks like I have a concussion, I didn't know what that was, but I
46 remember my brother looking scared for a bit, then the doctor he explained what it
47 was and what I needed to do to recover, he said 'you have to take it easy for the next
48 week' I laugh now because I remember him saying something along the lines of
49 taking a brain vacation, how can I switch my brain off! It's funny, but you know he
50 said not to exert myself mentally and to avoid heavy exercise, and listen to my body,
51 if I was tired to rest. Now that I think back on it, it was quite an experience because I
52 think John was taking my injury more seriously than I was, I remember him sitting
53 next to and looking at me with concern, like I was about to die or something, I love
54 him but he can be a drama queen sometimes!

55 R. Can I ask, why did you not take your injury seriously? Did you have an experience of
56 concussion before? Knew you were going to get better?

57 P. No I didn't have a concussion before.... Don't get me wrong I knew I needed to see a
58 doctor, I just didn't think it was life threatening, I mean yeah I was hit on the head,
59 but I didn't lose my memory, or become crazy, or mute, when I was hit, and I didn't
60 lose consciousness and I breathed through the pain, yes it was hard to think or focus
61 but I was still me, so I didn't think I needed to go to the ER or anything like that. I
62 was breathing, I could hear, I could think, I could move, so I thought 'it's not that
63 serious'

64 R. Ok, and why do you think your brother took your injury more seriously than you did?

65 P. Well I am his older brother, he loves me, I am his family, of course he is going to be
66 worried about me, he thought I was downplaying my pain, but I was in so much pain
67 that I didn't have room to think like that, I was thinking about breathing, he must've

68 thought I was trying to act brave, and to pretend like everything was ok, so he started
69 to worry

70 R. Ok, so the doctor told you to take it easy for a week or so, do you remember what
71 symptoms you had when you got back home and how long they lasted?

72 P. John drove me home, mom was there and of course she went crazy, she started yelling
73 that we survived Lebanon only to be felled by a cricket bat, she overreacted, but she's
74 a mother, I guess that's their job to worry about their kids, but honestly, that week I
75 was home, let me tell you, I am not complaining, I love my family, but I was treated
76 like I lost a limb or something.

77 R. And how did you feel during that week, what were your symptoms?

78 P. So for the first couple of days, the best way to describe my state was slow, I felt slow,
79 I couldn't focus very well, couldn't follow conversations for a long time, I got tired
80 easily, couldn't watch T.V, just wanted to lie down on my bed, close the curtains and
81 just breath, I didn't have much of an appetite as well, that stands out, because mom
82 was cooking all my favourite foods, to get me to feel better, but I just couldn't eat as
83 much as I normally do, her food is good! So I know it was because of my injury.

84 R. Ok, and you mentioned you had a horrible headache after you were hit, did that
85 persist? If so for how long?

86 P. I had headaches almost all through the day on the day I was hit, it dulled afterwards,
87 but for a few days after, I'm not a 100 percent sure but maybe 2 to 3 days afterwards I
88 would still get a headache, but not as bad as the first day, and after a week when I saw
89 the doctor I didn't have them anymore, in fact by the time I saw the doctor I felt like

90 myself again, I just had a bump on my head, that was tender, so I had to be careful,
91 but other than that I was good

92 R. Obviously you said you had difficulties focusing, headaches, then you said you started
93 getting better, so I can understand that these symptoms interfered in your daily life,
94 what other ways can you say, your injury interfered in your daily life?

95 P. There was interference, of course there was, for that week or the first 3 days at least it
96 was like I was watching my life in slow motion, it was annoying, I couldn't study, I
97 couldn't watch TV, I couldn't even enjoy mom's cooking, I felt sapped of my energy
98 most of the time, I was basically a zombie, yeah that's it!

99 R. Ok, so you said that you were in the most pain the first 3 days, then the symptoms
100 gradually resolved?

101 P. Yes, I started getting my energy back, and just slowly coming back to my old self, it
102 was a great feeling

103 R. You mentioned earlier, that you went to see the doctor again for a follow up
104 appointment about a week later, what happened, what did the doctor say to you?

105 P. Well by the time I was due to see the doctor, I was feeling great, I honestly didn't feel
106 the need, but mom wanted to be assured that I was back to normal, so I went there for
107 her, the doctor was happy with my progress, said that I was recovering well, I wasn't
108 surprised I knew I was well I felt it! But did my family take my word for it, no! Had
109 to come from the doctor, anyway all was good.

110 R. So afterwards, can you say you went back to your life without any consequences
111 physically or emotionally?

112 P. Yes, pretty much, I mean my dad bought me a helmet, not a very subtle hint I know,
113 but I guess I just have this awareness now that I need to be cautious, that no matter
114 who you are or how safe you think you are, accidents happen and people get hurt, my
115 injury could have been easily avoided if I took some simple precautions but I didn't,
116 and while my pain was brief and thank god that I didn't sustain any serious or long
117 lasting consequences, I put my family through a lot, they were worried about me, my
118 mom cried when she saw me the first time, I just caused my family a lot of worry and
119 anxiety and that didn't sit right with me, dad was acting strong, but he was worried,
120 too, it was just needless, unnecessary. I just... I feel like if I was injured in Lebanon
121 from the violence there, they would have coped better, I don't know, it is expected
122 that you will be hurt there, but here, it is safe and you can live your life as you wish
123 peacefully, so even though my injury wasn't severe or serious they reacted as if it
124 was, I think it was more shock than anything else.

125 R. Can you tell me what your knowledge about concussions was before your experience?

126 P. I knew what concussions were, I mean how can you not it is, shaking of the brain, the
127 term is pretty self-explanatory, don't you think, but I didn't REALLY know what that
128 meant, what the symptoms were, how long they lasted, consequences thing like that, I
129 just thought it was something that happened to rugby players, soldiers and in car
130 accidents

131 R. Did you feel like your knowledge of concussions influenced how you reacted to your
132 injury in any way?

133 P. To be honest I didn't think much on that, my focus was on how I was feeling, as long
134 as I felt I had control over my body I didn't think it was a serious injury, mom was
135 worried because it was to my head, but again I felt ok, I was in pain my vision and

136 focus were impacted the first few days, but I was mostly ok, so I didn't stress too
137 much about that

138 R. Did you have any idea about recovery from concussions? Or how long it would take
139 to recover?

140 P. No, not really, I relied on what the doc said, and he seemed to think things should be
141 resolved shortly within days a week at most, which they did, but before seeing the
142 doctor I wasn't thinking about recovery, I was focused on breathing.

143 R. Did you have any doubts that you would recover completely after this injury?

144 P. Hmm not really, the doctor seemed confident that I will be better within a week, yes I
145 was tired after my other symptoms resolved but I could feel myself gradually feeling
146 better and getting stronger, so that didn't allow doubt to enter..

147 R. Ok, great, thanks... The question I will ask you will require you to reflect back on
148 your experience of the injury and journey to recovery, what was your impression
149 about that experience, what were the effects that resulted from it?

150 P. Aside from what I mentioned earlier of just being more careful of my safety, taking
151 precautions, I guess if was to reflect back I wouldn't have made as much light of my
152 injury as I did back then, I wasn't dismissive of the pain or my symptoms I just didn't
153 focus on them, I tried to pretend that nothing happened, even though I was suffering
154 from the consequences of the hit, I say that now because I don't think my family
155 appreciated me downplaying what I was feeling, it is funny because I did that to stop
156 them from worrying, yet that caused them to worry more, I just hope there was a way
157 not to have caused them this anxiety, you hear stories of young people dying in wars,
158 and mothers losing their sons, and so on, I guess it makes you predisposed to

159 worrying this will happen to you too, I mean we were lucky to get out without harm,
160 but I can't say the same about our neighbours, or other people in our village, so me
161 getting hit, was something my family and my parents especially, took more seriously
162 than the situation I think warranted.

163 R. Have you played cricket since?

164 P. Yes, of course I still do, I am more careful now, in fact my friends refer to me
165 jokingly as the safety officer, I look out for them as well as me, I love cricket, I think I
166 would play cricket even if I had no arms!

167 R. Can you tell me what you think the obstacles and promoters to recovery for you were?

168 P. Well my family and their support is the biggest promoter I think, I mean they just
169 surrounded me, anything I needed was there before I even thought to ask for it, my
170 friends were good too, they visited me and asked how I was doing, I appreciated their
171 support, I can't think of any obstacles to recovery, I just wanted to get better asap go
172 back to my life, finish my assignments on time, I was stressed about that, but other
173 than that I am sorry I can't think of anything else.

174 R. No that's good, thank you, so was it hard for you to follow doctor's recommendations
175 during that week? Were you able to do as he asked and relaxed?

176 P. Nothing stands out, I followed doctor's orders, I didn't try to force myself to do
177 anything, besides, even if I did I don't think mom would have allowed it, she was like
178 a soldier! Kept a pretty close eye on me.

179 R. How has your family reacted to your recovery, and now that life has gone back to
180 normal?

181 P. For a month afterwards, you know I had the bump on my head, mom fussed a little, I
182 think they realised if I can go back to my studies, and exercise, if I was behaving
183 normally then their worry eased, I think we just gradually as a family went back to
184 living life, things went back to normal

185 R. Did you receive any other support aside from your family, friends and the GP?

186 P. Not really, oh well, I mean I emailed my lecturer I had an assignment due not long
187 after my injury, and he gave me an extension I mean that is a type of support isn't it,
188 because it really helped relieve me of some stress, but other than that no I didn't get
189 any other support,

190 R. Looking back to your experience of concussion, and your recovery, what would you
191 say is the most important thing that helped you in dealing with your symptoms and
192 consequences of the injury?

193 P. Just having my family around me, knowing that I was doing everything I could to get
194 better, I guess these things helped in my recovery, sorry I am not sure what else I can
195 add, yeah just my family.

196 R. No, that is ok, going back to the support you said you received from the lecturer, can I
197 ask what you are studying?

198 P. Actually I graduated not too long ago, but I studied IT, I'm thinking of post grad now
199 but I would like to take a break, work for a while and then see if I want to study some
200 more, Ha! I tell you, for me to think along those lines, to choose to study at university,
201 do post grad, well I mean that is a great thing, I would never take for granted, I am
202 just grateful to be here.

203 R. Were those options not available for you in Lebanon?

204 P. Aside from the war, our village bordered Homs, so we were right on the border with
205 Syria, the cost to go to Beirut to study would have been unbelievable, and if I had left,
206 then I couldn't help take care of my brothers and my family, it just wasn't possible, so
207 I thank god every day that we were able to leave, that I can actually consider different
208 options of study and work, it is a gift from god that we thank him daily for, our loved
209 ones are safe and if we work hard we can live a good life, I mean seriously what more
210 can a person ask for!

211 R. So your experiences have helped you not to take things for granted, not matter how
212 small they seem?

213 P. Well yeah, I mean how could you? When you hear stories about these atrocities
214 happening in the Middle East, and you are safe in your home, with your friends and
215 family, playing cricket! How could you not appreciate the life you've been given

216 R. I can understand that, I am glad you have found a place you can call home now,
217 where you can live your life as you choose. Have you talked about your experience
218 of concussion with someone else, aside from your family or friends who came to visit
219 you?

220 P. No not really, I didn't see a need for that, I mean I wasn't affected by it, emotionally I
221 mean, it happened I suffered a bit, got better and life goes on, aside from talking to
222 you now of course but I am doing this to help you, not because it has affected me you
223 know...

224 R. How do you feel about talking to me about your experiences, we have been chatting
225 for a while now?

226 P. Ok I guess, I mean it brings the experience back to me, it is fresh in my mind now, to
227 be honest with you I didn't dwell on it too much, but I feel good to be able to share
228 what happened and that it can be of help, why not?

229 R. Great, well thanks for that, Ok well I have one more question to ask,

230 P. Go ahead please

231 R. The last question I want to ask you if you could go back in time and change the type
232 of support you received what would you change

233 P. Nothing, I was fortunate in the support I received, I got more than I could have asked
234 for, my family and friends were all there for me, my doctor was good he explained
235 things to me and my family, I liked him, I wouldn't change a thing, of course if I can
236 go back in time I would avoid my injury altogether but yeah, that's it....

237 R. Ok, well thank you so much for your time, I know it was hard for you to schedule me
238 in, so I appreciate it

239 P. No not at all, if my story could help someone else, than I am more than happy to help,
240 hope you got everything you needed

241 R. Yes, thank you.