# Practitioners' Knowledge and Understanding of Acquired Brain Injury in the context of Intimate Partner Violence in New Zealand

A dissertation submitted to the

Auckland University of Technology

School of Clinical Sciences

in partial fulfilment of the requirements for the degree of

Bachelor of Health Science (Psychology) Honours

by

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2021

# Abstract

Clinicians working in domestic violence organisations are well placed to play a pivotal role in identifying interpersonal violence (IPV) related brain injury and providing education and referral to medical services. However, little research has been conducted on how clinicians working in this context understand brain injury and see their role in its recognition and management. This qualitative study explored clinicians' understanding of acquired brain injury (ABI), including identifying service gaps observed within their roles working with IPV survivors. The data collected was from two focus groups and three individual interviews, a total of N= 21 participants. Participants included counsellors, social workers, allied health professionals, and students working across four agencies supporting people affected by IPV. Interviews were recorded, transcribed verbatim and analysed using Thematic Analysis. Four overarching themes were identified. Firstly, practitioners highlighted a wide range of issues that affected how potential ABIs could be identified in their practice. Secondly, the practitioners were not clear on what their role was in the identification and management of ABI in this population. Thirdly, certain gaps in services and referral pathways were identified, resulting in practitioners feeling unclear about how they could assist someone who presented with a possible ABI. Lastly, the practitioners expressed a desire to know more about ABI and how they could support people better in their services.

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## Academic Integrity Declaration

In submitting this work, I declare that:

- This assessment has been produced by me and represents my own work.
- Any work of another person is appropriately acknowledged and/or referenced.
- This work did not involve any unauthorised collaboration.
- This work has not previously been submitted by me or any other person/author.
- I did not use any unfair means to complete this work.
- I understand that the above obligations form a part of the University's regulations and that breaching them would result in disciplinary action.

Signed: Dated: 22/10/21

Magdalena Durrant

## Acknowledgements

My thanks go to the people who supported me through my Honours journey:

- The practitioners who participated in the investigation. Your contribution of time and genuine support for the research was invaluable in enabling me to complete this thesis.
- The guidance of my primary and secondary supervisors, Professor Alice Theadom and Dr Claire O'Donovan. You encouraged and challenged me to expand my knowledge and to learn about the complex fields of Brain Injury and Intimate Partner Violence. I am very grateful for your support throughout this research project.
- My family, my husband Rodney and son Anthony, for believing in me, constantly encouraging and supporting me, and for providing me with quality time. Your love and support helped make this work possible.
- Ethics approval by the Auckland University of Technology Ethics Committee was granted on 30 April 2021, reference number 21/97.

# Introduction

## The Research Context

The links between intimate partner violence (IPV) and brain injury has recently received considerable media attention in the context of high-profile athletes who experienced repeated brain injuries over their playing careers (Scarduzio et al., 2021). An example of this is Chad Wheeler who, in January 2021, was arrested on charges of domestic violence and assault. He had reportedly assaulted his partner in his apartment, breaking her arm and strangling her until she lost consciousness. This follows the 2014 video footage of another NFL player, Ray Rice, striking his fiancée and of her falling to the ground unconscious as a result. The media, however refrained from pointing out the potential brain injury both women suffered due to severe head trauma enough to cause them to lose consciousness.

IPV is an important public health concern (Ayton et al., 2021; Stickman et al., 2015). The World Health Organisation (WHO,2021) reports that almost one in three women worldwide have experienced IPV. However, it is not only women who are affected. IPV can affect men, women and children, and in New Zealand it is a pervasive social issue with wide-ranging negative consequences (Horne et al., 2020). Research has identified a myriad of adverse health consequences linked to IPV, and recently researchers have focussed specifically on physical harm that impacts brain function. Although not every choking incident, blow to the head or impact to the body will lead to a brain injury, each one has the potential to do so.

## The Research Rationale

I began my career in New Zealand (NZ) working as a crisis counsellor for HELP and as a counsellor at Family Action. A provisionally registered counsellor with the New Zealand Association of Counsellors, with 15 years of experience, I now work in private practice. Within my private practice I counsel men and women of all ages who have experienced or are experiencing interpersonal violence, including sexual assault.

Every day, women (and to a lesser extent men) arrive at domestic violence and sexual assault agencies in NZ seeking our services. Most of them have been beaten or kicked, shoved into walls, strangled, or a combination of these assaults. Other’s experience(d) sexual abuse and rape throughout their lives.

It was here, in the course of my work as a counsellor, that I began speaking to colleagues, clients and their whānau exploring their experience of physical and sexual abuse, including strangulation. I became aware that there was a general lack of understanding and knowledge of the gravity of this type of abuse. I also noticed clients reporting feeling "forgetful", having frequent headaches, experiencing dizziness, tinnitus, and balance problems. I wondered whether this symptomology was only attributed to the experience of the abusive relationship or if there could be something underlying that I was unaware of or not noticing. I started to read about the complex nature of IPV and discovered research into a link between Acquired Brain Injury (ABI) and IPV. I realised the importance of considering a possible connection between ABI and IPV. My therapeutic lens had focused on my client's emotional response to IPV, and I had not considered the potential implications of physical abuse on their cognitive function.

In 2020, I came across the studies by Nemeth et al. (2019) and Pritchard et al. (2019), and their findings resonated with my experience, setting the course for the current study. They both highlighted that practitioners have limited knowledge of ABI and how it relates to IPV.

In spite of the increase in ABI research and awareness in sports medicine, some vulnerable groups with a high risk of injury, such as those experiencing intimate partner violence, remain neglected. Gaps in knowledge regarding potential ABI in the context of IPV have important implications for IPV survivors' safety and wellbeing. This research therefore aims to qualitatively explore clinicians' understanding of and experience with ABI, including identifying service gaps within their roles working with IPV survivors.

# Review Of the Literature

## Intimate Partner Violence (IPV)

IPV is also referred to as family violence (Campbell, 2020), domestic violence (Arthur & Clark, 2009), whānau violence (Kruger et al., 2004), and gender-based violence (John et al., 2020). However, IPV is a more inclusive term since it does not focus on gender, housing, or sexuality (Breiding & Armour, 2015; Smith et al., 2017). IPV encompasses physical, sexual and psychological abuse, physical aggression, coercion, and other controlling behaviours. It affects people of all ages, and all cultural and socio-economic groups, and different forms of IPV (physical, psychological, sexual) can be concurrent or occur independently (Arthur & Clark, 2009).

In NZ, IPV is a particular concern, with 1 in 3 women compared to 1 in 5 men reporting they have experienced IPV in their lifetime (Fanslow & Kelly, 2016; Fanslow & Robinson, 2011). According to Fanslow et al. (2010), Māori women have the highest lifetime prevalence of IPV (more than 1 in 2), compared to Asian women (1 in 10), Pacific communities (1 in 3), and Pākehā / NZ European women (1 in 3). Also, women with disabilities experience higher rates of violence than women without disabilities (Esopenko et al., 2021; Frohmader et al., 2015). However, determining the prevalence of IPV accurately is a challenge, as reporting can be affected by the use of different definitions of IPV. For example, a higher prevalence is reported when studies include psychological and emotional abuse as well as physical aggression. Variations may also reflect "lifetime" rather than "periodic" data, or a focus on clinical samples (for example, from domestic violence shelters) rather than general population-based samples (Carlson, 2000).

Although both men and women experience IPV, violence against women results in more severe and chronic injuries (Falschung, 2018). Previous research and public policy has mainly focused on IPV-related outcomes for women (Ogbe et al., 2020). This approach is problematic because it fails to consider the effects of child abuse. Across NZ, 1 in 7 children below the age of 18 grow up in violent homes, with 1 in 4 of those subject to at least one report to Child Protection Services (Rouland & Vaithianathan, 2018).

However, it is estimated that 76% of family violence in NZ goes unreported (Gerrard & Lambie, 2018); hence an accurate picture of the extent of IPV within the

New Zealand population cannot be formed. The lack of a centralised location for IPV data contributes to this uncertainty. Researchers have to rely on data from various agencies including the Police, Oranga Tamariki, the Integrated Data Infrastructure (IDI), the Ministry of Health, the University of Otago's Injury Prevention Unit and the Justice System.

The framing of questions in surveys used by these agencies may also impact reporting, as some people may not necessarily see their experiences as constituting IPV (Fanslow et al., 2020). Another issue is that reporting may not consider the culturally specific challenges individuals from migrant and refugee backgrounds face within NZ (Gill & Harrison, 2019; Jennifer & Hwayun, 2004; Tse, 2007). According to Monahan and O'Leary (1999), other reasons for under-reporting are social stigma, lack of finances due to control by the perpetrator, impaired decision-making abilities, and lack of knowledge regarding the link between ABI-related and IPV-related symptomology (St Ivany & Schminkey, 2019; Yocom, 2020). For example, it can be difficult for a person to make a medical appointment when experiencing fatigue, cognitive difficulties, headaches, and juggling the daily work and demands of family life (Mengo et al., 2020).

IPV erodes the mutual trust and respect on which healthy partnerships rest. According to, IPV reportedly exploits the survivor's sense of self-blame and shame, leading to internal barriers towards help-seeking behaviours due to stigmatisation and fear of losing familial support (Beaulaurier et al., 2008). When a survivor seeks assistance from the police or healthcare providers, they may face being judged or criticised (Fugate et al., 2005). Similarly, Wilson et al. (2007) described survivors who expressed anticipation of stigma from social support networks in the form of victim-blaming. The most common reaction are feelings of intense shame, and these can inhibit help-seeking behaviour (McLeod et al., 2010). In some cases, culture may also contribute to the reporting of IPV. According to some traditions, “a woman should obey whatever your husband says… you should be in your husband's home until you die” (Walsh et al., 2007, p. 504). Among Chinese communities, “it is believed that when abuse occurs, it is a silent matter, and you do not go outside and spread it to other people.” (Walsh et al., 2007, p. 505). Afghan and Iranian cultures believe “it is the husband's right to punish his wife” (Walsh et al., 2007, p. 505).

## The Cyclic Nature of IPV

The cycle of violence starts when children are exposed to this, by either witnessing or experiencing violence in the home (St Ivany et al., 2021). Research identifies that a major contributing risk factor of intergenerational violence is exposure to violence during childhood (Walsh et al., 2007), making girls vulnerable to becoming victims of IPV and increasing the likelihood of boys using violence as adults (Family Violence Death Review Committee, 2016). Child Protection Services or Oranga Tamariki may become involved. The child may be taken out of the family system and placed in foster care or may continue to experience IPV for many years. A confounding factor to New Zealand's high rates of IPV is the impact of colonisation that Walker (2015) described as a dehumanising process leading to a high degree of tolerance for violence (Family Violence Death Review Committee, 2016). Although notable, further discussion of the effects of colonisation is outside the scope of this study.

The lack of a loving, safe home environment can lead to boys entering negative peer relationships, including joining gangs, where they may continue to experience and exhibit violence (Family Violence Death Review Committee, 2016). In their longitudinal study, Theobald et al. (2016) found that parental conflict increases the risk for women, but not for men, of dating violence perpetration (Theobald et al., 2016). On the other hand, Richards et al. (2017) found that physical abuse in childhood increases men's risk of perpetration of IPV whereas girls are more likely to enter unhealthy relationships. Similarly, Sutton and Simons (2021) found that exposure to parental abuse was an influential predictor of IPV in young adulthood irrespective of gender.

In an unhealthy relationship, both partners may have prior experience of IPV, and one or both may have previous experience in the justice system (Ministry of Social Development [MSD], 2019). The cycle of physical abuse can appear early in the relationship while dating, or later with increased responsibilities or when one partner falls pregnant (St Ivany & Schminkey, 2019). St Ivany and Schminkey (2019) also found that physical abuse is often repetitive and can last for years.

The next stage in the cycle of violence is when the abused partner wants to escape the relationship but is hampered by a lack of resources, including financial difficulties and a lack of support. Shelters exist (Capaldi et al., 2012), however, they are often under-resourced, spaces are not always available, and consequently, those affected may not be able to find shelter there (Ogbe et al., 2020). In addition, the abuser may threaten to harm children or pets or take them away if his or her partner leaves. Often, the partner seeking shelter elsewhere may also have their life threatened (Davins-Pujols et al., 2014). Due to the nature of IPV, the abused person may not have the mental capacity to make a move to leave. They may be frozen in a state of fear, unable to escape, and unable to seek medical attention. Also, due to coercion and control, they may be incapable of believing their own reality or trusting their feelings (Bichard et al., 2021). For some, abuse becomes the norm. Therefore, they may stay on in a relationship where the children are exposed, and the cycle goes round again.

## Risk and Protective Factors

Various factors increase the likelihood of an individual becoming a victim of IPV (Capaldi et al., 2012; Thompson et al., 2006). This includes marital status, ethnicity, conventional gender norms, low socio-economic status, and witnessing IPV in childhood (Capaldi et al., 2012; Thompson et al., 2006). Protective factors that mitigate the risk of becoming a victim of IPV include the absence of risk factors and having social and economic resources that support decision-making and wellbeing (Yakubovich et al., 2018). Nevertheless, despite these protective factors, evidence from several studies highlights the extended impact that IPV can still have on the wellbeing of the IPV survivor.

## Types of Abusive Behaviour

In IPV terms, abusive behaviours can include, but are not limited to, emotional and physical abuse (WHO, 2021). Examples of emotional abuse include "insults, belittling, constant humiliation, intimidation (e.g., destroying things), threats of harm, threats to take away children" (World Health Organization & Pan American Health Organization, 2012, p. 1). There is also psychological abuse such as controlling movement, isolation from family, and restricting access to finances, employment and medical assistance (WHO, 2021). Physical violence can include, but is not limited to, slapping, punching, kicking, scratching, pushing, choking or strangling, and beating.

The nature of IPV, including the accompanying emotional trauma of the event, can place victims at a greater risk of developing long-term physical and mental health problems (Iverson et al., 2017; Iverson & Pogoda, 2015). Currently, a comprehensive and consistent understanding of these complex problems is hampered by a lack of standardised medical forensic terms regarding IPV-related forms of abuse and their health consequences. Thus, existing research must be considered within this context.

## Physical Injuries Resulting from IPV

Injuries can be sustained from physical abuse actions such as slapping, shoving, slamming against something, throwing, stabbing, or attempting to impede normal breathing, e.g., by strangulation, choking, suffocation using a weapon (Centers for Disease Control and Prevention (CDC), 2017; Fanslow & Robinson, 2011; Sheridan & Nash, 2007; WHO, 2012). Other such incidents include being pushed over or up against a wall, being kicked, or hit on the head with a fist or hard object, forceful falls, violent shaking etc. (Monahan, 2018; Sheridan & Nash, 2007; Valera & Berenbaum, 2003; Valera & Kucyi, 2017).

A study by Macedo Bernardino et al. (2016) investigated physical aggression against children (n = 164) and adolescents (n = 788) by examining police reports from 2008 to 2011. In this study, it was reported that the violent abuse often resulted in injuries to the head, neck and face (HNF), arms, thorax, and abdomen. Further studies have shown that physical injuries can also include cuts, scrapes, welts, bruises, bite marks, as well as scalding from hot water, cigarettes, or other instruments including iron, hairdryer, cigarette lighters, and chemical burns (Royal College of Paediatrics and Child Health (RCPCH), 2020). Children may also present with unusual injuries to their genitals (Al Odhayani et al., 2013). Serious injuries include sprains, broken bones, and internal bleeding. In addition, multiple fractures to the ribs, pelvis, hands, feet, and sternal area are reported to be common (RCPCH, 2020).

In adults, Tjaden and Thoennes (2000) reported that 41.5% of women experiencing IPV reported physical injuries. These can range from a minor wound (cuts, abrasions, welts, bruises) to serious injury (sprains, broken bones, internal bleeding, traumatic brain injury), lifelong disability, or death (Della Rocca et al., 2019; Esopenko et al., 2021; Fanslow & Robinson, 2011; St Ivany et al., 2021). In addition, Saddki et al. (2010) conducted a retrospective study in Malaysia of 242 IPV-related female medical records. They reported that maxillofacial injuries were the type found most frequently, including lacerations, bruises, and broken bones in the face and jaw area in women presenting for medical assistance.

IPV commonly results in injuries to the HNF (Sheridan & Nash, 2007). For example, one study (Banks, 2007) reported that 90% of IPV survivors had injuries to the HNF. However, other researchers suggested that this ranges between 35% and 94% (Monahan & O'Leary, 1999; Murray et al., 2016; Zieman et al., 2017). The wide disparity is due to the studies having small convenience samples from refuge centres or hospitals.

Notrica et al. (2021) conducted a single-institute retrospective review of presumed Abusive Head Trauma (AHT) in children under five, using 783 cases between 2010 and 2016. They identified 25 children with fatal injuries and, of those with nonfatal injuries, almost 60% were male. There were over 57% of children that presented with skull fractures and over 53% with intracranial haemorrhage, but only a third were determined as AHT and around 24% were undetermined (not due to AHT or accidents). This illustrates how difficult this area of research is when there are such pervasive challenges in reporting and recording of injuries. In addition, their findings included other clinical factors: multiple fractures, bruising, subdural blood, seizures, lethargy/unresponsiveness, and loss of consciousness increasing the risk of AHT.

The prevalence of nonfatal strangulation also differs across research. Depending on the nature of the sample and the method, the rates of strangulation range between 3 to 68% (Pritchard et al., 2018). However, those studies relying on police reports tend to report lower numbers (11.5%; Smith et al., 2001). For example, in a retrospective study of 856 sexual assault survivors (Cannon et al., 2020), it was reported that 5.1% of cases involved strangulation. Similarly, Patch et al. (2021) estimated that 1.2% of IPV visits received a strangulation code in a prevalence study using Nationwide Emergency Department Sample (2006 to 2014). Importantly, morbidity notably increases if trauma to the head is followed by strangulation, smothering, or choking (Esopenko et al., 2021). The high incidence of AHT resulting from IPV highlights the need to consider injuries to the brain, and these are often invisible (St Ivany & Schminkey, 2019).

### Longer-Term Impacts of IPV

Research has reported on the effects of IPV on both adults (Breiding & Armour, 2015; Campbell et al., 2018; Eaton et al., 2016; Lutgendorf & Lutgendorf, 2019; Simmons et al., 2008; Wong & Mellor, 2014; Yakubovich et al., 2018) and children (see Table 1; Al Odhayani et al., 2013; De Sanctis et al., 2012; Teisl & Cicchetti, 2008).

**Table 1**

*Reported adverse effects for adults and children as a result of exposure to Intimate partner Violence*

| | Psychological | Health conditions |
|---|---|---|
| **Adults** | • Flashbacks<br>• Depression<br>• Post-traumatic stress disorder (PTSD)<br>• Anxiety<br>• Panic attacks,<br>• Phobias<br>• Obsessive-compulsive disorder<br>• Suicidal ideation,<br>• Substance abuse<br>• Antisocial behaviour | • Headaches<br>• Insomnia<br>• Unintended pregnancy<br>• Diabetes<br>• Sexually transmitted infections such as HIV/aids<br>• Stomach ulcers<br>• Spastic colon<br>• Gastric reflux<br>• Indigestion, diarrhoea<br>• Chronic pain<br>• Arthritis |
| **Children** | • Disturbed sleep patterns<br>• Irritability<br>• Anger<br>• Emotional distress<br>• Flashbacks<br>• Intrusive thoughts<br>• Feelings of hopelessness<br>• Helplessness<br>• Fear<br>• Low self-esteem<br>• Withdrawal from social activities<br>• Attachment problems<br>• Appearing less cooperative<br>• More disruptive in class<br>• More likely to start fights<br>• Avoid physical contact<br>• Cling to strangers | • Frequent psychosomatic complaints (e.g., headaches, nausea, abdominal pains)<br>• Bed-wetting<br>• Conduct disorder<br>• Attention deficit hyperactivity disorder (ADHD)<br>• Eating disorders such as bulimia<br>• Substance abuse |

*Note*. Compiled from studies on the impacts of IPV on adults (Campbell et al., 2018; Breiding et al., 2015; Simmons et al., 2008; Wong & Mellor, 2014; Eaton et al., 2016; Lutgendorf & Lutgendorf, 2019; Yakubovich et al., 2018) and children (Al Odhayani et al., 2013; Teisl et al., 2008; De Sanctis et al., 2012)

As can be seen, the effects of IPV are varied and they impact upon the individuals psychological, physical and mental health. These effects can have longitudal aspects in a variety of ways and can have an impacts in the person’s both the short- and long-term.

## Acquired Brain Injury (ABI)

Acquired brain injury (ABI) is the overall term referring to a brain injury that is not hereditary, congenital, degenerative, or due to birth trauma (Ciuffreda & Kapoor, 2012). ABI encompasses what are referred to as traumatic and non-traumatic (Zieman et al., 2017) brain injuries. An example of an ABI is a stroke, aneurysm, brain tumor, vestibular dysfunction and/or complications resulting in anoxia or hypoxia (Ciuffreda & Kapoor, 2012). An ABI can be a predisposing factor that can contribute to the perpetration if IPV conversely it can occur as a result of IPV (Ayton et al., 2021).

### *Traumatic Brain Injury*

The Brain Injury Association of America (2021) defines a traumatic brain injury (TBI) as “an alteration in brain function or other evidence of brain pathology caused by an external force.” According to the criteria provided by WHO, a TBI is defined as an “acute brain injury resulting from mechanical energy to the head from external physical forces” (Carroll et al., 2004, p. 115). TBI falls into two categories: Open and closed head injuries. Open head injuries are those caused by external force leading to a fracture or penetration of the skull. In a closed head injury, the impact does not lead to a skull fracture or other structural compromise (Hunnicutt et al., 2017). Additionally, TBI is divided into two injury types: primary and secondary. A primary injury is the initial mechanical trauma or blows to the head, leading to neural tissue displacement and damage (Kaur & Sharma, 2018). Secondary injury refers to the follow-on neurochemical events that occur over subsequent days or months. It presents as changes in neurons and neurometabolic processes, including brain swelling and cell death (Kaur & Sharma, 2018).

According to Carroll et al. (2004), a TBI is diagnosed if more than one of the following symptoms are present: (1) Confusion or disorientation; (2) Loss of consciousness (LOC); (3) Post-traumatic amnesia; and/or (4) Other neurological abnormalities (e.g., focal signs, seizure). Importantly, these symptoms cannot be due to drugs, alcohol or medication; other injuries, or treatment for other injuries (e.g., intubation); or other problems such as psychological trauma or co-existing medical conditions (Carroll et al., 2004).

Although there is no universally agreed-upon rating scale for TBI, the most used criteria are the Glasgow Coma Scale (GCS), duration of LOC, and duration of post-traumatic amnesia (PTA) (Iverson & Lange, 2011; Teasdale & Jennett, 1976). The GCS is a brief screening measure and is the most used method of TBI classification (see Table 2). It evaluates the stimulus required to induce eye-opening, the best motor response, and the best verbal response. Scores range from 3 to 15 and are used in the Intensive Care Unit or Emergency Room setting (Mehta & Chinthapalli, 2019). Neurologists will also use it to determine the improvement or deterioration of individuals. Limitations of the GCS scale include factors like drug use, alcohol intoxication, shock, or low blood oxygen, which alter an individual's level of consciousness and could lead to an inaccurate score on the GCS (Bledsoe et al., 2015).

**Table 2**

*Glasgow Coma Scale*

| **Response** | **Scale** | **Score** |
|---|---|---|
| Eye Opening Response | Spontaneous--open with blinking at baseline | 4 points |
| | To verbal stimuli, command, speech | 3 points |
| | To pain only (not applied to face) | 2 points |
| | No response | 1 point |
| Verbal Response | Oriented | 5 points |
| | Confused conversation, but able to answer questions | 4 points |
| | Inappropriate words | 3 points |
| | Incomprehensible speech | 2 points |
| | No response | 1 point |
| Motor Response | Obeys commands for movement | 6 points |
| | Purposeful movement to painful stimulus | 5 points |
| | Withdraws in response to pain | 4 points |
| | Flexion in response to pain (decorticate posturing) | 3 points |
| | Extension response in response to pain (decerebrate posturing) | 2 points |
| | No response | 1 point |

*Note.* Score the best level of response for each component. Adapted from Glasgow coma scale explained by Mehta and Chinthapalli (2019), BMJ, 365, l1296.

The diagnostic criteria for severity of TBI are – Minor: LOC less than 30 minutes, GCS from 13 to 15, and PTA less than 24 hours; Moderate: LOC from 30 minutes to 24 hours, GCS from 9 to 12, PTA from 1 to 7 days; Severe: LOC greater than 24 hours, GCS from 3 to 8, PTA greater than 7 days (Iverson & Lange, 2011).

In a study of IPV survivors presenting to emergency departments, around 30% reported a loss of consciousness and 67% of cases presented with probable residual neurological symptoms (Corrigan et al., 2003). Unfortunately, the researchers did not report on the length of LOC, nor did they discuss how long the amnesia lasted.

However, other research shows that most TBIs (85%) are classified as mild, and this includes concussion (Bazarian et al., 2009).

According to Murray et al. (2016), a mild TBI (mTBI) is difficult to diagnose because common neuro-imaging techniques cannot always detect changes in brain physiology. Hence, diagnosis is dependent on the reporting and interpretation of subjective symptoms. According to Merritt and Arnett (2014), such symptoms may include irritability, fatigue, headache, nausea, vomiting, sleep difficulties, drowsiness, sensitivity to light and/or noise, sadness, mental 'fogginess', trouble remembering, nervousness, dizziness, and/or numbness.

Research has reported that women in IPV relationships are at increased risk of sustaining a TBI due to the chronic nature of IPV and the high incidence of head injuries (Kwako et al., 2011). IPV-related TBIs can occur either indirectly (e.g., being thrown against the wall, falling over, hitting the ground) or as a direct result of being punched or struck on the head. Various studies estimated the prevalence of TBI in this population at between 30% and 80% (Goldin et al., 2016; Kwako et al., 2011; Wong & Mellor, 2014). A study utilising clinical interviews to assess for cumulative head trauma in 19 IPV survivors found that they reported an average of 220 assaults with blows to the head with a mean duration of relationship of 5.9 years [SD = 264.91; range 960-1] (Deering et al., 2001).

Nevertheless, despite the high reported prevalence of TBI, a literature review in 2011 identified that only six studies focused on the occurrence of TBI in IPV, five of which assessed post-concussion syndrome (Kwako et al., 2011). This is in marked contrast to a study by Comper et al. (2010) that reviewed the incidence of sports concussion yielding 349 studies. Thus, TBI in IPV has not benefitted from the same degree of clinical and academic focus as general accidental and sport-related injuries.

### ***Non-traumatic brain injury***

A non-traumatic brain injury (nTBI) is marked by damage to the brain caused by internal factors, e.g., lack of oxygen, exposure to toxins, pressure from a tumour, etcetera. Those nTBI's caused by a lack of oxygen can either be anoxic or hypoxic (Valera et al., 2019). Anoxic is the complete disruption of oxygen flow to the brain, and hypoxic is its partial disruption. The primary cause of nTBI in the context of IPV is strangulation: restriction/manipulation of blood and oxygen flow to the brain due to pressure applied to the neck (Valera et al., 2019). For example, Meyer et al. (2021) evaluated the prevalence of head trauma in a sample of 47 IPV survivors using a selfreporting measure. Meyer et al. (2021) reported that the majority reported both an impact to the head (thus a potential TBI) and at least one incidence of constricted breathing – that, as an anoxic or hypoxic injury, is captured in the definition of an nTBI (CDC, 2003). Therefore, the umbrella term Acquired Brain Injury (ABI) will be used in this thesis to refer to both types, traumatic and non-traumatic brain injuries.

### *Health consequences*

Repeated assaults to the head and neck can cause an ABI, but so can a single incident (Larry et al., 2020). Hence, ABI can be either acute or cumulative (over months or years), intentional or unintentional, and/or due to violent acts of assault or strangulation (Gagnon & DePrince, 2017). Although mild ABI is the most common, nearly half of those affected can experience persistent symptoms such as ongoing cognitive, physical, psychological and social dysfunction, including elevated rates of mental illness that affect the person's ability to function in everyday life (Theadom et al., 2016). A resulting reduction in employment responsibility and working hours, or in some cases loss of employment, carries major personal and economic repercussions (Valera & Kucyi, 2017).

After an ABI, common emotional complaints are fatigue, mood changes, aggression, depression, and post-traumatic stress (Valera & Kucyi, 2017). Cognitive symptoms may include memory loss, confusion, and impaired judgment (Valera & Kucyi, 2017). In addition, motor function, fine dexterity and balance can be affected (Walker & Pickett, 2007). Behavioural issues include deficits in social interactions, planning and organisation, and judgment (Cimino et al., 2019). There is also an increased risk of Alzheimer's disease (Jaime et al., 2018) and ABI is a potential risk factor for dementia (Grasset et al., 2020).

## *ABI in IPV Population*

There has been little exploration of the impact of the head, neck and facial injuries on IPV survivors, nor of the correlation between ABI and IPV (Haag, Biscardi, et al., 2019; Haag, Sokoloff, et al., 2019). According to research on long-term and early exposure to contact sport, ABI was associated with the likelihood of developing chronic traumatic encephalopathy (Adams et al., 2018; cited in Esopenko et al., 2021) and can indicate the outcomes of repetitive head trauma. Furthermore, despite the repetitive nature of IPV, researchers note a failure to take into account the combined nature of IPV-related injuries, which take on multiple forms, including repeated head trauma and strangulation (Mengo et al., 2020; Nemeth et al., 2019).

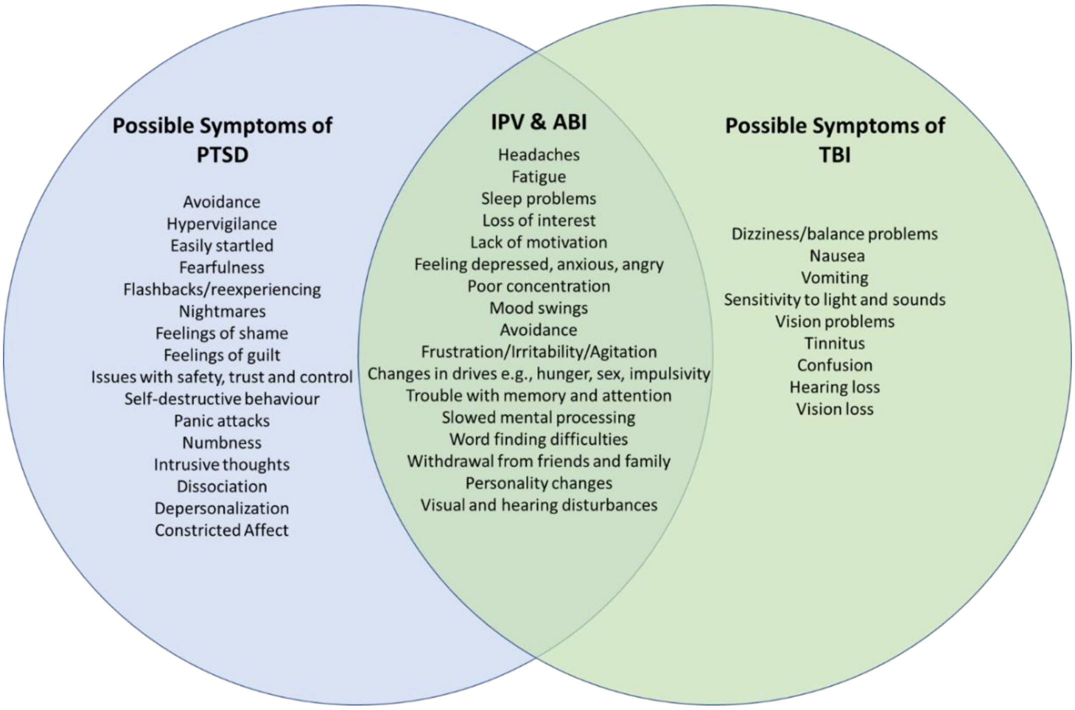
Similarly, research exploring the link between ABI and emotional disorders such as PTSD has focused on sports, accidental and combat-related injuries. However, difficulties experienced by the IPV population as a result of emotional and physical trauma have been shown to overlap with symptoms commonly observed after ABI (Meyer et al., 2021). Their research found that IPV survivors present with cognitive dysfunction, PTSD, and depression. Golding (1999) found that PTSD is the most common psychiatric diagnosis in the IPV population. Nevertheless, researchers struggle to determine the role of ABI in the onset and proliferation of these disorders.

Bacchus et al. (2018) postulated that this might be due to the focus on mental health outcomes of IPV and to the fact that less is known about the physical health consequences of IPV-related abuse. For example, Cascardi and O'Leary (as cited in Hunnicutt et al., 2017) claimed that alterations in cognitive function could be related to psychological trauma from the abusive relationship. However, this was taken further by Valera and Berenbaum (2003), who reported that symptoms can be related to both the mental health consequences of abuse and a possible ABI, and previous studies had either failed to consider head injuries or excluded them in their design. Hence it is clear that researchers struggle to separate the outcomes related to physical injury from those related to the traumatising effects of IPV.

The lack of awareness of a connection between ABI and IPV may also be due to the media attention that focuses primarily on TBI in military veterans and professional male athletes (Murray et al., 2016). Another aspect, reported by St Ivany et al. (2021), is that ABI is not considered within the IPV realm as part of the courtroom history. This may be due to IPV survivors' tendency to normalise and downplay, or not recognise, their injuries (Fanslow et al., 2010). Additionally, individuals with head trauma, including from strangulation, may present similar to other types of IPV-related abuse (St Ivany et al., 2021). These factors make it harder to identify possible ABI, especially since IPV survivors tend not to think in terms of ABI when discussing their abuse injuries (Murray et al., 2016). As a result, researchers struggle to agree on the origins of, and the overlap between, the mental health consequences of IPV, e.g., PTSD and TBI, especially given the complex interplay between the two (see Figure 1).

**Figure 1**

*The Overlap of IPV-related PTSD and TBI symptoms*



*Note. A general representation of overlapping symptoms associated with PTSD from those related with TBI. (Source: Golden, 2016; Valera, 2000; Vasterling et al., 2012)*

Notably, both the WHO (2012) and CDC (2003) fail to mention the link between IPV and brain injury or lists brain injury as a possible outcome of IPV. Hence, it is no surprise that clinicians find it hard to determine what symptoms are due to IPV and what may be due to ABI (Monahan, 2019; Patch et al., 2021). Murray et al. (2016) noted that practitioners and medical professionals might be unaware of the link between ABI and IPV, leaving such injuries as a "silent epidemic" within the IPV population. According to Galovski et al. (2021), TBI's complex clinical presentation, along with the lack of guidelines for differentiating its symptoms from those of other physical or mental health problems, make its diagnosis difficult when working in the IPV population.

Practitioners need to be aware of the link between ABI and IPV. This can have a knock-on effect on the provision of health care and mental health care to ensure that their clients' needs are met. If an ABI is present, this needs to be identified to support the person to obtain the necessary assessment and rehabilitation. However, a literature search has revealed only two studies focused on practitioner knowledge related to ABI in the IPV population.

Nemeth et al. (2019) explored providers' perceptions of the impacts of ABI on IPV survivors' experiences (n = 47, clinical staff, administrators, and shelter staff). There were eleven focus groups involving five domestic violence advocacy organisations in the United States of America that had had formal training in trauma-informed therapy. A further 49 IPV survivors at a shelter completed a survey. The researchers found that the providers had limited knowledge regarding ABI and that some failed to link ABI as a possible outcome of physical abuse. These providers had also had only limited exposure to working with individuals with ABI and did not feel comfortable addressing ABI as part of advocacy services. The reasons for practitioner discomfort, although unclear at that time, are important to understand in this present study as they could inform how to address the issue moving forward.

In Australia, Pritchard et al. (2019) conducted 22 semi-structured interviews and one focus group (n = 4). Participants were from several disciplines including administrators, policy advisors, researchers, case/support workers and other professionals. They confirmed the findings of Nemeth et al. (2019) including (a) Lack of practitioner knowledge regarding TBI; (b) Focus on the basic survival needs of the client; (c) Clients not being aware that they may have a TBI; and (d) Lack of funding to support a diagnosis of TBI. However, this study only included a few participants who worked directly with people experiencing IPV in a clinical context, thus limiting the applicability of their findings in terms of how to support frontline professionals working with people affected by IPV. Consequently, further research is needed to find out what clinicians know and understand about IPV-related ABI.

## Rationale for the Current Study

This qualitative study undertook to explore clinicians' understanding of ABI, including identifying service gaps observed within their roles working with IPV survivors. Unlike the Pritchard et al. (2019) and Nemeth et al. (2019) studies, this study only draws on practitioners working as frontline mental health providers within the IPV community, as they are the ones most likely to be in a position to identify and act on suspected ABIs. Further, this study aims to identify why practitioners lack confidence in discussing ABIs with their clients, as well as how this lack can be addressed.

# Methods and Methodology

Based on the constructivist paradigm, this study used a thematic analysis strategy to explore what practitioners know and understand about ABI, how they identify and manage possible ABI in their practice, and some strategies or resources to raise organisational awareness and develop an efficacious approach to ABI.

## Constructivist Paradigm

This study employed the constructivist paradigm to investigate and understand practitioners' knowledge related to IPV-related ABI, that was well suited to thematic analysis. Constructivist researchers focus on understanding and reconstructing participants' meanings and perceptions about the phenomenon under investigation through interpretive processes (Denzin & Lincoln, 2003). The researcher and the participants are interactively linked while meanings are being explored (Guba & Lincoln, 1994) through dialogue and reasoning. This enables understanding how participants construct meaning through daily interactions. Dialogical data was collected using semi-structured interviews. The questions guiding this research were gradually developed through literature review and discussions until they could be formulated into a specific enquiry.

This study was grounded in the epistemological position that "data can tell us something about people's involvement in, and orientation towards, the world and/or how they make sense of this" (Smith et al., 2009, p. 47). It entailed the constructivist researcher returning frequently to the data, attempting to make sense of the participants' meaning-making process (Smith & Osborn, 2008). The analysis led to the establishment of analytic themes and a description of how the themes interconnect, ending with a narrative that considers the researcher's and participants' meaning-making processes throughout the project (Eatough & Smith, 2010).

## Qualitative Research Approach

Qualitative methods focus on obtaining data through open-ended and conversational communication usually in the form of words or images (Collis & Hussey, 2014, p. 63) and is commonly used in the humanities and social sciences. The decision to employ a qualitative approach was associated with the nature of the research questions and the objective of exploring practitioners' knowledge of IPV-related ABI. Qualitative research allowed the researcher to make sense of how participants make meaning of events within their work context (Smith & Osborn, 2008). A thematic analysis was chosen to allow the researcher to investigate this under-researched topic and collaborate with participants whose views on the topic were not known (Braun & Clarke, 2012). The thematic analysis followed the essentialist/realist method, and this is based on the notion that language allows the participants to express their meanings and experiences (Braun & Clarke, 2012); in this case, their experiences of needs and gaps in serving the IPV population.

## The Role of the Researcher

An additional strength of the qualitative approach is that it enables the researcher to participate in the study and act as a research instrument. The researcher of this study is an 'insider researcher' in that, to an extent, she is from the same population as the participants (Braun & Clarke, 2012). In the current study, the researcher is a practising counsellor, provisionally registered with the New Zealand Association of Counsellors (NZAC), who has many years of experience working with people affected by IPV.

An inductive approach was applied. According to Saunders et al. (2019), an aspect of the inductive approach is that the researcher has a close understanding of the research context and of the collected qualitative data. Inductive research recognises the researcher as a core part of the process, enabling them to utilise their knowledge and experience of working in this context, and allowing participants to talk confidently with someone who understands their challenging working environment (Smith et al., 2009). The role of the researcher is to understand reality in different ways that reflect individual perspectives, which helps develop a level of detail in the data from participants (Creswell, 2013). This in turn enables a level of interpretation of experiences, since these may not necessarily be articulated directly by the participants (Creswell, 2013). In this study, the researcher's approach was one of personal reflexivity (Braun & Clarke, 2012): she was aware of her personal assumptions about IPV and about the nature of ABI within this population, and how these assumptions could influence the study. These factors were explored with her academic supervisors both prior to and during the research process.

## Research Design

The following section discusses the procedures for selecting participants, data collection, and analysis of the data.

### *Sampling*

This study is ideographic in nature (Smith & Osborn, 2008) in that, rather than making generalisable claims across a whole population. The study focuses on the rich details of the perceptions and experiences of a particular group of individuals, i.e., established counsellors, social workers and psychologists. The researcher employed purposive sampling (Braun & Clarke, 2012) to deliberately seek participants who met the following criteria: (a) Current registration as a Counsellor, Social Worker, Psychologist or other allied health professional; and (b) Aged 16 years and over; and (c) Currently working at an IPV agency or working with individuals affected by IPV.

Due to the nature of the study, the following exclusion criteria were applied:

- Individuals under the age of 16, because informed consent was needed to participate in the interview.
- Non-fluent English speakers, due to language barriers potentially affecting their ability to participate.
- Unregistered allied health professionals or those not currently working at an IPV agency or working with individuals affected by IPV.

The professional exclusion criterion was necessary in order to ensure that participants had received relevant training and had sufficiently recent experience in the field.

### *Group Size*

Krueger and Casey (2008) recommend no more than 8 to 10 participants in each focus group, in order to ensure that all who attend will get an opportunity to speak. Fern (2001) suggests between 1 and 30 groups, depending on the purpose of the research, although, according to Guest et al. (2017), approximately 2 to 3 focus groups would be enough to reach data saturation. Therefore, the aim for this study was to recruit between 6 and 8 participants per focus group, in 2 groups. The option of individual interviews was provided to take participant preference into account.

### *Recruitment*

An online search was carried out, for services providing support to people affected by IPV. Agencies that provided a range of services, including clinical, community- based and shelter services in the north of the North Island, were selected. The researcher contacted each of the identified services by telephone to introduce the study to the manager or CEO. The recruitment stage was staggered to consider response-lag time and avoid over-recruiting for the study.

Managers/CEOs verified their willingness to participate in the research via email. Once their confirmation was received, they were asked to distribute a study email (see Appendix B) to their staff members. Staff interested in taking part in the study were asked to contact the researcher directly via telephone, text message, or email. Following eligibility checks, and a description of the study and what would be involved, the researcher provided an opportunity for potential interviewees to have their questions addressed. They were then sent a Participant Information Sheet (PIS; see Appendix B) detailing the purpose of the study, research procedures, potential risks and benefits of participation, their rights, and how confidentiality would be upheld.

Once a person confirmed their interest in participating in the study, their preference to be in a focus group or individual interview was discussed. A consent form (see Appendix B) was provided to the participants, and this was signed before starting the focus group or returned it to the researcher via email before the interview. Focus groups were held on site at each agency (i.e., the participants’ workplace); one-to-one interviews were conducted via zoom and lasted an hour. Recruitment and interviewing ended when data saturation was reached (i.e., when participants raised no new areas of relevance to the research question).

Following interest from mental health workers who wanted to take part in the study an amendment was submitted to the Ethics Committee to seek approval to include these professions within the study (see Appendix A). Ten more agencies were then approached and invited to take part in the study.

### *Data Collection*

Focus groups and semi-structured interviews were chosen to collect the qualitative data. This flexible data-collection approach was chosen because it compliments constructivist and postmodern paradigms and allows flexibility regarding clinicians' preferences and COVID-19 societal constraints. Carson et al. (2001)

describes a focus group as a group interview with a specified topic focusing on interactive discussion, enabling people to build on others' ideas. Importantly, focus groups and interviews provide richer, more detailed descriptions of the phenomenon studied and allow for greater collaboration – both between the researcher and participants, and among participants themselves (Kamberelis, 2013). Such groups also enable "the members of the target population to express their ideas in a spontaneous manner that is not structured according to the researchers' prejudices" (Bertrand et al., 1992, p. 199). Individual interviews offer the advantage that a person's own experiences can be discussed more in depth without concern of what their peers may think of them.

A semi-structured interview guide was developed with questions covering broad areas of interest, based on the reviewed literature and the overall aims of the study. This was used to guide – but not direct – the interviews and focus groups, and allowed the researcher flexibility in exploring issues raised by the participants while ensuring data collection remained focused (Smith et al., 2009). During the one-to-one interviews, the schedule enabled the researcher to dynamically reflect on questions and alter them according to the participant's responses, thus making opportunities to probe areas of interest or importance that arose (Smith & Osborn, 2008). In addition, this format facilitated rapport between researcher and participant, acknowledging and respecting the interviewee as the expert on his or her own experiences (Smith et al., 2009).

The interviews lasted between 40 and 60 minutes long. The duration of each depended on how much elaboration and exploration occurred with regard to the guiding questions of the schedule. At the start of each interview, the researcher reminded participants of the purpose of the study, of their right to withdraw from the study at any time, and of confidentiality being maintained. Further, to develop rapport with the participant and demonstrate familiarity with the topic (Creswell, 2013), the researcher identified herself as a postgraduate student at Auckland University of Technology and as a counsellor in private practice. Participants were informed that the interview would be recorded, with their consent, and observational notes were made for reflection.

From the recordings, the two group sessions and three one-to-one interviews were transcribed verbatim by the researcher. Participants were assigned a study-specific number to protect confidentiality, and this was used in the transcripts to provide context of the quotes provided (group participants: P 1 – 18; individual interviewees: I1 – 3; R for the researcher).

### *Data Analysis*

Thematic analysis was used to identify, analyse, and report themes and patterns within the data that assisted the researcher to grasp how participants make sense of their experiences (Braun & Clarke, 2012). Meaning making is central to the participants' dialogue. Therefore, the analysis aimed to understand the complex layers of meaning that arose from the data, in a process that required repeated interpretive engagement with the transcripts (Braun & Clarke, 2012).

The data analysis followed the six phases as described by Braun and Clarke (2012). First, the researcher transcribed, read, and re-read the data to assist her in becoming familiar with it. Next, Microsoft Word tables were utilised to analyse the data visually, with columns containing speaker, transcript, and the preliminary coding derived from the researcher's interpretation of what the participants were saying (Ando et al., 2014).

The third phase involved searching for the themes and collating the codes from the Microsoft Word tables. This process involved identifying concepts as themes if the concept was expressed with comprehensiveness, frequency, or passion (Braun & Clarke, 2012). Another Word table was created as a form of code grid for each identified theme. Then, the researcher highlighted important quotes and phrases, creating initial codes, or features, of the data. This process was carried out by the researcher in consultation with her two supervisors. It was decided that data saturation was reached when no more novel information was attained after Focus group 2 (Ando et al., 2014). In the fourth phase, the researcher reviewed the identified themes and created a thematic map. Themes were then named and defined. The final report of the analysis was then drafted (Braun & Clarke, 2012).

## Ethics

Before embarking on this study, the researcher considered the ethical issues that could arise with this study and discussed ways these could be addressed in the ethics application. This was submitted to and given approval by the Auckland University of Technology Ethics Committee (AUTEC) on 30 April 2021; AUTEC Reference number 21/97, including an amendment (see Appendix A).

According to Kaiser (2009), the researcher has an obligation to respect the participants’ welfare, privacy, and rights. Key issues included consent, participant wellbeing during the interview, and privacy to avoid harm to participants due to their involvement in the study. In line with the principles of the Treaty of Waitangi (partnership, participation, and protection), the researcher undertook steps to ensure that the research process was collaborative and protective of the participants’ rights.

Alongside the ethical issues of participant safety and the right to withdraw, the potential for coercion by managers was also considered. Permission was requested from the agency heads to allow their practitioners the option of taking part in the study. Managers then distributed the invitation, and practitioners were given the freedom to choose to participate or not. To further ensure that participation in the study was entirely voluntary, participants were told before the start of the interview of their right to withdraw at any time prior to the data analysis stage. Participants were also told of their right to refuse to answer any questions without giving a reason.

In addition, participants were assured that the interview could be paused or suspended to ensure their safety if any issues or concerns arose, and they had the option to continue at a later date if they so chose. None of the participants indicated that they experienced any form of discomfort or risk due to their participation in the study. Nor did any of them make use of the support plans, to access counselling services at Auckland University of Technology (AUT).

Consent was discussed at the outset, which assisted in gaining the trust of participants. Written consent was obtained from each participant before the interviews and focus groups began. Furthermore, steps were taken to ensure that the participants remained anonymous and that no personal identifying information was retained. The researcher removed identifiers during the study's transcription phase, to create a ‘clean’ data set and to protect the participants as much as possible from deductive disclosure.

Participants’ right to withdraw, and information regarding confidentiality and anonymity, were clearly stated in the PIS and were restated by the researcher at the start of each interview and group session. In addition, both the Consent Form and the PIS stated that the interviews and focus groups would be recorded and transcribed by the researcher. As well as that, the participants were given the option of receiving a summary of the research findings. Audio recordings were stored in a secure AUT file following transcription to ensure data security.

## Compliance

The principles of the Treaty of Waitangi, an important framework in New Zealand, were considered at every stage of this study using the following three principles:

*Partnership*: This study was a collaborative process which sought to explore practitioners' current knowledge and insights into ABI. The researcher and the participants worked together in sharing knowledge and the stories of their experiences. The study acknowledged the rights of all participants and provided them with access to the knowledge gained from the project's outcomes.

*Participation*: Participation in the study was voluntary, and the PIS outlined the aims and requirements of the study. Each participant provided informed consent before his or her interview. Focus groups were held at participants workplace during work hours. Participants were invited to speak freely, to take their time and express things in their own way, and add things they think are relevant, without constraint. The researcher did not direct the conversation and allowed enough time to explore a relevant topic more deeply. Participants could withdraw from the study at any time before the data analysis stage, they could refuse to answer any question, and no deception was used in the study.

*Protection*: The study aimed to protect participants' privacy. Permission was requested from the manager or CEO of individual agencies to ensure that participation in the study would not affect their employment or professional standing. Participants was informed that they could take a break or stop the interview at any time if they experienced feeling of discomfort during the interview. Counselling was also made available for them through AUT Health Counselling and Wellness center. Confidentiality was maintained by having only the researcher and her supervisors handle the data, and the data storage and disposal plan complied with AUTEC's protocols.

## Ensuring Research Rigour

Rigour refers to the truthfulness of the data and to establishing confidence in the study findings. This study used Lincoln et al. (2007) criteria in pursuit of trustworthiness: dependability, credibility, transferability, and confirmability.

*Dependability* is based on credibility and confirmability (Lincoln et al., 2007). For a study to show dependability, there is an expectation that the methods, logic and reasoning which guide the work should be clear, stable, and consistent (Shenton, 2004). Therefore, this researcher kept all recordings, field notes, and transcripts to ensure an audit trail for future transferability and to maintain the study's credibility (Creswell, 2013). The researcher also adhered to the stated participant selection to ensure the target population was selected, and enabled member checking by reviewing the participants' statements with them (Creswell, 2013).

*Credibility* refers to the internal consistency of the study (Bryman, 2006), which in this case was achieved through semi-structured interviews as the research method, and through presenting participants' words to support its findings (Lincoln et al., 2007; Shenton, 2004). In addition, peer examination was achieved through consultation with supervisors to review categories, sub-themes and themes (Lincoln et al., 2007).

As stated earlier, qualitative research findings change over time due to their subjective nature and future results may differ. Qualitative studies are therefore not as generalisable as quantitative research (Lincoln et al., 2007) and instead aim to gather a diverse range of views on a specific topic. However, *Transferability* is achieved in this study, through contextual purpose sampling and through the presentation of clear descriptions of how its findings and conclusions were reached.

*Confirmability* refers to the researcher's ability to remain neutral and objective (Lincoln et al., 2007). In this investigation, the researcher was aware that her own predispositions might interfere with the study's outcomes. Therefore, this thesis includes an in-depth methodology description and an outline of the study's limitations and the researcher's particular frame of reference.

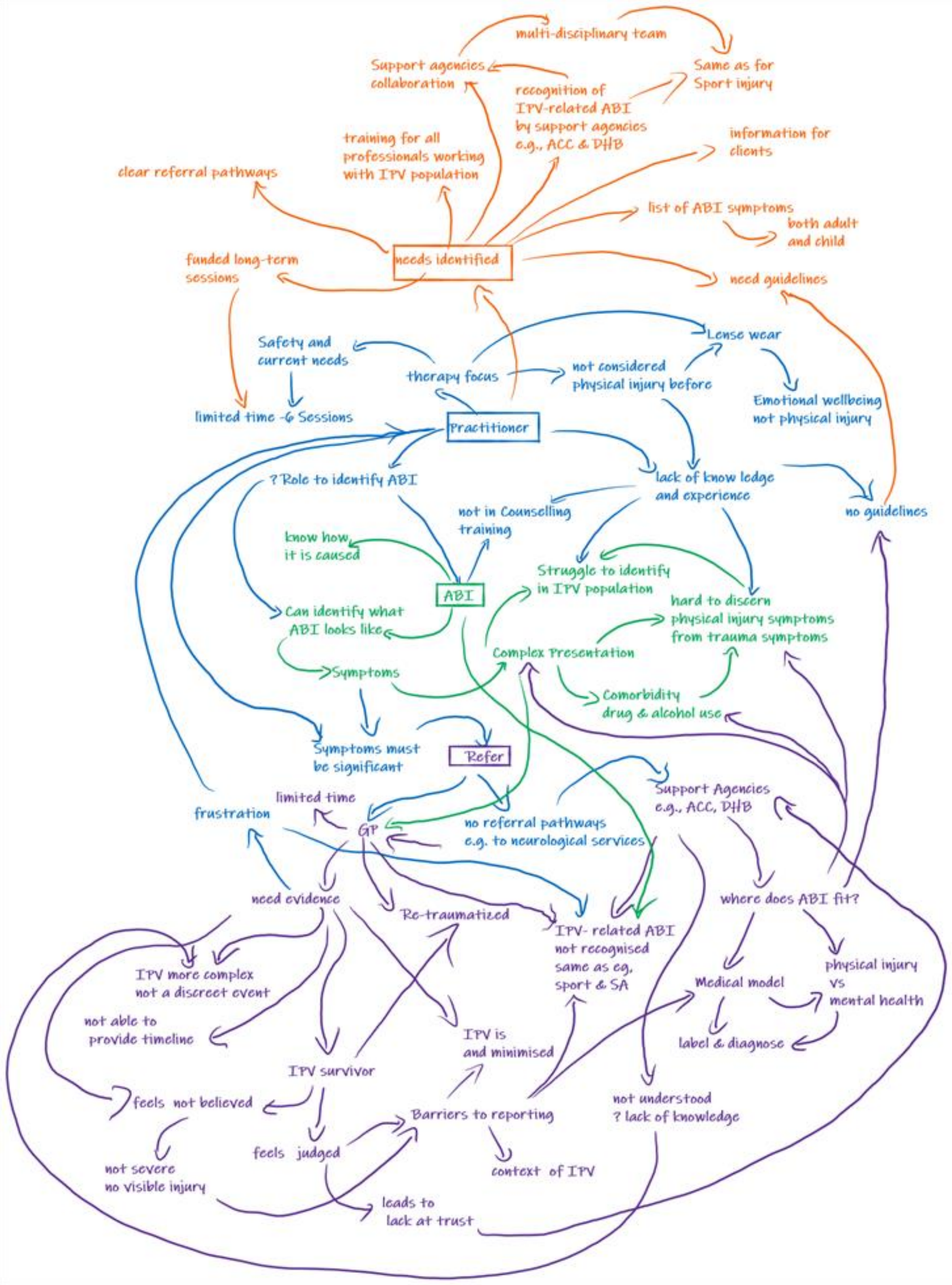
## Output

The proposed research themes were cross-checked by the supervision team to ensure relevance to the data and reduce the risk of personal expectations influencing interpretation beyond what the data states.

During the analysis, it became evident that the codes generated were all connected and interconnected. Consequently, to support the identification of themes and linkages, codes from the analysis were mapped out, as shown in Figure 2.

**Figure 2**

*Visual representation of the generation of themes from identified codes developed from participant semi-structured interviews and focus groups.*



## Results

The results of this qualitative study were based on two focus groups and three individual interviews, with a total of 21 participants. They were recruited in May and June 2021 from three agencies (Counselling Services Centre, Tauranga Living Without Violence Collective, and Family Action) supporting people affected by IPV. All those involved participated voluntarily in the study and provided written consent beforehand.

### Focus Groups 1 and 2

Eighteen participants joined the focus groups: 17 were female and 1 male. Focus groups were conducted with counsellors (n = 9), social workers (n = 3), allied health professionals (n = 4), and Counselling Psychology students (n = 2) working directly with IPV survivors (both adults and children). Most participants had worked in the IPV field for more than three years. The focus group sessions were held at two locations, in Auckland (n = 10) and Tauranga (n = 8), in meeting rooms chosen by agency management to limit distractions. The group participants will be referred to as 'P' (Participants P1 - P18).

### Interviews 1, 2, and 3

Three female participants, two counsellors (n = 2) and one psychologist (n = 1), were interviewed via Zoom. All were working directly with IPV survivors or with children who had either experienced or been exposed to IPV. This enabled practitioners to be involved even if they could not take part in a focus group or if their personal preference was for a one-to-one interview. These participants were referred to as "I" (Interviewees I1 - I3).

As intended, the focus groups and individual interviews for this study were between 40 and 60 minutes long. The duration of each depended on how much elaboration and exploration occurred with regard to the guiding questions of the schedule.

### Themes

As seen in Table 3, four overarching themes were identified from the research data, including (a) Identification of ABI, (b) Practitioner Context, (c) Gaps in agencies, services and referral pathways, and (d) Where do we go from here? Each overarching theme encompassed a number of subthemes, as shown.

**Table 3**

*Main and Subordinate Themes developed as a result of participant semi-structured interviews and focus groups*

| Main Themes | Subordinate Themes | Example Quote |
|---|---|---|
| Identification of ABI | • Symptoms and causes of ABI<br>• Presentation of ABI within the IPV Context<br>• Complexities of trauma symptoms<br>• Knowledge gap | *"There is often so much complexity in terms of trauma. That yeah, I feel it's hard to discern what what might be brain injury, what might be trauma."* |
| Practitioner context | • Whose role is it to identify ABI?<br>• Prioritising safety | "So, I would be wondering if that would be my role to make that diagnosis also …" |
| Gaps in services | • Guidelines for practitioners<br>• Referral pathways<br>• Barriers to seeking support | "Do you ask, do you even ask the question? And again, that, yeah, because the GP does not ask the questions, because they don't know where to refer to." |
| Where do we go from here? | | "There is always that – then what? Where do we go from here? We need direction of what to do with the information." |

### *Theme 1: Identification of ABI*

Participants felt confident in identifying potential signs, symptoms and causes of ABI from IPV, and most felt aware of things to look out for to identify how a client may present within the clinical consultation. However, most acknowledged that ABI was not always considered among their population and found the complex presentation of potential signs and symptoms within the context of IPV challenging. Some gaps in knowledge and training were identified.

**Symptoms and Causes of ABI.** All participants were able to identify factors that may lead to a potential ABI due to IPV, or to general accidents including sport and motor vehicle-related injuries. They identified mechanisms including being hit with an object, punched, burned, strangled, kicked, shaken, or forceful falls (i.e., being pushed). The areas of the body most affected by IPV, according to the participants, included the torso, arms, legs, back, and head. For example: *"I guess almost anything could potentially cause it [ABI] if there is enough force? You know, for the brain to move, wobble in the head" (P3).*Participants were concerned about the use of physical discipline, with younger boys identified as the most common recipients. An example was *"Giving a hiding. Yeah. I mean, not cricket, ah not I mean with a soft ball bat, so some of them are like childhood things, childhood harm and it's probably a lot of young boys that becomes victims" (P2).* Importantly, they stressed that the difference between accidental and IPV-related injuries is the repetitive nature of IPV and how it accumulates over the years. An example was:

> *"But when they indicate they've been beaten black and blue, and used their head, kind of as a punching bag, I suppose you hold in mind, the physical injury and neurological injury that would accompany not only one event, but potentially multiple events that have stemmed from that" (I1).*

Practitioners also talked about how IPV crosses generational lines and how difficult it is to break the cycle. For example: *"Their ability to perhaps make the connection that they're now where they are as offenders because of that. This is this again it's too hard to kinda go there" (*P12), and

> *"Some of them can come from a generation of abuse as well as. Those sessions usually get some of the sessions on parenting and we talk a lot about the physical discipline, and quite often we get a lot of pushback from parents" (P18).*

**Presentation of ABI Within the IPV Context.** Participants talked about the symptoms a client presents with, in the consulting room for both adults and children (see Table 4).

**Table 4**

*Identified symptoms of adults and children presenting to practitioners during the assessment as identified through practitioner semi-structured interviews and focus groups.*

| Group | Symptoms identified | |
|---|---|---|
| **Adults** | • A lack of understanding/comprehension<br>• Forgetfulness<br>• Being easily distracted<br>• Difficulty sequencing and retaining information<br>• Headaches<br>• Problems with their jaw<br>• Emotional dysregulation | • Personality changes Immobility<br>• Fatigue<br>• Dizziness<br>• Agitation<br>• Petechiae<br>• Sensitivity to light and/or noise<br>• Dissociation |
| **Children** | • Delayed milestones in language and cognitive development<br>• Tummy aches<br>• Emotional dysregulation | • Trouble breathing and swallowing<br>• Inability to follow instructions |

There was an increasing awareness that ABI was present in their client population but may often go unrecognised:

> *"So, in a recognition that if there's domestic violence, there's a really good chance that this head injury in there…... People don't want to think about the number of punches that women take to the heads and our children. Yeah, it's frustrating" (P11).*

Only a few participants worked with individuals with a medically diagnosed ABI. This included one participant who had a relative with an ABI and therefore held the possibility of ABI in mind when talking to clients. For example: *"I think whenever we have intimate partner violence if there is if there are acts of physical aggression, we always, I hold in mind that there is always the potential for traumatic brain injury" (I1).*

Whilst most participants felt that they had a good understanding of ABI, they reflected that it was harder to identify how a client with a potential brain injury would present in their context. Participants said that they only really considered ABI when there were noticeable, observable signs: "*And it's, it's only the ones that have presented with really significant physical symptoms"* (*I1);* otherwise, they would consider other possible causes of trauma symptoms. An example of this was:

> *"So, it's only if it's like really stands out that you go there, yeah. Otherwise, all the subtleties are all those questions, you'll be thinking of other things. But if it really stands out then you might think that awh actually I wonder" (P5).*

**Complexities of Trauma Symptoms.** The client's complex presentation can limit their ability to access support services "*And when you're got a head injury, that's even harder to deal with. I mean, it's hard enough to deal with when you don't have a head injury*" (P11).

Participants noted that the complex presentation of symptoms due to IPV makes it hard to discern what symptoms may be due to physical injury or trauma. This was highlighted by:

> *"Something around that the comprehension and understanding of what you're saying. Because you sometimes you will talk to them, and it's like they don't understand a word, or they don't remember it's like it's just not going anywhere. And then it's like I have to wonder if it's due to head injury or if it's because of the long history of abuse" (P16).*

Similarly, child therapists voiced uncertainty about linking the symptoms back to a potential brain injury. An example of this is:

> *"Hey, like with childhood development, there's, there's so much impact from non-physical abuse. As much as physical abuse, so it's, it's so hard to tell Hey, like, where, you know, where's the? Where do we need to address it? You know, like, what angle do I need to take it from?" (I3)*

Also, participants were aware that trauma symptoms may contribute to other disorders since the effects of IPV are not considered when diagnosing clients, leading to various people being missed or not diagnosed at all.

> *"I think that can be asked about so many things. Yea, a lot, absolutely, I mean, if we just for a moment think about how many kids are being treated for ADHD where they should be treated for trauma. So just it's dependent on that lens. In the domestic violence field, we are missing many. Not through, not because people don't want to help, but it's just the lens we wear, the theoretical understanding the learning just directs maybe one way. And I do think if you do open up other lenses, we will be able to access we will get better at identifying" (I1).*

Similarly, participants expressed uncertainty about determining issues potentially due to drug and alcohol use and those relating to ABI. For example:

> *"So, I think for me the gap is how do we support the victim with addiction and mental health problems without thinking that we have to see things somewhere else? Because addressing the addiction might not be the solution it's actually acknowledging the harm that's happening. It's what causes the people going to alcohol to escape. What isn't happening is addressing the actual issue, and what is causing the mental health. So, sometimes we might think someone is, should be under mental health when it's a brain injury" (I2).*

**Knowledge Gap.** Multiple participants admitted that they had limited knowledge about how ABI relates to IPV, specifically, and it was not within the scope of their core training programme. Some examples are: "*Yeah, I don't know anything about brain injury from training"* (*P3*), and "*Yeah. Yeah, I haven't had any training around brain injury."* (*P2),* and *"No. It's definitely not part of my training in counselling for sure" (I3).*

One participant was concerned that she did not have enough experience and trust in her own abilities as: "*I guess well because I feel I'm an inexperienced counsellor"* **(***I3).* However, collaboration with colleagues and supervisors for guidance in times of uncertainty was an important aspect of their roles, in particular "*And so, I've* *just, you know, enquired with my supervisor about sort of, where do I go from here?*" (*I2)* and

> *"I think in case of, if you have case consults, where you bring these cases to the table, and to say, okay, so we had this conversation, what worked well, what made a difference, so we can learn off each other from each other" (I3).*

Participants were also aware that their focus was on the emotional aspects of trauma and not on the physical effects of IPV. For example:

> *"Also, my pathway as a counsellor, so I work more with the, you know, their emotional stability, and their, their relational development in their brain, and their emotional regulation patterns and things like that. Whereas, you know, psychologists might approach it from a different sort of pathway" (I3).*

### *Theme 2: Practitioner Context*

The context of the agency they worked for and their perceived place in it appeared to have a meaningful impact on how participants saw their role in responding to ABI. It affected how they balanced identifying needs against focusing on ensuring safety and reducing risk.

**Whose Role is it to Identify ABI?** Participants spoke about the absence of policies and procedures regarding identifying and dealing with ABI from an agency perspective. An example was: "*Not specifically. We screen for medical conditions and the effects of that" (P18).* However, they stated that their current assessment for IPV is thorough. For example: "*Our whole assessment is very thorough. Everything is about the violence, basically, that she has been subjected to or that he has subjected her to" (P11).*

Participants who were aware of the complex presentation of IPV wondered how identifying possible brain injury would fit in with their role as counsellors. As such "*So, I would be wondering if that would be my role to make that diagnosis or who I would be working with to make that appropriate diagnosis or label that" (I1),* and

> *"I definitely think about it, but I often find in situations where that could be a factor, there's often so much complexity in terms of trauma. That Yeah, I feel like it's very hard to discern what might be brain injury,*

> *what might be trauma? …... But I and I don't know, I don't know how much how fully that's possible, even to do in our roles, and how much you know, is medical. Medical intervention needs to come into that to really assess brain injury and what's what" (P3).*

This perspective led to them questioning their role and ability to identify a possible ABI and for some the answer was "*No, I couldn't because I am not a doctor. You know there's a different step removed from what we do"* (*P5*).

Participants acknowledged that ABI was not always at the forefront of their minds during their sessions with clients, due to the organisation's focus on the emotional impacts of trauma.

> *"One of the interesting things I am just thinking about is the number of children who come refer for, you know, it will be termed something like emotional dysregulation or difficulty regulating emotions, challenging defiance, that sort of thing. And just wondering, literally now, how much of that could potentially actually be a result of multiple injuries that you tend to, you know, I guess, from you know, my training and so forth, just tend to look at the emotional, psychological side of things, as opposed to uhm a potential for it to being something else. Or have a component of having an actual injury" (P8).*

Also, participants were able to identify that their training lens plays a role in their inability to distinguish between trauma symptoms and brain injury.

> *"I would think what is the lens we're wearing. You know, if I'm a neurologist, I'm going to be looking for neurologically based presentations. If I am a gastroenterologist, I'm going to be looking for digestive aspects. So, the symptoms might be very similar, but my training and the lens I wear impact; I interpret those symptoms through that lens if I could put it that way. So perhaps my lens isn't a traumatic brain injury means if I can put it that way. It would be a trauma-informed on" (I1).*

**Prioritising Safety.** Participants said that the first goal of therapy is to ensure the clients' physical safety and other basic needs, before considering emotional needs.

> *"So, I suppose we always work from a place of safety first. So, for me, when there is an indication, whether it has been disclosed, or if there is an indication of domestic violence, it is ensuring first of all their physical safety. And generally, nine out of 10 times that's it done. And then it's looking at what the psychological safety would look like. So, for me, when, whenever there is, by law, whenever there is a disclosure around potential harm, so it's trying to support the client's ensuring physical safety first, putting in safety and stabilisation. And then once those basic that basic hopefully, that basic need of physical safety is in place, I suppose then to look at what the other kind of priority needs might be. Yeah, and generally, that might be, again, around physical stuff. And so, then we can then look at the emotional safety and psychological" (I1).*

Participants acknowledged that most agencies only provide short-term counselling, "*we talk about six sessions"* (*P6*), due to the lack of accessible funded long-term counselling. "*So long term counselling for DV victims is not necessarily that accessible, and certainly not funded"* (*P11*), leaving participants with a dilemma as to where they should focus their time and attention. An example of this was:

> *"It's tricky with clients like that because there's a feeling so much to address, you know, it's like you'd have you know, you choose what, what to address first, especially with safety there was there was so much on safeness for her" (I3).*

In addition, from a safety perspective, participants wondered when would be best to discuss ABI. They acknowledged that the timing of sharing information is important, including the content and the intent of what is shared and that "*They are still in survival mode. So, it's about the appropriateness, isn't it? Yeah, but then there is also what is said and the intent" (P6).*

Some participants felt unsure about 'how' to have a conversation about possible ABI. Others pointed out that being curious and asking questions is the best course of action to start the discussion on identifying a brain injury and "*I don't think there is anything wrong with having the conversation and if curious, you can ask* *questions and you can wonder out of anything, but you can't really hurt your client"* (*P2).* However, some wanted confirmation of a diagnosis before sharing any information with their client.

> *"So, I would be wondering if that would be my role to make that diagnosis also. So, when you say, would I share TBI info with my clients themselves? I first want a neurologist or medical professional to be supporting that diagnosis and I would be hoping that they would provide some type of baseline information to my client first. I'm absolutely prepared to be able to support them with additional psychoeducational information around what TBI could potentially be. But I also think the trauma that our clients present with influences the physiological components and the cycle" (I1).*

### *Theme 3: Gaps in Services*

Participants pointed out that even if they could identify possible ABI, they would still not know what to do with the information because there are no referral pathways or support mechanisms for this. They cited the complexity of their clients, difficulties linking in with general practitioners (GPs), limited resources, and uncertainty of where to go and what to ask for.

**Guidelines for Practitioners.** The many, varied, and complex needs of their client's meant participants were not sure of the pathway to get support for them if an ABI was suspected. *"There is always that then what, where do we go from here? Need directions of what to do with the information" (P12).* In addition, participants also pointed out that supporting agencies struggle to determine where the person affected by IPV fits in the system, due to the complex presentation of their symptoms. For example: "*That's when the paths don't work. So, they get sent to mental health, you're not mental health. They get sent somewhere else, your mental health, and they just gatekeep and just flick people back and forth" (P11).*

Following on from agencies struggling to determine where IPV lies in the system, participants talked about agencies requiring evidence of a reported incident or accident. This was identified as an area of increased difficulty of seeking appropriate client support. One example was:

> *"Well and also ACC want evidence, you know, of the when, where, how, and then we'll decide whether that's actually true or enough. But*

> *as you said, people don't remember that, or it was historic. Why didn't you report at the time? So, trying to explain this isn't necessarily taken seriously as it should be. So why didn't you report it at the time?" (P11)*

In addition, there was a general consensus of disappointment that IPV was not recognised the same way as other assaults. Participants also expressed frustration that agencies focus on specific areas of IPV, leading to the survivor missing out on access to vital resources.

> *"It would be good if ACC recognised domestic violence in the same way as they recognise sexual assault because for quite often our women are experiencing so much and they just get told to get out and fight. Well, what do you do? You know for these women you advocate as much as you can, and they just get pushed back" (P18).*

Similarly, there was an acknowledgement that IPV was not recognised to the same extent as sports injuries, even though IPV is known to be one of the most damaging social issues in New Zealand.

> *"I guess it is interesting because it's certainly a big issue now around ex-rugby players and dementia, things that are coming up. I think for so many reasons, we don't talk about domestic violence the way we should, even though it's probably a ginormous more significant issue than sports injuries. And that one in three women are subjected to that at some stage in their life. So probably the biggest social issue we've got. But we don't talk about it in the same way that we don't front page paper about that" (P11).*

and

> *"Well, if it has been repeated, the damage would be enormous and might not be as apparent… Because if it happens constantly or repeatedly over time, there must be some kind of damage somewhere that might not present in that time but later in life. Alzheimer's or dementia... I mean, we've got our rugby players and soccer players after certain amount of times, they say no more. So why should children and victims get a different treatment?" (I2)*

**Referral Pathways.** The participants identified that clinicians and other practitioners need to have a basic understanding of the social context and complex presentation of ABI, in order to work with people affected by IPV.

> *"And just thinking about the lack of informed clinicians or practitioners of domestic violence like, you know, not saying you have to be an expert. But if you don't even understand that, how are you ever going to take it seriously?" (P15)*

Again, due to the lack of informed clinicians, participants' views were that IPV survivors do not receive the care they need.

> *"And in my opinion, I don't know that even those other agencies are particularly good at it either. Even the DHB (District Health Board in New Zealand), you know, the head injury, I think there's so you know, unless you get to those kinds of specialists, which potentially you never get to, or would take you years to get taken that seriously. And so how easy it is to, I guess you just push people away. Or tell them it's something else, or, you know, just delay them especially. If you don't have money to go and get a thorough assessment from the right people. How often are you just completely left hanging?" (P11)*

Participants described being comfortable referring their clients to a GP, seeing this as one possible way of seeking support for them. "*So, if there are, if there are indications or symptoms that require further investigation, I would definitely be referring. I usually work through the GP, who then makes referrals to neurologists"* (*I1).* However, they raised the concerns that GPs may not have the time to complete adequate assessments, nor know where to refer people to next. So *"Do you ask, do you even ask the question? And again, that, yeah, because the GP does not ask the questions, because they don't know where to refer to" (P18)* and *"Or you've got a 10-minute appointment. We don't have time to talk about this" (P11).*

One role that participants could see for themselves was in collating information for medical or specialist review of ABI i.e., "*I also think we have the time to do those more in-depth clinical interviews to gather that information and present it to them in a way that they can then make, hopefully, a clinical decision going forward*" (I1).

**Barriers to Seeking Support.** Participants reported that clients might not be aware that their symptoms may be due to ABI "*And they are actually confused themselves trying to make sense, being in a panic because they don't know what's happened, they might not have seen a doctor*. (I2). In addition, participants acknowledge that clients may not always share their IPV history with their GPs i.e., "*I think you're quite right that it is really difficult for people when they're experiencing domestic violence to actually speak about that"* (I1).

Participants pointed out that, for someone exposed to IPV, shame is a barrier to help-seeking behaviour even if the practitioner did have a way of referring the client on "*And even before that, you still have to get past the shame to get the help*" (P18). They also acknowledged that distrust of agencies was a barrier to help-seeking behaviour: "*Especially trusting, like statutory agencies, like ACC, DHB, Oranga Tamariki but those big ones*" (P11). As well as:

> *"Trust is another thing either we might have. Quite often the clients will trust us. And we've started to build a relationship, no way that they want to trust anyone else. And they might just branch out that little bit and get a little bit of pushback or feel judged or whatever by another agency, and they're gonna I'll just stay with you guys" (P18).*

Specifically, regarding children and IPV, they mentioned the need to prevent people from feeling judged or blamed:

> *"….and the guilt and shame not only from whanau but actually from the early childhood centre, which was really sad, because they didn't understand themselves on how to support this family and understanding to restore his confidence. So, it was a family member. So, there was more shame put back onto Mom, why don't you protect your child? And it was just horrific" (P8).*

The cost of seeking advice from a GP was also highlighted as a key barrier. For example:

> *"And it's the cost too because it is not funded. It's you have to pay for the GP, you have to pay for the physical therapist, you have to pay you know for all of the therapy that you can possibly need. And this isn't something that's a quick fix" (P14)*

and

> *"So, even if support was available, clients was unable to access it due to the IPV environment. Or sometimes a risky scenario, he'll actually, he will actually physically prevent her like, lock her up or take away the car keys, take away her phone so she can't access any support. Yeah" (P11).*

### *Theme 4: Where do we go From Here?*

Participants stated that acknowledging the nature of IPV, and the high probability of it causing ABI, would be an essential first step i.e., "*So, in a recognition that if there's domestic violence, there's a really good chance that this head injury in there*" (P11). They also voiced a need for various agencies to work together and for a clear referral pathway.

> *"….. maybe there should be a really direct clear open pathway between domestic violence agencies and brain injury support, where they are able to write a referral that then creates more of an understanding about the high-risk need of that potential client" (P13).*

They also pointed to the lack of support from professionals knowledgeable about IPV.

> *"Absolutely, and how the footballer, for example, gets a sports psychologist, someone who is trained in the field and understands the impact of what this injury could have on their professions and their life. So, they're trained in it. Whereas our domestic violence people are lucky if they get a nurse that perhaps hear them. Or identify that that bruise is actually not caused by the doorknob - was there someone that hurt you?" (I1)*

Participants made it clear that there needs to be a support system in place, consisting of multidisciplinary teams knowledgeable about IPV.

> *"First of all, that there's recognition around that domestic violence is far more than just the psychological, but there's a physiological aspect. And because there's a physiological aspect, we need a system that can support the physiological needs of victims of*

> *domestic violence and not just getting stitched up and he has a plaster. So yeah, if that DV people could actually access the system quicker, and that they would be adequately trained people because I think if I suffered a TBI, and I've just come off my bike, versus I suffered a TBI because my husband has hit me for the past 10 years, the medical professionals that I work with, hopefully, would also have an understanding of what I would require versus someone who's just come off their bike. But yeah, there needs to be a difference in the medical support around those. So that in these pathways, there would be mental health professionals, perhaps alongside the medical professionals supporting those quicker access people coming in" (I1).*

Participants indicated that agencies should have appropriate policies and procedures in place for working with the IPV population, including guidelines and referral pathways. For example: "*Yea, but so having the correct procedures and processes in place to support the people of domestic violence, not just the counselling bit, because there is so much more" (I1)* and "*A clear pathway of what to do with that information because it is all well and good to collect that information for us. But then what?" (P16).* They also voiced a need for adequate training for participants working in the IPV field.

> *"I think that as professionals, there is always room to learn new things, so yea and if you are going to directly support people who have experienced domestic violence that your lens or theoretical framework is informed by the appropriate theories to support the work that you do with them" (I1).*

Training was felt to be particularly important because, if there is a physiological injury, practitioners need to adjust the way they work with these clients. In particular: "*Yes, but being, being aware of it ok there's been a brain injury, I really need to be able to take that into consideration when working with the person" (P9).*

Participants also identified a need for information on the presentation of brain injuries. They stated that a checklist of symptoms for both children and adults would be advantageous. They also expressed a need for guidance on the kind of information to share when conversing with a client. In particular: "*More education, I think, more information to know what am I looking for. How do I discuss what I've seen?*" (P13) *and* "*Maybe a checklist that has symptoms that could indicate brain injury*

*Need - List of symptoms … an assessment tool*" (P3). Another participant identified that "*I was just gonna say having some kind of child-specific guidelines as well. It's we've sort of talked a little bit about symptoms could be quite different*" (P6).

Participants highlighted a lack of information for the public regarding the link between IPV and ABI. In particular:

> *"Well, just in general, you know, when you look at literature about, you know, resources for parents, say this is what can happen if your child is abused, there isn't a lot of talk, you know, talks about the impact on their childhood development and their brains development, but it doesn't really talk about you know, how physical violence can impact their brain.   So, I think that would be helpful. Yeah, to be able to give a parent some you know, diagram and text that this is also a factor to consider.   And it also feels out of my depth to you know, like, I feel like I need to refer them to a doctor or a neuroscientist or something, you know, to, to consider it further" (I3).*

## Discussion

This qualitative study highlights the complex presentation of survivors of IPV, the consequent difficulties in identifying ABI among them, and the lack of referral pathways and appropriate support services for clients. Service providers acknowledged the pervasive nature of IPV, and the fact that repeated IPV head trauma and strangulation could cause ABI. The complex neurological presentation of IPV survivors was further complicated if there were additional comorbidities or drug and alcohol use. The providers questioned their role in identifying and discussing ABI, and a lack of confidence in their knowledge and experience of brain injury. They also identified a need for supporting agencies to acknowledge the issue and support a model of care that could address the IPV population's needs.

### Gaps in Knowledge

This study confirmed the findings of both Nemeth et al. (2019) and Pritchard et al. (2019) that IPV practitioners have gaps in their knowledge of ABI and experience working with people with potential injuries. Previous research highlighted that practitioners struggle to connect IPV and ABI since ABI did not fall within the scope of their training programs (Haag, Sokoloff, et al., 2019; Nemeth et al., 2019). Murray et al. (2016) postulated that the lack of awareness of the connection between ABI and IPV might also be due to media focusing on TBI in military veterans and professional male athletes. Pritchard et al. (2019) suggested that this lack of knowledge may be because IPV was not the focus of these services. However, augmenting previous research findings, this study showed that practitioners wanted more information and training and to know how best to support a client with a suspected ABI. This would increase their level of confidence in raising the potential for ABI with their clients.

This study also highlighted that IPV survivors themselves tend not to think in terms of ABI when discussing their abuse injuries (Murray et al., 2016), as one participant said, "*if you didn't know it as a professional, how do we expect other people to know the risks?" (I2)*. Gaps in knowledge thus applies to practitioners and the general public, including the IPV population. Practitioners suggested that support agencies, such as the Accident Compensations Corporation (ACC), District Health Boards (DHBs) and General Practitioner (GP) services, also have limited knowledge regarding the complex presentation of ABI and IPV. As Murray et al. (2016) noted, practitioners and medical professionals might be unaware of the link between ABI and

IPV, leaving such injuries as a "silent epidemic" within the IPV population. Hence, it is no surprise that both practitioners and other clinicians find it hard to determine what symptoms are due to IPV and what may be due to ABI (Monahan, 2019; Patch et al., 2021).

Prior research has argued that the IPV relationship dynamic could be responsible for the changes in the cognitive and psychological functioning of the survivor (Houskamp & Foy, 1991). Unfortunately, this view impacts ABI identification from other mental health-related problems and has led to a biased approach to the treatment of the IPV population. Participants in this study pointed out that support agencies struggle to determine where the person affected by IPV fits in the system. A person with IPV-related ABI may experience back-and-forth handovers between various support agencies, as described by participants. Therefore, adequate training should be made available for current and future practitioners across the system who may interact with people affected by IPV. In addition, the participants said that it would be helpful to have information regarding ABI for themselves and for the wider public, to increase awareness of the link between ABI and IPV. Most importantly, they wanted support agencies (ACC, DHBs, GPs and neurological services) to work together and form multidisciplinary teams knowledgeable about IPV, to increase everyone's awareness and responsiveness to the needs of those affected.

### Where Does IPV-Related ABI Fit in the System?

Practitioners involved in this study were concerned that the identification of ABI might not fall within the scope of their practice, as Nemeth et al. (2019) had also noted. ABI's complex presentation, along with the clinicians' lack of brain injury experience and knowledge, may have led to their hesitancy about their role in identifying ABI and their need for guidance in "teasing apart the overlapping symptoms" (Hunnicutt et al., 2019).

Galovski et al. (2021) also found that a lack of guidelines for differentiating ABI symptoms from other physical or mental health problems affects practitioners' ability to identify brain injuries. Similar to the findings of Nemeth et al. (2019), the participants in this study acknowledged that they did not have guidelines for addressing the topic of brain injuries with clients or even for sharing ABI information with them. Consequently, specific training may be needed in how to broach the matter, in order to reduce practitioner anxiety about having ABI discussions with clients (Nemeth et al., 2019).

## IPV-Related ABI Not Recognised

Nemeth et al. (2019) suggested advocating for mental health funding for IPV-related ABI, categorising IPV-related ABI as a mental health problem. Unlike some other countries, NZ has the ACC, and this currently covers the cost of treating injuries caused by a specific event – although injuries due to a long-term, gradual process are only covered if they are work-related. For example, ACC will cover sporting incident injuries, and those caused by common assault, or by an IPV event if it was severe enough to cause an ABI that was treated at a hospital's emergency department.

Sports injuries are approached differently to IPV injuries: for example, a concussion on the sports field mandates removing the person, with follow-up medical attention (King et al., 2021). In contrast, a person experiencing IPV does not usually have the option of leaving the scene and is likely to be exposed to the repetitive nature of physical abuse, including multiple blows to the head or strangulation, over extended periods (Hunnicutt et al., 2019). Participants in this study verbalised frustration that IPV did not receive the same recognition as sports injuries, leaving the IPV population without adequate support services. They described the current support as fragmented, with no long-term funded IPV counselling services and no specific IPV-related ABI treatment available.

## Help-Seeking: The IPV Context

The participants discussed the repetitive, cyclic, and intergenerational nature of IPV. A study by Hunnicutt et al. (2017) stressed the importance of understanding the context of IPV at an individual and population level, i.e., a socio-ecological context. Specifically, the broader social setting of IPV, that includes families, communities and society at large, plays a role in forming barriers to help-seeking behaviour (St Ivany et al., 2021). It is important for IPV professionals to understand the role that the aetiology of IPV plays in ABI. This is relevant not only for the identification of IPV-related ABI but also for developing targeted support and treatment. Support agencies need to take into account the fact that IPV erodes the mutual trust and respect on which all healthy partnerships rest (Kaur & Garg, 2008), and that this can include mistrusting the client-practitioner relationship.

Further, this study's IPV practitioners stated that agencies such as the ACC, DHBs and GPs required evidence of a reported incident or accident, which was not always possible due to the context of IPV. In addition, requiring proof of physical abuse has led to a minimisation of IPV, as victims place an increasing value on the perceived severity of abuse and this leads to their not reporting it or not accessing support (Wolf et al., 2003). Participants described it being easy for medical professionals, including GPs, to dismiss the possibility of ABI and attribute the symptoms to psychological trauma instead. Physical abuse may be discounted, in the absence of outward signs of injury or a medical history of visible injuries. However, research shows that notable functional deficits may be experienced without the person showing visible injuries (Hunnicutt et al., 2017). That makes it hard to identify and diagnose mild or chronic TBI (Masel & DeWitt, 2010). Practitioners involved in this study reported that their clients felt judged or not believed, as well as experiencing a lack of support from various services and agencies. This was similar to the findings of Fugate et al. (2005), who noted that when a survivor seeks assistance from the police or health care providers, they may face being judged or criticised.

The practitioners involved in the current study acknowledged the role of shame and guilt in decreasing their clients' help-seeking behaviour. Previous research has shown that anticipating stigma from support services increases a sense of shame, and this maintains the cycle of secrecy around IPV (Overstreet & Quinn, 2013). McLeod et al. (2010) confirm that this reaction of intense shame inhibits help-seeking behaviour. According to Beaulaurier et al. (2008), IPV exploits the survivor's sense of self-blame and shame. This can lead to internal barriers to help-seeking behaviours due to stigmatisation and fear of losing familial support. Hence, it would be beneficial for all those working with the IPV population to receive training in IPV aetiology and its social and cultural context.

In the case of head trauma, not seeking help may also be due to IPV survivors' tendency to normalise and downplay, or not recognise, their injuries (Fanslow et al., 2010). According to Monahan and O'Leary (1999), other reasons for under-reporting are social stigma, lack of finances due to control by the perpetrator, impaired decision-making abilities, and lack of knowledge regarding the link between ABI-related and IPV-related symptomology (St Ivany & Schminkey, 2019; Yocom, 2020). For example, it can be difficult for a person to make a medical appointment when experiencing fatigue, cognitive difficulties, headaches, and juggling daily work and the demands of family life (Mengo et al., 2020). A healthcare pathway that takes these barriers into account may facilitate access to rehabilitation for those who need it.

## Implications for Agencies and Practitioners

Given the complexity of their clients' clinical presentation, collaboration and consultation between agencies through sharing information and knowledge are necessary to ensure a more consistent provision of services and enabling all needs to be met. This study revealed that clinicians were not aware of external agencies in NZ to which they could refer their clients for additional advice and support. For example, patient support organisations such as Headway and Brain Injury Associations, as well as specialist rehabilitation providers. Knowing which services they can refer people to may help lessen some of their concerns regarding whether addressing suspected brain injury fits into the scope of their role. In addition, service providers should ensure that they are aware of the cultural and social context of IPV from which the ABI may stem.

Creating a multidisciplinary team is an essential step towards the development of practical guidelines on how to address ABI in the IPV population, and towards outlining appropriate referral pathways to ensure that clients have access to adequate and timely support. A multidisciplinary team can be created through collaboration between various support agencies such as ACC, DHBs, GPs, neurological services, and community leaders (e.g., Pasifika and Māori). In addition, training for all staff at support agencies is needed to increase their awareness of IPV and its complex presentation. This will also increase awareness of the associated experience of shame and how this may impact trust and prevent people from disclosing IPV.

Collaboration with community leaders (e.g., Pasifika and Māori) to encourage discussion of the link between ABI and IPV may help to make the information more accessible and increase awareness among the general public. In addition, a media campaign also targeting information between ABI and IPV would further assist the awareness. Advocating for service agencies (ACC, DHBs, GPs, neurological services) to recognise the impact of, and link between, ABI and IPV, is also needed. This can help ensure that the victims of IPV who do seek support for a possible ABI are appropriately assessed and treated.

Support agencies working with people affected by IPV could provide trauma informed training for all staff. This training could also focus on the dynamics and effects of IPV and sexual violence. This would assist in enabling practitioners to be familiar with the complex presentation of IPV and be well equipped to work in the IPV field. Training for all practitioners working in the field regarding the aetiology of ABI, including common symptoms, would reduce anxiety regarding their competence and increase their willingness to share information with clients.

### Limitations and Future Research

This study had certain limitations. The interviews and focus groups were only an hour long at most, to fit in with the participants' workloads. In one case, that meant a discussion of the Māori worldview, how it differs from western thinking, and the implication of having no holistic *Te Whare Tapa Wha* approach in the DHBs, could not be explored further. Another recognised limitation relates to diversity of the participants. Recruitment relied on volunteers and only one male practitioner joined the study. Furthermore, only one psychologist was interviewed, which may reduce the generalisation of the findings to other health professionals working in this context. In addition, although participants were recruited through four different IPV support organisations, these participants' views may not reflect those of wider services involved in supporting people who have experienced IPV. This would include such groups like the police and emergency department hospital staff. Nor were the perspectives and experiences of the IPV population directly explored in this study. The study was also limited geographically and would benefit from a larger-scale New Zealand wide project.

Future studies could include survivors of IPV, exploring their knowledge of the link between ABI and IPV and their experience of accessing services. Understanding their personal experiences, as well as clinicians' perspectives may help identify further ways in which the relevant services can be improved. In addition, exploring the perspectives and gaps in knowledge of other frontline professionals working with the IPV population – ABI specialists, emergency-room personnel, police, and those in the justice system – would contribute to the formation of a more complete picture.

## Conclusion

Despite this study's limitations, it is the first known NZ study to focus on the link between ABI and IPV and on the knowledge and perceptions of ABI among practitioners working with the IPV population. The study identified four key themes; (a) Identification of ABI, (b) Practitioner Context, (c) Gaps in services, services and referral pathways, and (d) Where do we go from here? These themes augment previous international research by highlighting how practitioners need increased confidence to raise the issue of ABI with their clients. This could be assisted by clarity in their role and clear and quick referral pathways to ensure those affected can access the support that they need. It is essential to start a discussion around IPV-related ABI in NZ and to explore a systems approach to create a clear pathway for those affected to reduce the longer term impacts of ABI on those affected.

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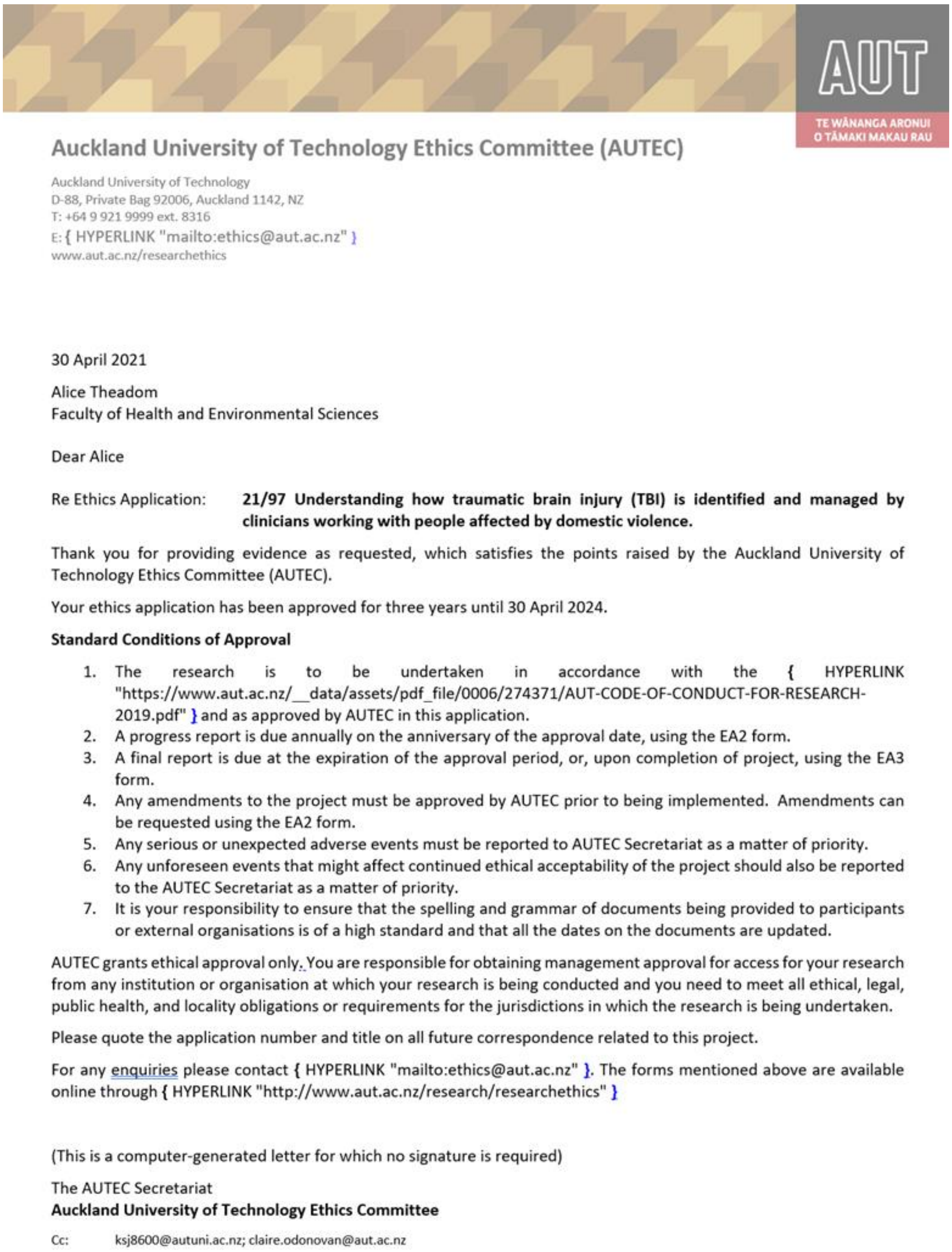
## Appendix A

### a) Ethics approval



TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

## Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: { HYPERLINK "mailto:ethics@aut.ac.nz" }
www.aut.ac.nz/researchethics

30 April 2021

Alice Theadom
Faculty of Health and Environmental Sciences

Dear Alice

Re Ethics Application: **21/97 Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 30 April 2024.

**Standard Conditions of Approval**

1. The research is to be undertaken in accordance with the { HYPERLINK "https://www.aut.ac.nz/__data/assets/pdf_file/0006/274371/AUT-CODE-OF-CONDUCT-FOR-RESEARCH-2019.pdf" } and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

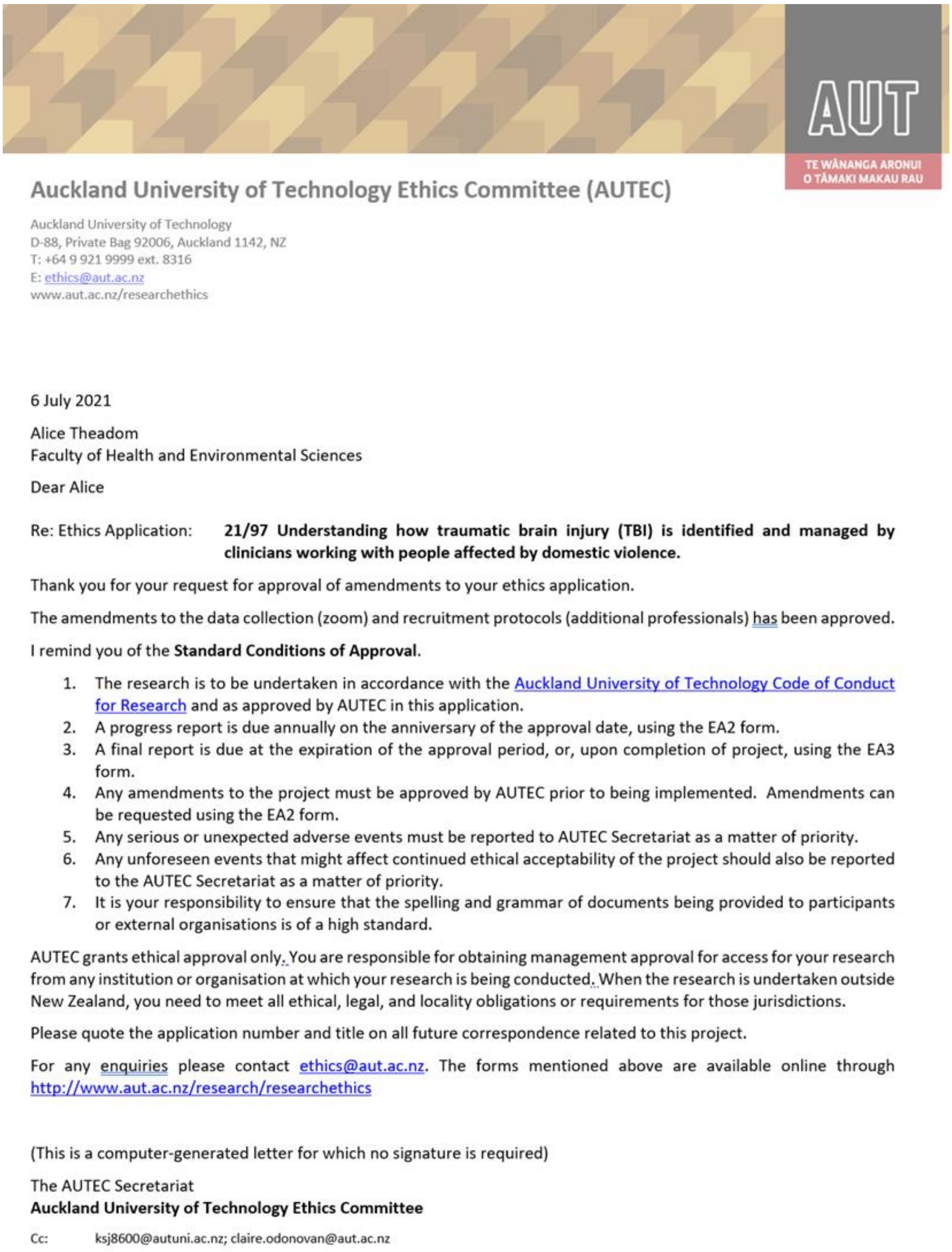
For any enquiries please contact { HYPERLINK "mailto:ethics@aut.ac.nz" }. The forms mentioned above are available online through { HYPERLINK "http://www.aut.ac.nz/research/researchethics" }

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
**Auckland University of Technology Ethics Committee**

Cc: ksj8600@autuni.ac.nz; claire.odonovan@aut.ac.nz

## b) Ethics amendment



AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

**Auckland University of Technology Ethics Committee (AUTEC)**

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

6 July 2021

Alice Theadom
Faculty of Health and Environmental Sciences

Dear Alice

Re: Ethics Application: **21/97 Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.**

Thank you for your request for approval of amendments to your ethics application.

The amendments to the data collection (zoom) and recruitment protocols (additional professionals) has been approved.

I remind you of the **Standard Conditions of Approval**.

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted. When the research is undertaken outside New Zealand, you need to meet all ethical, legal, and locality obligations or requirements for those jurisdictions.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

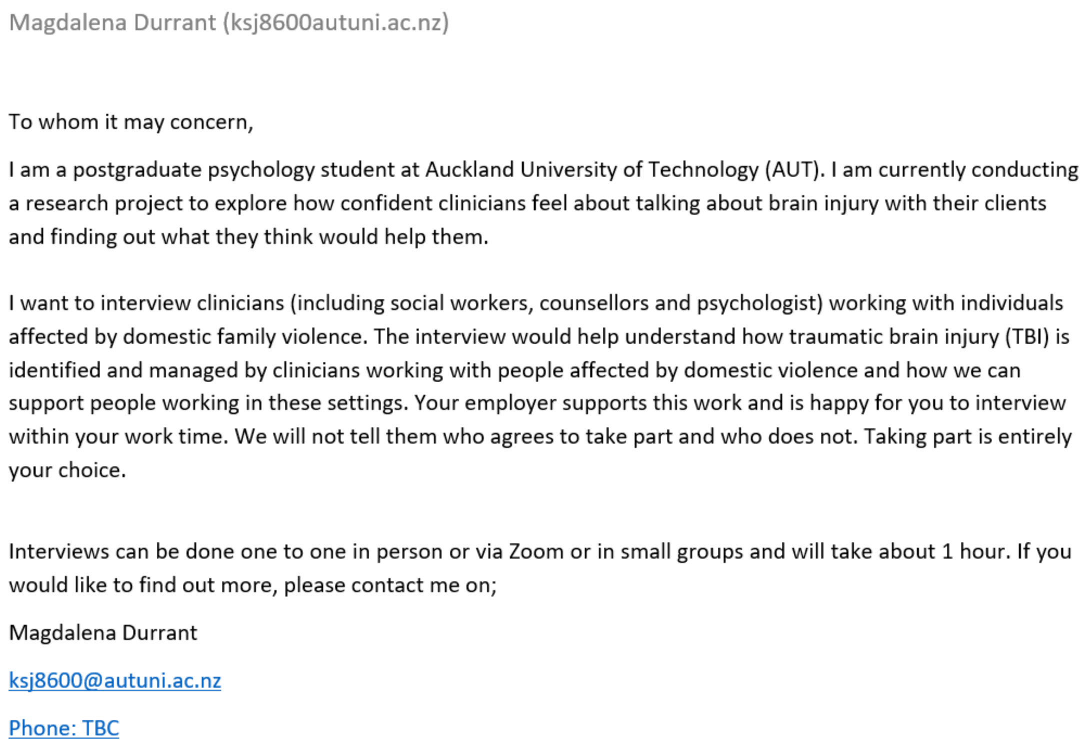
(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
**Auckland University of Technology Ethics Committee**

Cc: ksj8600@autuni.ac.nz; claire.odonovan@aut.ac.nz

## Appendix B

### a) Email to participants



Magdalena Durrant (ksj8600autuni.ac.nz)

To whom it may concern,

I am a postgraduate psychology student at Auckland University of Technology (AUT). I am currently conducting a research project to explore how confident clinicians feel about talking about brain injury with their clients and finding out what they think would help them.

I want to interview clinicians (including social workers, counsellors and psychologist) working with individuals affected by domestic family violence. The interview would help understand how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence and how we can support people working in these settings. Your employer supports this work and is happy for you to interview within your work time. We will not tell them who agrees to take part and who does not. Taking part is entirely your choice.

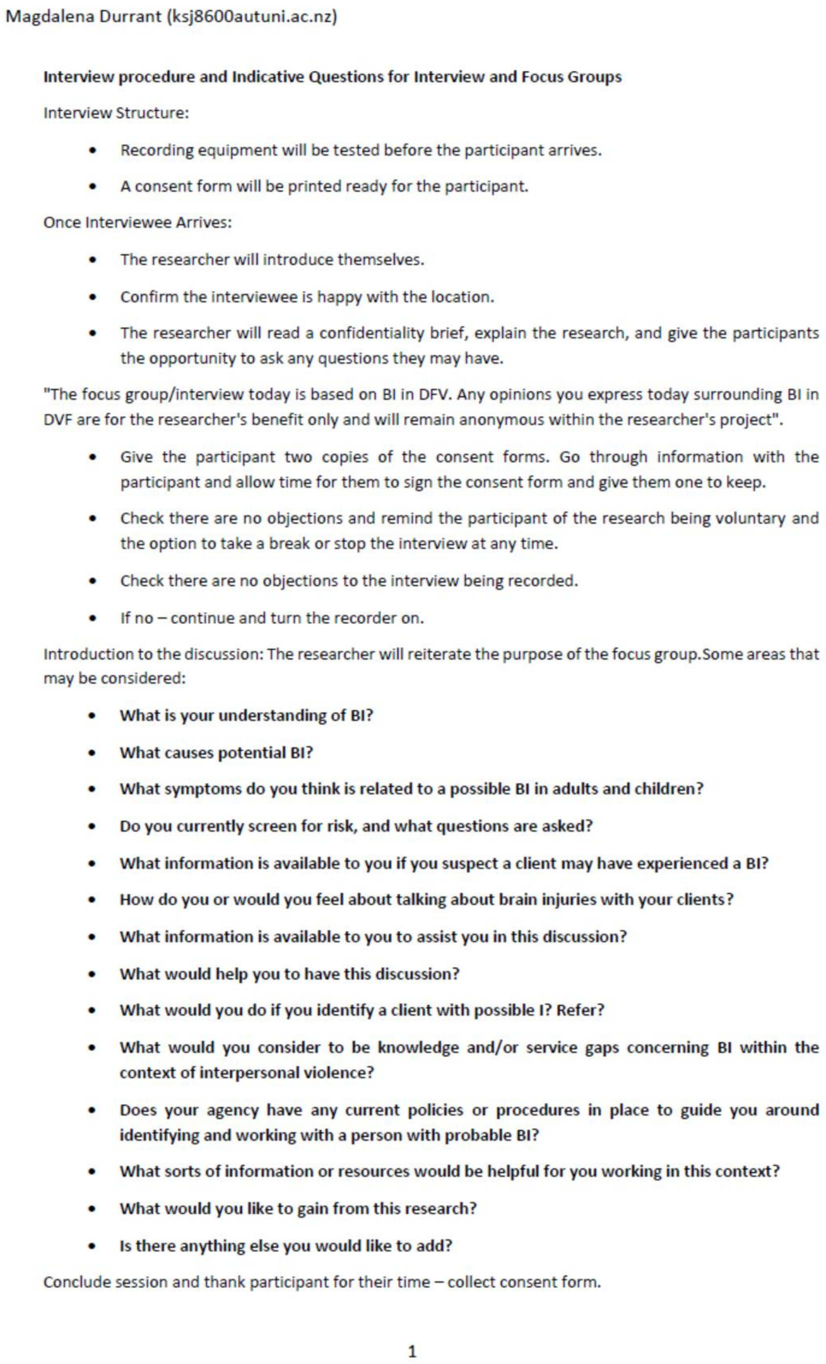
Interviews can be done one to one in person or via Zoom or in small groups and will take about 1 hour. If you would like to find out more, please contact me on;

Magdalena Durrant

ksj8600@autuni.ac.nz

Phone: TBC

## b) Interview guide for focus groups and individuals



Magdalena Durrant (ksj8600autuni.ac.nz)

**Interview procedure and Indicative Questions for Interview and Focus Groups**

Interview Structure:

- Recording equipment will be tested before the participant arrives.
- A consent form will be printed ready for the participant.

Once Interviewee Arrives:

- The researcher will introduce themselves.
- Confirm the interviewee is happy with the location.
- The researcher will read a confidentiality brief, explain the research, and give the participants the opportunity to ask any questions they may have.

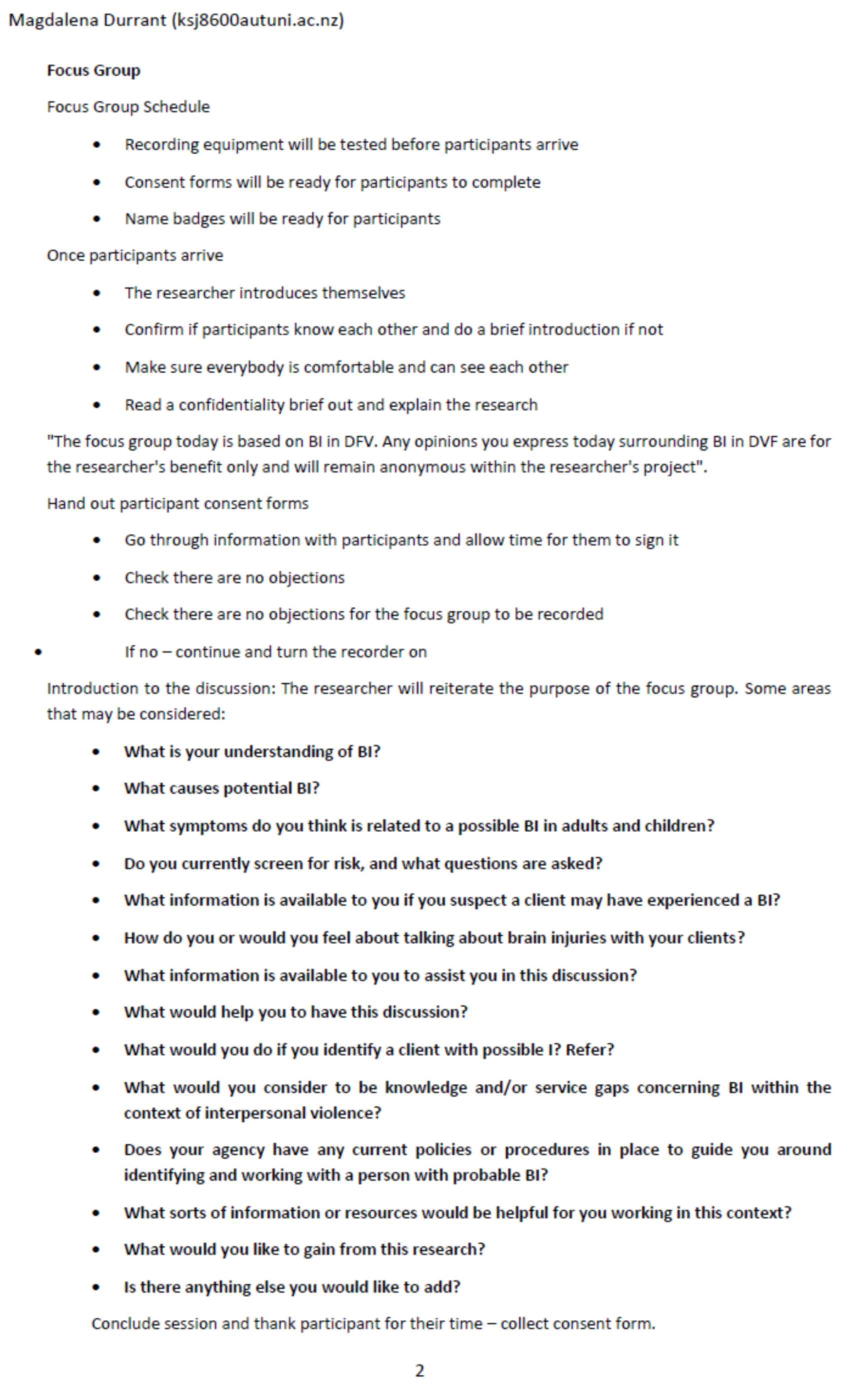
"The focus group/interview today is based on BI in DFV. Any opinions you express today surrounding BI in DVF are for the researcher's benefit only and will remain anonymous within the researcher's project".

- Give the participant two copies of the consent forms. Go through information with the participant and allow time for them to sign the consent form and give them one to keep.
- Check there are no objections and remind the participant of the research being voluntary and the option to take a break or stop the interview at any time.
- Check there are no objections to the interview being recorded.
- If no – continue and turn the recorder on.

Introduction to the discussion: The researcher will reiterate the purpose of the focus group.Some areas that may be considered:

- **What is your understanding of BI?**
- **What causes potential BI?**
- **What symptoms do you think is related to a possible BI in adults and children?**
- **Do you currently screen for risk, and what questions are asked?**
- **What information is available to you if you suspect a client may have experienced a BI?**
- **How do you or would you feel about talking about brain injuries with your clients?**
- **What information is available to you to assist you in this discussion?**
- **What would help you to have this discussion?**
- **What would you do if you identify a client with possible I? Refer?**
- **What would you consider to be knowledge and/or service gaps concerning BI within the context of interpersonal violence?**
- **Does your agency have any current policies or procedures in place to guide you around identifying and working with a person with probable BI?**
- **What sorts of information or resources would be helpful for you working in this context?**
- **What would you like to gain from this research?**
- **Is there anything else you would like to add?**

Conclude session and thank participant for their time – collect consent form.



Magdalena Durrant (ksj8600autuni.ac.nz)

**Focus Group**

Focus Group Schedule

- Recording equipment will be tested before participants arrive
- Consent forms will be ready for participants to complete
- Name badges will be ready for participants

Once participants arrive

- The researcher introduces themselves
- Confirm if participants know each other and do a brief introduction if not
- Make sure everybody is comfortable and can see each other
- Read a confidentiality brief out and explain the research

"The focus group today is based on BI in DFV. Any opinions you express today surrounding BI in DVF are for the researcher's benefit only and will remain anonymous within the researcher's project".

Hand out participant consent forms

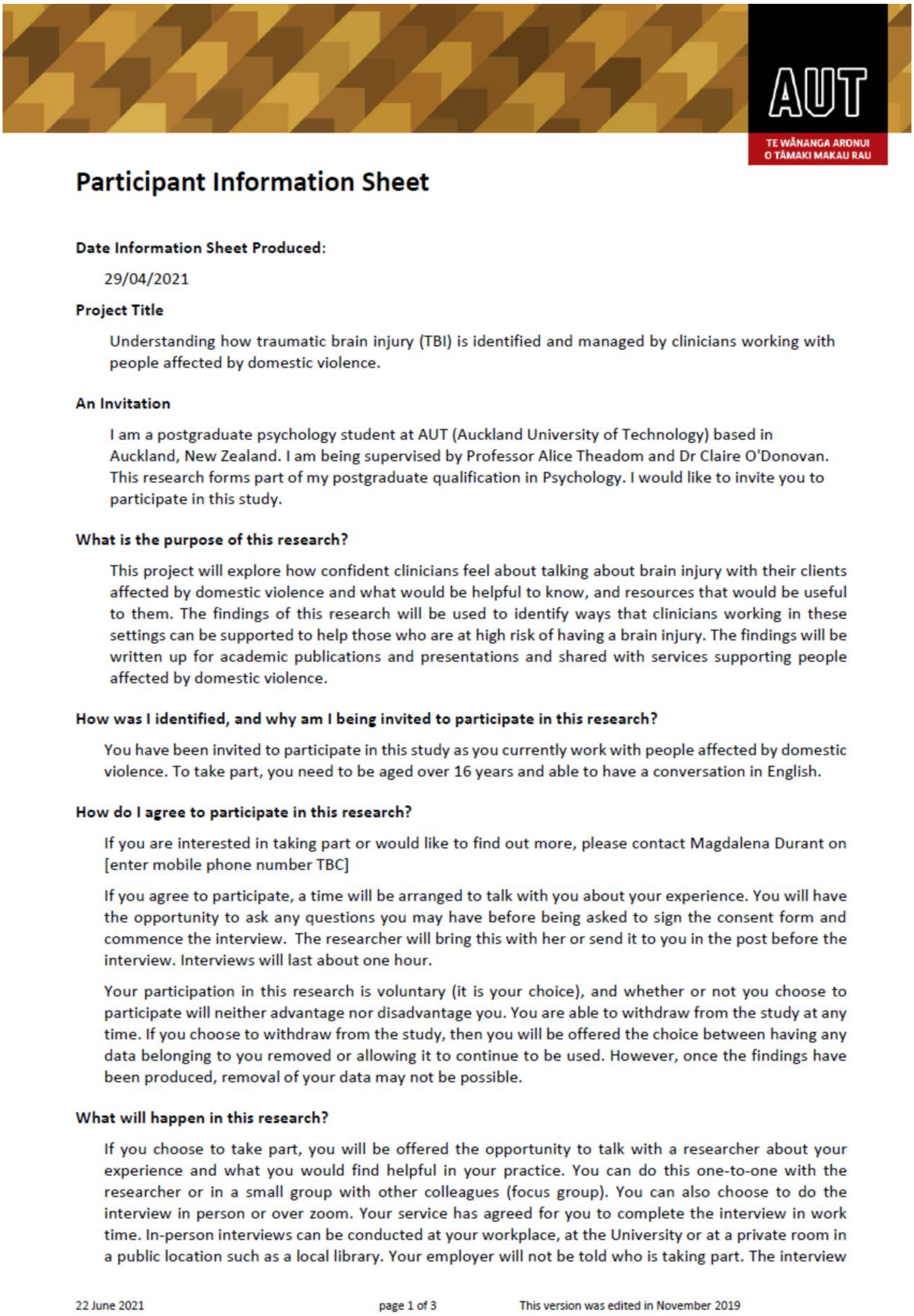
- Go through information with participants and allow time for them to sign it
- Check there are no objections
- Check there are no objections for the focus group to be recorded
- If no – continue and turn the recorder on

Introduction to the discussion: The researcher will reiterate the purpose of the focus group. Some areas that may be considered:

- **What is your understanding of BI?**
- **What causes potential BI?**
- **What symptoms do you think is related to a possible BI in adults and children?**
- **Do you currently screen for risk, and what questions are asked?**
- **What information is available to you if you suspect a client may have experienced a BI?**
- **How do you or would you feel about talking about brain injuries with your clients?**
- **What information is available to you to assist you in this discussion?**
- **What would help you to have this discussion?**
- **What would you do if you identify a client with possible I? Refer?**
- **What would you consider to be knowledge and/or service gaps concerning BI within the context of interpersonal violence?**
- **Does your agency have any current policies or procedures in place to guide you around identifying and working with a person with probable BI?**
- **What sorts of information or resources would be helpful for you working in this context?**
- **What would you like to gain from this research?**
- **Is there anything else you would like to add?**

Conclude session and thank participant for their time – collect consent form.

## c) Participant information sheet



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# Participant Information Sheet

**Date Information Sheet Produced:**

29/04/2021

**Project Title**

Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.

**An Invitation**

I am a postgraduate psychology student at AUT (Auckland University of Technology) based in Auckland, New Zealand. I am being supervised by Professor Alice Theadom and Dr Claire O'Donovan. This research forms part of my postgraduate qualification in Psychology. I would like to invite you to participate in this study.

**What is the purpose of this research?**

This project will explore how confident clinicians feel about talking about brain injury with their clients affected by domestic violence and what would be helpful to know, and resources that would be useful to them. The findings of this research will be used to identify ways that clinicians working in these settings can be supported to help those who are at high risk of having a brain injury. The findings will be written up for academic publications and presentations and shared with services supporting people affected by domestic violence.

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

You have been invited to participate in this study as you currently work with people affected by domestic violence. To take part, you need to be aged over 16 years and able to have a conversation in English.

**How do I agree to participate in this research?**

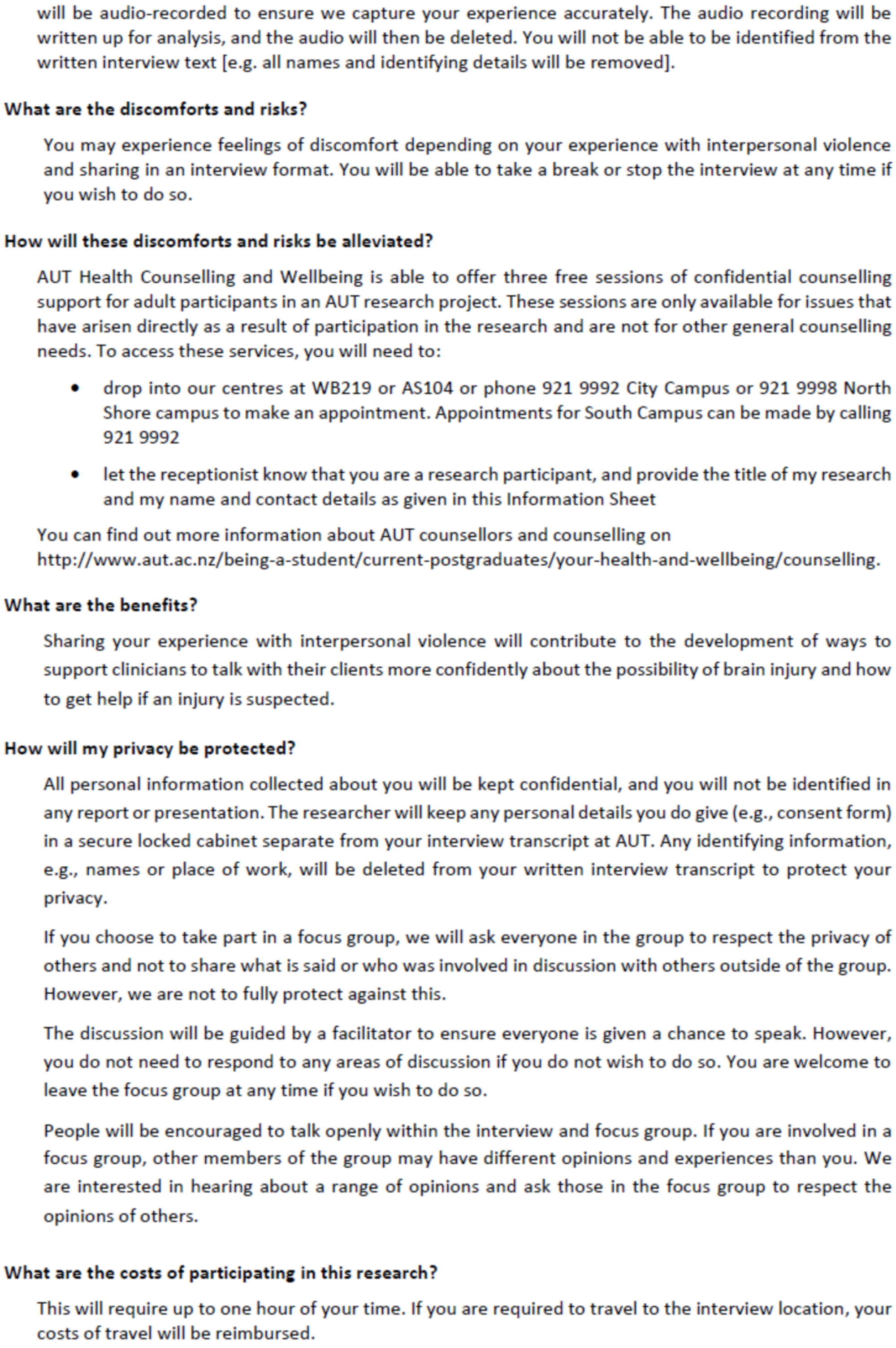
If you are interested in taking part or would like to find out more, please contact Magdalena Durant on [enter mobile phone number TBC]

If you agree to participate, a time will be arranged to talk with you about your experience. You will have the opportunity to ask any questions you may have before being asked to sign the consent form and commence the interview. The researcher will bring this with her or send it to you in the post before the interview. Interviews will last about one hour.

Your participation in this research is voluntary (it is your choice), and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

**What will happen in this research?**

If you choose to take part, you will be offered the opportunity to talk with a researcher about your experience and what you would find helpful in your practice. You can do this one-to-one with the researcher or in a small group with other colleagues (focus group). You can also choose to do the interview in person or over zoom. Your service has agreed for you to complete the interview in work time. In-person interviews can be conducted at your workplace, at the University or at a private room in a public location such as a local library. Your employer will not be told who is taking part. The interview



will be audio-recorded to ensure we capture your experience accurately. The audio recording will be written up for analysis, and the audio will then be deleted. You will not be able to be identified from the written interview text [e.g. all names and identifying details will be removed].

### What are the discomforts and risks?

You may experience feelings of discomfort depending on your experience with interpersonal violence and sharing in an interview format. You will be able to take a break or stop the interview at any time if you wish to do so.

### How will these discomforts and risks be alleviated?

AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research and are not for other general counselling needs. To access these services, you will need to:

- drop into our centres at WB219 or AS104 or phone 921 9992 City Campus or 921 9998 North Shore campus to make an appointment. Appointments for South Campus can be made by calling 921 9992
- let the receptionist know that you are a research participant, and provide the title of my research and my name and contact details as given in this Information Sheet

You can find out more information about AUT counsellors and counselling on http://www.aut.ac.nz/being-a-student/current-postgraduates/your-health-and-wellbeing/counselling.

### What are the benefits?

Sharing your experience with interpersonal violence will contribute to the development of ways to support clinicians to talk with their clients more confidently about the possibility of brain injury and how to get help if an injury is suspected.

### How will my privacy be protected?

All personal information collected about you will be kept confidential, and you will not be identified in any report or presentation. The researcher will keep any personal details you do give (e.g., consent form) in a secure locked cabinet separate from your interview transcript at AUT. Any identifying information, e.g., names or place of work, will be deleted from your written interview transcript to protect your privacy.

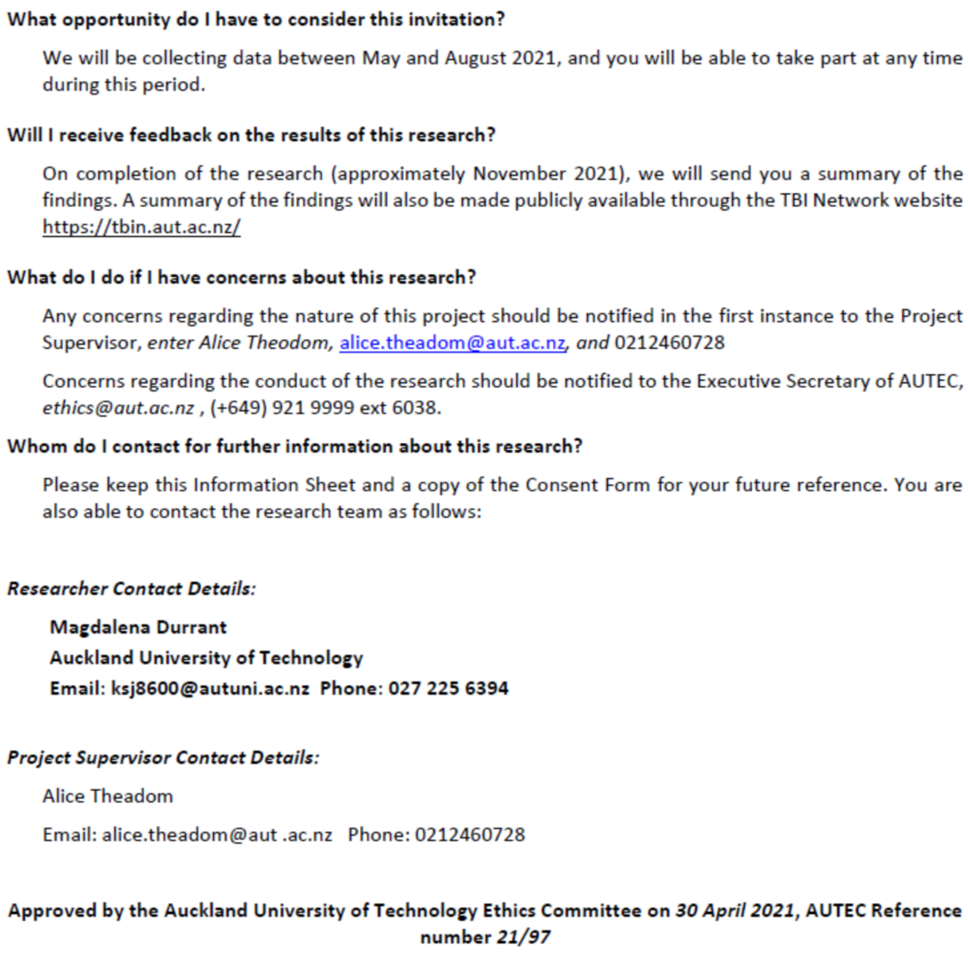
If you choose to take part in a focus group, we will ask everyone in the group to respect the privacy of others and not to share what is said or who was involved in discussion with others outside of the group. However, we are not to fully protect against this.

The discussion will be guided by a facilitator to ensure everyone is given a chance to speak. However, you do not need to respond to any areas of discussion if you do not wish to do so. You are welcome to leave the focus group at any time if you wish to do so.

People will be encouraged to talk openly within the interview and focus group. If you are involved in a focus group, other members of the group may have different opinions and experiences than you. We are interested in hearing about a range of opinions and ask those in the focus group to respect the opinions of others.

### What are the costs of participating in this research?

This will require up to one hour of your time. If you are required to travel to the interview location, your costs of travel will be reimbursed.



**What opportunity do I have to consider this invitation?**

We will be collecting data between May and August 2021, and you will be able to take part at any time during this period.

**Will I receive feedback on the results of this research?**

On completion of the research (approximately November 2021), we will send you a summary of the findings. A summary of the findings will also be made publicly available through the TBI Network website https://tbin.aut.ac.nz/

**What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *enter Alice Theodom,* alice.theadom@aut.ac.nz*, and* 0212460728

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz* , (+649) 921 9999 ext 6038.

**Whom do I contact for further information about this research?**

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

***Researcher Contact Details:***

**Magdalena Durrant**
**Auckland University of Technology**
**Email: ksj8600@autuni.ac.nz Phone: 027 225 6394**

***Project Supervisor Contact Details:***

Alice Theadom

Email: alice.theadom@aut .ac.nz Phone: 0212460728

**Approved by the Auckland University of Technology Ethics Committee on *30 April 2021*, AUTEC Reference number *21/97***

## d) Consent forms

AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

# Permission for researchers to access organisation staff

| | |
|---|---|
| *Project title:* | **Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.** |
| *Project Supervisor:* | ***Alice Theadom and Claire O'Donovan*** |
| *Researcher:* | ***Magdalena Durrant*** |

○ I have read and understood the information provided about this research project in the Information Sheet dated 28 April 2021.

○ I give permission for the researcher to undertake research within ______________________________

○ I give permission for the researcher to access the staff / employees of ____________________

Principal's CEO's signature: ……………………………………………………………………………………

Principal's CEO's name: ……………………………………………………………………………………

Principal's CEO's Contact Details (if appropriate):

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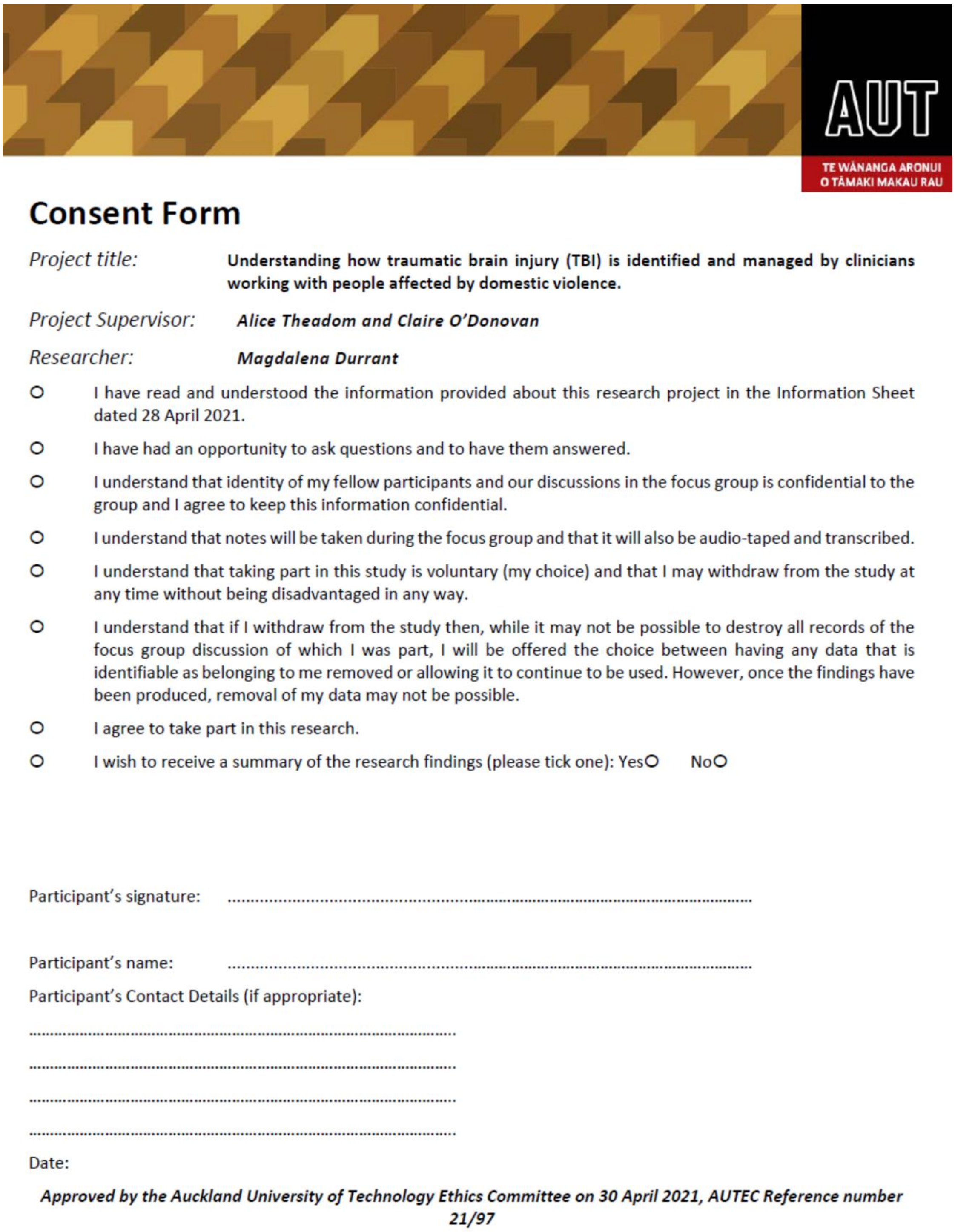
Date:

***Approved by the Auckland University of Technology Ethics Committee on 30 April 2021, AUTEC Reference number 21/97***



# Consent Form

*Project title:* **Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.**

*Project Supervisor:* ***Alice Theadom and Claire O'Donovan***

*Researcher:* ***Magdalena Durrant***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 28 April 2021.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- ○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: ……………………………………………………………………………

Participant's name: ……………………………………………………………………………

Participant's Contact Details (if appropriate):

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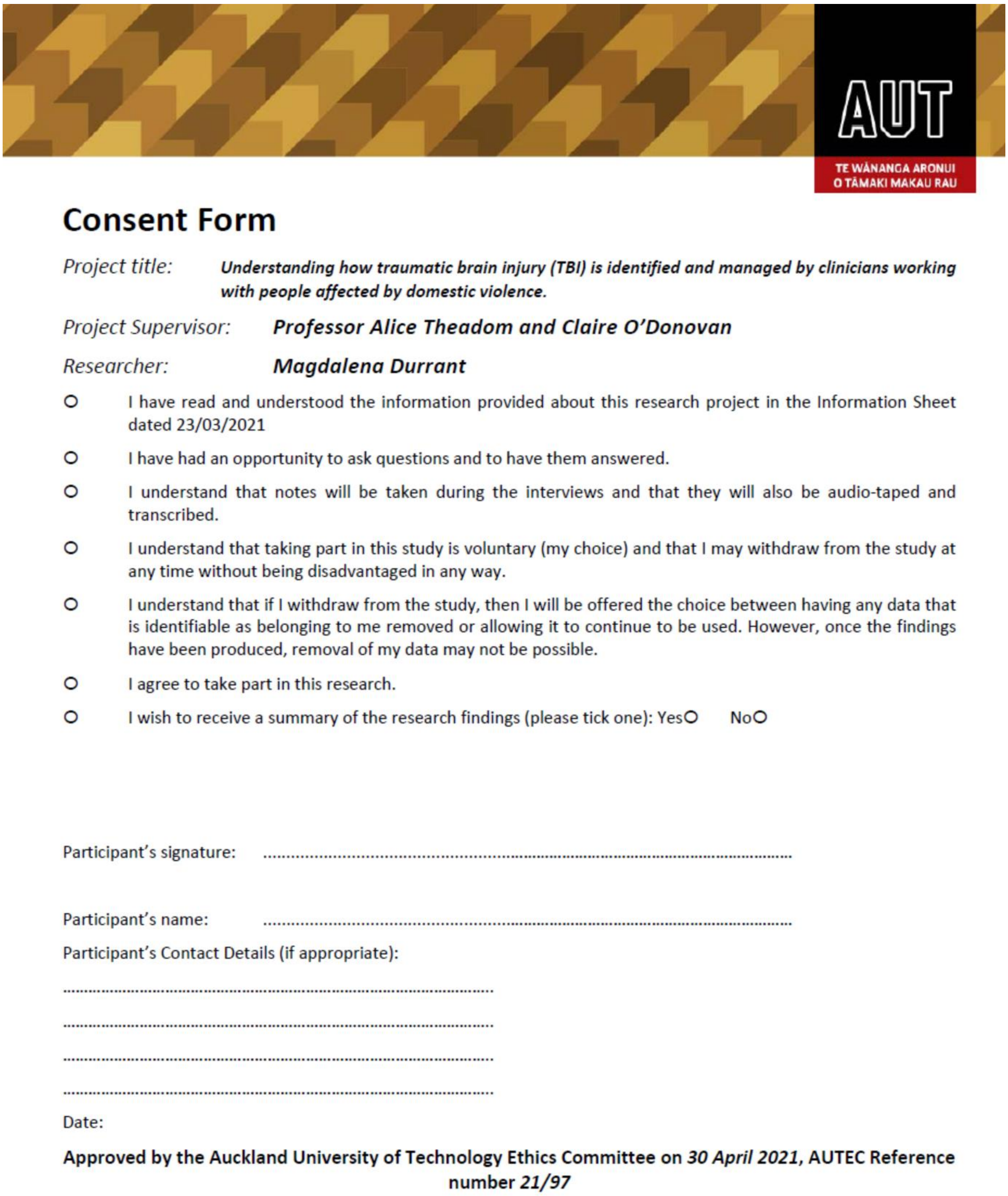
Date:

***Approved by the Auckland University of Technology Ethics Committee on 30 April 2021, AUTEC Reference number 21/97***



AUT
TE WĀNANGA ARONUI
O TĀMAKI MAKAU RAU

# Consent Form

*Project title:* ***Understanding how traumatic brain injury (TBI) is identified and managed by clinicians working with people affected by domestic violence.***

*Project Supervisor:* ***Professor Alice Theadom and Claire O'Donovan***

*Researcher:* ***Magdalena Durrant***

○ I have read and understood the information provided about this research project in the Information Sheet dated 23/03/2021

○ I have had an opportunity to ask questions and to have them answered.

○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.

○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.

○ I understand that if I withdraw from the study, then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.

○ I agree to take part in this research.

○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: ......................................................................................................................

Participant's name: ......................................................................................................................

Participant's Contact Details (if appropriate):

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Date:

**Approved by the Auckland University of Technology Ethics Committee on *30 April 2021*, AUTEC Reference number *21/97***