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**EXPLORING MĀORI EXPERIENCES  
AT UNIVERSITY:  
IMPACT ON RETENTION AND  
WELLBEING**

**A Thesis presented in partial fulfillment of the requirements for  
the degree of Master of Arts**

**In**

**Psychology**

**At Massey University, Palmerston North, New Zealand**

**Holly Rianna Coombes**

**2006**

## ABSTRACT

The effects of the self-beliefs, social support, and perceptions of the university environment on academic nonpersistence decisions and psychological wellbeing were investigated among a non-random sample of 95 Māori university students studying at Massey University. Self-beliefs, social support, and perceptions of the university environment were explored in terms of direct effects on academic nonpersistence. In contrast, self-beliefs and social support were hypothesized to act as mediators or moderators in the relationship between perceptions of the university environment and psychological wellbeing.

Major findings are that (a) self-beliefs, social support, and perceptions of the university environment had significant effects on academic nonpersistence decisions, with social support having the largest effect; (b) social support was an effective buffer between perceptions of the university environment and psychological wellbeing, however further exploration of this complex relationship is needed; (c) self-efficacy was a mediator and self-esteem was a moderator of the relationship between perceptions of the university environment and psychological wellbeing. Despite limitations, these findings have important implications for Māori university students, tertiary education providers in general, and those involved in the development and implementation of tertiary education policy. The findings also highlight the need for further research aiming to optimize positive academic and psychological outcomes for Māori students who attend university.

## ACKNOWLEDGEMENTS

*Tēnā koutou katoa*  
*Ko Tainui te waka*  
*Ko Whakamoehou te maunga*  
*Ko Waihou te awa*  
*Ko Ngāti Maru te iwi*  
*Ko Ngāti Tamatepo te hapu*  
*Ko Matai Whetu te marae*  
*Ko Marutuahu te tangata*

I would like to express my thanks to those people without whom I would not have finished this research.

First and foremost, I am especially indebted to my supervisor, Dr Ross Flett (H.G.B), for his unending patience, his positive outlook in regards to the completion of this study, and his expertise and professionalism at all times.

Thanks to Robyn Knuth and the administration staff at the school of Psychology, for their help with the formatting and collection of questionnaires. Also, the students who were so generous in the giving of their time, particularly those from Te Rau Puawai.

Finally, I would like to acknowledge Leigh, Graham, and Debra, my whānau, and my friends, whose support and tolerance have made this task easier to complete. In particular Ben and Brenna, who sacrificed many hours to assist in the closing stages of this work.

*He mihi mahana ki a koutou mo o tautoko ki ahau.*  
*Ma te huruhuru, ka rere te manu.*  
*Tēnā koutou, tēnā koutou, tēnā koutou katoa.*

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## CHAPTER ONE - INTRODUCTION

*No country can get ahead if a significant proportion of its citizens are left behind...Higher education for Māori is a critical challenge ...closing the appalling gaps will not be easy, but we have to make a start, in the interest of all New Zealanders.* The Right Honorable Helen Clark, Prime Minister, 2000.

The *Tertiary Education Strategy for 2002 to 2007* is halfway through its term. The strategy contends that the tertiary education system plays a critical role in New Zealand's development as a "knowledge society", and aims to better support the growth of, among other things, Māori development (Ministry of Education, 2001). One of the specific assurances is "expect...improved achievement of outcomes as Māori learner needs are understood and met by the tertiary education system" (Ministry of Education, 2001, p. 33).

Increasingly, education is being seen as the key to Māori socio-economic development. Education will "provide people with the skills and knowledge that enable them to lead fulfilling lives and to contribute to building the nation's wealth and communities...supporting and enhancing New Zealand's unique identity, culture and values. It contributes...to all aspects of life in New Zealand" (Ministry of Education, 2001, p.21). This view has been widely accepted, and as a result, more Māori are opting for tertiary education than ever before. Māori participation in university education has been steadily increasing over the last decade, and in the last four years in particular: Māori have gone from being under-represented at all levels of tertiary education, to having the highest participation rate of any ethnic group (Ministry of Education, 2004a). In 2003, the Māori rate of participation in tertiary education stood at 20.2 per cent, compared with 13.4 per cent for all students (Ministry of Education, 2004a). The majority of this growth in participation comes from enrolments at Wananga and polytechnics, and is centered on certificate-level study (Ministry of Education, 2004a). Growth in Māori enrolments at degree-level and above has been much slower: In 2003, the Māori rate of participation for students studying at degree-level was 3.2 per cent, below the participation rate for all

students at 4.1 per cent (Ministry of Education, 2004a). However, whilst initial participation (as measured by enrolment) is improving, effective outcomes are not being achieved.

It is clear that at present, to a large extent, universities in particular are not meeting Māori learner needs. This is evidenced by poor retention rates for Māori attending university. At higher levels of tertiary education, Māori experience the lowest retention and completion rates of all the ethnic student groups. In a recent investigation of five-year retention rates for tertiary students, it was found that below degree-level, Māori retention rates were up to 8 per cent *higher* than the average retention rates for other ethnic students (Ministry of Education, 2004b). However, retention rates for Māori students studying at degree-level were up to 17 per cent *lower* than the average retention rates for other ethnic students: after five years, 51 per cent of Māori students studying at degree-level were neither completed nor were still enrolled (Ministry of Education, 2004b). Interestingly, retention rates for Māori studying at degree-level at colleges of education were reported to be particularly high: Five-year rates for Māori starting a qualification in 1999 were 61 per cent for colleges of education, but only 44 per cent for Māori in the same position at a university (Ministry of Education, 2004a). The information available raises concerns for the number of Māori students who do not complete their course of study. It is important to note that “dropping out is not necessarily an indication of failure by individual students, (but) high dropout rates may indicate that the education system is not meeting the needs of its clients” (OECD, 2000).

The situation is made more urgent by the fact that many Māori students, and by association their whānau, are accessing student loans to pay for their education. More than 26,000 Māori used the Student Loan Scheme in 2003, 7 percent up on 2002 and an increase of around 55 percent since 2000. (Ministry of Education, 2004a) Māori represented 20 percent of all borrowers with a declared ethnicity in 2003, compared with 18 percent in 2000 (Ministry of Education, 2004a). The 2003 figure is comparable to the proportion of all students who were Māori (20 percent). If a student has taken out a loan to pay for their course and does not complete the course, the student will have no qualification to show for their studies, or to help them pay the loan back. New research shows there are differences among different ethnic

groups in repayments three years post-study. In 2000, just 10 percent of Māori who had last borrowed and studied in 1997 had repaid their loans, compared with 20 percent for European and 29 percent for Asian groups (Ministry of Education, 2004a). Conversely, nearly two thirds of Māori and Pasifika students had not reduced their debt at all three years after study, compared with 41 percent and 47 percent for European and Asian groups, respectively (Ministry of Education, 2004). This situation decreases the chances that the student will re-enroll in tertiary education, and results in a loss of potential that affect not just the individual, but also their whānau, and the whole of Aotearoa/New Zealand.

More Māori are accessing university education than ever before, thus there is increased responsibility for universities to be more responsive to these Māori learners, and to ensure that the teaching, research, and support systems they offer assist in building a tertiary-educated Māori population. The *Tertiary Education Strategy* supports this (Ministry of Education, 2001). The first step in becoming more responsive to Māori needs is investigating and understanding these needs. What might contribute to retaining Māori students, and what are some of the reasons why Māori students decide to leave? Discussions on this very issue were held at a Hui at Auckland University in 1999: *Te Toi Tauira mo te Matariki* (Rowe, 1999). Common themes from the discussions included that Māori are often the first in their family to make it to university, and that can often result in isolation. Whilst parents may be supportive, they may find it difficult to understand the stresses of this particular lifestyle. Financial difficulties are also common. It is difficult to concentrate on an assignment if there are more pressing worries such as food and rent payments. Another issue raised at the Hui was that Māori students may feel a sense of marginalisation, of disconnectedness with the university community, and this can have an effect on self-image and wellbeing (Rowe, 1999). Anecdotal evidence such as this is valuable, however, empirical studies investigating Māori students' experience of studying at university is needed before conclusions can be drawn and appropriate action taken.

The importance of higher education for Māori development has been established. However, the best way to ensure that the goals of education for Māori are being met is still under discussion. At the Hui Taumata Matauranga in 2001, Professor Mason

Durie put forward a framework for considering Māori Educational advancement. Within this framework, he clarified three broad goals for the education of Māori, and detailed principles and pathways to implement in order to achieve these goals. (Durie, 2001).

The first goal is that education should be consistent with the goal of enabling Māori to live as Māori. This was further defined as having access to te ao Māori - language, tikanga, marae, and resources such as iwi land, whānau, and kaimoana. Education is meant to prepare people for participation in society, and for Māori, this includes participation in Māori society. Education should be as much about reality in Aotearoa as it is about literacy and numeracy (Durie, 2003). The second goal is that equally, education is about preparing people to actively participate as citizens of the world. Education should open the doors to technology, to the economy, to the arts and sciences, to understanding others, and to making a contribution to a greater good (Durie, 2003). In order for Māori to advance through education, they must have gained some readiness to confront the world and to actively participate in it. The third goal for education is linked to wellbeing. Education should make a major contribution to health, wellbeing, and a decent standard of living. Durie defines a successful education under this goal as “one that lays down the groundwork for a healthy lifestyle and a career with an income adequate enough to provide a high standard of living” (2003, p. 55).

Durie goes on to details three principals that must be upheld in order to achieve these goals. The first is that of best outcomes. Durie states: “It is unacceptable for Māori students to leave [education] without achieving the best possible outcome. Unless all students have made significant and measurable progress towards reaching all three identified broad goals, then the system has failed them” (2003, p. 55). The second principle is one of integrated action. Durie maintains that success or failure in the education system is the result of many forces acting together: university and community, staff and parents, students and their peers, Māori and the state. The third principle is that of indigeneity. The principle of indigeneity is about acknowledging the rights of Māori as the indigenous people of Aotearoa / New Zealand. These rights have implications for the type of education Māori might expect. In order for education to be successful for Māori, it must first meet the needs of Māori learners.

Thus an important area of research is investigating the experiences of Māori learners in order to explore how aspects of these experiences may impact on learning outcomes. Durie's framework for considering Māori education goes on in detail to outline possible pathways and capacity to assist in attaining the three broad goals outlined above (Durie, 2003).

Retention of Māori students at university in New Zealand is a crucial part of achieving the three broad goals of education as described by Professor Mason Durie. The attrition rate of Māori students at university is clearly in conflict with the principle of best outcomes. Durie expanded on the principle of best outcomes by identifying the need for zero tolerance of educational failure. Educational failure leads to those people who have dropped out becoming trapped in lifestyles that are essentially incompatible with healthy growth and development (Durie, 2003). The three goals will not be met as long as Māori continue to leave university education prematurely in such high numbers. The third goal especially is affected by high Māori attrition rates: If a student does not complete his or her course, not only will they likely lack the means to maintain a decent standard of living, but they will also, in all likelihood, be left with a fast-increasing loan as an added burden of their time in the education system. The student may, thus, be worse off in their standard of living and health and wellbeing than they were prior to entering the education system.

Both Māori leaders and the New Zealand government have drawn attention to the need for quality outcomes for Māori attending university in order for Māori as a people to continue to grow. However, there currently exists a dearth of research into the factors that may hinder or enhance Māori success at university. Guided by recent research in the area of minority students' experiences at university in other countries, this study aims to utilize a broad contextual, social, and psychological view of factors that are theorized to play important roles in academic nonpersistence decisions and psychological wellbeing. The primary objective of the current study is to investigate quantitatively how the experiences of Māori students at university affect academic persistence decisions and psychological wellbeing.

This section will first present rationale for investigating the academic nonpersistence

decisions and psychological wellbeing of Māori university students. Following this, three specific clusters of personal, social, and contextual variables that have been proven to have significant effects with other minority student populations will be presented. These are social support, self-beliefs, and perceptions of the university environment. Adding to the empirical evidence, qualitative enquiry into the factors affecting minority university students' academic adjustment reveal themes that add support to the importance of personal, social, and contextual variables.

## 1.1 Academic Nonpersistence

Universities the world over have a vested interest in the academic progress of their students. Key to this is encouraging students to remain in their studies and to complete their courses. The rate at which students either complete a qualification or continue studying is variously termed 'retention' or 'academic persistence'. Conversely, the rate that refers to those students who neither complete a qualification nor continue studying is termed 'attrition', 'academic nonpersistence', or sometimes 'dropout' rate (Ministry of Education, 2004c). Enrolment stability, the university's financial concerns, wasted human resources, and student development are some of the areas affected by attrition rates.

One of the most comprehensive conceptual models for explaining and predicting the dropout process is Tinto's Theory of Individual Departure from Institutions of Higher Education (1975, 1993). This model postulates that individual's bring with them an initial commitment to study, which is made up of the individual's personal characteristics (eg. personality, self-beliefs), plus their demographic and background characteristics (eg. being a minority student, gender, age). These individual attributes interact with the social components of the institution, including cultural congruity (or 'institutional fit'), interactions with faculty and peers, perceptions of the environment) (Tinto, 1975, 1993). Together, these factors are theorised to determine the extent of the individual's commitment, and therefore persistence (Tinto, 1993). Tinto asserts that "it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college" (Tinto, 1975, p. 96). Tinto went on to note that the absence of integration appears to arise from two sources, which he labelled "incongruence" and "isolation".

Tinto defined incongruence as “that state where the individuals perceive themselves as being substantially at odds with the institution” (Tinto, 1993, p. 50). Incongruence has also been referred to in the literature as ‘cultural congruity’ and ‘institutional fit’. For minority students attending an educational institution built on the principals valued by the majority culture, there are unique challenges of incongruence to be faced.

A qualitative exploration into the experiences of Māori students at Victoria University uncovered themes that reflect a sense of incongruence. In her dialogues with Māori students, Kidman states that several of the students described a sense of “displacement” within the university: “a feeling of being in the wrong place at the wrong time, or of not knowing the rules of university life” (1994, p.2). The students interviewed also commented that they found the university to be “a very Pakeha place...Māori who wish to combine their own cultural knowledge with academic meanings sometimes find that the patterns of academic discourse inhibits them” (1994, p.2).

The other main barrier to academic and social integration is isolation: “the absence of sufficient interactions whereby integration may be achieved” (Tinto, 1993). Again, Kidman’s research with Māori university students reflects that isolation is a real phenomenon for these students. The students reported “an over-riding sense of loneliness...This sense of isolation was exacerbated by the realisation that indeed many Māori students do operate alone because there are often no other Māori in their courses” (Kidman, 1994, p. 14).

Various studies considering the construct validity of Tinto’s model have been carried out, with the results confirming Tinto’s conception of the sociological and psychological nature of attrition and retention (eg. Gloria & Robinson Kurpius, 2001; Lamport, 1993; Pascarella & Terenzini, 1977; Pascarella & Terenzini, 1980). A review of literature focusing on the common themes found that many of the findings in relation to attrition assimilate with Tinto’s model. For example, in his review of literature on attrition Miller stated, when reporting the ten most common findings, that students who integrate into the university tend to stay, while those who are not

integrated tend to withdraw (Miller, 1997). Other most common findings included that withdrawal is multi-causal, that withdrawal often follows specific interactions between individual and institution (eg. where a student feels that an institution has been unsupportive or indifferent), and that the availability of social interaction opportunities on campus reduces attrition (Miller, 1997).

Using an empirical, longitudinal research design, Cabrera, Castaneda, Nora and Hengstler (1992) aimed to examine the predictive and construct validity of Tinto's theoretical framework of college departure decisions. This extensive study found that Tinto's structural model accounted for 38 percent of the variance observed in actual persistence decisions (through a review of student records), and for 36 percent of the variance observed in intent to persist (Cabrera et al., 1992). Further to this, of the thirteen structural relations hypothesized in Tinto's model of college student departure, nine were found to be statistically significant, providing empirical support for 70 percent of Tinto's hypotheses (Cabrera et al., 1992). In addition, the study identified the presence of the direct effect of academic integration on persistence that was not hypothesized in the model (Cabrera et al., 1992). The researchers concluded that Tinto's model is correct in presuming that academic persistence is the product of a complex set of interactions among personal and institutional factors, as well as in presuming that intent to persist is the outcome of a successful match between the student and the institution (Cabrera et al., 1992).

Using Tinto's theoretical model of attrition as a base, Pascarella and Terenzini constructed a measure that aimed to specifically assess academic and social integration in order to significantly discriminate between persisters and voluntary dropouts (Pascarella & Terenzini, 1980). Subsequent research using the measure showed that the Persistence/Voluntary Dropout Decisions Scale significantly discriminated between persisters and non-persisters 81.7 and 80.8 per cent of the time respectively, confirming the construct validity of Tinto's model (Pascarella & Terenzini, 1980). In their studies, race/ethnicity and gender were statistically controlled in order to increase the generalizability of the scale's use with different student samples. Strengthening the reliability of the scales use with minority populations, the scale has been used effectively with American Indian (Gloria & Robinson Kurpius, 2001), African American (Gloria et al., 1999), Asian American

(Gloria & Ho, 2003), and Māori university student samples (Murray & Flett, 2003).

Due to the fact that minority students in general tend to dropout of university at higher rates than their non-minority counterparts, there is a growing body of research investigating the link between the experience of being a minority student at university, and academic nonpersistence decisions. Given recent statistics which find comparable results for Māori attending university, exploring the link between the experience of being a Māori university student and academic nonpersistence decisions is an important area for research consideration.

## **1.2 Psychological Wellbeing**

In considering university academic adjustment and success, it is important to take into account a range of academic, social/environmental, and personality factors (Russell & Petrie, 1992). A major indicator of successful academic adjustment is psychological wellbeing (Russell & Petrie, 1992). For the purposes of the current study, psychological wellbeing was operationalised in terms of two constructs: the experience of distress related to psychological symptoms, and global perceived stress. This section will consider each of these in the context of university student adjustment.

### **1.2.1 Psychological Symptoms**

Multifactorial symptom or distress inventories are often used by researchers studying clinical and nonclinical populations of university students. These measures are usually based on the widely used psychological disorder classification system – the Diagnostic and Statistical Manual. In this study, psychological symptoms were assessed using the 21-item version of the Hopkins Symptom Checklist (HSCL-21; Green, Walkey, McCormick & Taylor, 1988).

Green et al. sought to produce a brief but acceptably reliable version of the HSCL, which originally consisting of 58 items (Derogatis, 1974). Green et al. (1988) specifically aimed for the brief HSCL to capture three specific factors: General Feelings of Distress, Somatic Distress, and Performance Difficulty. The General Feelings of Distress subscale assessed items such as loneliness and sadness, Somatic Distress assessed the presence of actual physical symptoms, and Performance

Difficulty assessed the ease with which everyday tasks such as speaking and remembering information are accomplished. All together, the scale aimed to provide a general indication of psychological distress. Following correlation matrices, 21 items were selected and the resulting HSCL-21 was piloted with a group of New Zealand university students. Analysis of the pilot sample found that the three subscales displayed high reliability (Green et al., 1988). On the basis of the HSCL-21's psychometric properties and its short length, the authors highlighted the value of the HSCL-21 for both clinical purposes and research.

The HSCL-21 has been extensively used with university student populations (eg. Cepeda-Benito & Short, 1998; Deane & Chamberlain, 1994; Snow-Turek & Finch, 1998). An investigation into the cross-cultural equivalence of the HSCL-21 in European American, African American, and Latino university students found that the three-factor model was valid and robust across the three samples (Cepeda-Benito & Gleaves, 2000). Most significantly in terms of the present research, the HSCL-21 has been utilized with a population of Māori university students attending Massey University. In his research investigating the effect of student problems and cultural identity on academic achievement, Bennett (2001) reported Cronbach's alphas of .85 for the overall scale, and subscale reliabilities ranging from .73 to .82.

Given that the HSCL-21 appears to maintain its factor structure across ethnically diverse university students, and that it is relatively undemanding, the HSCL seems to be an ideal measure for the present study.

### **1.2.2 Perceived Stress**

In the research investigating stress, there is some question as to whether stress should be assessed as the number of stressful events experienced (eg. Sarason, Johnson & Siegel, 1978), or as one's appraisal of the impact of such experiences on one's life (Perkins, 1982). In addressing the conceptual and evaluative limitations of life events checklists to assess an individual's experience of the stressful events, Cohen (Cohen, 1986; Cohen, Karmarck & Mermelstein, 1983) argued that the appraisal of one's stress level may be a more important determinate of how one copes physically and emotionally. Cohen was interested in capturing the degree to which individuals find their lives to be unpredictable, uncontrollable, and overloading. Cohen et al.

(1983) also noted that global perceived stress can be viewed as an outcome variable.

Following from this view, perceived stress can be defined as the extent to which an individual is conscious of the imbalance between their appraisal that a situation or environment is threatening, and the extent of their ability to cope. That is, the level of perceived stress and worry over the inability to handle life's demands.

Research into the experience of stress in a university setting has found that university students perceive academic life as stressful and demanding (cf. Hammer, Grigsby, & Woods, 1998; Wan, 1992). Stress can occur for students for any number of reasons, although common amongst these potential stressors are coping with the transition from home to university (Fisher, 1994), social connectedness (Lee, Keough & Sexton, 2002), and perceptions of the university environment (Gloria & Ho, 2003; Lee, Keough & Sexton, 2002). Global perceived stress has been related to a number of undesirable outcomes, including greater depressive symptoms and lower life satisfaction (Chang, 1998).

The present study will use a measure of global perceived stress that was designed for use with community samples with at least a junior high school education (Cohen, Karmarck & Mermelstein, 1983). The Perceived Stress Scale (PSS; Cohen, Karmarck & Mermelstein, 1983) was developed in order to provide a psychometrically sound global measure of perceived stress. Accordingly, the PSS was specifically described as a measure of the degree to which general situations in one's life are appraised as stressful (Cohen, Karmarck & Mermelstein, 1983). Extensive normative data on 2 387 people has been generated on the 14-item, 10-item, and 4-item versions of the PSS, providing normative data which is a valuable reference when studying perceived stress across gender, socio-economic status, age groups, race, and other demographic indices (Cohen & Williamson, 1988). Although all three versions of the PSS provide strong psychometrical data, Cohen and Williamson (1988) note the relative superiority of, and therefore recommend, the 10-item version. Of pertinence to the current study, the PSS-10 was reliably employed with a sample of Māori university students, with a reported Cronbach's alpha of .88 (Bennett, 2001).

### **1.3 Social Support**

Social support has been conceptualised and measured in numerous ways. A frequent criticism of social support research is the lack of consensus about a definition and how to measure social support (Uchino, 2004). One of the most commonly used definitions is “information leading the subject to believe that he is cared for and loved (Cobb, 1976, p.30). The majority of research in the area of social support has tended to focus both on the individual’s subjective perception of the adequacy of social support in relation to his or her needs (ie. The individual’s satisfaction), and on objective appraisals of the individual’s social support network (Eg. Pearson, 1990; Vaux, Phillips, Holly, Thomson, Williams, & Stewart, 1986).

In studies investigation academic success, social support is increasingly looked at as a retention and enrichment strategy for university education (eg. Astin, 1977; Gloria and Robinson Kurpius, 2001; Pascarella & Terenzini, 1977; Tracey & Sedlick, 1985). A large number of empirical studies have established that social support is effective in buffering people from the negative effects of stress, and this appears to hold true in student populations also (eg. Ostrow, Paul, Dark, & Berhman, 1986). Social support is also key in enhancing integration into the university environment, and therefore encouraging persistence in education. Mentoring in particular may play an important role: Mentors could promote a feeling of belonging among students by offering them acceptance, validation, and friendship (Jacobi, 1991).

For the present study, social support was operationalised in terms of two constructs that were relevant for minority university student populations: perceived social support and mentoring.

#### **1.3.1 Perceived Social Support**

In this study, perceived social support encompasses both the number of perceived social supports in a person’s life, and the degree to which they are personally satisfying. In order to gather this subjective information, the Social Support Questionnaire - short form was utilised (Sarason, Sarason, Shearin, & Pierce, 1987).

The original SSQ was developed following a series of studies involving several hundred participants (Sarason, Levine, Basham, & Sarason, 1983). Based on this pilot work, 27 items were selected that examined both the number of perceived available social supports, and the level of satisfaction with these supports (Sarason et al., 1983). Each item asked a two-part question consisting of (a) listing the people to whom they can turn to and rely on in a given set of circumstances, and (b) indicating how satisfied they are with these social supports (Sarason et al., 1983). Following four studies piloting the SSQ, it was reported that the SSQ was high in reliability and validity (Sarason et al., 1983). Further, as a result of these four studies, Sarason et al. (1983) concluded that those who experience high social support seem to experience more positive events. Conversely, low levels of social support appeared related to difficulty in persisting on a task that does not yield a ready solution (Sarason et al., 1983).

Following on from this research, a short form of the SSQ (the SSQ6) was developed in an attempt to create a brief scale that could serve as an adequate substitute for the original 27-item SSQ. Using three independent samples of university students, plus statistical analyses, Sarason et al. identified six items that displayed high test-retest reliability, high internal reliability (.90 to .93), and exhibited similar correlations with a varied group of social support indices as those displayed by the original SSQ (Sarason, Sarason, Shearin & Pierce, 1987). The resulting SSQ6 was purported to be highly similar to the original SSQ, with the added bonus of being more resistant to skew and kurtosis (Sarason et al., 1987). As the SSQ6 provides a brief but reliable measure of perceived social support, and since it was normed with a population of university students, the SSQ6 was selected for the purposes of the present study.

Research exploring the effects of social support in the lives of university students has found that social support has significant effects on both retention/attrition and psychological wellbeing. In particular, satisfaction with perceived social support is implicated. Almost twenty years ago, perceptions of insufficient social support were shown to predict attrition of both Black students and White students at university (Mallinckrodt, 1988). More recently, studies of factors that affect retention continue to find that perceived social support is an important factor in enhancing retention and predicting attrition. In their six-year longitudinal study of undergraduates'

adjustment to the university environment, Gerdes and Mallinckrodt (1994) found that integration into campus life, including satisfaction with social support, was an important predictor of academic persistence. In recent studies investigating the influence of social support on the academic persistence decisions of African American, American Indian, and Asian American university students, social support has been consistently demonstrated to be a strong predictor of academic persistence (Gloria et al., 1999, Gloria & Robinson Kurpius, 2001; Gloria & Ho, 2003). Also, a recent literature review of barriers to persistence among African American intercollegiate athletes found that the level of integration/isolation, (as measured by involvement in and gaining support from the campus community), was the most important noncognitive variable affecting academic persistence for this group of students (Hyatt, 2003).

In regards to the effect of perceived social support on the psychological wellbeing of university students, it appears that increased social support has positive effects. Research into social support as a moderator of stress in university students found that social support satisfaction was significantly, negatively related to higher depressive symptomology at average levels of perceived stress (Pengilly, 1997). Another study looked at psychological symptomology among university students as mediated by career development, social support, parental attachment, and gender (Widlansky, 1997). This study found that satisfaction with social support (as measured by the SSQ6) was one of only two significant predictors of psychological distress (Widlansky, 1997). Similarly, Finch, Okaun, Pool and Raehlman (1999) found that ratings of perceived social support were strongly related to reduced psychological distress, and that social support was a stronger (predictor) of reduced psychological distress than actual received social support measures.

More recently, a studying exploring the relationships between social support, coping style, and mental health of students found that those students who reported higher social support showed higher mental health levels on the SCL-90 (Hui-ming, 2003). Comparably, Wen (2004) found that social support was positively correlated with subjective wellbeing in his study of the influence of a range of variables on subjective wellbeing in university students.

### 1.3.2 Mentoring

Another important source of social support for university students in particular is the presence of a mentor. The mentoring relationship within an educational environment is commonly seen as being made up of three components: (1) emotional and psychological support, (2) direct assistance with career and professional development, and (3) role modelling (Jacobi, 1991). Based on a review of the literature regarding mentors and university students, mentors tend to have greater experience, influence, and achievement when compared with their protégés, and the relationship between a mentor and a protégé is personal and reciprocal (Jacobi, 1991). Studies have found that having contact with faculty both inside and outside the classroom is critical to students academic persistence (eg. Griffin, 1992; Gloria & Robinson Kurpius, 2001; Pascarella & Terenzini, 1980).

A common difficulty with identifying mentors for minority students is that there is often a relative scarcity of minority faculty to call upon. Meznick, McGrath, and Garcia (1989. Cited in Jacobi, 1991) explain that mentors of the same ethnic background as their students can assist in resolving apparent conflicts between the values of one's culture or community and the values of the educational institution: the mentors may demonstrate that success is possible without having to abandon cultural identity.

Research examining the effects of having a mentor with minority students has found that access to mentors significantly affects academic persistence decisions. Brown and Robinson Kurpius (1997) showed that positive contact with the faculty/staff was the critical noncognitive variable related to American Indian students' persistence decisions, in their study of psychosocial factors influencing such decisions. Further research specifically assessing the effects of social support on American Indian persistence decisions supported this, stating that when specific aspects of social support were examined, the role of faculty/staff mentoring had the strongest correlation with persistence (Gloria & Robinson Kurpius, 2001). Similar research with African American and Asian American student populations maintains these conclusions, strengthening the call for mentoring programs for minority students to be widely established at universities in order to enhance retention rates (Gloria et al.,

1999; Gloria & Ho, 2003).

## **1.4 Self-Beliefs**

Self-beliefs and their role in relation to positive mental health, psychological wellbeing, and a vast range of human behaviour have long been investigated by psychologists and sociologists alike. One of the most frequently investigated aspects of self-beliefs is the evaluative component of self-esteem.

### **1.4.1 Self-Esteem**

Self-esteem has been defined as “a positive or negative attitude towards...the self” (Rosenberg, 1965, p. 30). This definition was further clarified by Rosenberg (1965), stating that although the individual with positive self-esteem views him- or herself as a person of worth, they do not necessarily consider themselves superior to others. In general, self-esteem is widely seen as a broadly relevant conceptual tool to explore how people view and evaluate themselves, both as a consequences of basic social conditions, and as a predisposition for subsequent behaviours (Wells & Marwell, 1976). The impetus behind much of the self-esteem research is the hope that if we understand how self-efficacy is related to behaviour, enhancing self-efficacy could make a significant difference in individuals’ lives and perhaps to society in general.

A thorough meta-analysis examining whether general self-esteem reflected a state or a trait construct was recently carried out by Trzesniewski, Donnellan, and Robbins (2003). Using data from published journal articles and nationwide studies, the authors concluded that self-esteem showed substantial continuity over time, and that the stability of the self-esteem construct was comparable to the stability found for personality traits (Trzesniewski et al., 2003). Adding weight to this finding, the study also found that self-esteem stability did not vary substantially by gender, measure used, nationality (US versus non-US), or year of assessment (Trzesniewski et al., 2003). This study also aimed to explore whether self-esteem stability remained constant across the lifespan. Covering age 6 to 83, the evidence demonstrated that self-esteem levels follow a curvilinear pattern where self-esteem stability is relatively low during childhood, and increases throughout adolescence and early adulthood, peaks between the 20s and 40s, and then declines during midlife and old age (Trzesniewski et al., 2003).

Studies have linked self-esteem to many indicators of psychological wellbeing, mental health, and a variety of behaviours including persistence. In a major review of the available empirical literature on self-esteem reveals considerable support for the idea that achieving a high level of self-esteem, or perhaps more importantly, avoiding low self-esteem, is important for health and wellbeing throughout the life span (Harter, 1999). This evidence includes numerous prospective investigations in which higher levels of self-esteem have predicted more positive outcomes at follow-up even after controlling for initial levels of outcomes and other potential confounds (Harter, 1999). For example, research has linked self-esteem to many positive outcomes, including occupational success (eg. Judge & Bono, 2001), persistence in the face of failure (eg. Shrauger & Sorman, 1977), and improved coping and regulation skills (eg. Greenberger et al., 1999). Conversely, individuals who report low self-esteem are significantly more likely to experience increased perceived stress (Mruk, 1999), health problems (eg. Vingilis, Wade & Adlaf, 1998), and report more psychological symptomology, particularly anxious and depressive symptoms (Harter, 1999; Skager & Kerst, 1989). Low self-esteem has been linked to suicidal ideation (De Man & Gutierrez, 2002), depression (De Man, Gutierrez & Sterk, 2001; Roberts, Shapiro & Gamble, 1999), emotional distress (Roberts, Ciesla, Direnfeld & Hewitt, 2001), and general subjective wellbeing (Cha, 2003).

A growing body of evidence indicates that self-esteem is one of the most predictive factors of academic adjustment. Some studies report that a sense of self-worth can predict academic adjustment and persistence (Cohorn & Giulliano, 1999; Gerdes & Mallinkrodt, 1994; Gloria & Robinson Kurpius, 2001). Self-esteem has also been found to be negatively correlated with increased loneliness (Ginter & Dwinell, 1994) and positively correlated with perceived social support (Gloria & Ho, 2003), which in turn is a strong predictor of student adjustment (Gloria & Ho, 2003; McWirter, 1997). Although self-concept (including self-esteem, self-confidence, and general self-concept) was not found to be a predictor of academic persistence in a recent meta-analysis of psychosocial factors and university outcomes, the authors noted that the construct of "self-concept" was broad, and as such is more likely to predict broad criteria, such as general life satisfaction (Robbins, Lauver, Davis, Langley, & Carlstrom, 2004). Broad predictors are not likely to be highly predictive for narrow

criteria (c.f. Hamish, Hulin & Ranzewski, 1998). In regards to retention of minority university students, self-esteem has been consistently and significantly linked to academic persistence decisions with a range of ethnicities (eg. Gloria et al., 1999; Gloria & Robinson Kurpius, 2001; Gloria & Ho, 2003).

In their extensive meta-analysis of self-esteem research, Trzesniewski et al. (2003) reported that the most commonly used measure of self-esteem was the Rosenberg Self-Esteem Scale (RSES). Based on his view that self-esteem reflects an individual's attitude towards him- or herself, Rosenberg created a scale to capture this construct. Consisting of ten items, this scale was developed to provide a measure of self-esteem ranging from high to low self-esteem (Rosenberg, 1965). Although the RSES was originally developed for use in large-scale studies of youth, the RSES has been widely used with adult populations. For example, in a substantial longitudinal study of American adults aged 25 to 96, the RSES was found to be a reliable measure of self-esteem (Trzesniewski et al., 2003).

#### **1.4.2 Self-Efficacy**

Self-efficacy has been conceptualised principally in two different ways: generalised self-efficacy and situation-specific self-efficacy. Generalised self-efficacy theorists propose that specific self-efficacies for a variety of situations can act in a cumulative fashion. Thus individuals with positive self-efficacy in a wide range of situations will have higher general self-efficacy than those who have positive specific self-efficacy in a comparatively limited range of situations (Watt & Martin, 1994). Higher generalised self-efficacy has been found to be associated with lower depressive symptoms, higher-functioning immune systems, endurance, and test performance (Lightsey, 1996). However, a literature review examining the research into generalised self-efficacy found that in several studies, specific forms of self-efficacy may be particularly tied to wellbeing when they are particularly salient to important outcomes (Lightsey, 1996).

Self-efficacy and its relation to academic success (including academic performance, persistence, and psychological wellbeing) has received much research attention. According to Bandura, (1977, 1982, 1997) self-efficacy expectations are judgements about how well an individual can organise and carry out courses of behaviour

necessary to cope with prospective situations involving ambiguous, unpredictable, and stressful elements. Self-efficacy determines whether coping behaviour will be initiated, and how long it will be sustained. Specific self-efficacy in the educational context has been related to persistence, achievement, and psychological health (Gloria & Robinson Kurpius, 2001; Karademas & Kalantzi-Azizi, 2004; Zimmerman, 1989). A meta-analysis of research in education settings found the self-efficacy was related both to academic performance ( $r = .38$ ) and to academic persistence ( $r = .34$ ; Multan, Brown, & Lent, 1991). Students high in academic self-efficacy make greater use of effective cognitive strategies in learning, manage their time and learning environments more effectively, and are better at monitoring and regulating their own efforts ( Zimmerman, 1995).

Academic self-efficacy, also referred to in the literature as college self-efficacy, has been repeatedly found to be significantly and positively related to academic persistence for university students. A recent meta-analysis investigated whether psychosocial factors predicted collage outcomes, including achievement and retention (Robbins et al., 2004). Based on an extensive review of theoretical education persistence models and motivational theory, Robbins et al. (2004) determined that there were nine broad constructs theoretically linked to academic persistence and success, one of which was academic self-efficacy. This study utilised a comprehensive literature search including a computer search of psychological databases, plus a manual search of numerous journals, (including the Journal of Counselling Psychology and Research in Higher Education) to double check results obtained from the electronic databases. From this search, Robbins et al. (2004) gathered 109 studies which reported usable data, (that is, correlations), and which included both a measure of the psychosocial factors of interest and outcome measures of academic success. Following extensive meta-analyses, Robbins et al. concluded that academic self-efficacy is highly, positively related to academic persistence, with the mean operational validity estimated to be .259 (Robbins et al., 2004). Further analysis revealed that academic self-efficacy maintained a positive relationship with retention when included in a regression equation with the traditional predictive factors of socio-economic status and high grade point average (Robbins et al., 2004). Supporting the meta-analytical findings, Chemers, Hu and Garcia's (2001) study of academic self-efficacy and first-year college student's

performance and adjustment found compelling support for the role of self-efficacy in college student's academic success, including persistence. In this study, self-efficacy directly and indirectly showed powerful relationships to academic performance: even after statistically accounting for high school GPA, academic self-efficacy continued to have predictive power for academic performance and expectations for performance (Chemers, Hu & Garcia, 2001).

Academic self-efficacy has particularly been implicated in predicting academic persistence with minority students. In studies investigating the influences of psychosocial factors on the academic persistence of Chicano/a, African American, American Indian and Asian American college students, it has been repeatedly found that college self-efficacy is significantly related to academic persistence: students who have more positive perceptions of their ability to complete college-related tasks making fewer nonpersistence decisions (Gloria, 1993; Gloria, Robinson Kurpius, Hamilton & Willson, 1999; Gloria & Robinson Kurpius, 2001, Gloria & Ho, 2003; Solberg, O'Brien, Villarreal, Kenner & Davis, 1993; Wilson, 1997).

A holistic view of academic success incorporates psychological wellbeing along with students along with more common indicators such as academic performance and persistence. High self-efficacy has also been related to better health outcomes (Wilson, 1997). Research generally indicates that self-efficacy may moderate the effects of stress on wellbeing. A review of the literature looking at the effects of situation-specific self-efficacy on psychological wellbeing shows that domain-specific self-efficacy has been used to predict immunological enhancement, personal-emotional adjustment, and reduced distress (Mruk, 1999). It has been proposed that self-efficacy has an impact on affect and wellbeing through its effect on the ability to control and manage potentially negative emotions (Chemers, Hu & Garcia, 2001). That is, the way in which an individual construes the demands placed by the environment can have a dramatic ability on his or her ability to cope with that environment. Specifically, theorists have made distinctions between regarding demands as "threats" versus "challenges" (Lazarus & Folkman, 1984). Bandura (1997) also argued that a high sense of coping efficacy encourages individuals to adopt courses of action designed to change hazardous environments. Thus self-efficacy can have an effect on the perceived distress of psychological symptoms. For

example, a recent study examined academic self-efficacy effects on first-year university students' adjustment, including perceived stress and physical and mental health symptoms or problems (Chemers, Hu & Garcia, 2001). They found significant mediated effects of academic self-efficacy on both perceived stress and mental health (Chemers, Hu & Garcia, 2001). Specifically, students with a higher level of self-efficacy also experienced less stress, which in turn resulted in less health problems (Chemers, Hu & Garcia, 2001). Adding weight to this finding, research focusing on the relationship between self-efficacy expectations and psychological health of university students following a stressful encounter, (in this case, an examination period), found that self-efficacy exerted both a direct and an indirect influence on psychological health (Karademas & Kalantzi-Azizi, 2004). Expressly, self-efficacy expectations were significantly negatively related to psychological symptoms ( $r = -.32$ ; Karademas and Kalantzi-Azizi, 2004).

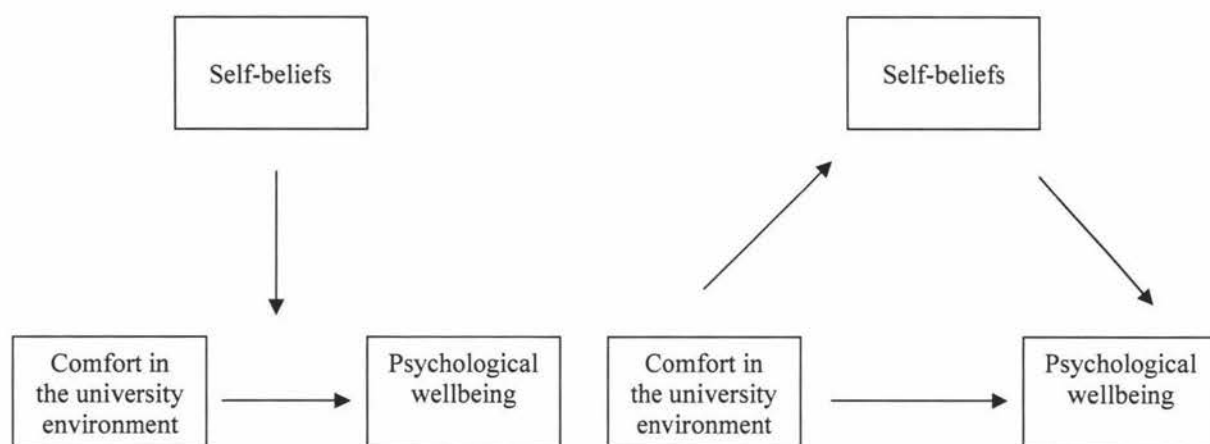
In order to investigate academic self-efficacy with Māori students in this study, the College Self-Efficacy Inventory (Solberg, O'Brien, Villareal, Kennel, & Davis, 1993) was selected. Building on Bandura's theory, Solberg et al. (1993) operationalised college self-efficacy as the degree of confidence students have in their ability to successfully perform a variety of college-related tasks. In order to develop a tool to investigate this construct, Solberg et al. (1993) surveyed college self-help manuals to collate a pool of items addressing various college-related issues. Following this, six judges independently rated the initial 40-item pool to identify items they felt were: a) important, b) stated in a specific and clear manner, and c) representative of the college experience (Solberg et al., 1993). From this process, 20 items were selected and piloted with a sample of 164 Chicano second- and third-year university students. The final measure consisted of 19 items representing three subscales of Roommate Efficacy, Course efficacy and Social Efficacy (Solberg et al., 1993). Reliability was estimated for internal consistency using coefficient alpha. Coefficient alpha estimates for the pilot study were .93 for the total CSEI, and .88 for each of the subscales. The study also found that the three subscales displayed good convergent and discriminant validity, plus strong internal consistency (Solberg et al., 1993). The researchers described the purpose of establishing a valid and reliable college self-efficacy measure to provide opportunity to study the relationship between academic self-efficacy and academic persistence, as well as relationships

with models of mental health (Solberg et al. 1993). This tool was developed to be utilised with different cultures in order to allow cross-cultural comparisons, and to capture university students' experiences in general (Solberg et al., 1993).

In investigating the relationship between perceptions of the university environment, self-beliefs, social support, and psychological wellbeing, the transactional model of stress as described by Lazarus and Folkman (1984) was used to guide the research. The transactional model holds that stress does not reside solely in the individual or solely in the environment, but is *relational* in nature, involving some sort of transaction between the two (Lazarus, 1999). The model holds that stress is a transaction between situational and personal characteristics that leads a person to perceive an event or an environment as stressful (Lazarus, 1999). This approach draws attention to the importance of the fundamental process of appraisal. The two basic types of appraisal within the model are described as primary and secondary, although Lazarus (1999) points out that this does not mean that one is more important than the other, but rather that they differ in content and function. Primary appraisal is where the individual considers what is at stake, and evaluates the stressful encounter as a threat, harm, or a challenge (Lazarus, 1999). If a situation is seen as a threat to wellbeing, then the secondary appraisal is concerned with the identification and availability of coping resources (Lazarus, 1999). The central feature of this model is that activation of coping resources is dependent on the appraisal of an event or environment as "stressful" (ie a threat, or harmful). Coping in turn can involve both a problem and an emotion focus. This approach draws attention to the importance of examining how the event or environment is cognitively appraised by the individual, and then the coping strategies drawn upon to deal with the event or the environment that is appraised as stressful.

Two pathways by which self-efficacy and self-esteem can influence the relations between comfort in the university environment and psychological wellbeing are moderation and mediation (refer Figure 1, Baron & Kenny, 1986). In stress-moderation, the presence of the moderator reduces or increases the relations between comfort in the university environment and psychological wellbeing, thus acting as a stress-buffer or stress-exacerbate. In stress-mediation, level of comfort in the university environment influences the mediator, (in this case self-beliefs), which in

turn impacts on psychological wellbeing. Both stress-moderation and stress-mediation are useful models in that they allow researchers to understand underlying processes related to psychological wellbeing and have important implications for intervention design (Frazier, Tix, & Barron, 2004).



**Figure 1.** The left figure illustrates the theoretical model of self-beliefs as a stress-moderator. The right figure illustrates the theoretical model of self-beliefs as stress-mediators of psychological wellbeing.

Lazarus and Folkman (1984) posited that when individuals appraise an event or environment as stressful, they perceive their self-image to be threatened. This threat may have consequences for an individual's self-evaluation of worth (self-esteem), and their ability to identify and access coping resources (self-efficacy). In turn, an individual's level of self-esteem and self-efficacy is posited to directly effect whether increased levels of psychological distress are experienced.

Self-esteem has been found to be an effective mediator between remembered parental rejection and post-partum depressive symptoms (Crokenberger & Leerkes, 2003); stressful life-events and depression in Russian elders (MacFarlane, 2000); perceived parenting and psychological distress in young offenders (Chambers, Power, Loucks, & Swanson, 2000); and perceived stress and depressive symptoms in Hispanic adolescents aged 15 to 20 years (Katragadola, 1998). Similarly, self-efficacy has appeared to act as a mediator in a range of stress-distress relationships, including acute stress responses and long-term distress following natural disasters (Benight & Harper, 2002).

## 1.5 Perceptions of the University Environment

When exploring the experiences of minority students at university, one of the major themes of research in this area is that of comfort in the university environment. Incorporating institutional fit, cultural congruence, and perceptions of stress related to the university environment, this construct has been examined in regards to its relationship with academic success. In their meta-analysis of the psychosocial factors related to academic performance and retention, institutional fit was identified as one of the nine major constructs commonly considered in this research area.

Tinto (1993) proposed that the interactions between a student and his or her educational environment has a direct effect on students' intentions to persist with their studies. Tinto (1993) identified academic and social integration in particular as having key roles in contributing to institutional commitment, which is theorised to have a direct effect on intent to persist. A recent longitudinal study aiming to provide empirical support for Tinto's theory discovered that social and academic integration had significant, positive effects on institutional commitment, which in turn had a significant positive correlation with intent to persist (Cabrera, Castaneda, Nora, & Hengstler, 1992). This research provided practical substantiation for Tinto's theoretical view of the processes that affect university students' nonpersistence decisions, in particular, the importance of the role that comfort in the university environment appears to play.

The interactions between the university environment and individual students has been conceptualised and explored in a number of ways. A common way of conceptualising the relationship between the university environment and individual students is the construct of psychological sense of community (PSOC). The most widely used and accepted theory describing PSOC is the put forward by McMillan and Chavis (1986) based on an indepth review of the literature on PSOC. From this, McMillan and Chavis (1986) suggested that PSOC consisted of four elements, which they identified as Membership, Influence, Integration and Fulfilment of Needs, and Shared Emotional Connection. Membership refers to the feeling of belonging, of

being part of a collective (McMillan & Chavis, 1986). This dimension includes boundaries: if one belongs to a particular community, then the implication is that there are those who don't belong (McMillan & Chavis, 1986). The second dimension is that of Influence. This concept is bi-directional: an individual must feel that they have some control and influence over the group, and the group must also influence its individual members in order to be cohesive (McMillan & Chavis, 1986). The third dimension, Integration and Fulfilment of Needs, refers to the idea that in order for a community to maintain a positive sense of togetherness, association with the group must be rewarding for the individual members (McMillan & Chavis, 1986). The final dimension is that of Shared Emotional Connection. McMillan and Chavis (1986) suggested that this is in part based on a sense of shared history and identification with the community: the more people interact, the more likely they are to form close relationships. McMillan and Chavis stated that these aspects of community contribute to create each of the dimensions, which in turn work together to create and maintain an overall sense of community. PSOC is most typically operationalised as a perceptual construct; it assumes that situational and individual characteristics interact to produce a third set of perceptual variables (Davidson & Cotter, 1993).

Universities have long been considered as having a sense of community (Lounsbury & De Neui, 1996). Researchers interested in the possible benefits of having a PSOC in the university context have found significant correlations between PSOC and loneliness (Pretty, Andrews & Collett, 1994), experiences of burnout (McCarthy, Pretty & Catano, 1990), introversion (Lounsbury & De Neui, 1996), and psychological symptoms (McCarthy et al., 1990). PSOC has also been implicated in subjective wellbeing (Davison & Cotter, 1991) and interpersonal networks and support (Pretty, 1990). When exploring PSOC for members of minority groups who form a relational community embedded within a community dominated by the culture of a majority group, research recommends that the struggles between maintaining cultural identity and the need for belonging within the larger community are considered (Fisher & Sonn, 1999). Although this issue would appear to be particularly salient when looking at the experiences of minority students at university, there has been no published research investigating this in regards to academic outcomes such as retention, completion, or subjective wellbeing.

Focusing on the experiences of minority students attending mainstream universities, Hurtado and her colleagues centred their attention on the “campus climate”.

Hurtado, Milem, Clayton-Pederson and Allen (1998) conducted an extensive multidisciplinary analysis on the sources and outcomes of campus climate and based on this, developed a framework for understanding and describing the campus climate. They conceptualised campus climate as consisting of four dimensions: “a) an institution’s historical legacy of inclusion or exclusion of various racial/ethnic groups, b) its structural diversity in terms of numerical representation of various racial/ethnic groups, the psychological climate of perceptions and attitudes between and among groups, and d) the behavioural climate dimension, characterised by intergroup relations on campus” (Hurtado et al., 1998, p. 282). Hurtado et al. (1998) noted that these four dimensions are connected, and can have effects on each other.

Based largely on studies carried out in America and Britain, Hurtado et al. (1998) observed that most “predominately White” institutions of higher education have a history of limited access and exclusion of racial/ethnic minorities. This *historical legacy* can have a direct effect on the prevailing climate and influence current practices (Hurtado, 1992). Hurtado et al. remarked that research has documented the impact of the historical context on the current climate for diversity, and on attempts to create a supportive climate for minority students (eg. Richardson & Skinner, 1991. Cited in Hurtado et al., 1998). Research also indicates that universities that have a history of including minority students provide more social and psychological support, lead to higher levels of students satisfactions and sense of community, and have a greater likelihood that students will persist and complete their degree (eg. Allen, 1992; Allen, Epps and Haniff, 1991; Jackson & Swan, 1991. Cited in Hurtado et al., 1998). The *structural diversity* of an institution refers to the representation of minority groups in the institution. Hurtado et al. contend that increasing the structural diversity by increasing the number of minority enrolments can give the impression that the campus is hospitable and more welcoming towards minority students (1998). However, Hurtado et al. caution that while an increase in the structural diversity of an institution may contribute to the overall campus climate, increasing the number of minority students alone will not have a substantial effect and may in fact cause additional problems if institutional policies and support

services are not also addressed. The *psychological dimension* of campus climate involves individuals' attitudes and perceptions in regards to group relations and diversity (Hurtado et al., 1998). Recent research has shown that minority students tend to view the campus climate differently than members of the majority culture (Ancis, Sedlacek & Mohir, 2000; Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999). These perceptual differences are significant, as perception is both a product of the environment and a potential determinant of future interactions and outcomes (Tierny, 1987). Hurtado et al. (1998) include this psychological dimension of campus climate as it has been shown to have a direct effect on outcomes such as grades (Smedley, Myers & Harrell, 1993), a sense of alienation and isolation (Cabrera & Nora, 1994; Lin, LaCounte & Eder, 1988), and academic and psychological adjustment (Hurtado, Carter & Spuler, 1996). Finally, the *behavioural dimension* of campus climate is theorised to consist of actual reports of general social interaction, interaction between and among individuals from different backgrounds, and the nature of intergroup relations on campus (Hurtado et al., 1998).

Although the importance of how minority students' perceive their university environment has been supported in qualitative, conceptual, and empirical literature, there are few measures that have been developed to capture this phenomenon. Three measures which were developed specifically to capture different aspects of minority students' perceptions of the university environment stand out as having been successfully used with a range of minority groups.

### **1.5.1 Cultural Congruity**

Based on a review of the literature, Gloria and Robinson Kurpius (1996) developed an instrument that aimed to assess more affective- and belief-based perceptions of university life. The foundation for the Cultural Congruity Scale (CCS) came from Ethier and Deaux's six-item Perceived Threat Scale, which assessed perceptions of threat among racial/ethnic students attending Ivy League universities in America. Gloria and Robinson Kurpius added to this based on their own experiences as a racial/ethnic student and as mentors of racial/ethnic students. The resulting 14-item scale assessed issues relating to hiding or changing one's values to feel accepted, or feeling unaccepted because of one's language or appearance (Gloria & Robinson

Kurpius, 1996). In support of similar studies, research utilizing the CCS with a range of minority university student populations has found that student's perceptions of the cultural sensitiveness\* of the university environment has a direct, significant effect on academic persistence decisions (cf. Gloria & Robinson Kurpius, 1996; Gloria et al., 1999; Gloria & Robinson Kurpius, 2001; Gloria & Ho, 2003). Students who perceive a greater cultural fit between themselves and the university they attend are more likely to persist with their education.

### **1.5.2 University Environment**

Taking a broader view, the University Environment scale focused on concerns expressed in interviews with racial/ethnic students on university campuses, as reported by Baron, Vasquez and Valdez (1981). Gloria and Robinson Kurpius (1996) generated a 14-item scale to capture students' perceptions of whether the university setting was cold, insensitive, and uncaring, or inviting, helpful and "user-friendly". Based on these expressed concerns and other issues raised in the literature, the University Environment Scale (UES) measures perceptions that there are individuals within the university that will assist and offer advice and tutoring if needed (Gloria & Robinson Kurpius, 1996). Responses to the UES are primarily based on observations and perceptions of the emotional and physical helping behaviours of others (Gloria & Robinson Kurpius, 1996). Perceptions of the university environment have repeatedly been found to be an important predictor of persistence decisions for minority students at university (eg. Gloria & Robinson Kurpius, 2003). The UES provides a reliable instrument based on empirical and anecdotal research to capture these perceptions particularly for minority university students.

### **1.5.3 College Environmental Stress**

In his investigation into areas of stress for Chicano university students, Munoz aimed to create an instrument that would capture three particular types of stress that his study revealed: frustration, conflict, and pressure (Munoz, 1987). Munoz (1987) described frustration as occurring when the ability to achieve a desired goal is impeded or blocked, as in the case of a student who must leave school because of financial problems. Conflict, in contrast, may occur when a choice must be made between two or more goals, and pressure involves demands that force an individual

to intensify their efforts (Munoz, 1987). For his research, Munoz (1987) saw these types of adjustive demands as closely inter-related, and as forming\* part of the total stress pattern. Munoz developed a 39-item measure in order to provide a quantitative expression of common stressors experienced at university by minority students. His College Environmental Stress Index (CESI) consists of four subscales: financial, academic, personal, and familial. For the present study, only the 7-item financial subscale and 11 items from the academic subscale were used (omitted items assessed GPA issues). This modified version of the CESI has been used to demonstrate that perceptions of stress from the university environment make a direct contribution to the academic persistence decisions of a range of minority student groups (Gloria et al., 1999, Gloria & Robinson Kurpius, 2001, Gloria & Ho, 2003).

Taken together, these measures provide a broad view of student's perceptions of the university environment's cultural congruity, warmth and helpfulness, and stressfulness. In keeping with the view of the College Student departure model that what one perceives is real and has real consequences, it is hypothesized that Māori student's perceptions of the university environment will have a direct effect on both their decisions to continue or withdraw from their studies, and their psychological health. This broad view of perceptions of the university environment aims to capture and reflect the themes that have been revealed through dialogues and anecdotes concerning Māori students' experiences at university.

## **1.6 Summary and Research Goals**

This introduction has attempted to present the broader context in which the current study has been conducted. It is hoped that by drawing on overseas research exploring the experiences of minority students at university, and referring to qualitative research conducted with Māori university students, I will achieve a focused, empirical study exploring personal, social, and contextual factors which are hypothesised to impact upon both nonpersistence decisions and psychological wellbeing.

**Objective 1.**

**To explore the influence of self-beliefs, social support, and comfort in the university environment on the academic nonpersistence decisions of Māori university students.**

The first objective of the present research is to replicate overseas research that has identified three specific clusters of variables that have significant effects on the academic persistence decisions of a range of minority student populations (Gloria & Robinson Kurpius, 1996; Gloria & Robinson Kurpius, 2001; Gloria, Hird, & Navarro, 2001; Gloria, Robinson Kurpius, Hamilton, & Willson, 1999). Given the retention issues faced by universities in Aotearoa / New Zealand with respect to Māori students, targeted empirical research into factors that may affect the academic persistence decisions of Māori university students is essential. The current study aims to achieve that. It is hypothesised that positive self-beliefs, higher levels of social support, and more comfort in the university environment will be associated with decreased nonpersistence decisions.

**Objective 2.**

**To investigate whether social support acts as a buffer between perceptions of the university environment and psychological wellbeing.**

The second objective of this study is to examine how social supports might act as a protective feature for those Māori students who perceive the university environment to be cold, uncaring, unwelcoming, and culturally incongruous. Numerous studies have found social support to be an effective buffer in a number of stress – health relationships, thus this study aims to explore the possible buffering effects of social support for Māori university students.

**Objective 3.**

**To explore the role of self-beliefs in the relationship between perceptions of the university environment and psychological wellbeing.**

Self-beliefs have been widely researched as both mediators and moderators in a range of stress – wellbeing relationships. Following from this, the final objective for

the current study aims to clarify the role of self-beliefs in psychological wellbeing, and how this may differ with different perceptions of comfort in the university environment.

It is anticipated that the fulfillment of the objectives of this research will facilitate suggestions for future research endeavors, as well as allowing guided recommendations to be made for policies and practices.