Issues For Consideration in Cross-cultural Neuropsychology

A Thesis Presented in Partial
Fulfilment of the Requirements
for the Degree
of Master of Arts
in Psychology at
Massey University

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1996

Abstract

This study surveyed people who had been seen for neuropsychological assessment and treatment at the Massey University Psychology Clinic, Palmerston North. The study addressed the question: Could the experience be enhanced for Maori clients by introducing a Maori cultural dimension? Several variables were identified that produced anxiety in the assessment situation. These included procedural, situational, interpersonal factors and test content. Some suggestions are made to assist neuropsychologists to reduce the impact of these variables in the assessment situation.

Dedicated in loving memory to my
father Frank Edwards and my
sister Desiree Francine Edwards.

Acknowledgements

I would first like to express my most sincere thanks to my supervisor Janet Leathem for the inspiration for this thesis, her expertise, support and resourcefulness. You have been a good friend and mentor Janet, and I am grateful for your encouragement and enthusiasm when I sometimes felt I would never finish.

Thanks also to the participants of this study, whose words and time were given generously.

I am, as always, grateful for the love and support of my whanau and friends who have never doubted my ability.

Finally, thanks and aroha to my husband Paul. Your love, patience and sensible advice gave me the confidence to complete this work.

Tena koutou, tena koutou, tena tatou katoa.

Whakatauaki

E tipu, e rea, mo nga ra o tou ao,
Ko to ringa ki nga rakau a te Pakeha
hei ara mo to tinana,
Ko to ngakau ki nga taonga a o tupuna Maori
hei tikitiki mo to mahuna,
Ko to wairua ki to Atua
nana nei nga mea katoa.

Grow, child, in the days of your world,
Your hand to the weapons of the Pakeha
as an existence for your body,
Your heart to the treasures of your ancestors
as a top-knot for your head,
Your spirit to Almighty God
who is the giver of all things.

Sir Apirana Ngata

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CHAPTER 1

INTRODUCTION

Three reasons combined to lead to this study of neuropsychology with particular emphasis on Maori clients. First, two local studies on neuropsychological assessment after head injury had required the gathering of control data. These control subjects had been drawn from prisons, the employment service, and the general public. An unexpected finding in these control groups was that, although matched for age, education and socioeconomic status, Maori subjects performed less well than their non-Maori counterparts. It was unclear why this occurred.

Second, irrespective of the nature of the presenting problem, the Massey University Psychology Clinic (hereafter referred to as the Clinic) constantly monitors the service it provides, and a more recent focus has been on the adequacy of service provision for Maori. Part of the purpose of this study therefore was to provide feedback/information to assist the Clinic.

Third, as the study began, a literature search on this topic revealed that a study (McFarlane-Nathan, 1992) had already looked at cultural bias in neuropsychological assessment. There had been three major findings in that study.

- Maori people were performing less well than non-Maori people on neuropsychological measures,
- Maori people preferred Maori clinicians,
- That the difference in performance could be a function of a bias operating in the measures.

Further literature review revealed a huge body of international research on cross-cultural psychology. Much of the research had been carried out in the United States and reported that non-White college students tend to perform less well than their white counterparts, particularly in verbal tasks. This was considered to be a serious problem because it would lower the scores on their college entrance exams, and therefore limit their choices for college matriculation. New Zealand research such as that conducted by the New Zealand Educational Institute (1982) provides substantial evidence that Maori students also obtain, on average, lower marks on a range of achievement indicators than non-Maori students.

On the whole cross-cultural studies suggest that these differences in performance may be a consequence of several variables:

Situational. The setting and atmosphere that the testing is conducted in.
Procedural. The process of assessment from the referral through initial contact, interviewing, interventions and feedback.
Interpersonal. The interaction of the client, the clinician and other support people.
Measurement Instruments. Any bias that may be operating to prevent culture-fairness and appropriateness of the tests.
Anxiety. A form particular to Maori people, whakama, has been the subject of a book by Joan Metge (1986), and numerous articles by Sachdev (1989a, 1989b, 1990).

In order to assess how these variables might operate in our service it was necessary to put them into a New Zealand context and therefore the Maori view of health as explained by Mason Durie (1985a) was examined.

The current study

This study would therefore examine the practice of neuropsychology in New Zealand and set it against the previous studies in the United States and in New Zealand, the international findings in cross-cultural psychology, and a Maori perspective of health. It seemed appropriate to begin by consulting Maori people who had been through a standard neuropsychological assessment, to elicit their views of how well the process served their overall needs within the context of Maori health perspectives. Accordingly, a pilot study was conducted in which a number of former Maori clients of the Clinic were interviewed at length and in depth on their perceptions of the service they had received.

When the transcripts of the pilot study interviews were examined, the direction of the present research became clearer. Before altering practice along situational, procedural, interpersonal and psychometric lines, and possibly evaluating the effect of those changes on test performance, it seemed more important to survey Maori people who had been seen in the past two years for neuropsychological assessment/intervention at the Clinic to determine how appropriate they felt the service was for Maori people.

Chapter two presents an introduction to traumatic brain injury (TBI), its preconditions, and outcomes. Chapter three presents some of the literature on cross-cultural psychology, and its implications for neuropsychological assessment in New Zealand are discussed in chapter four. The rationale and hypotheses for this research are presented in chapter five. The remaining chapters are concerned with the method, results and discussion of the research findings. The final chapter presents the conclusions, recommendations, and suggestions for further research in this area.

CHAPTER 2

TRAUMATIC BRAIN INJURY

Epidemiology

Accident, Rehabilitation and Compensation Insurance Corporation (ARCIC) statistics indicate that in the year ended June 1994 there were 7447 claims lodged for injuries involving the head and 3212 involving the neck/back of head vertebrae (ARCIC Annual Report, 1994). While the ARCIC annual report does not differentiate between cerebral injuries and scalp lacerations or other minor injuries to the head, it can be assumed that these statistics are under-representative, as there may be other head injuries that are not reported to ARCIC such as those that people consider are too trivial for medical attention. Increasing motor vehicle and industrial accidents and assaults causing traumatic brain injury (TBI), followed by quick medical response and sophisticated surgical procedures mean that people are surviving injuries that would have been fatal in the past.

With an incidence rate estimated at 200/100,000 in the United States (Morse & Montgomery, 1992; Lezak, 1995), TBI tend to occur most commonly in the 15-24 year age range (Lezak, 1995). The incidence reports vary depending on whether the statistics include all grades of severity, deaths, non-hospitalised patients (Lezak, 1995), and the geographical location, socioeconomic status, or ethnicity of the population. Morse and Montgomery (1992) report an incidence rate of 403/100,000 in inner-city black areas. Incidence of head injury (for patients admitted to hospital) in the United Kingdom is reported as being 200-300/100,000, however, for every person included in these figures there are 3 or 4 others who are seen as outpatients or at medical clinics who are not included (Miller, 1993). If only severe TBI are considered, the male to female ratio is as high as 5:1.

Rimel et. al. (1982) found in their study that patients with moderate TBI were likely to be slightly older, belong to a lower socioeconomic class, have a higher incidence of alcohol abuse, and to have a previous history of head trauma. Furthermore they found that those with moderate TBI had been involved in motor vehicle accidents while intoxicated. Alcohol seems to figure largely in the epidemiology of TBI, and will be discussed later in this chapter.

Causation

Many injuries are caused as a result of motor vehicle accidents, which accounted for 6968 of the 120,893 compensated injury claims in New Zealand to end of June 1994 (ARCIC Annual Report, 1994), and approximately one in four deaths are caused by head injuries. According to the New Zealand Health Department Statistics (1986) more potential years of working life lost were due to death from head injuries than from cancer or heart disease. Industrial accidents (Kolb & Whishaw, 1990), and falls amongst the elderly, infant and child populations, also cause a large number of head injuries (Lezak, 1995).

According to Kolb and Whishaw (1990) the most important factors in the incidence of head injury are age and sex. They estimate that a child's chances of having a closed head injury are about 1 in 30 even before they are old enough to drive, and males between 15 and 30 are likely to have a head injury probably from a motor car or motorcycle accident. As the ARCIC statistics (1994) indicate, the ratio of males to females injured in motor vehicle accidents is approximately 2.2:1. The other leading causes of head injury cited in the literature are assault, sport, impact on a hard object such as a wall (Gronwall, 1991), and missile (penetrative) injuries (Wood, 1994).

Head injury is also typically described according to the way in which the injury was sustained, for example whether the damage is caused by the rapid acceleration and deceleration of a motor vehicle accident, a blow to the head, or the entry of a missile. The deceleration injury, common in motor vehicle accidents, causes far more extensive brain injury than the non-acceleration injury (a blow to the stationary head) (Morse & Montgomery, 1992) because the event causes both diffuse and focal brain damage.

A further descriptive term for TBI indicates whether the injury is closed or open. Closed head injuries refer to those where the head has had a blow that does not result in skull penetration, but the brain has been subjected to a variety of forces. This results in coup injury where the brain is compacted at the site of the impact, and possibly contre-coup injury as the brain rebounds in the opposite direction and is damaged again. Twisting injury may also occur when the movement of the brain causes the shearing of nerve fibres, and finally bleeding (haemorrhage) that can lead to clots (haematoma) within the skull (Walsh, 1985; Kolb & Whishaw, 1990). Open head injury on the other hand is where the skull is penetrated. The effects of open head injury are different as the brain damage is likely to be focal (localised) rather than diffuse in nature.

Classification of TBI

The classification of head injuries based on the severity of the injury seems from the literature reviewed, to be open to some discussion. The criteria for establishing the diagnostic and prognostic categories are interpreted differently from place to place, with the majority of professionals endorsing the period of post-traumatic amnesia (PTA), and the Glasgow Coma Scale (Teasdale & Jennett, 1974) as the best indicators of severity.

PTA refers to the length of time between the head injury and the return of continuous memory for everyday events, and it is considered as a more accurate measure of injury severity than the Glasgow Coma Scale (Lezak, 1995). Longer PTA is clearly associated with poorer outcome and is assessed by noting the time between the injury and the time when the person has an accurate and full recall of recent events. Table 2.1 below, describes the relationship between severity of injury and length of PTA.

Table 2.1

The Post-traumatic Amnesia Indicator (Russell,1932), showing how the length of unconsciousness is related to degree of outcome.

Length of PTA	Outcome
less than 5 minutes	very mild
5 minutes to 60 minutes	mild
1 hour to 24 hours	moderate
1 day to 7 days	severe
up to eight weeks	very severe
more than eight weeks	extremely severe

The Glasgow Coma Scale (GCS) (Teasdale & Jennett, 1974) is used to record the level of spontaneous function of an individual with head trauma. It is recorded on admission to hospital and thereafter intermittently (hourly at first). It involves scoring the degree of response in three areas, "eyes open", "best verbal response", and "best motor response". The best score is 15. The person is considered to have a severe injury when their GCS score is 7 or less on admission to hospital. A good outcome is predicted if a score of 8 or higher is achieved in the first few days (Lezak, 1995). Table 2.2 below, shows the dimensions measured and the score obtained for that response.

Table 2.2

The Glasgow Coma Scale (Teasdale & Jennett, 1974), showing how each physical sign or response is scored.

Dimension		**Score**
Eyes Open	Spontaneous	4
	To speech	3
	To pain	2
	Not at all	1
Best verbal response	Oriented	5
	Confused	4
	Inappropriate	3
	Incomprehensible	2
	None	1
Best motor response	Obeys commands	4
	Localises pain	3
	Flexion to pain	2
	None	1

Rimel, Giordani, Barth and Jane (1982), and Miller (1993) classify mild head injury as being evident when the person's GCS score is 13-15, moderate 9-12 and severe less than 8. Miller (1993) found that of those admitted to hospital in the UK approximately 5% are suffering from a severe head injury, a further 5-10% have a moderate head injury, and the remainder of 85-90% have a minor (mild) head injury. The problem he finds is that of the mild injuries, such as compound depressed skull fractures, linear skull fractures, or small penetrating brain wounds, about 10% have lesions that could potentially lead to intracranial infections and haemorrhage. When the person presents like this, with initially very little loss of consciousness, but suffers significant deterioration later, the condition is known as delayed traumatic intracerebral haematoma (DTICH) (Lezak, 1995). In this regard the GCS score is an incomplete measure of severity as it only measures the level of consciousness on admission to hospital. An additional problem when relying on the GCS is that alcohol intoxication can artificially lower the GCS score so that the higher the blood/alcohol level is the lower the score will be (Lezak, 1995).

The severity of head trauma can be estimated using a combination of the PTA, GCS and other mitigating factors as Binder (1986) and Gronwall (1991) illustrate in their studies. Binder defines a mild or minor head injury as one in which the PTA is relatively short, there is no known structural damage to the skull or brain, and when the GCS is 13 or more. He cites numerous studies in which the inclusion criteria and definitions of concussion and severity vary, such as those where additional interpretive difficulties are encountered. The types of difficulties likely to be encountered include the presence of alcohol and patients with previous head injuries, as the effect of cumulative mild head injuries may exacerbate the current trauma and therefore the findings at examination. Gronwall (1991) says that the problem with using PTA as the sole indicator of mild injury is that there are difficulties measuring short durations of PTA. She cites other methods of assessing mild injury: the GCS score of between 13 and 15, a hospital stay of less than 3 days, no hospital stay, a loss of or change in consciousness of less than 2 minutes, or various combinations of these criteria.

Outcomes of TBI

Cerebral trauma can be identified as primary and secondary. Primary lesions are those directly related to the trauma - contusion, laceration and haemorrhage. Secondary lesions arise after the trauma and include ischaemia, anoxia, oedema and brain distortion due to intracranial haemorrhage (Walsh, 1985). Secondary lesions are particularly severe in closed head injury according to Lezak (1995) because damage is diffuse in nature rather than the 'clean' entry of a missile, and because the developing oedema (swelling) puts pressure onto the brain.

The outcome of TBI differs depending on a number of factors other than the nature of the trauma. Thomsen (1989) used length of PTA as an indicator of severity in her research which evaluated the very late outcome after very severe blunt head trauma (PTA > 1 month), however she also felt that factors other than severity are important in the outcome. She identified these factors as premorbid personality, stability of family background, occupational level, and age. She found that the younger the patient the higher the risk of late behavioural and emotional changes, even though the older patients in her sample had similar PTA. Other factors that the clinician will take into account are the size and location of the lesion, the premorbid health of the person, past alcohol and drug use and history of previous head injury.

Neurological outcomes of head injury are examined using a combination of the radiographic instruments and observation of cognitive functioning using tests such as the Mini-Mental State (Folstein, Folstein & McHugh, 1975), The Glasgow Outcome Scale (Jennett & Bond, 1975), and the Galveston Orientation and Amnesia Test (Levin, O'Donnell & Grossman, 1979). These are screening tests designed for repeated measurements that can predict not only the extent of confusion and amnesia but also indicate when the patient is ready to undergo other neuropsychological tests of specific functions (Lezak, 1995).

Mild head injury

The outcome of mild head injury is often referred to as the post-concussive syndrome which is a constellation of problems including headache, dizziness, irritability, anxiety, blurred vision, insomnia, easy fatigue, concentration difficulties and memory difficulties. Although these difficulties often resolve or lessen within six weeks, Binder (1986) found that these symptoms can persist for months or years, citing a study by Denker (1944) in which one third of the patients reviewed were symptomatic after one year and a further 15% were symptomatic after 3 years. Memory and concentration difficulties are the most often reported problems following mild head injury (Binder, 1986).

Moderate head injury

By all subjective accounts people with moderate TBI will be worse off than people with mild TBI. Rimel et. al., (1982) found that in a study of outcome involving 199 moderate TBI and 538 mild TBI patients the problems experienced by the moderately head injured at 3 months were the same as those experienced by the mildly head injured but were more severe and more frequent. The most frequent complaint was of persisting headache followed by memory difficulties. They also found that at 3 months only 4% of the moderately head injured were asymptomatic, and 42% had multiple problems.

Severe head injury

In severe TBI the most commonly reported sequelae are deficits in memory and naming according to Tabaddor, Mattis and Zazula (1984), however, Walsh (1985) organises the deficits associated with severe TBI into three classes: physical deficits such as motor and sensory dysfunction; cognitive deficits including perception, intelligence and memory; and organic psychosocial problems, which means impulsivity, emotional lability, disinhibition, aggression, irresponsibility, loss of insight, deteriorated interpersonal relations and vocational difficulties.

Cognitive outcomes of TBI

Attentional deficits

Attentional or concentration deficits can diminish every aspect of the head injured person's cognitive functioning because they interfere with mental operations that require the person to think things through rather than tasks which they can engage in visually. Problems of attention can cause reduced auditory span, attending to only part of what they hear; mental tracking problems leading to confusion and disorientation; and distractibility, which reduces their ability to block out extraneous stimuli (Lezak, 1995), also impersistence and lack of judgment (Hodges, 1994).

These problems are collectively referred to as attentional deficits, but they also tend to exacerbate each others effects promoting more persistent and intense problems. Chronic fatigue is a problem for many head injured people who may feel constantly fatigued or become fatigued easily. This leads to problems completing everyday tasks as well as neuropsychological tasks.

Motivational defects

Motivational defects such as the inability to set goals and carry out plans, performance inconsistency (good days and bad days), depression and frustration brought about by fatigue and memory problems, and the combination and cumulative effects of these difficulties are major problems for the TBI person (Lezak, 1995). Apathy and lack of initiation are often the result of behaviour and personality changes following moderate TBI. Typically this is manifested in slowed performances, difficulties starting tasks and reduced vitality reported by relatives (White, 1992).

Memory

As stated earlier, memory and concentration difficulties are the problems most often reported following mild head injury (Binder, 1986). Memory is not a single entity but a system made up of various subcomponents. It is divided into conscious access memory (explicit, or declarative) and learned responses (implicit, or procedural). Explicit memory is further divided into that part that stores personal, temporal events such as holiday experiences (episodic) and implicit memory contains the store of representational knowledge such as facts and figures (semantic). Patients are either unable to learn new material or to retrieve material they have learned (Hodges, 1994).

Higher executive functioning

Also termed higher order cognitive functioning, this includes planning, adaptation to new situations, problem solving, and completing goals. People with disrupted higher executive functioning tend to perseverate, or repeat correct and incorrect responses; have difficulty shifting from one task to another; and have trouble getting mentally 'unstuck' (Hodges, 1994). White (1992) elaborates the sequence of problem solving thus, a) recognising that there is a problem to solve, b) formulating hypotheses and selecting a goal, c) planing the approach, d) initiating the plan, e) monitoring the plan and self-regulating the plan, and f) sequencing the steps, error detection and correction, and following through.

Social outcomes

Head injury results in personality change, loss of insight and inhibition which in turn affect social interactions (Walsh, 1985). Family relations suffer when the person behaves differently to how they did prior to the injury and can not return to their previous occupation (or any occupation). Stambrook, Moore, Peters, Deviaene and Hawryluk (1990) assessed the quality of life of a sample of male head injury patients and found that only 55% of the severely injured were able to return to full-time occupation, although often in a significantly reduced status. They mention also the financial burden imposed on society but more sharply felt by the individual families due to this effect. They further note that marital relationships are often strained by the financial and employment concerns when the husband suffered the head injury.

Maori and TBI

Demographic data shows that the Maori population has proportionately more younger and fewer older people than the non-Maori population (Te Puni Kokiri, 1993). The 1991 census indicates that 62.5% of the Maori population were under 30 years compared to 45.6% of the non-Maori population. Maori figure poorly in the SES measures, being over-represented in the negative social indicators such as having a low standard of income, education and housing, and high unemployment, crime involvement, injury and accident figures (Department of Statistics New Zealand, 1994). Considering that the group most at risk of suffering a head injury are males between 15 and 30, and those in lower socioeconomic groups it is not surprising that Maori people are overly represented in the statistics on TBI. Motor vehicle accidents were the second leading cause of death for Maori males in 1989 and 1990 after ischaemic heart disease.

There are several factors that affect the health of Maori people including income, housing, education, nutrition, environmental conditions, occupation, the health system itself (Te Puni Kokiri, 1993), urbanisation (Shouksmith, 1985), and the failure of traditional family and tribal roles (Jungersen, 1992), yet the Medical Research Council of New Zealand (1984) noted that it is extraordinary how little epidemiological research is being carried out on Polynesian health. Given these factors, and considering that

Maori now make up 13% of the New Zealand population (Department of Statistics New Zealand, 1994), this paucity of data is even more incredible.

Today it is still difficult to find epidemiological data on head injury in this population, because much of the information available about Maori psychiatric health is based on clinical experience and/or anthropological research. Neuropsychological research, however, is beginning to detect a large percentage of Maori people who have a history of TBI. Barnfield (1995) in a study of prison inmates found that 91.4% of the sample of Maori participants (n=70) reported having sustained a mild or moderate TBI some time in the past, compared to 79.4% of the non-Maori participants (n=34).

According to the literature available it appears that following TBI Maori people may behave differently to non-Maori people. Prigatano and Leathem (1993) for example found that Maori TBI subjects tended to underestimate their level of behavioural competency as compared to their relatives reports. This was in direct contrast to reports of non-Maori with TBI and their relatives. Several reasons were suggested by these authors for this phenomenon, first that the relatives were overestimating the patients' abilities, perhaps to help their relative save face, second that the patients were reporting less competency to the neuropsychologist because of 'whakama' or an involuntary self-abasement, and third because of the effect of the brain damage.

Comorbidity with alcohol and drugs

TBI is often sustained by people who have a concomitant alcohol problem and in fact, alcohol is a frequent contributor to accidents. Morse and

Montgomery (1992) cite a study by Mangione (1988) where up to 40% of the sample had used drugs or alcohol prior to an auto accident, and 19% had used alcohol or drugs prior to a fall that resulted in TBI.

People who have a history of alcohol abuse tend to have a poorer outcome from TBI as measured by neuropsychological tests (Dikmen, Donovan, Loberg, Machamer & Temkin, 1993). Lezak (1995) says that the relationship between alcohol use and neuropsychological status one year post accident is not simple because those who perform least well on tests tend to be poorly educated men with a premorbid lifestyle that is likely to have put them at risk of TBI. This implies that it is unclear whether the alcoholism is the cause of the lower performance on neuropsychological tests or whether the person's socioeconomic background is the reason. It is probably a combination of both.

Dikmen et. al., (1993) found that the neuropsychological deficits following TBI tended to increase as the level of premorbid alcoholism increased, particularly in the areas of performance and verbal intelligence, motor coordination and speed, abstract reasoning and problem solving ability.

This chapter has outlined the nature and effect of TBI, and that the consequences of TBI are far-reaching. This background also clearly suggests that Maori, especially men, are disproportionately represented in the figures. The following chapter outlines international findings on minority groups, TBI and assessment.

CHAPTER 3

CROSS-CULTURAL PSYCHOLOGY

Examination of the effects of culture on the outcome of testing should begin with clarification and definition of the enigma of culture. The concept of culture is as difficult to define as intelligence and personality. Kroeber and Kluckhohn (1952, cited in Brislin, 1983) defined culture as being "patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievements of human groups ... ideas and their attached values" (p. 181). Price-Williams (In Marsella, Tharp & Cibrowski, 1979) simply suggests that culture refers to "the manifold of lifestyle" (p. 4), which is taken to mean that culture consists of many diverse elements that influence and are influenced by people's lifestyle. The purpose of psychometric assessment is to sample the many and diverse abilities of individuals, and given the latter definition of culture there are many subtle elements that have influenced the abilities of the individual that the examiner may not be aware of when administering and interpreting tests.

For the purpose of this thesis Price-Williams' definition will be used, as it more easily facilitates an exploration of the Maori culture, which places emphasis on an holistic and spiritual 'lifestyle' rather than on things which tend to be packaged and compartmentalised such as 'patterns', 'symbols' or 'attached values'.

Cross-cultural research development

Since the mid 1900's the use of psychological tests has been increasing. The problem of testing people from different cultural backgrounds had been recognised as early as 1910 when tests were developed for the flood of immigrants into the United States (Anastasi, 1990), and now the literature concerned with cross-cultural psychology is "massive" (Brislin, 1983, p.363).

The 1950's saw researchers and theorists e.g Eells et al., (1951 In Jensen, 1980) questioning the relationship of psychology to culture, and how this variable connected or interfered with the psychological variable of interest at the time. Since then substantive areas of research in cross-cultural psychology have included aggression; cognition; ethnocentric attribution; perception; socialisation and personality development; sex differences, gender roles, personal identity, and identity conflict; and values, beliefs and motives.

Psychological, and later neuropsychological tests that have been designed by and for 'Western' people may be inappropriate in content, method of administration, and interpretation for people not of Western heritage. Effort has been made for example to control for such factors as language by testing people with non-verbal tests such as Raven's Progressive Matrices (Raven, 1965).

Anastasi (1990, p. 355) describes a continuum of cultural difference that ranges from "superficial and temporary effects" such as lack of familiarity with the language a test is presented in, to "basic, permanent and far-reaching effects" such as educational underachieving related to low socioeconomic factors, and for theoretical and practical purposes urges inquiry into the level of this continuum that any observed behavioural difference falls to determine how disadvantaged a person may be in a given situation. Geary (1995) draws attention to the obvious argument that both biological and cultural influences are reflected in cognitive and academic development. Furthermore, he goes on to explain how the mechanisms of learning either biologically based or culturally taught, are different. This difference does not appear to be recognised in the plethora of testing instruments available, which assume that a factor (i.e cognitive abilities) can be measured in all people by the same method because that factor has developed in the same method in all people. This supports McCreanor's (1988, p.249) contention that "a single test cannot be 'culture positive' for two or more different cultures".

The international literature is increasingly recognising that health and social service delivery systems are bound within socio-cultural matrices and that effective service delivery, (such as assessment within a neuropsychological framework), must have recourse to the needs, perceptions and values of those it serves i.e be "culturally syntonic" (Robinson, 1988).

Constructing Culture-fair Instruments

In order for a psychological test to be culture-fair it should be composed of items to which all socio-cultural groups have been exposed. It is not enough that a test is neutral or inoffensive, or includes items specifically for minority groups as it is the orientation of the entire test which hinders the attempt at culture-positiveness (McCreanor, 1988). There are ongoing discussions about whether concepts and instruments are generally valid to all cultures, (etic), or only valid in particular cultures, (emic) (Segall, 1986).

Davidson (1977), felt that the difficulty of developing measures that are functionally equivalent between cultural groups decreases as the strength of the theory increases. He felt that the emic equivalent of etic measures (constructs) can be developed if the level of abstraction is high and if one is knowledgeable about the culture. An instrument or test is developed within a particular culture i.e to measure intelligence within the Maori culture. The construct validity of the measure, i.e what items signify intelligence for Maori people, can then be investigated within the culture to determine its functional equivalence, or its parity to other scales of intelligence. This is the first of three approaches suggested by Anastasi (1990).

A second approach is to develop a test within one culture and administer it to people of other cultures to dramatise the differences and to highlight the fact that people's cultural lifestyle affects the acquisition of cognitive skills and knowledge. An example of this would be administering a test that requires written answers to people in a culture with oral learning traditions. The third approach is to adapt tests from existing materials and validate them against the local criteria for which they will become exclusively useful i.e an adaptation of an overseas test that uses New Zealand items instead of overseas items.

There are other cultural factors that influence the outcome of tests that have nothing to do with the instruments themselves, rather they are the bases of an implicit and covert infrastructure of the culture, that govern how people interact with others in the diverse range of social contacts they will encounter. The following section discusses some of these cultural idiosyncrasies and syndromes and attempts to relate them to the presentation of culturally-different people in the therapeutic relationship.

Cultural syndromes

Underlying any discussion on the difficulty of assessing people of a different culture one should attend to cultural syndromes: individualism vs collectivism, tight vs loose societies (Triandis, 1990), power distance and uncertainty avoidance (Draguns, 1990).

Each of these syndromes will now be explained and their relevance to New Zealand highlighted.

Individualism versus Collectivism

Collectivist societies such as the Maori culture stress family unity and interdependence (Waldegrave, 1985; Durie, 1985). In collectivist cultures in-group goals come before personal goals, behaviour is regulated by in-group norms, hierarchy is important, the self is described in terms of relation to the in-group, and security, obedience and conformity are well regarded.

Individualistic societies, such as those in which the psychological assessment instruments were developed, prize self-reliance, independence, and personal achievement. The consequences of a person from an individualistic culture assessing people from a collectivist culture are possibly: attending to the wrong people in the hierarchy, insufficient rapport establishment, misinterpretation of the client's deference to the tester, (who they perceive has high mana [status]), and the client's seeming inability to do things for themselves.

Individualism versus collectivism is likely to account for the greatest difference in people's social behaviour according to Triandis (1990). The differences are apparent in the relations within family, in-group, work and therapeutic alliances.

Tight versus Loose Societies

Social behaviour within a community can also be considered along a tight-loose dimension. In tight cultures people are expected to behave according to the norms of their society and there is consequently less tolerance of deviance. Traditional Japanese society is an example of the archetypical tight culture where improper behaviour is often viewed with suspicion and disapproval. In contrast loose cultures are more tolerant of deviant behaviour, impunctuality and informality. Durie (personal communication, In Prigatano & Leathem, 1993) describes the acceptance of 'deviant behaviour' within Maori culture as a possible explanation for the less pronounced feeling of personal failure Maori people projected after TBI compared to non-Maori people.

Power Distance

Draguns described power distance as the "preferred psychological closeness" (1990, p.320) people desire in relation to those they see as their superiors and the example he cites is the expert role of the therapist. It would follow then that in a culture where the regulating features would include both collectivism, with its implications for hierarchy, and power distance with its respect for superiors, would produce members who are acutely aware of the unequal power differential in the therapeutic or clinical relationship. In such a case would we expect the client to display accurate samples of the behaviour of interest? Second, would the measurement of this behaviour match with the construct implied in the assessment instrument?

Uncertainty Avoidance

Uncertainty avoidance is the propensity of a cultural group to make rules and regulations, and refers to the room people have in which to take risks. Low uncertainty avoidance operates in cultures where behaviour is not overtly regulated by protocol. By contrast high uncertainty avoidance leads to close observation of norms, rules and hierarchies of power. The latter cultural parameter has been well documented as operating within the Maori culture, Sachdev (1989) discussed three constructs (mana, tapu and noa) that concern power and influence and regulate the behaviour of people raised in this traditional (Maori) way. Even Maori people not raised with explicit observance of the concepts have an understanding of them, and due to the collectivist style of Maori society, their behaviour is shaped by them.

Application to a Maori Population

An explanation of the meanings of these concepts is important to provide some clarification of the terms.

Mana

Mana has been described by Sachdev (1989) in terms of its characteristics: a) influence, power and prestige b) success or achievement c) has spiritual connotations, and d) is contextual in its usage. A person can have great mana by virtue of birthright, although this can diminish if the person does not make good and fair uses of their mana or the position they hold in society. It is also possible for mana to be earned by a person not of noble birth should they distinguish themselves by achievement in traditional arts such as oratory.

Tapu

Tapu also defies direct translation and has in my own cultural experience (Ngati Porou) been embedded in all things Maori. Tapu can be ascribed a religious function, (without the connotations of righteousness), or a secular function depending on the context (Sachdev,1989), and I would like to provide examples of each from my own experience to illustrate this difference. When one attends a tangihanga (funeral) all aspects of the proceedings are considered tapu because of the presence of the deceased. It is not a fear of the deceased, nor any aspect of death itself that is feared but rather an acknowledgement that when the deceased begins the journey to Hawaiki (traditional place of rest for the wairua, or spirit) there is a fine line between life and the state of being dead, as illustrated by the mythology of Maui. Maui, a demigod of Maori legend is said to have been stillborn and cast into the sea where Tangaroa, the God of the sea, found and revived him. By this intervention Maui was imbued with many magical gifts such as great strength. This story implies that at the time of birth and death the wairua (spirit) of the person hovers and is susceptible to intervention by other agents. Most Maori believe that certain whakanoa (cleansing rituals) must be observed at tangi (funerals) and following childbirth. An example of tapu in a secular context concerns the gathering of kaimoana (seafood). Women who are menstruating are considered too tapu to be involved in this process, presumably because of the associations with childbirth (tapu).

Noa

Noa is considered as an 'opposite' state to tapu, although the concept of Cartesian dualism, a theory by the 17th century philosopher Descartes that there are opposite states for everything, is alien to Maori people (Durie, 1985). When tapu is removed it is considered that a process of whakanoa has occurred, or a process of making things/people/places 'ordinary', hence when a deceased relative lies in state at home the house has tapu until the body is removed and the tapu is lifted.

Whakama

A fourth dimension or cultural behaviour that has its roots in the preceding three concepts is whakama (or whakamaa as it is also known). Whakama is a way of thinking about interpersonal relationships that is different to the Pakeha (non-Maori) way. Whakama includes behaviours and feelings that are experienced by all people e.g shame, embarrassment, withdrawal, depression, fear, confusion, acting out. Whakama is the subject of an article by Sachdev (1990), and a book by Metge (1986), and is only now beginning to be examined as a factor to be accounted for in the clinical presentation of Maori clients. Metge describes one outcome of whakama, that depending on its intensity, would cause a person to "hold back" (p. 108) to such an extent that they would cease entirely to function in their normal capacity or perform far below capacity. An informant in Metge sums up the effect of whakama thus, "If we are consumed by whakamaa we will not be able to act. It produces a sense of fear, anxiety, so we have less chance of dealing adequately" (p. 109). The significance of this is that whakama can and does have implications for the performance of Maori people in the clinical or formal testing situation (Durie, in Prigatano et al., 1993; Sachdev, 1990), that may not be getting recognised by the clinician as a variable affecting performance.

According to Sachdev (1990), whakama has been espoused as a cause of 'blocking' of normal cognitive processes and the expression of affective responses. This is the type of behaviour seen in the classroom when the child who is usually outgoing and playful responds monosyllabically, if at all, to the teacher's question, or the Maori youth in court who displays the physical appearance of guilt. Withdrawal is also attributed to whakama and a person feeling whakama may interact at a very low level because of the acute embarrassment they feel.

In the clinical setting, Harker (1973, In Sachdev, 1990) suggested whakama as one cause of Maori performing poorly in the testing situation. Anxiety leading to inhibition of performance may be found to exist concomitantly with whakama presentations, and therefore it is likely that an anxious client will perform less well than a client who is more relaxed. This is a topic of relevance in New Zealand in the clinical, educational, medical and vocational arena.

Maori dimensions of health

Every culture has its unique view of what it means to be healthy, and the Maori culture is no exception. As Table 3.1 illustrates, the Maori view of health is holistic, and according to Durie (1984), it is essential that the four dimensions that make up a healthy person are in balance.

Table 3.1

Maori Dimensions of Health.

Te Taha Hinengaro - Cognition	**Te Taha Tinana** - Physical
Te Taha Whanau - Family	**Te Taha Wairua** - Spirituality

Because all four dimensions are essential for healthy functioning a person will be unhealthy when there are problems in any one of these areas. It is a salient observation that although such literature is signalling the need for mental health service providers to adopt bicultural aspects into their service many appear to remain mono-cultural.

Sawrey (1990) surveyed the opinions and behaviours of psychologists on aspects of Maori mental health, and amongst his conclusions was the observation that that although 60.1% of the respondents (n= 163) felt that the lack of recognition of Maori culture in New Zealand was a strong factor determining Maori people's mental health, and 85.2% felt that a psychologist's knowledge of Maori culture is an important factor determining good psychotherapeutic outcome, even those with the rudiments of knowledge of taha Maori such as the ability to greet clients in Maori, were not doing so. Moreover, the majority of respondents felt that their psychological training and knowledge of Maori culture was inadequate for service provision to Maori clients.

While this chapter has outlined some of the cultural context Maori clients bring to an assessment situation, the assessment process itself requires examination for its appropriateness for different cultural groups. This has been an area of considerable study and the essential areas are discussed in the following chapter.

CHAPTER 4

NEUROPSYCHOLOGICAL ASSESSMENT

An historical overview

Following World War II, the use of psychological tests burgeoned as clinical psychologists were called upon to test soldiers with brain damage. The instruments available to them at that time were the Wechsler Bellevue Intelligence Scale, the Rorschach, and the Bender-Gestalt. In the United States Halstead and Reitan developed the first battery of tests, the Halstead-Reitan Neuropsychological Test Battery in 1979 with a specific function to detect brain dysfunction. Following the introduction of such tests psychologists began to query what the test results implied about the behavioural consequences of brain injury, and thus the focus of assessment shifted from confirming the presence and location of lesions to establishing the outcome of the lesions (Prigatano & Redner, 1993).

Additionally, Arthur Benton in the U.S developed tests purported to show that it was possible to identify neurological constructs from test data, and Luria in Russia integrated clinical and experimental/research principles to further understand the specificities of higher cerebral functions.

Commenting on neuropsychological assessment in the 1990's, Benton (1992) says that although neurodiagnostic techniques such as CT and MRI have simplified the localisation of lesions, there are many instances where they fail to disclose structural abnormalities that neuropsychological tests detect and the neuropsychologist is more proficient because the assessment battery is more comprehensive and relevant to clinical problems, Benton (1992).

Assessment today

Today clinical neuropsychologists are addressing more than whether the patient's performance on standard psychological tests indicates the presence of an organic brain syndrome. The quantitative and qualitative results of a neuropsychological test battery are now used to indicate brain dysfunction, information about the organisation of brain function, location of the lesion, the nature of higher cerebral dysfunction, or to help plan rehabilitation programmes (Prigatano et. al., 1993).

Neuropsychology no longer focuses on the traditional concept of linking cognitive abilities and specific functions to segregated areas of the brain, but instead to understanding complex neural networks (Benton, 1992). In other words the current interest is in the dynamic relationships between the areas of the brain rather than the exclusive abilities undertaken by specific areas of the brain. This holistic view of brain function seems more focused to the referral questions and the rehabilitative needs of the client.

Universal objectives

Neuropsychological assessment provides the information needed for diagnosis, evaluation of problem areas, treatment, and measures of treatment effectiveness following neurological trauma or dysfunction. The neuropsychological examination proceeds in stages, beginning with the examiner planning the overall approach to the problem, then formulating hypotheses and selecting the techniques to test them. The hypotheses and techniques will depend on the examiner's understanding of the referral questions and the accompanying information about the client. The initial interview and assessment make up the second stage (Lezak, 1995). Therefore, the first purpose of assessment is to determine the client's capacity to take tests and their understanding of the purpose of the assessment (Lezak, 1995).

The second purpose is to ascertain the extent of change within the person following the event or accident that brought them to medical attention, and often this is best achieved by first deciding upon the client's premorbid levels of ability and behaviour, against which their current functioning can be compared. Talking with the client and their family or significant others is often the best source of information concerning their level of premorbid function in areas of life such as education, occupation, social involvement, personality, activities etc. Having thus determined this benchmark it is simpler to gauge not only the extent of the damage, but to gauge how realistic the client's or their family's expectations are for their return to premorbid activities, or involvement in future activities.

A third purpose of assessment is to provide the clinician with information to formulate a treatment plan, set goals for improvement of deficits, enhancement of skills, compensatory techniques, and to measure the effectiveness of the treatment. Feedback is an important component of the assessment, as it provides the client with reassurance about their strengths as well as information about their deficits. By providing confirmation of the proficiencies a client has there is a positive aspect for them to focus on in what may otherwise appear to be a dismal outlook. When areas of difficulty are identified it may be beneficial for the client to know that the particular problem they are experiencing can be explained in terms of brain pathology rather than as a personal failing.

A final purpose of assessment is for research so that people with a particular type of lesion can be studied to determine the effects of the lesion and the types of intervention with the best results. Neuropsychological assessment is comprised of several parts, each of which will be discussed separately.

The Interview

What should be part of a good neuropsychological interview? The clinician needs to become acquainted with many aspects of the client's life, and although some of this information will be gathered from the referral, records, past notes, co-workers, family, and friends, the bulk will come from the client when, and if, they are able to talk with the clinician. The areas of interest include a) social history such as the socioeconomic status of the family, education, occupational history of their parents, siblings, marital history, length of any relationships, and spousal history; b) present life circumstances such as where the client lives, who they live with, income, occupation, leisure activities, quality of family life, substance abuse by client or family members, and quality of marital relationship; c) medical history including past psychiatric problems, visual or auditory disturbances, motor problems, sleeping, and eating habits; d) current medical status such as ongoing problems, medication, current therapies; and e) circumstances surrounding the examination, such as the reason for the referral, compensation claims, vocational training, or early retirement (Lezak, 1995).

Other information gathered during the assessment will help to determine the extent of the impairment and the location of the damage. Cognitive history taking, determining what areas of cognitive functioning the client has difficulties with includes memory - anterograde (recalling everyday information), retrograde (past personal and public events), and semantic (general knowledge); language - output, comprehension, reading, and writing; numerical skills; visuo-spatial skills; neglect phenomena; visual perception; hallucinations; personality change and social behaviour including eating habits and sexual behaviour; thinking and problem solving; and depression (Hodges,1994), abstract reasoning, and perception (Lezak, 1995)

The Tests

There are two approaches to testing available to the clinician, the 'fixed battery' and the 'flexible' approach. The fixed battery has compelling grounds for its use, because it allows communication between specialists, it allows distinctive patterns of performance associated with particular diagnostic categories to be isolated, and it provides the opportunity for observation of clinically significant characteristics of performance. On the other hand the flexible approach allows for the selection and sequence of tests to be influenced by the nature of the referral questions, and by observation of the performance of the client during examination (Benton,1992).

Test variables as bias

Are the unequal results of psychological tests true indications of variability, or are they an artifact of those tests, such as an indiscriminately biased selection of items more suited to one group of people than another?

There are three fallacies concerning the definition of test bias;

1. Assuming that a test is biased just because one group of people scores less

well than another, 2. that group differences on a test are due to the culture-bound nature of the test items, and 3. that a test standardised on one population will be biased if used on another population (Jensen, 1980). This is not to say that bias does not occur, but it cautions against the conjecture that tests per se are biased if one group consistently performs less well than another. In order for a test to be unbiased it should be able to demonstrate the following qualities; construct validity, test-retest reliability, internal consistency reliability, correlations between items and the total score, and factor loadings should be the same for both groups. When there are differences demonstrated then the test or the item may be biased and should be removed.

Other factors that influence test performance

Peripheral motor and sensory functioning, handedness, age, education, gender, ethnicity, anxiety, amotivation, and fatigue can also interfere with test interpretation (Anderson, 1994).

Testing

Formal assessment includes measurement of everyday skills and the repertoire of behaviours expected for that person in normal circumstances such as memory, following instructions, motor skills, attention, social behaviour and motivation.

Memory

In clinical assessment memory is often classified according to how it is tested. Immediate memory is for material remembered immediately after presentation. Delayed, or recent memory is for material presented minutes or hours earlier. Recognition is also included in memory tests as it often assists in the testing of retention of information. Memory can also be classified according to sensory modality, for example visual or verbal (Anderson, 1994). Specific tests of verbal memory include the Auditory Verbal Learning Test (AVLT, Rey, 1964), and the Logical Memory subtests of the Wechsler Memory Scale-Revised (Wechsler, 1987). Visual memory is most often tested with the Rey-Osterrieth Complex Figure Test (Rey, 1941; Osterrieth, 1944).

Higher executive functioning

The higher executive functions include goal setting, strategy formation, selective attention, mental agility, discriminating between stimuli, following instructions, and making judgments. Useful tests for measuring these higher order abilities include the Stroop Colour-Word Test, Trail Making A & B, and Twenty Questions.

Motor skills

Tests such as the Finger Tapping Test examine the speed and dexterity in each hand. The clinician tests both hands, and comparing the performance of each is able to draw inferences about lateralised lesions, for example severely impaired finger tapping performance of the right hand indicates dysfunction in the contralateral (left) hemisphere. It is essential that physical dysfunction which may reduce dexterity, such as arthritis, are ruled out when interpreting tests of motor function.

Social outcome

An easily administered scale to determine the social outcomes following TBI is the Patient Competency Rating Scale (Prigatano, 1986). The PCRS consists of two 30 item questionnaires, one to be completed by the TBI person, with the clinician's assistance, and the other for an informant such as a relative. There are four areas sampled; activities of daily living, emotional control, interpersonal skills and cognitive abilities, and the responses are indicated on a five point likert scale.

Language

A possible outcome of TBI is a defect or loss of the ability to express oneself by speech, writing, or signs, or the comprehension of spoken or written language. The magnitude of the deficit is tested using instruments or batteries of tests such as the Token Test (De Renzi & Vignolo,1962; Boller & Vignolo, 1966), the Western Aphasia Battery (Kertesz, 1979, 1982) and the Boston Diagnostic Aphasia Examination (BDAE) (Goodglass & Kaplan, 1983).

General intellectual assessment

The most widely used test of general intelligence for adults is the Wechsler Adult Intelligence Scale (Revised) (WAIS-R), (Wechsler, 1981). This test is actually a battery of subtests sampling intellectual functioning in verbal and performance areas. It is lengthy, but because it is composed of eleven subtests it is possible to allow clients who are becoming fatigued to rest during administration.

Neuropsychology in New Zealand

Neuropsychological assessment in New Zealand is usually conducted by clinical psychologists in hospital or clinic settings, if it is done at all. Currently there is discussion about accreditation and registration in clinical neuropsychology. Whereas it is possible to obtain post-graduate qualifications in clinical neuropsychology in the USA and in Australia, there is not yet a specific university qualification established in New Zealand. There are presently a number of vacant positions throughout the country in clinical neuropsychology with no suitably qualified applicants and therefore a joint Neuropsychology Working Committee has prepared a draft proposal of the criteria necessary for the competent practice of clinical neuropsychological assessment. The rationale for this are the increasing demand for specialist clinical neuropsychological assessment and rehabilitation, and the need to establish a standardised qualification throughout New Zealand (Neuropsychology Working Committee, 1994).

The importance of clinical neuropsychology was promoted in 1995 at the New Zealand College of Clinical Psychologists' 1995 Annual Conference held at Palmerston North. The themes that year were neuropsychology and geriatric issues.

Implications for neuropsychology today

Maori and neuropsychological assessment

Instead of asking "Does the Maori person do less well than the non-Maori person in neuropsychological testing?" it may be more useful to ask "What are the conditions in which Maori people perform less well than non-Maori people in neuropsychological testing?". The contention of this thesis is that there are variables inherent in the testing process which may be adversely affecting Maori people undergoing psychometric assessment. A review by Sattler and Theye (1967) found that five out of six studies examining the effects of anxiety on test performance found some significant results. The variables found to produce detrimental anxiety were identified as procedural, situational and experimenter (interpersonal) variables. An additional source of variability is the tests themselves (Jensen, 1980). The procedural variables have been covered earlier in this chapter. Situational and interpersonal variables are more difficult to clarify.

Situational variables

Anastasi (1990) has suggested that "other aspects of the testing situation may significantly affect test performance" (p.39). Not only is there a dearth of literature on the effect of the setting on test performance, there is an almost total absence of investigation into the transactions between Maori people and neuropsychological services. It may be that Maori people score less well because of a bias occurring due to the setting of the test or assessment. The 'setting' in this hypothesis includes:

1. The place of testing, i.e 'high' status university or clinic, or 'benign' status community venue (marae etc).
2. The presence or absence of Maori staff to counteract the Eurocentric feel of the situation.

Interpersonal variables

Experimenter variables can influence test performance in many ways. There is the 'halo' effect where the examiner is influenced by the presentation of the client, i.e sympathetically, to give more credit than is actually warranted to responses. A second examiner effect occurs when systematic errors in scoring and interpretation are made. Sattler and Theye (1967), reviewed studies of the effect of the race of the experimenter on client performance, and reported that as early as 1913, studies found that Negro subjects might have achieved (better) results with an experimenter of their own race (Strong, 1913 in Sattler et. al., 1967).

Sattler (1970) in a review of studies on racial experimenter effects suggested that white examiners may lead to Negro clients exhibiting such behaviours as "fear, suspicion, verbal constriction, strained and unnatural reactions, the facade of stupidity to avoid appearing 'uppity' and scoring low to avoid personal threat" (p.144). Sattler cites research within a New Zealand population, (Vaughan, 1964), that found that Maori children use a "protective-withdrawal mechanism" (whakama; p.146) when in contact with a member of the racial out-group (Pakeha), in contrast to Pakeha children who perceive themselves to be part of a "privileged racial majority" (p.146).

International research and theory on the psychodynamic relationship between the client and therapist suggests there are questions concerning the value of present approaches of treating ethnic minorities (Sue, 1988; Segall, 1986; Sachdev, 1989b; Watkins & Campbell, 1990).

The international findings include an understanding that one of the major demoralising outcomes of acculturation into the dominant, and usually non-indigenous, lifestyle has been urban migration. The effects include a "weakening of the collective" (Brislin, 1990), which implies that individuals and family units find themselves functioning independently, self-sufficiently and without the support of the traditional community. Cultural groups who identified collectively with a particular geographical area found themselves adrift and unable to participate fully in either cultural context. Durie (1985) believes this is an unhealthy lifestyle for Maori and that there is a need to re-establish tribal links and Maori concepts of holistic health, which include the dimensions of te taha wairua (spirituality), te taha hinengaro (cognition), te taha tinana (body) and te taha whanau (family) (Waldegrave, 1985).

Consumer's Experience of Neuropsychological Assessment

A study by Bennett-Levy et al. (1994) addressed the perceptions of 129 consumers in a number of areas that included their expectations, preparation, perceived relevance of elements of the assessment and its length, whether they had brought a support person, whether the overall assessment was useful and the feedback received. Results indicated that the majority of consumers had positive or neutral experiences, and that factors such as bringing a relative led to positive affective, confidence and ability measures. The authors suggest that neuropsychologists can enhance the experience for clients by observing strategies such as educating referral agents to prepare clients, contacting clients personally, sending information prior to the assessment, providing rationale for the tests, providing understandable feedback (taped if possible) implying everyday situations, inviting clients to bring a relative, being particularly sensitive to anxious clients and having the opportunity for refreshment breaks.

Massey University Psychology Clinic

Since the subjects who took part in this study had been seen at the Clinic it is important to set that agency against general neuropsychological practice in order to put it in context. The Clinic functions primarily as a private clinic for the assessment and treatment of general psychological problems, with an increasing number of referrals for assessment of the sequelae of traumatic brain injury. The Clinic also has an educational function, being accessible to clinical psychology students for practical experience. Some aspects of clinic practice are examined here in more detail.

The referral

Referral to the Clinic is likely to have come from the client's doctor, ACC case manager, school, employer, family or rarely, the client. Approximately 100 people per year are referred specifically for assessment of neurological problems. The referral may include a comprehensive account of the chronological events and the current problems, and have specific questions, or it may be a brief letter requesting that the client be seen for 'ongoing problems'. The client's age, occupation, address and ACC number will probably be provided but there may be no indication of the client's ethnicity. The referral source may be contacted for further clarification.

The appointment

Having received the referral letter the director makes initial contact with the client will probably be via the telephone. The call usually goes something like this:

1. Ask to speak to the client and explain who is calling and her role.
2. Ask if they know that a referral has been made to the clinic, if not, explain who made the referral, why they feel a referral is necessary, and what the referral agent expects to happen.
3. Ask them how they feel about the referral.
4. Explain that she would like to see them at the clinic if that is practical for them, otherwise an alternative venue in their hometown can be arranged.
5. Arrange an appointment date and time, and explain that a letter and card will be sent out with a map of the campus and some information about the Clinic, such as confidentiality, payment etc.

6. Ask them to bring any glasses they need for reading etc.
7. Ask whether they will consent to having a trainee psychologist sit in on the interview.
8. Ask if they have any other questions.

Arriving at the testing venue

The second part of the assessment/interview process is the arrival of the client at the Clinic. It may not seem to have much bearing on the interview, however it is important to bear in mind that the client and their supporter/s have had to complete a number of cognitive and physical steps to get to the clinic.

1. Understand the telephone call.
2. Receive the letter and understand the instructions to get there on time.
3. Get up and dress in a way they feel would be most appropriate.
4. Drive to the university campus (which may be the first visit to a university for some clients).
5. Find the Clinic on the campus map, find a park, and enter the clinic.
6. When they arrive they will be greeted by either the receptionist, or the clinician. They may have to wait if they are early, and they may be offered a cup of tea or coffee. They will try to get their bearings in the unfamiliar office surroundings. In the waiting room, or in the interview room they are asked who would like to come in to the interview, and asked again if the trainee psychologist could sit in and observe. (Dr Leathem has had concerns that it may not be appropriate to ask this while in the waiting room, but as it is not always clear whether the person accompanying the client is a suitable and willing

informant or a neighbour who gave them a ride, she has not wanted to invite them in until this is checked out).

7. When they go into the interview room, they may not be feeling very confident, they may feel inferior to the clinician, or they may feel 'like fish out of water'.

The neuropsychological interview

The third step in the interview process is when the clinician talks to the client (and their family/friend). The clinician will have a mental framework they will use to cover all aspects of the client's situation. The clinician may invite the support person to stay during the initial history-taking, partly to check the client's reliability as a witness and will spend approximately 30-45 minutes explaining the purpose of the assessment and gathering background information. The rest of the time is spent testing, beginning with a test that has good face validity. The support people are at this time asked to leave so that the client can be tested without distraction.

The clinician interviews the client and their family, or significant others, first to establish rapport, second to explain the nature of the assessment and any measures that may be administered and third, to understand what the effect of the injury has meant for them and to get information. This process will vary between agencies, however the same topics will generally be addressed. The process discussed above was the situation at the Clinic which initiated the present study, however, even since the beginning of the research for the study the practice was changed to pursue a more appropriate service for Maori clients.

New Directions

As previously stated in the preceding chapter the service delivery system must become culturally syntonic if it is to be consistent with the needs, perceptions and values of those being served in any country. To achieve this there needs to be greater understanding between cultures. Agee and Everts (1993), believe that distance in the (counselling) relationship can be reduced when the clinician can recognise the significance of pertinent core beliefs and the effects of these on a person's life in a non-judgmental, inclusive and appropriate manner for the context. Furthermore, they should not concern themselves with judging the truth of other's beliefs. In order for the clinical assessment to become culturally syntonic it may need to be revised or supplemented to allow Maori clients to perform at their optimum level.

Given the variables which may affect Maori people receiving neuropsychological assessment within a clinic setting, the following have been identified as possible options for a 'bicultural' procedure for clients who identify themselves as Maori. These changes could not have affected the data collected as they had not been made at that time. Changes have been made since, and the effects will be monitored.

1. Telephone client as usual and ask them if they are a Maori family. Seek their opinion of venue i.e clinic or alternative such as a community marae.
2. Ask if a karakia (brief prayer or blessing) will be required to start the interview (and arrange for a person to do it if necessary).
3. Mail appointment card and enclosures.
4. Greetings. Meet and welcome to the clinic. Introductions begin with

kaumatua (elders) if they are present. This addresses te taha whanau (family). Then have karakia if desired, which addresses te taha wairua (spirituality). Cup of tea and biscuits (addresses te taha tinana [the body]). Invite all into the room then ask who would like to stay once the purpose has been explained /reassured. Ask if a trainee can sit in.

5. The interview. Whakapapa of clinician i.e who you are, where you come from (te taha whanau [family]). Purpose and background is explained as usual. Check with the client and support people about memory and other daily life activities. When testing is about to commence, explain how the client should be seen alone to perform well, (te taha hinengaro [cognition]).

The suggested changes are generally modest and in keeping with the philosophy of the clinic as contained in the Psychology Clinic Handbook (unpublished) "to provide a friendly, comfortable yet professional atmosphere to make the client/s feel at ease". There is the opportunity at Massey for consultation with people knowledgeable in taha Maori (protocol) who could be invited to say the karakia (prayer) if the client has indicated that they desire this.

The purpose of the changes is to try to reduce possible feelings of anxiety (whakama [shame, embarrassment]), which has been implicated in poor individual test performance (Lutey & Copeland, 1982).

The process of neuropsychological assessment needs to begin to be conversant with the cultural diversity of clients in order to achieve an accurate representation of the abilities and areas of deficit for these clients.

CHAPTER 5

FORMULATION AND HYPOTHESES

The Present Study

The previous chapters have illustrated that in New Zealand in the year to June 1994 it was estimated that as many as 10,000 people sustained a head injury, with an unknown number who considered their injury to be too trivial for treatment and subsequently did not report it (ARCIC, 1994).

It is clear that the factors most often associated with risk of head injury are being male, being aged between 15 and 30, and belonging to the lower socioeconomic groups. The 1991 census describes the Maori population as being younger than the non-Maori population (62.5% compared to 45.6% under age 30), and being over-represented in the negative social indicators such as having a low standard of income, education and housing, and high unemployment, crime involvement, injury and hospitalisation figures (Department of Statistics New Zealand, 1994). Accordingly, Maori people may be at extremely high risk of sustaining head injury.

Today the emphasis on rehabilitation and compensatory techniques means that many more people will be referred for neuropsychological assessment and treatment than previously. Accordingly, clinical neuropsychologists are likely to be seeing a growing number of Maori clients for assessment following traumatic brain injury (TBI), and it is timely that the expediency of the neuropsychological assessment for this population be examined.

The clinical neuropsychologist today has many tests and batteries of tests available for the evaluation of problem areas following TBI, but there is some doubt about the appropriateness of these measures for a Maori population. The contention of this thesis is that there are variables inherent in the testing methodology which may be adversely affecting Maori people undergoing psychometric assessment. The variables found to produce detrimental anxiety have been identified as procedural, situational and interpersonal (experimenter) variables (Sattler & Theye,1967), and the tests themselves (Jensen, 1980). It may be that Maori people score less well in neuropsychological measures because of a bias occurring due to the process of the assessment, the setting of the test or assessment i.e 'high' status university or clinic, or 'neutral' status community venue (marae etc), the absence of Maori staff/support people to counteract the Eurocentric feel of the situation, and finally that the tests may be inappropriate for Maori people.

The Maori view of health is holistic, and according to Durie (1984), it is essential that the four dimensions (te taha hinengaro [cognition], te taha tinana [physical], te taha whanau [family], and te taha wairua [spiritual]), are in balance within that person if they are to be healthy. It has become apparent that the standard practice of assessment in neuropsychology may not be sufficiently conversant with the application of procedures that are culture-specific, such as the observance of Maori protocol and preference, and the need to assess a Maori person with consideration to all the dimensions of health.

The present study, in three parts, sought to clarify some of these issues, and set the practice adopted at the Clinic against other service agencies after head injury. Part one, investigated a range of head injury support services to

Maori clients in the lower North Island. In part two, Maori people who have been through the neuropsychological assessment/treatment process at the Clinic were interviewed at length to determine their level of satisfaction with the service, and to develop ideas for questions to ask in a satisfaction questionnaire in the third part of the study which was to evaluate the satisfaction of a larger sample of the population being served.

Participation for the first part was invited from agencies in the Manawatu region and one in Southern Hawke's Bay. From each agency a senior member such as the Director was interviewed to provide information about the percentage of Maori clients served, the level of knowledge about tikanga Maori (Maori culture) within the organisation, the systems in operation, or proposed, to provide a service to Maori clients, and the level of commitment to staff development in this area. This information served two purposes, first to indicate whether the agencies had an awareness of the need for services tailored to Maori people's needs, and second to simply record the procedures in place at these agencies, with a view to monitoring the efficacy of these procedures in future research.

The participants for part two of the study had been seen at the Clinic for neuropsychological assessment and intervention. During their involvement with the Clinic, difficulties associated with setting, protocol and language became apparent and were discussed. The subsequent interviews with them highlighted several areas for inclusion in the questionnaire.

In the part three every past client who had identified him/herself as Maori was approached to complete a questionnaire of satisfaction with the neuropsychological process at the Clinic. The methodology in this research is based upon purposive sampling rather than random sampling because of the small population available for inclusion in the research. A random sample of non-Maori clients was also approached to provide a comparison of level of satisfaction. The research model is largely qualitative as it primarily uses interviews and survey as its method, and yields linguistic data, dialogue, and narrative as its results. The following hypotheses were generated based upon the available literature and suggestions for further research in recent articles.

Hypotheses Part One: Provision of Services to Maori Clients

(a) The majority of agencies interviewed will have an awareness of the need to provide a culturally appropriate service to Maori clients.

(b) Those with an alternative or modified process for Maori clients will report enhanced performance/rehabilitation/satisfaction from Maori clients.

Hypotheses Part Two: Pilot Study - Maori Perceptions of the Neuropsychological Assessment Process

(a) Former Maori clients will express some dissatisfaction with the neuropsychological assessment they received.

(b) The areas identified will be those concerning a Maori dimension of health.

Hypotheses Part Three: Satisfaction of Maori Clients

(a) Maori clients will be less satisfied with the service they received than non-Maori clients.

(b) The items Maori clients will be less satisfied with are those concerning a Maori dimension of health.

CHAPTER 6

METHOD

Part One: Interviews of agency representatives

Participants

Five people were interviewed individually.

- Dr Janet Leathem, director of The Massey University Psychology Clinic,
- Professor Munford, immediate past-president of Headway, (head injury support agency),
- Mr Bruce Skinner, Regional Senior Psychologist (Psychological Service, Dept. of Corrections),
- Mrs Maxine Richardson, manager of Ryder-Cheshire, (residential rehabilitation unit),
- Mrs Raita Holmes, head nurse at Pukeora, (residential rehabilitation unit),

Procedure

Each semi-structured interview took approximately one hour. The researcher contacted each by telephone and arranged an appointment. The interviews began with the researcher explained the purpose of the interviews in relation to the study. The topics of discussion were; the role of the agency, the presence/ratio of Maori staff to clients, the agency's perception of the importance of te taha Maori (Maori culture), the current practices regarding the assessment/treatment of Maori clients, staff training in this area and whether there is a perceived need for the current practices to be appended.

Part Two: Initial interviews of former clients

Participants

Two former clients of the Clinic were selected because they met the following criteria.

- They identified as Maori.
- They had been seen recently.
- They had been seen as part of a neuropsychological assessment.
- They were perceived as articulate and forthright.
- They were actively involved in Maori community life.
- The neuropsychologist in charge of the case had felt that cultural differences may have compromised the process.

The male participant had sustained a moderate head injury approximately 18 months previously, and following assessment and setting up of compensatory aids, he had returned to a professional occupation. The female participant was the male participant's spouse. She was undertaking university studies, and is also a working mother

Procedure

The participants were initially approached by the Clinic Director, Dr Leathem, on behalf of the researcher to seek their consent to participate in the study and be interviewed. The researcher arranged an appointment time for each participant, who decided to be seen separately. One chose to be seen at their own home and the other chose to be seen at the researcher's home. The setting for each interview was informal, at the coffee table with refreshments. Both participants were interviewed by the researcher and the Director.

The interviews began with the researcher and the Director thanking the participants for agreeing to the interviews, and for the invitation into their home. It was then explained that confidentiality would be maintained, and that their responses would be recorded and used as the basis of a study project intended to refine the process of neuropsychological assessment for Maori clients. Rapport was established by the researcher introducing her whakapapa (genealogy), and the Director explaining her affiliation with the region, and casually conversing with the participants. Whilst it might be assumed that the presence of the Director could have influenced the participants responses, and that it would have been better for the researcher to have interviewed them alone, there was general agreement that the researcher did not know the context of the original issues, and might not have been able to establish the depth of rapport that the Director already had with the participants.

The interview sought opinions on three aspects of their neuropsychological assessment experience: procedural, situational (setting) and interpersonal (staff). Each interview took approximately two hours. At the conclusion the participants were again thanked for their time. The interviews were later transcribed and key comments highlighted for inclusion in the study.

Part Three: Satisfaction questionnaire

Participants

Fifteen participants contributed to this part of the study. Two groups were selected. The first included all Maori former clients who had been seen within the preceding two years, and who could be contacted, and the second comprised non-Maori clients who had been seen at approximately the same time. Ethnicity was decided according to the client's response at the time of the original referral. This process continued until a sample of 20 (10 Maori, 10 non-Maori) participants had been obtained. Recruiting participants, particularly Maori people, was difficult for a number of reasons.

1. Clients were no longer at the address/telephone number held on their file.
2. Clients did not have a telephone number listed, therefore initial contact for consent was not possible.
3. Many prospective participants had memory impairments and were not able to recall the assessment in any detail.

Characteristics of participants included in part three are shown on Table 6.1.

Table 6.1

Characteristics of the Sample, (N = 15)

Sex		
	Male	9
	Female	6
Ethnicity		
	Maori	7
	Non-Maori	8
Age		
	< 21 years	Nil
	21 - 30 years	3
	31 - 40 years	7
	41 - 50 years	3
	> 50 years	2
Residing locally (Manawatu/Horowhenua)		7
Residing Hawkes Bay		5
Residing other areas		3

Table 6.1 presents the characteristics of the sample used for this part of the study. There were nine male and six female respondents. Seven identified as Maori and 8 as non-Maori, and the average age of the sample was 37 years, ranging from 23 years to 56 years. Half the sample resided locally (Manawatu/Horowhenua) when they were initially seen. Ten of the respondents did not acknowledge an involvement with Maori community life, including 2 of the Maori sample. Of the 5 Maori who were involved most identified an involvement with marae activities, kohanga reo (language nest) and family. Nine of the respondents had attended at least one tangihanga (Maori funeral), but only two had consulted with a tohunga (spiritual healer) in the previous 12 months.

Materials

A questionnaire of 58 items, divided into three sections, was constructed (see Appendix I). Section one gathered demographic information. Section two referred directly to the respondent's experience of their neuropsychological assessment and required the respondent to tick or write short answers. Section three required the respondent to indicate their level of satisfaction with the Clinic and the overall service they received.

The items were compiled from four sources. Items 1 to 11 (section 1) were adapted from a questionnaire used in a research report by Ratima, Durie, Allan, Morrison, Gillies and Waldon (1995) and were intended to record the demographics of the sample. Items 3, 4, 5, 15 (section 2) were adapted from a study by Bennett-Levy, Klein-Boonschate, Batchelor, McCarter and Walton (1994), and were included to sample factors that refer to the client's preassessment anxiety and overall perception of the experience. The remainder of the items in section two (1, 2, 6 - 14, 16) were compiled by the researcher and supervisor to assess the appropriateness of the current service with Maori-cultural specificity. Section 3 utilised the Client Satisfaction Questionnaire ([CSQ-31] Larsen, Attkisson, Hargreaves & Nguyen, 1979)). There were four response choices. "1" indicated maximum dissatisfaction and "4" indicated maximum satisfaction. Ten extra items (32 to 42) were added relating specifically to cultural appropriateness at the Clinic. Respondents were given space to write comments to explain or expand their responses. Larsen et al. (1979) suggest that the addition of items should not alter the psychometric properties of the CSQ-31.

The CSQ-31 samples nine areas of satisfaction: office procedures, support staff, physical surroundings, type of service, amount of service, quality of service, outcome, treatment staff, and general satisfaction. Table 6.2 details which items relate to each of the nine areas, and provides an example of an item. The full questionnaire is reproduced in Appendix I.

Table 6.2

Areas of satisfaction, items, and examples from CSQ-31.

Area of satisfaction	Item number	Example
Office procedures	1,2,18,22	Did you ever feel that our clinic was more concerned with procedures than with helping you?
Physical surroundings	3,6,12	Did things about our building detract from the services you received?
Support staff	14,24,28	In general, did the receptionist/secretary seem friendly and make you feel comfortable?
Type of service	7,9,13,25	Did you get the type of service you wanted?
Quantity of service	4,15,26	How satisfied are you with the amount of help you received?
Treatment staff	11,17,19,30	How interested in helping you was the person with whom you worked most closely?
Quality of service	5,21,29	How satisfied were you with the quality of the service you received?
Outcome	8,10,16	Did the services you received lead to any change in either your problems or yourself?
General satisfaction	20,23,27,31	If a friend were in need of similar help, would you recommend our clinic to him or her?

The questionnaire was accompanied by a covering letter and information sheet (Appendix II), a consent form (Appendix III), and a reply-paid envelope.

Procedure

A Every prospective participant was telephoned by the Clinic Director. There were three reasons for this initial call;

- To provide information about the study.

- To ask whether they would consider participating.

- To obtain consent to release their name, address and telephone number to the researcher.

B The researcher telephoned all clients who indicated interest and explained who she was, the nature of the study, and what would be required from their participation (see Appendix IV).

C The questionnaire with enclosures was mailed to each participant. If the questionnaire had not been returned after ten days the researcher telephoned again (see Appendix V).

When the questionnaires had been returned the data was collated and analysed. The results are presented in chapter 7.

Ethical Issues

Permission to contact the participants for this study was via the Director of the Massey University Psychology Clinic. The ethical issues considered were; informed consent, confidentiality, and appropriately actioning the respondent's concerns about their ongoing difficulties, such as their personal safety, when they were initially contacted. All participants were given both verbal and written information about the study. This information covered the purpose of the study, the uses to be made of the data, the method of data gathering, the name and contact number of the researcher, and an assurance of confidentiality (see Appendix II). A consent form (see Appendix III) was provided for the participant (and their assistant if necessary) to sign and date to indicate their willingness to participate. The consent form also included space for a return address if the participant desired feedback from the study.

The participant's right to confidentiality was strictly maintained. Access to identifying information was limited to the researcher and all questionnaires were coded by number only.

CHAPTER 7

RESULTS

The results from each of the three parts of the study are presented individually and will be discussed in Chapter 8.

Part One: Interviews of agency representatives

All the people interviewed expressed personal and agency support for a greater recognition of Maori cultural issues and values in working with Maori clients. Many indicated an awareness of being under informed regarding cross-cultural issues, and were in the process of organising training in this area.

Key:		
	Massey	Janet Leathem, Massey University Psychology Clinic
	Headway	Ron Munford, Headway
	Corrections	Bruce Skinner, Psychological Service, Dept. of Corrections
	Ryder	Maxine Richardson, Ryder-Cheshire
	Pukeora	Raita Holmes, Pukeora Centre

What percentage/number of your clients identify as being Maori?

Massey	*-About 7%*
Ryder	*-3 Maori to 33 non-Maori currently.*
Headway	*-10 - 12%.*
Corrections	*-A significant number*

How is ethnicity determined?

Ryder	*-Every client provides a brief autobiography.*
Headway	*-Clients are asked - a requirement of community funding.*
Massey	*-Often it is included in the referral. If it is not we now ask the referral agency.*
Pukeora	*-It is usually on the referral.*
Corrections	*-It is usually on the referral, and may be asked by the clinician.*

Do you as an agency have an understanding of taha Maori?

Ryder	*-No not yet. The Board has recently accepted an undertaking to encourage the spiritual and cultural identity of the clients by way of a staff development plan.*
Headway	*-I don't know if you can really understand another's culture -you have to live it. There is currently a policy being prepared for implementation, but until it is released I do not have the information about it (Due out in 1996).*
Massey	*-Aware of cross-cultural issues and mindful of providing the most appropriate service to Maori people. We are incorporating elements into our service such as inviting whanau to attend with the client and investigating alternative venues away from the clinic.*
Pukeora	*-We are getting better at being culturally aware.*
Corrections	*-We have an E.O (equal opportunities) component, and gender/cultural supervision can be arranged locally. The clinician makes a personal contract with the client.*

Does your agency believe the Treaty of Waitangi should be the basis for provision of health services for Maori people in New Zealand? How?

Ryder	*-Yes. The staff development plan will help us to understand such things as the principles of the treaty.*
Headway	*-Yes. A series of 12 pamphlets are being produced, and a training programme at the level of the caregiver. The objective is to actively educate people about head injury.*
Massey	*-Our governing body has a mission statement that supports the treaty, although we do not have one in particular.*
Pukeora	*-As a treatment team we try to provide a service that is consistent with the Treaty.*
Corrections	*-Yes, we have a 'Cultural Perspectives Policy Statement" that encourages recognition of the rights of tangata whenua, and that tikanga Maori be fostered in the division.*

Does your agency believe that mental health teams that have Maori clients should have a Maori consultant or kaumatua (elder) overseeing work?

Ryder	*-Yes. We are trying to establish this but it is difficult knowing how to find this help as our clients can come from (many different) remote places.*
Headway	*-We have a committee of people with iwi connections discussing this because it has not really been a feature in the past.*
Massey	*-Yes. We have available some people we could call upon, and although we rarely do so, it is nice to know they are available.*
Pukeora	*-Yes it is very important and we have amongst our staff and local community a number of people we ask often.*
Corrections	*-I believe we in Palmerston North office are fortunate to have people from the local iwi groups available for staff to liaise with, and we have staff members*

who identify with Maori cultural life and can contribute to our functioning. Our office also has a resource folder 'Nga Iwi', which has information about the region and the people and can be useful for clients who may not have too much of an idea about their own whakapapa.

Are Maori clients referred to Maori health workers?

Ryder	*-No we have a non-intrusive policy so we try to get the family to establish support networks for their relative*
Headway	*-You need to ask the client's iwi/whanau "Who do you want to liaise?"*
Corrections	*-If the client desires this, or if the client seems to be having a difficulty that may require them to be seen by a tohunga or a cultural advisor.*

Are there any practices your agency uses to make Maori clients feel moRe comfortable?

Ryder	*-No, we would like to know what we could do.*
Headway	*-We try, but there is a feeling from the non-Maori that we "have to do this" and so it's "water off a duck's back"*
Massey	*-We are working on that now like offering karakia before assessments.*
Pukeora	*-We are getting better at making our Maori clients feel more comfortable here. We now have a powhiri (welcome) ceremony for Maori clients that everyone comes to because it is a wonderful experience. Even some of the non-Maori clients say they wish they could have one. We have Maori consultants available as our clients come from different iwi so there are different protocol to consider.*
Corrections	*-This is not always easy to achieve but we do meet them and try to make our clients feel welcome. We are waiting for our offices to be blessed, and would like to get an artwork or taonga as an expression of our commitment to Maori cultural issues.*

Is there facility for whanau (family) to stay while the client is settled/assessed? (Only asked of residential agencies)

Ryder	*-No unfortunately we do not have the space.*
Pukeora	*-Yes, there is a whare (house) on the grounds that family can use for as long as they like. It is useful for them especially if they've come a long way, and I know the resident feels better knowing they are close by.*

Part Two: Pilot Study

Maori Perceptions of the Neuropsychological Assessment Process at the Massey University Psychology Clinic

Both participants expressed their support for an initiative that could help Maori people feel more comfortable in the clinical environment. The interviews covered the following areas; procedural variables, venue, clinician/client interaction, and whakama (anxiety). The following excerpts have been lifted from the transcribed interviews. The questions produced here are for clarity, to illustrate the area of discussion that prompted the responses.

Key: M = Male TBI client
F = Female partner

Procedural variables

The clients reported discomfort with some elements of the assessment process, in particular the procedural aspects, which they felt could benefit from the observance of elements of Maoritanga (Maori culture).

Initial contact

M - *"It was good that you had rung ...that personal thing eh?"*

Should we just ask whether the client is Maori?

M - *"Yes"*
F - *"Ask the referrer"*

What about inviting whanau support to come along?

M - *"In regards to Maori things they would have liked to bring along support...but in this day you don't want anyone else to know what your problems are...the situation is a little different..."*

F - *"...it should be there whether the Maori person uses it or not...it should be an option."*

F - *"...be a good idea to have one session with the client's birth family to explain what i it's all about so they can be a supportive unit"*

Could we ask them straight out (if they would like to bring whanau)?

M - *"Yeah...'would you like to bring family support or friends'."*

M - *"Maybe right at the beginning that's when you ask if a person needs whanau support."*

F - *"About the third visit when you have an idea of the situation"*

F - *"...bring them on board as support for us rather than being ignorant"*

F - *"...even my family* (in-laws of client) *could have gone along too...to be informed"*

F - *"...good idea to have a hui* (meeting) *with your family so they know how to support. ..educated on the syndrome..."*

F - *"Yes probably, in the sense of therapy it would be a good idea to have one session with the family...just to explain to them what it's all about so they can be a supportive unit."*

Would a Maori person feel obliged to bring whanau support?

M & F - *"No"*

What would this mean as far as confidentiality is concerned?

F - *"Maori people are usually straight-up sort of people..."*

M - *"I wouldn't expect you to go over my head."*

Would it be a good idea to have karakia (blessing) before the interview?

M & F - *"Yes"*

M - *"Opens up everything"*

F - *"...is helpful to Maori people...getting a bit of extra help..."*

F - *"...would ground them a bit..."*

Who would do this (blessing)?

M - *"If they've got any elders with them, no doubt one of them. or you could do it if you're comfortable with it."*

F - *"You can do it yourself if you know the right karakia, it's only a very brief thing ...can be one line"*

Overall impression of the process beginning with the referring agency.

F - *"The information was not there (at the time of the head injury)"*

M - *"...emotional issues weren't a priority at all"*

F - *"My confusion lay in the emphasis being put on the head injury"*

Venue

The Clinic at Massey University campus was perceived as being acceptable, although it was suggested that some Maori people might prefer a marae or community meeting place. In general the informants felt that the Clinic was welcoming and professional in its treatment of Maori people, but that it may be intimidating for some people to go onto the university campus.

Did the clinic seem 'Pakehafied' ?

F - *"Very"*

F - *"But it wasn't too bad, better than Palmerston North hospital".*

M - *"Things could have been made more ... comfortable ... like some posters in Maori..."*

How much do you think (TBI client) would have felt out of place at the clinic?

F - *"He works in those sort of environments, he would have been alright about it"*

You would have preferred to come to the marae?

M - *"Yeah"*

M - *"When you are talking to them you could say we can use the clinic or we can use a marae setting on campus...preference"*

F - *"... having a venue they can claim more".*

M - *"You could utilise ... the Maori unit at Massey"*

On the suggestion of meeting people in their own area or marae.

F - *"...they could organise a place to meet...more talking I suppose to tell them what you need...more specific"*

M - *"If you know there's a Maori unit within the hospital...give them a call...say you're so and so and you're meeting with some Maori clients, can we use one of your rooms...that's what I do"*

M- *"You're going to have to take a kaumatua (elder) with you"*

We have a child care facility at Massey. How would Maori people feel about using that facility?

F - *"...an option people might take advantage of... I wouldn't"*

Client-Clinician Interaction

The ethnicity of the clinician was not perceived as an important variable by the clients, but other interaction variables such as sharing whakapapa were felt to be important.

Ethnicity of clinician.

M - *"I was directed to see a psychologist, my first thought was 'Is that person Maori?'"*
M - *"I didn't want to go to a Pakeha person"*
F - *" I felt really comfortable seeing a non-Maori clinician, I was glad..."*

Is it really important to share whakapapa (genealogy)?

M - *"It's really important to know, I think...who you're talking to"*
M - *"I suppose for a Pakeha person to say who they are, where they're from and who their people are"*
F - *"In terms of whakapapa, when two Maori people meet we would just do that"*
F - *"For them not to have been able to validate where they're from ... will affect how they perform"*

Is there an issue of status and power between the client and the clinician?

M - *"Maybe for other Maori people ... perhaps"*
F - *"I know Maori people who just aren't comfortable with Pakeha people"*

Whakama - Anxiety

The level and impact of whakama (anxiety) was greater than the researcher had expected, with the respondents experiencing a more profound degree of influence than the literature had suggested.

What aspects are they (Maori people) not comfortable with?

F - *"They're just whakama, not comfortable"*
F - *"Got to present this facade that everything's alright"*
F - *"It undermined me* (whakama), *I knew but I denied it too"*
M - *"... that whole whakama thing about asking people for money..."*
M - *"I don't think that's* (whakama is) *too much of a problem for Maori people"*
F - *"I felt that I was saying there was a problem* (with my husband) *and* (I was) *feeling guilty, and he would hear what I thought...I was telling you, a stranger, that he was a pain in the butt...I wanted to say that he is, but not that bad..."*
F - *"I was worried that he was going to feel stink about what I said"*

Is he losing some mana when you tell a clinician how badly he functions?

> F - *"Yes, and because of what's happened you're in that pRotective mode...that face-saving thing"*
>
> F - *"... kaore whakaiti...don't make someone feel small by saying all these things about them."*

The hypotheses that Maori clients would express some dissatisfaction with aspects of the service at the Clinic, and that the areas identified would concern Maori dimensions of health were generally upheld.

Part Three: Questionnaire on Client Satisfaction

Response rate

Of the twenty (20) questionnaires sent out, fifteen (15) were returned. All participants who had not returned the questionnaire after ten (10) days received a follow-up call. Seven (7) of the twenty received such calls, resulting in the return of two (2) further questionnaires. A further two (2) participants advised that they had decided not to continue after perusing the items, and the remainder who advised they would return the questionnaire either chose not to or forgot.

The questionnaire comprised three sections. Section one collected demographic information, section two concerned referral to the Clinic and section three concerned satisfaction with aspects of the service. The responses to items in section two are presented below, N=15.

Item 1.

Referral to the Psychology Clinic was through (tick as many as apply)

ACC	11
GP	5
Rehab. Unit	3
Neurologist	2
Social Welfare	0
Self	1
Other	0

Item 2.

Arrangements for your first visit were made via:

Clinic Director	9
Phone from clinic	0
By mail	3
Another agency	3
At the clinic	0

Item 3. Before you arrived at the clinic for your first appointment, had anyone told you...

	Yes	No	Don't know
-The assessment could take up to three hours?	5	10	0
-You would be doing tests of memory, concentration, problem solving and thinking?	7	8	0
-The assessment would help you understand your strengths and problem areas?	6	9	0
-The assessment would help others who are trying to help you?	7	8	0
-The assessment could provide an opportunity to discuss ways you could get around problem areas?	5	10	0
Item 4. Were you anxious about having the assessment?	14	1	0
Item 5. Did you bring a relative or friend with you?	13	2	0
Item 6. Was there always someone to meet you?	15	0	0

Item 7. Do you think the clinic had a particular Maori dimension?	0	10	5

Item 8. Were there things about the neuropsychological assessment process which made you feel uncomfortable?	8	0	7

- *Everything initially - Having to prove myself to people*
- *Concentrated a lot on the 'thinking problems and not too much on other areas*
- *It was so difficult to get a referral - Not Maori enough, so much Pakeha talk*
- *My head injury made me easily flustered and tired, also the neon lights...would feel disoriented and embarrassed...a feeling of failure as unaware of what level of achievement should be expected* (of me)

Item 9. Do you think aspects of tikanga Maori (Maori culture	Yes	No
should be part of a neuropsychological assessment process?	6	9

Are there any aspects in particular?

- *The environment*
- *Some aspects need to be addressed such as the effect on a person's family and wairua*
- *A Maori person should be treated as a Maori*
- *For those who identify to tikanga Maori, those to whom it would be of value*
- *Being aware of their culture*
- *Yes more holistic*

Item 10. Did the Psychology Clinic offer an opportunity	Yes	No
for the participation of your family/whanau?	14	1

Item 11. Are there any comments you would like to make about family/whanau participation in neuropsychological assessment services?

- *It does help*
- *We were made welcome and felt supported*
- *To prove oneself it does help if family can observe the process themselves*
- *My son was having problems because of the process, I think families should be counselled more*

- It's very important

- My husband and daughter came to tautoko (support) me. Helped me find the clinic and drive me there

- They should be listened to more, they know what problems the person is having

- It would be particularly difficult to do a thorough assessment with my whanau present but may have helped them understand me had they been told about it and the results

- The assessment should (include) husband/wife participation especially, so they can give moral support to partner being assessed - Extended whanau need to be informed of outcome

	Yes	No
Item 12. Have you received similar services elsewhere?	8	7
Item 14. Were you charged an hourly fee?	0	15

Item 13. Did you come to the Psychology Clinic...

Once	1
Two or three times	10
Once a week	2
Once a month	2

Item 15. Overall, what kind of experience was the assessment?

Positive	11
Neutral	2
Negative	1

Item 16. Can you think of ways that the service could be improved?

- Environment...A rationale to be given re why each test was important (and) what results significant

- Most impressed with services and kindnesses offered

- By following up what they said they would do and without big delays

- Needs to be more focussed on Maori people's perspective

- Good service but do need to explain more what each step is for.

- If a Maori person could be there to greet you when you arrive it would feel better (Maori sample comment)

- Counselling of family members too

- I think the person being assessed should be accompanied by someone especially in a husband/wife situation and be invited to be involved during assessment time. (My) husband felt a bit cut off while all that time he was wondering what on Earth was going on in the assessment

- More Maori input

The hypotheses that Maori clients would be less satisfied with the service they had received than non-Maori clients, and that the areas they would be less satisfied with are those to do with tikanga Maori (Maori cultural issues) were supported. Collation of the data revealed a trend for Maori clients to be somewhat less satisfied with the overall service they received, and much less satisfied with the application of Maori cultural values to the service.

The Client Satisfaction Questionnaire

It must be noted that the sample was not large enough for elaborate statistical analysis, instead minimum, maximum and mean scores are given in Table 7.1, together with percentage satisfaction for the total sample, Maori sample and non-Maori sample. The most basic method of understanding which aspects of the service the clients were satisfied with is to observe how many rated an item "3" or "4" (satisfied). As Table 7.1 shows there was complete satisfaction with four items only; items 14 and 24 regarding the friendliness of the receptionist, item 9 regarding the appropriateness of the service and item 19 regarding the competence of the clinician.

Table 7.1

Results from the Client Satisfaction Questionnaire, N = 15.

Variable/Item	Item No.	Min.	Max.	Mean	S.D	% Sample Satisfied n = 15	% Non-Maori Satisfied n = 8	% Maori Satisfied n = 7
Office Procedure	1	1	4	3.26	2.13	73.30	62.50	85.71
	2	2	4	3.46	1.59	86.60	100.0	71.42
	18*	-	-	-	-	-	-	-
	22	2	4	3.50	1.87	78.57	87.50	71.42
Physical Surroundings	3	1	4	2.50	1.93	50.00	50.00	42.85
	6	1	4	2.71	1.46	64.28	75.00	42.85
	12	1	4	2.20	2.49	40.00	50.00	28.57
Support Staff	14	3	4	3.93	.36	100.0	100.0	100.0
	24	4	4	4.00	0.00	100.0	100.0	100.0
	28	2	4	3.33	1.33	93.33	100.0	85.71
Type of Service	7	2	4	3.00	1.17	78.57	87.50	85.71
	9	3	4	3.26	1.09	100.0	100.0	100.0
	13	2	4	3.33	1.53	86.66	87.50	85.71
	25	2	4	3.06	1.32	80.00	87.50	71.42

Table 7.1 cont.

Variable/Item	Item No.	Min.	Max.	Mean	S.D	% Sample Satisfied n =15	% Non-Maori Satisfied n = 8	% Maori Satisfied n = 7
Quantity of Service	4	2	4	3.13	1.49	80.00	75.00	85.71
	15	1	4	2.50	1.76	57.14	37.50	71.42
	26	1	4	2.86	1.65	73.33	75.00	71.42
Treatment Staff	11	2	4	3.73	1.05	93.33	87.50	100.0
	17	2	4	3.20	1.98	73.33	87.50	57.14
	19	3	4	3.66	1.26	100.0	100.0	100.0
	30	2	4	3.53	1.39	93.33	100.0	85.71
Quality of Service	5	2	4	3.46	1.42	93.33	100.0	85.71
	21	2	4	3.53	1.39	93.33	100.0	85.71
	29	2	4	3.60	1.31	93.33	100.0	85.71
Outcome	8	2	4	3.00	1.51	73.33	87.50	57.14
	10	2	4	2.93	1.32	73.33	62.50	85.71
	16	2	4	2.66	1.33	60.00	62.50	57.14
General satis.	20	1	4	3.20	1.75	80.00	75.00	85.71
	23	1	4	3.13	1.63	80.00	87.50	71.42
	27	1	4	2.66	1.22	66.66	62.50	71.42
	31	1	4	2.86	1.95	66.66	75.00	57.14

Table 7.1 cont.

Variable/Item	Item No.	Min.	Max.	Mean	S.D	% Sample Satisfied n = 15	% Non-Maori Satisfied n = 8	% Maori Satisfied n = 7
Maori Cultural Treatment Currently Practiced at the Clinic	32	1	4	2.42	1.44	50.00	75.00	14.28
	33	2	4	3.13	1.49	80.00	75.00	85.71
	34	1	4	2.53	2.14	46.66	75.00	14.28
	35	1	4	1.80	1.85	20.00	75.00	14.28
	37	1	4	1.53	1.57	33.33	-	28.57
	38	1	3	1.60	1.57	28.57	-	28.57
						% Sample Agreed	% Non-Maori Agreed	% Maori Agreed
Need for Increased Maori Cultural Input	36	1	4	2.80	2.73	66.60	50.00	85.71
	39	1	4	2.46	1.43	53.84	25.00	71.42
	40	2	4	2.28	1.05	21.42	-	42.85
	41	1	4	1.46	2.96	60.00	37.50	85.71
	42	1	4	2.06	2.57	66.66	50.00	85.71

* No client paid a fee at the clinic.

Satisfaction of Maori Clients compared to non-Maori Clients

Maori clients were less satisfied than non-Maori clients with 27 of the 42 items. The difference was observed in every variable surveyed particularly physical surroundings, type of service, quality of service, and there was stronger agreement with the statements to do with increasing the observance of tikanga Maori at assessment. Although the differences were generally not great they indicated that some procedures and variables were not completely suitable for the Maori clients sampled.

The largest difference in degree of satisfaction was observed for the items regarding the current level of tikanga Maori practised at the Clinic. Maori clients tended to be much less satisfied than non-Maori clients with this, as had been expected. Non-Maori clients also tended to endorse the Maori cultural items "don't know" or "not applicable", which made it appear that there was no satisfaction, which was clearly not the case.

Maori clients indicated greater satisfaction than non-Maori clients with some aspects of the service, indicating that theirs was not an entirely negative opinion. Of note is the high satisfaction with quantity of service, treatment staff and support staff.

CHAPTER 8
DISCUSSION

The present study sought to examine the services for Maori head injury from both provider and consumer perspectives. It was thought that although clients would be satisfied with some aspects of the services they had received, some areas for improvement would be identified. This assumption was supported by literature that suggest that ethnic minority clients may be adversely affected by the assessment experience because of cultural differences in their expectations, perceptions of the testing environment and performance of neuropsychological assessment components. This chapter first discusses the findings of the three parts of the present study, followed by an examination of the common themes that emerged.

Part One: Interviews of agency representatives

The agency representatives identified a number of areas for improvement to make their agency more suitable for Maori clients. Foremost amongst these was the need to consult with Maori about the treatment of Maori. Furthermore they identified areas such as introducing a spiritual dimension, providing a more welcoming environment for whanau and raising staff awareness of the need for Maori clients to be offered culturally appropriate services.

In all cases the agencies had an awareness of Maori cultural issues, but perceived a need for greater training and policy development to encourage these practices. Many were very progressive in their approach to this area and were actively seeking alternatives to their current modes of practice to facilitate improvements in the response of Maori clients to their service. The Pukeora Rehabilitation Centre, in particular, reports increased satisfaction from Maori clients and their families following the introduction of powhiri (ritualised welcome), and the provision of accommodation nearby for the families of newly arrived residential clients.

Most agencies expressed a desire for more information about the needs of Maori clients to assist them to make the necessary changes to their service delivery.

Part Two: Pilot Study - Maori perceptions of the neuropsychological assessment process

The participants were generally happy with the service they had received and although they did have concerns about some areas, felt that Maori clients needed to be given choices about their treatment, rather than to have a fixed procedure for Maori clients. It became clear that the variables the participants saw as being most problematic were the procedural aspects and the venue.

Procedural Variables

Ethnic Identity

It was suggested that the procedure could be generally enhanced by the observance of elements of Maoritanga (Maori culture). They considered it important to establish the ethnic identity of the client, i.e whether they identify with a particular culture, in this case Maori, regardless of their actual racial make-up. The problem arises when clinicians assume the client is or is not Maori because of their appearance, name or mannerisms. The participants felt the least intrusive action would be to contact the referral agent to seek this information if it has not been provided on the referral letter. Once the client has been 'identified' as Maori the clinician could decide what steps to take to ensure the optimum comfort and performance of the client.

Family support (Te taha whanau)

There are many events that historically have been seen by non-Maori to involve an individual, such as job interviews, medical examinations, psychological assessments and court proceedings. As already discussed, Maori culture has evolved as a collectivist society in which the members strive for family unity and interdependence (Waldegrave, 1985: Durie, 1985). The significance of this for neuropsychological assessment is that a client seen in isolation from their family is likely to be experiencing stress and anxiety (whakama).

The participants felt that the primary aim of involving family in the neuropsychological assessment is to provide a supportive unit for the client and the secondary aim is to inform the family about the effects of the TBI, what the prognosis is and how they can help to facilitate the greatest recovery. They felt that a client's family needs to be involved in the process, perhaps as part of the history-taking, and certainly at the feedback session, however, the male participant was pleased not to have had his extended whanau involved in earlier sessions but could see the benefit in later sessions. He was adamant that he should be given the choice regarding their involvement.

A problem could arise if a Maori man does not wish to involve whanau while his spouse does. Even though the client could benefit from whanau involvement and support, their choice must be respected, as the participants felt that the basis of culturally appropriate service is that every person has the right to choose the level of tikanga Maori they desire in their treatment.

Spirituality (Te taha wairua)

The literature suggests that spirituality (te taha wairua) is one of the four cornerstones of the Maori model of health. The participants expressed a belief that this probably has less to do with religiosity and more to do with acknowledging deceased ancestors who are greeted/consulted when something important, unfamiliar or requiring stamina is encountered. They suggest that offering to have karakia (prayer) before the assessment would be useful and accepted by many Maori clients. The dilemma that has arisen is what to do if neither the client nor a member of their whanau is able or willing to make the karakia. It was suggested that the clinician could make the karakia, which need be only a short blessing in Maori, if they felt confident to do so, however in subsequent personal communications with members of the researcher's whanau and Maori friends, it appears that this may not be satisfactory because the clinician is not trained for this and may offend the kawa (protocol) of the tangata whenua (local people). A more appropriate step could be to have available a Maori consultant to facilitate the arrival and welcome of the client and manuhiri (guests).

Whakapapa (cultural self-identity)

The participants agreed that it is very important for the Maori client to have the opportunity to express their identity in terms of their lineage, and to have the clinician identify him/herself. The nature and extent of the self-disclosure would vary from one person to another, depending on their world-view and professional boundaries. The participants felt that a person would perform better i.e in clinical assessment, if they have been able to validate where they are from and thus who they 'really' are. A word of caution is that some Maori people, particularly young people, are unable to state their whakapapa and therefore a direct request for it would not only be perceived as rude, it would probably destroy rapport.

Venue

Clinic or Marae?

The issues raised concerned the ambience and location of the clinic. The participants were generally satisfied with the Massey Psychology Clinic, but made suggestions for improving the aesthetic appeal, such as creating the impression of a meeting place rather than a clinic which could be intimidating for some people. It is important to note that this may also be the case for some non-Maori clients, for example those from low socioeconomic background, for whom a university campus could be perceived as unfamiliar and threatening.

The participants felt that alternative venues could be offered to clients. The venues could be local or in the client's area, and would require liaison with the appropriate organisations to reserve suitable space for the reception of the client, and possibly their whanau support, and a room for testing. Clinicians/agencies may need to create a resource list of names of contact people for locations that are available and suitable for their use.

Client-Clinician Interaction

The participants did not feel that Maori clients had to be seen by Maori clinicians but that the clinician needed to be aware of possible difficulties and be prepared to attribute the client's presentation to factors other than the TBI. They were satisfied that the clinician they had seen at Massey was aware of possible cultural difficulties and made efforts to facilitate a comfortable assessment.

Whakama (Anxiety)

The participants indicated that whakama (a culture-bound form of anxious presentation) would vary from client to client depending on their background and expectations. The male participant did not feel this was a big problem for himself as he works in a professional environment and is well used to presenting himself, however the female participant spoke of being "undermined by feelings of whakama", particularly when she was being asked by the clinician to comment on the behavioural changes she had noted in her spouse following TBI.

The issue of depletion of mana (authority, self-pride) following TBI was raised and indicates a perception of personal diminishment by the client and protectiveness by the family to "save face".

Summary

Although there were only two people interviewed for this part of the study, their comments and observations are reported thoroughly because they had experienced all aspects of the service, they were articulate, willing to speak freely and they were very involved in Maori cultural life. The results suggested that there were issues of client comfort and appropriateness of treatment to be considered. Agencies and individual clinicians have a responsibility to ensure that clients are being served in the most suitable manner. Participants suggested properly establishing the ethnic identity of the client instead of making assumptions, inviting whanau (family) participation, establishing rapport in a culturally appropriate way and providing a pleasant and accessible venue, possibly at a mutually suitable alternative to the clinic in the client's area.

The impressions gained from part two influenced the selection of items for part three of the study, which sought to determine the degree to which the concerns were universal.

Part Three: Client satisfaction questionnaire

Demographic data indicated that the majority of the Maori sample were engaged in Maori cultural activities to a reasonable extent in the course of their daily lives, and therefore could be expected to have had an understanding of the needs of Maori people.

Half of the respondents, both Maori and non-Maori, resided out of the district and because they had to travel to Palmerston North and usually stay overnight following their assessment, their impressions of the convenience of the clinic were obviously affected.

The majority of clients were being referred to the Clinic by A.C.C or their doctor, or by a collaboration of these and other health professionals, and most felt they had not been given adequate information by the referral agent to prepare them for the assessment. Previous research by Bennett-Levy et al. (1994) has suggested that educating referral agents to prepare clients for the assessment can enhance the experience for the clients. This research also suggested that providing rationale for the tests, adequate feedback and inviting clients to bring a relative can make the experience less anxiety-provoking. The respondents in the present study supported these findings by suggesting similar modifications to the current procedure.

The results of the Client Satisfaction Questionnaire (CSQ) indicated that of the clients seen for neuropsychological assessment at the Clinic during the two years prior to the present study, the Maori sample was less satisfied overall with the service than the non-Maori sample of clients seen at the same time. The results also indicated that the areas they were least satisfied with are those to do with current tikanga Maori (Maori cultural) practices, physical surroundings, type of service and quality of service.

Both the Maori and non-Maori samples expressed most satisfaction (100%) with the friendliness and helpfulness of the support staff, the type of service they received, the competence and knowledge of the treatment staff, with the Maori sample also expressing satisfaction with how closely the clinician listened to them.

The responses to the items concerning physical surroundings, outcome and Maori cultural dimensions of the service did not follow the same trend. The Maori sample reported less satisfaction than the non-Maori sample for all of the items concerning physical surroundings, four of the six items regarding Maori cultural dimensions and two of the three items concerning outcome, perhaps as a consequence of the surroundings and limited Maori cultural dimensions. This suggests two possible explanations; changes leading to increased levels of comfort for Maori clients should enhance satisfaction and perhaps performance, and/or that Maori clients have a different set of ideals against which they measure comfort, satisfaction and positive outcome. The latter does not appear to be supported in the light of the close agreement with the non-Maori sample on most of the other items.

The final group of items indicates that the Maori sample agree more with the need for an increased Maori cultural input to the assessment process. This was expected as many non-Maori in the sample could not be expected to be aware of the need for input from a culture that they do not identify with. Indeed many of the non-Maori respondents scored the items on Maori cultural input '1' - Don't know or Not applicable.

The Maori sample expressed more satisfaction than the non-Maori sample in areas that relate to the amount of treatment received, and the treatment and support staff. The latter results are not wholly supportive of previous research findings that suggested that people who identify with an ethnic minority group would respond better to treatment by a person of the same ethnicity (McFarlane-Nathan, 1992). The present study would suggest that treatment and support staff can successfully interact with people of another ethnicity if they have an awareness of and commitment to cross-cultural appropriateness. The implication is that the staff of the Clinic are successfully relating to their clients in terms of cultural dynamics, therefore any disparity between the performance of Maori and non-Maori clients is more likely due to situational and/or procedural variables rather than interpersonal variables.

Situational variables such as the location of the clinic appeared to be least satisfactory for all clients, particularly for the Maori sample. It emerged that many of the respondents found the clinic difficult to travel to as well as rather uncomfortable and unattractive. The respondents in part two had also identified these same concerns and suggested a number of practical solutions such as alternative venues and aesthetic improvements, and the agency representatives also spoke of enhancing their facilities.

Respondents commented specifically on the need to make special arrangements to attend the appointment e.g transport, child care, accommodation and financial. Comments in response to the preferred venue for the assessment included aesthetic improvements to the current clinic, vague requests for "somewhere closer to home" and specific locations such as "Wanganui Base Hospital", "a Maori Health Unit", "in Dannevirke" and "our marae". When the responses to these two items are considered together an obvious solution would be to have the clinician travel to the client and assess them at a venue that is acceptable to both parties. Difficulties for the clinician could include time constraints, funding and having to test in conditions that may be less than ideal. However, the rewards could outweigh the difficulties as the client is likely to be less fatigued, less anxious and because they are being assessed in a more normal environment (for them) they are likely to present more naturally.

Another item that elicited a number of helpful comments concerned the "things about the assessment that made the client uncomfortable". Although these included a vague "everything", there were also specific features about the venue such as "neon lights (fluorescent)"; agency procedures "difficult to get a referral"; cultural input "concentrated a lot on the 'thinking' problems and not too much on other areas", "not Maori enough, so much Pakeha talk"; and anxiety "feel disoriented and embarrassed", "a feeling of failure as unaware of what level of achievement (expected of me)". Many of these could be rectified by having the client properly prepared by the referral agent prior to the appointment, addressing cultural issues, and ensuring the client understands the rationale for each test.

The effects of the situational, procedural and interpersonal variables referred to throughout this study are further compounded by the nature of the client's presenting problems. The outcomes of TBI, as defined in chapter 2, generate practical difficulties for the client in a number of ways from reduced physical functioning to cognitive and social deficits, and any of these or a combination of them can impede the process of neuropsychological assessment. As an adjunct to these complications another barrier to effective communication is the difference in cultural perspectives of the parties. Maori health concepts traditionally refer to the four cornerstones te taha tinana (physical), te taha hinengaro (cognitive), te taha whanau (family) and te taha wairua (spirituality) (Durie, 1984). A balance between these components is essential for a Maori person to be healthy, therefore an assessment and treatment strategy which addresses each dimension is most desirable.

Furthermore, there are several syndromes that convey the particular behaviours of cultural groups (Triandis, 1990, Draguns, 1990). Maori society has developed its own characteristics in response to such challenges as the environment and geography of New Zealand, colonisation, urbanisation and acculturation. Maori society seems to fit most closely the syndromes described as ‘collectivist’, ‘loose’ in terms of behavioural norms, sensitivity to ‘power distance’, and regulated in a way that promotes ‘uncertainty avoidance’. ‘Collectivism’, the tendency for people to be interdependent and reliant on family unity and group goals, describes the traditional Maori economic system where whanau groups would work together as a hapu (wider extended family) to achieve a common goal such as planting kumara crops. In ‘loose societies’ unusual behaviour is often understated and is not regarded as deviant. This perhaps explains why Maori families do not seem to view the effects of TBI as personal failure, and fail to adequately report the deficits exhibited by their family member. ‘Power distance’ is the psychological distance people desire in relationships with ‘superiors’. Maori culture is hierarchical, for example, although the marae is regarded as a place for all people to hui (share new ideas), the expert role of the kaumatua and kuia (elders) is always respected. Consequently, it is not unreasonable to posit that the client will perceive the therapist as the expert, be very aware of the power inequality and tend to exhibit ‘humble’ behaviour. Finally, ‘uncertainty avoidance’ is where there are societal regulators, such as tapu in Maori society. It is apparent that the members of an in-group will exhibit the behavioural norms of that group, and because it is often difficult for an outsider to recognise them as cultural behaviours there is the risk of attributional errors.

Accordingly, attention to situational, procedural and interpersonal variables in terms of the Maori health model, and an understanding of the syndromes and behaviours that define the structure of Maori society, should facilitate an assessment process that is more appropriate and will yield more valid results. Chapter 9 which follows, summarises the findings of the study and suggests further research which may help to further define the causes of Maori TBI clients performing poorly in neuropsychological settings.

CHAPTER 9

CONCLUSION AND RECOMMENDATIONS

The present study sought to examine the practice of neuropsychology in New Zealand and in particular how well it serves the needs of culturally different clients. Maori people were chosen as the focus of the study because of the importance of Maori culture in New Zealand society, and the over representation of Maori people in the lower socioeconomic levels and TBI statistics. Interviews with agency representatives followed by a pilot study and a survey of former clients gathered primarily qualitative data that lead to the following conclusions.

1. Maori clients perceive a greater level of discomfort and dissatisfaction with some aspects of the standard neuropsychological assessment compared to non-Maori clients.
2. The areas of greatest discomfort are those that fail to take the client's cultural background into account, such as the appropriateness of the venue, the procedure and the client-clinician relationship.
3. Many of the difficulties hinted at could be addressed by conferring with local Maori consultants about the most appropriate venues, spiritual and family involvement, local iwi protocol and the support networks available to the client and their family.
4. Agency representatives should be encouraged through support and education to continue to develop policy and practice to maximise the benefits offered by their agency to Maori clients.

Suggestions for Further Research

This thesis has raised a number of questions in the course of researching the reasons for the poor performance of Maori clients. A low level of satisfaction with some areas of the neuropsychological assessment process was demonstrated, therefore there is a need for this research to be extended to investigate the ramifications of Maori dissatisfaction.

Maori people in the present study have implied that greater awareness of Maori cultural dimensions of health is desirable. Indeed, it is important that some of these practices be put into effect, followed by re-evaluation of the satisfaction and performance of Maori clients. The expectation is that with increased satisfaction the difference between the performance of Maori and non-Maori clients will be reduced or eliminated.

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Appendix I Client Satisfaction Questionnaire

Client Questionnaire

I would like to start by asking you a few questions about yourself.

For each question please **tick** your answer, or write in your response.

Part 1 Background Details

1. Male ___ Female ___

2. Age (optional) _________

3. Are you married/living with a partner ?
   Yes ___ No ___

4. What has been your principal occupation when you came to the clinic?

   ____

5. When you came to the clinic what town did you live in?

   ____

6. What is your ethnic group/s

   ____

7. Do you identify with an iwi?
   Yes ___ No ___

   If **Yes**, what is/are your iwi?

   ____

8. Do you identify with a hapu?

Yes ___ No ___

If **Yes**, what is/are your hapu?

____

9. Are you involved with Maori community life?

Yes ___ No ___

If **Yes**, what is your involvement? (please use a separate sheet if necessary) ____

____

10. Have you consulted a tohunga in the last 12 months?

Yes ___ No ___

11. How many tangi's (Maori funeral) have you been to in the last 12 months? __________

Part 2 The Service

1. Referral to the Psychology Clinic was through:

___ ACC
___ My G.P
___ The rehabilitation unit
___ A neurologist
___ Social welfare
___ Myself
___ Other eg, family court
(please specify) ____________________________

2. Arrangements for your first visit were made:
    ___ After initial contact by the clinic director
    ___ Appointment time made at first phone call from clinic
    ___ Appointment received by mail
    ___ Appointment was made by another agency on behalf of the Psychology Clinic
    ___ After presenting at clinic in person

3. Before you arrived at the clinic for your first appointment, had anyone told you anything at all about what to expect?
For example that,

The assessment could take up to 3 hours? Yes ___ No ___

You would be doing tests of memory, concentration, problem solving, and thinking? Yes ___ No ___

The assessment would help you understand your strengths and problem areas? Yes ___ No ___

The assessment would help others who are trying to assist you (eg, your family, doctor, speech pathologist, employer)? Yes ___ No ___

The assessment could provide an opportunity to discuss ways in which you could get around some of the problem areas of your life? Yes ___ No ___

4. Were you anxious about having the assessment?
Yes ___ No ___

5. Did you bring a relative or friend with you?

Yes ___ No ___

6. Was there someone to meet you on arrival at the Psychology Clinic?

___ Always
___ Most of the time
___ Some of the time
___ Never

7. Do you think that the Psychology Clinic had a particular Maori dimension?

Yes ___ No ___ Don't Know ___

If **yes**, what was the Maori dimension? ____________________

____

8. Were there things about the neuropsychological assessment process which made you feel uncomfortable?

Yes ___ No ___

If **yes**, what particular elements made you feel uncomfortable?

____

____

9. Do you think aspects of tikanga Maori (Maori culture) should be part of a neuropsychological assessment process?

Yes ___ No ___

If **yes**, are there any aspects in particular? ________________

____

10. Did the Psychology Clinic offer an opportunity for the participation of your family/whanau?

Yes ___ No ___

If **yes**, in what way/s ____________________________________

____

11. Are there any comments you would like to make about family/ whanau participation in neuropsychological assessment services?

____

____

12. Have you ever received similar services elsewhere?

Yes ___ No ___

If **yes**, please specify ____________________________________

13. Did you come to the Psychology Clinic:

___ Only once

___ Two or three times

___ Once a week (please specify approximate number of weeks) ______

___ Once or twice a month (please specify approximate number of months _____

14. Were you charged an hourly fee to attend the Psychology Clinic?

Yes ___ No ___

If **yes**, please indicate the hourly fee you were charged ___________

15. Overall, what kind of experience was the assessment?

___ Positive
___ Neutral
___ Negative

16. Can you think of ways that the service could be improved?

____

____

____

____

CLIENT SATISFACTION QUESTIONNAIRE

Instructions

For each question please circle your answer. We also welcome your comments and suggestions.

1. When you first came to the Psychology Clinic, were you seen as promptly as you felt necessary?

4	*3*	*2*	*1*
Yes, very promptly	*Yes, promptly*	*No, there was some delay*	*No, it seemed to take forever*

2. Did you ever feel that our clinic was more concerned with procedures than with helping you?

4	*3*	*2*	*1*
Concerned mostly with helping me	*Concerned more with helping me*	*Concerned more with procedures*	*Concerned mostly with procedures*

3. In general how satisfied were you with the comfort and attractiveness of our clinic?

1	*2*	*3*	*4*
Quite dissatisfied	*Indifferent or mildly satisfied*	*Mostly satisfied*	*Very satisfied*

4. How satisfied were you with the amount of help you received?

1	*2*	*3*	*4*
Quite dissatisfied	*Indifferent or mildly dissatisfied*	*Mostly satisfied*	*Very satisfied*

5. How satisfied were you with the quality of the service you received?

4	*3*	*2*	*1*
Very satisfied	*Mostly satisfied*	*Indifferent or mildly dissatisfied*	*Quite dissatisfied*

6. Did things about our building detract from the services you received?

1	*2*	*3*	*4*
Yes, they detracted very much	*Yes, they detracted somewhat*	*No, they did not detract very much*	*No, they did not detract at all*

7. Did you get the kind of service you wanted?

1	*2*	*3*	*4*
No, definitely not	*No, not really*	*Yes, generally*	*Yes, definitely*

8. You came to our clinic with certain problems. How are those problems now?

1	*2*	*3*	*4*
Worse, or much worse	*No change*	*Somewhat better*	*A great deal better*

9. Considering your particular needs, how appropriate were the services you received?

4	*3*	*2*	*1*
Highly appropriate	*Generally appropriate*	*Generally inappropriate*	*Highly inappropriate*

10. Did the services you received help you to deal more effectively with your problems?

4	*3*	*2*	*1*
Yes, they helped a great deal	*Yes, they helped somewhat*	*No, they really didn't help*	*No, they seemed to make things worse*

11. When you talked to the person with whom you have worked most closely, how closely did he or she listen to you?

1	*2*	*3*	*4*
Not at all closely	*Not too closely*	*Fairly closely*	*Very closely*

12. How convenient was the location of our building?

4	*3*	*2*	*1*
Very convenient	*Mostly convenient*	*Somewhat inconvenient*	*Very inconvenient*

13. How satisfied were you with the kind of service you received?

1	*2*	*3*	*4*
Quite dissatisfied	*Indifferent or mildly dissatisfied*	*Mostly satisfied*	*Very satisfied*

14. In general, did the receptionist/secretary seem friendly and make you feel comfortable?

4	*3*	*2*	*1*
Yes, definitely	*Yes, most of the time*	*No, sometimes not*	*No, often not*

15. Are there other services you need but have not received?

1	*2*	*3*	*4*
Yes, there definitely were	*Yes, I think there were*	*No, I don't think there were*	*No, there definitely were not*

16. Did the services you received lead to any changes in either your problems or yourself?

1	*2*	*3*	*4*
Yes, but the changes were for the worse	*No there was really no noticeable change*	*Yes, some noticeable changes for the better*	*Yes, a great deal of possible change*

17. How clearly did the person with whom you worked most closely understand your problem and how you felt about it?

4	*3*	*2*	*1*
Very clearly	*Clearly*	*Somewhat unclearly*	*Very unclearly*

18. If you paid a fee at the clinic, were you satisfied with the fee that was charged?

1	*2*	*3*	*4*
Quite dissatisfied	*Indifferent or mildly dissatisfied*	*Mostly satisfied*	*Very satisfied*

19. Overall, how competent and knowledgeable was the person with whom you worked closely?

1	*2*	*3*	*4*
Poor abilities at best	*Only of average ability*	*Competent and knowledgeable*	*Highly competent and knowledgeable*

20. In an over all, general sense, how satisfied were you with the service that you received?

4	*3*	*2*	*1*
Very satisfied	*Mostly satisfied*	*Indifferent or mildly dissatisfied*	*Quite dissatisfied*

21. How would you rate the quality of the service you received?

4	*3*	*2*	*1*
Excellent	*Good*	*Fair*	*Poor*

22. Did you feel that our clinic had kept your problems confidential?

4	*3*	*2*	*1*
Yes, I feel they definitely have	*Yes, I feel they have*	*No I feel they have not*	*No I feel they definitely have not*

23. If a friend were in need of similar help, would you recommend our clinic to him or her?

1	*2*	*3*	*4*
Definitely not	*No I don't think so*	*Yes, I think so*	*Yes, definitely*

24. When you first came to our clinic, did the receptionist/secretary seem friendly and make you feel comfortable?

4	*3*	*2*	*1*
Yes, they definitely did	*Yes, they generally did*	*No, they generally didn't*	*No, they definitely did not*

25. Did the people in our clinic generally understand the kind of help you wanted?

1	*2*	*3*	*4*
No, they misunderstood almost completely	*No, they seemed to misunderstand*	*Yes, they seemed to generally understand*	*Yes, they understood almost perfectly*

26. Did you receive as much help as you wanted?

1	*2*	*3*	*4*
No, definitely not	*No, not really*	*Yes, generally*	*Yes, definitely*

27. To what extent did our clinic meet your needs?

4	*3*	*2*	*1*
Almost all my needs have been met	*Most of my needs have been met*	*Only a few of my needs have been met*	*None of my needs have been met*

28. How interested was the receptionist/secretary in helping you?

4	*3*	*2*	*1*
Very interested	*Interested*	*Somewhat uninterested*	*Very uninterested*

29. Were your rights as an individual respected?

1	*2*	*3*	*4*
No, almost never respected	*No, sometimes respected*	*Yes, generally respected*	*Yes, always respected*

30. How interested in helping you was the person with whom you worked most closely?

4	*3*	*2*	*1*
Very interested	*Interested*	*Somewhat uninterested*	*Very uninterested*

31. If you were to seek help again, would you come back to our clinic?

1	*2*	*3*	*4*
No, definitely not	*No, I don't think so*	*Yes, I think so*	*Yes, definitely*

32. You came to the psychology clinic with certain problems. How clearly did you feel that these problems had been explained to your therapist prior to your first visit?

4	*3*	*2*	*1*
Very clearly	*Clearly*	*Somewhat unclearly*	*Very unclearly*

33. How easy was the clinic to contact when you wanted to make an enquiry or change any arrangements?

1	*2*	*3*	*4*
Very difficult	*Quite difficult*	*Easy*	*Very easy*

34. How clear was your understanding of the reasons for coming to the clinic?

1	*2*	*3*	*4*
Very unclear	*Unclear*	*Clear*	*Very clear*

35. Did you have to make special arrangements (for example child care, transport) to attend the Psychology Clinic?

1	*2*	*3*	*4*
Yes, it took a lot of organising	*Yes, it took some organising*	*It was easy to organise*	*No, I made no special arrangements*

If yes, what were they ____

____

36. How important is it for Maori clients to have their health needs treated according to Maori cultural dimensions?

4	*3*	*2*	*1*
Very important	*Moderately important*	*Not important at all*	*Don't know*

37. How well do you feel your problem was treated in terms of Maori culture?

4	3	2	1
Very well	Quite well	Not very well	Not applicable

38. Do you feel our clinic had an adequate understanding of Maori cultural dimensions of health?

4	*3*	*2*	*1*
Good understanding	*Adequate understanding*	*No understanding*	*Don't know*

39. Would you have liked to have brought more family (whanau) support to your appointment?

4	*3*	*2*	*1*
Definitely	*Maybe*	*Probably not*	*Definitely not*

40. Would you have preferred to see a Maori clinician/therapist, or a person who is not Maori?

4	*3*	*2*	*1*
Definitely a Maori	*Probably a Maori*	*Don't mind who*	*Definitely a non-Maori*

41. How much of a problem was it for you feeling shame or embarrassment (whakama) when you came to the clinic?

1	*2*	*3*	*4*
Very big problem	*Quite a big problem*	*A little problem*	*Not at all*

42. Would you have preferred a different venue to our clinic?

1	*2*	*3*	*4*
Yes, definitely	*Somewhat*	*Probably not*	*Not at all*

If yes or somewhat, then where ____

____

____

Thank you for taking the time to complete this questionnaire.

Please post it back in the stamped addressed envelope provided.

MASSEY
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Private Bag 11222
Palmerston North
New Zealand
Telephone +64-6-356 90
Facsimile +64-6-350 56

FACULTY OF
SOCIAL SCIENCES

DEPARTMENT OF
PSYCHOLOGY

Appendix II: Information Sheet

Dear

Please find enclosed the client satisfaction survey that we discussed on the telephone. As I explained I am an independent evaluator associated with Massey University who does not otherwise work in the Psychology Clinic.

What is the purpose and benefits of the study?

The Psychology Clinic is interested in feedback from clients as this helps us to evaluate the services being provided. Your answers to the survey will be used to make decisions to ensure that the service offered by the Psychology Clinic is as appropriate as it can be for all clients.

Who will have access to the information?

All your details will be confidential. The questionnaire will be labelled with a code number instead of your name and this will be the only form of identification used on any material associated with the study. Your answers will therefore in no way affect the past or any future contact you may have with the clinic.

What will I have to do?

Participation in this study will involve filling out a questionnaire that will take 15-20 minutes to complete. In order to improve the clinic we need to know the negative as well as the positive things you have to say about the clinic and would like you to answer the questionnaire honestly and openly. It is important that you consider each question separately and state your answer. Some questions may seem repetitive but they are all different.

You are under no obligation to take part in the study. If you do fill out the questionnaire and are interested in the results, please indicate this on the consent form.

Who are the researchers?

The survey is being conducted by Inez Shepherd, an independent evaluator associated with Massey University who does not otherwise work in the clinic. The survey will go towards the completion of her MA degree. Any questions that you may have about the study should be directed to Inez Shepherd, Ph (06) 3505196.

Also enclosed is a stamped addressed envelope in which you can mail your responses back. The prompt return of the questionnaire would be appreciated.

Thank you for your time, it is greatly appreciated.

Tena koe,

Inez Shepherd (Mrs)

Appendix III: Consent Form

CONSENT FORM

Client's name: ________________________________

Date: ________________

I have read, or have had read to me, the information sheet and have had an opportunity to have my questions answered. I agree to take part in the study.

CLIENT SIGN HERE: ______________________________

WITNESS SIGN HERE: ____________________________

If you are unable to complete the form yourself please have the person that assists you put their name and signature below.

ASSISTANT'S NAME: ______________________________

ASSISTANT'S SIGNATURE: _________________________

I would like the results of the survey sent to me: Yes / No.

Address for the results to be sent: ______________________

____

____

Appendix IV: Plan of Initial Telephone Call

Plan of Initial Telephone Conversation

Every telephone call will proceed slightly differently depending on the clients replies and questions, by certain things will be the same for every client. When the client is not home there will not be a message left, as this could compromise the client's right to confidentiality. If there is no option but to leave a message it will be only by name with no mention of Massey University or the Psychology Clinic. The following is an indication of how the telephone call will proceed.

Inez: "Good morning/afternoon, my name is Inez Shepherd. I'm calling from Massey University. I have been told that you are willing to help me with my research in neuropsychology by taking part in a questionnaire about the service at the Massey Psychology Clinic"

(Client recognition)

Inez: "Thank you for agreeing to participate. I would like to tell you a little about the questionnaire before I send it to you. You will receive a questionnaire of about 50 brief statements that require you to circle a reply closest to your opinion about the service you had at the clinic. It should take you about 15 - 20 minutes to fill in. Your replies will be kept confidential so you can not be identified. Do you have any questions while I'm here?"

(Client may ask questions which I will answer)

The client will be thanked for their time and told to expect the papers within the next couple of days, and the conversation will end.

Appendix V: Follow-up Letter

Kia Ora ....

Enclosed is another copy of the client satisfaction survey that we discussed on the telephone recently.

I must stress again that the answers you give will be anonymous and also that we are interested in the negative as well as the positive things you have to say about the clinic. We are constantly trying to improve the service that we offer, and the input of the clients helps us determine if any changes are necessary and what those changes are.

It is important that you consider each question separately and state your answer. Some questions may seem repetitive but they are all different. It is expected that it will take you about 15-20 minutes to fill out the questionnaire but work at a pace that is comfortable for you.

Also enclosed is a stamped addressed envelope which you can use to mail your responses back in. The prompt return of the questionnaire would be appreciated. Please direct any questions to Inez Shepherd (06) 3505196.

Thank you for your time, it is greatly appreciated.

Tena koe,

Inez Shepherd