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**Understanding the transition to university:**

**Distress and coping**

A thesis

submitted in fulfilment

of the requirements for the degree

of

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by

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THE UNIVERSITY OF  
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*Te Whare Wānanga o Waikato*

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## **Abstract**

The current study aimed to provide an understanding of the transition to university for students and the factors that are associated with both positive and negative transitions. The research aimed to identify what coping strategies and resources students accessed during this time. Participants consisted of 135 first-year university students at the University of Waikato. Participants completed an online survey which included measures of change, psychological distress, significant life events, alcohol use, coping strategies, resource access and general demographics.

The majority of students in the study were experiencing psychological distress that was considered within the normal range. However, approximately two in five students were experiencing distress above a normal range. Students who were living out of the family home for the first time, those who reported more significant life events, and those using avoidant emotion and active emotion coping were more likely to report higher levels of overall distress. However, avoidant emotion coping was the only factor that significantly predicted distress. Students self identified overall level of change was related to overall distress, which suggests that it may be students perceived overall level of change that impacts on their well-being rather than the specific changes itself.

Thirty percent of the students in the study identified alcohol use of a hazardous level. However, no relationship was seen between alcohol use and psychological distress. Instead, it appears that alcohol use in university consists of a social factor rather than a way of coping.

Students reported low use of services and many students reported not knowing about the service they could access. Students who were experiencing psychological distress above a normal range were not more likely to access students support services than students who were reported in the normal range.

The results of the study should be taken into account when considering transitioning students into university life and the services that are offered to students. Students need support during the transition to university. However, not all students are aware of or access the supports that are available. The consideration of students' experience at only one point of their university journey was a limitation of the current study. Future research could examine the experience of university students over there

time at university using a longitudinal approach. This would allow for an understanding of how distress and coping may change.

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## **Introduction**

In 2014, nearly eight thousand students were enrolled in undergraduate papers at the University of Waikato (The University of Waikato, 2014). Of these undergraduates, many students are enrolled in first year papers and are experiencing university life for the first time. University is an important time for individual growth and personal development (Richardson, King, Garrett, & Wrench, 2012). The transition to university is made up of a variety of other changes in a person's life situation. While most students are happy during this time, a portion of students find this time very difficult (McInnis, 2001). This transition period has been found to be a time of increase in experiences of stress (Wilcox, Winn, & Fyvie-Gauld, 2005). Previous research has claimed that the transition to university and the pressure of university life can contribute to increased levels of distress (Andrews & Wilding, 2004). The number of students attending university has increased significantly over the past twenty-five years with an increase in the number of students experiencing significant changes in their lives (Manthei & Gilmore, 2005; Ministry of Education, 2014). If these difficulties and/or stressors are not managed they can impact on students in a variety of ways, including academically, socially, financially, and emotionally (Friedlander, Reid, Shupak, & Cribbie, 2007). Internationally, there is concern about an increased number of students presenting to student health services and identifying levels of distress (Andrews & Wilding, 2004; Bernhardsdóttir & Vilhjálmsón, 2013). Therefore, it is important to consider the transitions that are occurring, the effects that this may have on the well-being of students, and how they cope with these changes.

### ***Psychological distress in first-year university students***

Change, whether considered positive or negative, requires some form of adjustment that can be stressful for some people (Frydenberg, 2008). Both the appraisal and response to such change and growth can interact, causing a stress reaction (Brougham, et al., 2009). Stress is the response to a stressor and can come from many sources. A stressor is a stimulus that places extra demand on an individual and requires an adaptive response (Gerrig, Zimbardo, Campbell, Cumming, & Wilkes, 2009). It can be either an internal or external demand made upon a person (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005). Stressors are not always physical, but can be emotional and/or psychosocial, acute, or chronic.

Psychological distress can be defined as the presence of psychological symptoms which cause discomfort or poor mental health (Verger, et al., 2009). Indicators of psychological distress include increased symptoms of anxiety, depression, and substance use (Verger, et al., 2009). High levels of stress are associated with psychological distress (Olsson, Nordstrom, Arinell, & von Knorring, 1999).

### ***Prevalence of stress and psychological distress in university students***

It is thought that stress is a normal part of everyday life including being a student (Dusselier, et al., 2005) and research has reported increased levels of psychological distress within the university population (Bewick, et al., 2010). International research indicates that between 75% and 80% of university students are experiencing moderate levels of subjective stress (Brougham, et al., 2009). International research regarding depression in university students has shown that self-reported depression is prevalent among this cohort, with an estimated 20% of students experiencing depression through their college years (Lester, 1990; Vredenburg, O'Brien, & Krames, 1988). Longitudinal research from the United States reports that over one third of the college students have experienced a mental health problem (Zivin, Eisenberg, Gollust, & Golberstein, 2009). Kitzrow (2003) reports that 28% of first-year college students report feeling overwhelmed while eight percent report being depressed. Internationally, in Australia and further afield, university students are reporting levels of stress and psychological distress that is typically higher than that of the general population and non-university peers (Bewick, et al., 2010; Richardson, et al., 2012).

Andrews and Wilding (2004) examined the relationship between student achievement and life difficulties, anxiety, and depression. The study consisted of undergraduate students who completed surveys on two occasions, one-month prior to starting university and during the middle of year two. The final sample consisted of 351 students in which 75% were female and 97% were under the age of 21. The study included measures of anxiety, depressive symptoms, and adverse life experiences. The results of the study showed that by mid-course, 9% of students who did not report clinically significant symptoms before entry became depressed, while 20% become anxious at a clinically significant level. Approximately one third of students who reported anxiety or depressive symptoms prior to starting university saw a reduction in their

symptoms by the middle of their second year. While some students with prior mental health concerns saw a positive change, the majority did not.

The changes in distress prior to starting university was also examined by Bewick, et al. (2010). The researchers examined how university students' well-being changed as they progressed through undergraduate studies at a United Kingdom university. The results reported that students' well-being was significantly more strained when starting university than before they started. At no time throughout the course of the study did students' level of distress return to the level that it was before starting university. The highest level of strain was found during the first semester of both years one and two, with a significant decrease in the second semester. However, overall well-being decreased across the course of the study. In line with previous research by Andrews and Wilding (2004), the results indicated that the university experience elicited anxiety concerns more often than depressive concerns. However, Bewick et al. (2010) found that depressive symptomology was more visible during the final year of study than early on.

The research by Bewick et al. (2010) did not find any gender differences in rates of psychological distress. However, previous research has found that female students tend to report more stress than male students even when reporting a similar number of stressors (Dusselier, et al., 2005; Gall, Evans, & Bellerose, 2000). This is supported by Patton, Coffey, Posterino, Carlin, and Bows (2003) who report that females are more likely than males to develop a disorder when experiencing personal threat and loss.

Stallman (2010) found mature students appeared to be more resilient, showing lower levels of psychological distress than younger students. However, Briggs et al. (2012) identify that mature students may have difficulty with this transition due to the large social disparity with the other students. Briggs et al. (2012) also identify that students from minority ethnic groups may also experience this social displacement.

The previous research shows a clear theme, that university students experience a high prevalence of psychological distress, but how is this compared with the general population? Stallman (2010) examined psychological distress in Australian university students in comparison to the general population. The research consisted of 6479 students across two universities. Students in the study completed measures of financial stress, psychological distress, disability, attribution of psychological distress and general

demographic information. Most students surveyed showed an elevated rate of psychological distress (83.9%), with around one-fifth of students scoring within the threshold of a probable significant mental illness (19.2%). This data was age-matched and compared to statistics from the general population as collected in Australian national surveys. University students reported significantly higher rates of psychological distress than the general (age-matched) population. Only 3% of the general population reported distress indicative of a serious mental illness compared with the 19.2% of university students; while 29% of the general population showed elevated rates of psychological distress. This difference between the university population and the general population suggests that the university population is at a high risk of psychological distress.

Leahy et al. (2010) compiled results from three studies to compare distress levels of Australian university students with the general population. The study consisted of 955 students from the University of Adelaide across four areas of study: psychology, medicine, mechanical engineering, and law. This university sample was compared to a sample of 1515 age-matched peers from a population survey. The data collected consisted of demographic information and a measure of psychological distress. The results showed 48% of students were experiencing an elevated level of psychological distress compared to 11% of age-matched peers. In other words, university students were four times more likely to report distress than their peers in the general population. One in ten university students reported having received a diagnosis or been treated for a mental health problem with female students reporting higher rates than male students (male 7%, female 14%). High rates of distress did not vary significantly across fields of study. The year of study was not shown to have an influence on students' levels of distress. A strong correlation was found between students' concerns about their perceived level of distress and their measured level of distress, indicating students had some insight into their well-being and mental health.

Samaranayake and Fernando (2011) examined life satisfaction and associations with depression and anxiety in third year undergraduate medical students in New Zealand. The study included 594 medical students and 339 students from health sciences, nursing, and architecture. Participants completed questionnaires on life satisfaction, depressive symptoms, and anxiety symptoms. The results found 15.4% of medical students and 19.5% of other students reported life dissatisfaction, 20.7% of all

students reported symptoms indicative of depression, and 20.0% of students reported symptoms indicative of anxiety. Higher rates of depressive symptoms were reported among female students surveyed compared to male students. Samaranayake and Fernando (2011) found students in the study who reported life dissatisfaction were more likely to be experiencing symptoms indicative of depression or anxiety than students were reported to be satisfied or neutral. These results show support for a relationship between life satisfaction and depression/anxiety.

More recently, Samaranayake, Arroll, and Fernando (2014) examined sleep disorders, depression, anxiety, and life satisfaction in university students. Over 1000 students completed the survey from six different schools of a New Zealand University. Students completed a questionnaire that included standardised measures of anxiety, depression, alcohol use, sleep disorders, and life satisfaction. The study found high levels of diagnosable sleep disorders in students, with more than one third of students reporting sleep concerns that lasted for over a month. The most common symptoms reported as contributing to these sleeping problems were depression and anxiety symptoms. Maori and Pacific Island students reported higher rates of sleep concern than either European or Asian students did. Approximately one in five students (19.7%) reported anxiety symptoms to a clinical level while slightly less (17.3%) reported depression symptoms to a clinical level.

### ***Physical distress***

Research shows that exposure to multiple and cumulative stressors are associated with the experience of subjective health complaints (Gerber & Pühse, 2008; Murberg & Bru, 2004; Torsheim, Aaroe, & Wold, 2001). Subjective health complaints refer to unexplained symptoms that one might experience (Eriksen & Ursin, 2004). This can include symptoms such as headaches, backaches, stomach pain, nervousness, dizziness, fatigue and/or sleeping difficulties (Haugland & Wold, 2001; Murberg & Bru, 2004). Previous research has reported a relationship between stress and somatic symptoms with the assumption that stress can increase one's risk of somatic symptoms (Greene & Walker, 1997). Grace (1997) reports that stress contributes to many physical symptoms in the university population, including headaches. Greene and Walker (1997) examined somatic symptoms among adolescent students in Norway. One in five students reported being affected by psychosomatic symptoms. These symptoms were shown to be related to concerns around academic achievement. This supports research

by Torsheim and Wold (2001) who related academic related stress to reports of somatic symptoms. Greene and Walker (1997) found that female students were more likely to report psychosomatic symptoms than male students. Interpersonal conflict was also found to be related to psychosomatic symptoms. It is important to acknowledge that such research cannot infer causality, and it is not clear whether distress causes the presentation of somatic symptoms or vice versa.

### ***Transition, change and stressors which contribute to distress***

Transitions can be described as experiences of change and shifts of identity (Crafter & Maunder, 2012; Maunder, Cunliffe, Galvin, Mjali, & Rogers, 2013). These shifts form from experiences of uncertainty when individuals are faced with situations which differ from their norms. In such situations, individuals need to adapt or change to fit in with the new environment and experiences. This change is considered an adjustment or transition (Maunder et al., 2013).

While many transitional phases occur during a person's life, the transitional phase between adolescence and adulthood is considered one of the most significant (Young, et al., 2011). During this time, young people are experiencing a change in roles (Brougham, Zail, Mendoza, & Miller, 2009) and a change in responsibilities (Moksnes, Rannestad, Byrne, & Espnes, 2010). The experience of change and transition is an important step in the development from an adolescent who is dependent on other people, to that of an adult who is independent and capable of making life decisions (Brougham, et al., 2009). For many, the transition between childhood and adulthood comes with many other changes and responsibilities such as the transition to university. Educational transitions are common as people move through different stages of their education (Hussey & Smith, 2010). Crafter and Maunder (2012) suggest that the transition to university is a time of personal transformation and time of establishing a new sense of identity. This is true for all educational transitions including the move from primary school to intermediate school (Lucy & Reay, 2000) with many younger students reporting a negotiation of their sense of self during these earlier educational transitions.

During the transition to university, students are trying to navigate and plan for their futures (McNamara, 2006), effectively establishing their future careers, job opportunities, and income for their adult lives (Arnett, 2000). It is a large transformation which is made up of many small changes, involving many challenges and new

experiences (Briggs, Clark, & Hall, 2012; Hussey & Smith, 2010; Verger, et al., 2009). For some people, the transition to university involves a change of school and a change of learning approaches, with an increase in school demands (Moksnes, et al., 2010). However, the transition is not just about an adaptation to different academic expectations, but also about adaptation to a new environment, a new way of learning and an increase in individual responsibility (Brinkwood, McCann, Matthews, & Nordstrom, 2009). For some students, this change may involve moving cities or even countries and adapting to a new way of life. This change in one's immediate environment creates extra uncertainty (Crafter & Maunder, 2012). For some people, it will be their first experience residing out of the family home, managing their finances, and managing their own learning (Brougham, et al., 2009). This time can result in a significant social change with students leaving family, friends, and other important people, reducing contact with important social support systems (Dwyer & Cummings, 2001). Some students may be required to add employment into their experiences of change. Some students will come straight from high school; others may have taken years off to work, start a family, travel, or seek other things before deciding to start university. Even for mature students, the transition to university is significant as they make the decision to make big changes in their lives (Crafter & Maunder, 2012). Regardless of what one was doing before starting university, one's role has changed (Briggs, et al., 2012). For every student, the first year of university is a time of change and the experience of new possibilities and new opportunities (Richardson, et al., 2012). These changes not only include experiences, but also a change in attitudes and values. During this time a shift in knowledge, beliefs, understanding and skills can be experienced (Hussey & Smith, 2010).

There has been an increase in interest in understanding the student transition to university. Much of this research has been international, with limited research within a New Zealand context. Briggs et al. (2012) completed an analysis of both primary and secondary data from previous studies considering the challenges experienced by students during their transition to university internationally. From this analysis, the researchers compiled a list of factors that promote a positive transition to university. This list of factors is shown in Table 1. Briggs et al. (2012) also found several key transition issues. One of these key issues was that students often have difficulty predicting what university life will be like, with students often expressing unrealistic expectations which differed from their actual experiences. Both Briggs et al. (2012) and

Cook and Leckley (1999) identify that these differences were mostly related to academic workload and class sizes, with many students who come from school underprepared for the independent type of study that university requires. During this time, learning is less structured and students need to manage their own time and many students have not had to take responsibility for their own learning prior to this time (Cook & Leckley, 1999).

Table 1. *Factors that facilitate positive transition (Briggs, Clark, & Hall, 2012)*

**Factors that facilitate positive transition**

- Aspiration to be a university student, preferably starting early in life
- Imagining oneself realistically as a student
- Clear, reliable systems of support leading up to higher education application
- Support from school, college and university targeted to the individual
- One-on-one encouragement
- Access to university students and staff pre-entry
- Access to a range of pre-university experiences for applicants and their families
- Induction activities that combine social and academic purposes
- Class activities that encourage interaction with staff and other students
- Sustained programme of induction to encourage 'belonging'
- Interaction with university staff during the first year
- Help in developing independent learning skills, pre- and post- entry.

Brinkwood et al. (2009) support the idea that many students are not prepared for university life. The study surveyed Australian university students six months into their first year and eighteen months after they completed university. Lecturers and tutors were also surveyed to compare expectations. While students in the study knew that university life would differ from high school, they did not actually expect it to be different. A concern raised was an expectation from university staff that students should not be affected by outside activities such as the need for employment or taking care of a family.

The mismatch between expectations and reality is further supported by Maunder et al. (2013) who focused on the student voice and understanding how students experienced their transition to university as individuals. The qualitative study, which included first and second year students, found three common themes. The first

theme involved students having internalised views which formed their expectations of university life. These expectations guided their interpretations of their university experiences. Another theme found was the mismatch between students' experiences of university and their expectations prior to starting university which further supports the themes expressed by Briggs et al. (2012) and Cook and Leckley (1999). The third theme involved students' developmental changes which students stated focused around identity, with students reporting changes in their sense of self.

The key issues raised can impact on how the transition to university may be for students. McInnis et al. (1995) report that the first experiences of university students were the most important. These initial experiences impact on students' continuing in higher education. The transition to university is one of the most significant steps that adolescents make towards adulthood and being independent (Richardson, et al., 2012). However, the potential negative experiences of this transition can impact on opportunity for growth and well-being.

### ***Stressors that students experience***

McInnis (2001) identifies that students are often most vulnerable during this first year of university life. Brougham et al. (2009) found that first-year university students report greater levels of stress than more senior students. University students experience a variety of stressors which can impact on their well-being and contribute to symptoms of psychological distress (Eisenberg, Golberstein, & Gollust, 2007). Both the changes that one experiences during the transition to university and some of the pressures associated with university life can cause stress and psychological distress. The range of stressors that students experience can have impact on their development and can result in negative long-term consequences. Stress that is not managed can have a significant impact on both physical and psychological health. Stressful life changes have been suggested as a causal factor for a range of other problems (Levi, 1971). Psychological distress can impact on academic success (Kessler, Foster, Saunders, & Al, 1995) and be an obstacle to academic performance (Dusselier, et al., 2005). Concerns with academic performance can increase stress (Bitsika, Sharpley, & Rubenstein, 2010). Demanding life challenges have been identified as a strong predictor of developing depressive symptomology (Bitsika, et al., 2010).

Research suggests that students experiencing the most changes are more likely to report lower levels of well-being. These include changes such as when students relocate and move cities, when students come from low socio-economic families, when students are the first of their family to attend university, and when students start university as mature students (Bitsika, et al., 2010; Goto & Martin, 2007; Lewis, Dickson-Swift, Talbot, & Snow, 2007). Bitsika et al. (2010) reported a variety of both positive and negative changes acknowledged by students. Negative changes included a reduction in exercise, less healthy eating, increase in fatigue, headaches, an increase in anxiety and depressive symptoms, and some fears for the future. Positive changes included reports of finding purpose, enjoying study, enjoying the new demands, a change in thinking, meeting new like-minded people, an increase in organisational skills, and becoming generally more productive.

Bitsika et al. (2010) examined sources of stress for Australian university students. The major changes reported revolved mainly around personal relationships. Students reported a reduction in their usual sources of pleasure and enjoyment, with students often having to decrease the amount of quality time they could spend with significant others in their lives. Dusselier et al. (2005) report additional stressors related to residing in the halls of residence as environmental stressors such as unavailable spaces to study, roommate conflict and sleep difficulties.

Over the past 25 years, the cost of education has steadily increased in New Zealand (Manthei & Gilmore, 2005). Changes in funding can create extra pressure in the lives of some students (Bewick et al., 2010). Students now often borrow large amounts of money from the government to cover the cost of fees. In 2011, the average student loan debt was \$24,405 (The New Zealand Union of Students' Associations, 2014). Internationally, there has been an increase in financial challenges with many students needing to work alongside university to cover costs of university (Grace, 1997; Lewis, et al., 2007; Manthei & Gilmore, 2005). The New Zealand Union of Students' Associations (2014) reports that the amount offered by a student allowance is not nearly enough for students to survive and with the changes of entitlement requirements many students cannot access this financial assistance. Costs of weekly living have increased significantly over the past ten years; however, the level of financial support has not increased to the same degree (The New Zealand Union of Students' Associations, 2014). A survey of 5000 students in New Zealand found students worked on average 14 hours per week (The

New Zealand Union of Students' Associations, 2014). This was also similar to results by Manthei and Gilmore (2005) in which New Zealand students worked on average 13.8 hours per week, and slightly more than that reported McInnis (2001) in which Australian students worked on average 12.5 hours per week. The New Zealand Union of Students' Associations (2014) discuss how students cannot rely on working only during the summer break, but also need to be working throughout the semester as well. Previous New Zealand research reports that half of students report that employment during university had a negative impact on their academic work in the long term (Manthei & Gilmore, 2005) and one-third of Australians reported this effect (McInnis, 2001). Other research has identified that employed students were more likely to feel like they were struggling academically than their non-working peers (Moreau & Leathwood, 2006). Students have reported that given the opportunity they would prefer not to work so that they could focus full-time on their study and grades (Manthei & Gilmore, 2005). For many students, working alongside study meant that the university year was busy. Manthei and Gilmore (2005) reported that as many as one in four students had to work two jobs alongside their study. Lewis, Dickson-Swift, Talbot, and Snow (2007) identified that around 50% of students who work end up missing classes and have limited access to other services. Students often report that they limit social activities to manage the demands on work and study (Moreau & Leathwood, 2006). Some students select their course options around their work schedule due to the financial pressures (The New Zealand Union of Students' Associations, 2014). Previous researchers have acknowledged that the university environment needs to be more accommodating to the fact that some students do need to be employed alongside their studies (Manthei & Gilmore, 2005). Moreau and Leathwood (2006) acknowledges that consideration of employment needs is often left out of education policy writing, stating that many undergraduate three-year full-time degrees are not flexible to the working student. Students have reported that university staff are not always accommodating to their need to work (Brinkwood et al., 2009). It is often acknowledged that working long term can have a negative effect on students academically; how to manage this need to work is not often addressed.

Previous research has identified financial concerns as a significant stressor for students (Al-Dubai, et al., 2011; Andrews & Wilding, 2004; Bitsika, et al., 2010). Andrews and Wilding (2004) reported that 20% of students had major financial difficulties while Stallman (2010) found most students report some level of financial stress, with 14.9% of

students reporting it as a constant stressor. Students reporting high stress have been found to be worrying about how they might make ends meet with some needing to take out additional loans or borrow from their family (Bitsika, et al., 2005). Some students have reported needing to live with family or get a job to help support them (Grace, 1997; Henning, Hawken, & Hill, 2009). Living away from home can have a significant financial impact on students (Lewis, et al., 2007). The New Zealand Union of Students' Associations (2014) report that the combined pressure of financial stress, extra working hours, and study has been associated with increasing stress and anxiety. Andrews and Wilding (2004) report difficulties such as financial stress can increase the levels of anxiety and depressive symptomology in students. Stallman (2010) reports students with financial stress were more likely report symptoms of psychological distress than students with no financial stress. Financial difficulties could have a flow on effect in which students could not afford to do many pleasurable activities (Bitsika, et al., 2010). Dusselier et al. (2005) however, did not find financial concerns to be a significant stressor in the life of students.

### ***Previous life events***

Research has indicated that a relationship exists between the number of stressors a person encountered in the year before starting university and psychological distress during the first year (Marx, Garrity, & Bowers, 1975). Young people are often exposed to a variety of significant life events. These life events can have an important impact on a person's development, well-being, and quality of life (Grant, et al., 2003). Significant life events can impact on one's mood, eating behaviours, physical health, motivation, social actions, and how one views oneself (Pennebaker, Colder, & Sharp, 1990).

The experience of stressful life events has been found to be a risk factor for the development of depressive symptomology and depression (Goodyer, 2001; Kessler, et al., 1995; Monroe & Simons, 1991). Reportedly, it is common for individuals with a diagnosis of a depressive disorder to report at least one significant life event prior to a depressive episode, with life events commonly preceding a depressive episode (Goodyer, 2001; Patton, et al., 2003). Longitudinal research has identified that the experience of life stressors typically occurs before depressive symptoms, including the first experience of symptoms, re-occurrence of symptoms, and exacerbation of symptoms (Ge, Conger, & Elder, 2001). Longitudinal research involving youth found

people who reported more stressful life events in the previous twelve-month period were more likely to report more significant depressive symptoms (McCarthy, Vander Stoep, Kuo, & McCauley, 2006). Other research has shown that adolescents who experience depression also report recent life events combined with chronic strain (Goodyear, Kolvin, & Gatzanis, 1987; Rowlinson & Felner, 1988). Robertson, Xu, and Stripling (2010) examined adverse life events and substance use in sample of female adolescent offenders and found that higher rates of exposure to adverse life events was associated with higher rates of substance use, particularly marijuana use. Neither family related events nor trauma related life events were associated to alcohol use. Instead, a high prevalence of alcohol use was suggested regardless of life events experienced. In other words, there was a ceiling effect for alcohol use.

In relation to students, Olsson et al. (1999) examined the relationship between stressful life events and depressive disorder in high-school students. The study consisted of 177 adolescents with a diagnosis of depression and 177 matched peers without a diagnosis of depression. The results showed that students with a diagnosis of depression had experienced more negative life events than their peers. These results were significant to severe depression rather than dysthymia. From the research, it cannot be determined whether depression is a result of life events, or if life events are a result of maladjustment and depressive experiences. It may also be that people who are depressed are more likely to think about, notice, and reported more negative life events. Patton et al. (2003) suggest that symptoms of depression may cause people to change the situations one might put themselves in as much as life events may impact on mood. Olsson et al. (1999) note that ongoing stressors had more of an influence on adolescents than a single stressor. Such ongoing stressors included situations such as the strain of unemployment on families, the experience of chronic illness, and family/interpersonal conflicts.

Further research in relation to life events and students examined the role of previous life events in predicting depressive symptoms, independently of previous symptomatic experiences. Patton et al. (2003) examined data from the Victorian Adolescent Health Cohort study and consisted of two classes from each of 44 different schools. Participants completed measures of current depression and previous life events which were adapted from the List of Threatening Experiences Questionnaire. While not everyone who experienced negative life events went on to develop depression, the

results found that people who developed depression were more likely to have experienced previous negative life events. Multiple events are more likely to be associated with depression than single life events. The results indicated that a relationship exists in which earlier depressive symptomology also predicts the experience of later significant life events and future depressive disorder.

Patton et al. (2003) found some gender differences, with females more likely than males to develop significant distress when experiencing personal threat or loss. Brougham et al. (2009) reports that the association between stressful life events and depressive symptoms is stronger in females than in males. This is supported by Ge et al. (2001) who found that the impact of stressful life events on depressive symptoms is more significant in adolescent girls than in boys. However, research by McCarthy et al. (2006) identified this relationship to be stronger in male participants than in female participants but this was related to the female participants all having high rates of depressive symptomology regardless of life experience.

While much research has identified a relationship between the experience of significant life events and psychological distress, other research has not found this effect. Gall et al. (2000) reported that the number of life events was not a predictor of well-being among students. It is also important to note, that while stressful life events may increase the likelihood of experiencing psychological distress, not every person who experiences significant life events experiences this reaction.

The previous research shows that university students not only experience a high prevalence of stress and psychological distress, but also that these rates are higher than that found in the general population. Psychological distress can include depressive symptoms, anxiety symptoms, distress, and the experience of somatic complaints. During the transition to university students are experiencing a large array of changes and potential stressors. These changes and stressors can add to the experience of psychological distress by students. Research has examined the relationship between previous significant life events and the experience of distress in students with some differing results. These results show the importance of research aimed at examining psychological distress and stressors in the university population.

### ***Coping strategies and accessing resources***

While stress may be considered a normal part of student life, it can impact on how one copes with the increased demands during this time (Arthur, 1998). Every day, people are faced with potential stressors. However, not every person who experiences stress experiences negative reactions. This is related to how people cope. When faced with a stressor, people choose a coping strategy or a way of dealing with the stress they are experiencing (Frydenberg, 2008). Coping is defined as behavioural and cognitive efforts to manage stressors (Lazarus & Folkman, 1984). There are many ways to cope with the stressors people encounter and everybody responds differently (McNamara, 2006). Coping strategies are behaviours people use to master, tolerate, reduce, or minimise the experience of stressors. Coping plays an important role in adapting to stressful life events and reduces the impact that stress may have on one's wellbeing (Lazarus & Folkman, 1984). However, unhelpful coping strategies could be counterproductive and cause an increase in stress. Late adolescence to early adulthood is a time when maladaptive coping strategies may develop (Aldwin, 2009). The way one responds to stress has been found to be a predictor of developing anxiety during the adolescent period (Flynn & Rudolph, 2011). Effective coping can result in positive development and promote healthy relationships, whereas the use of unhelpful coping strategies may result in dysfunctions (Flynn & Rudolph, 2011).

While there are many ways of categorising coping strategies, historically common dimensions include problem-solving coping and emotion-focused coping (Carver, 1997; Felsten, 1998; Folkman & Lazarus, 1985). Problem-solving coping strategies are ways of dealing with the sources of stress (Litman, 2006). These are typically behaviourally based and typically considered as more adaptive modes of coping (Folkman & Lazarus, 1985). These strategies involve making plans, finding information, acting, and seeking instrumental help. Emotion-focused coping strategies are ways of dealing with the thoughts and feelings of stress (Litman, 2006). These typically involve the expression of emotion and altering of expectations in response to a stressful or problematic situation. People who engage in emotion-focused coping try to regulate the emotions that result from the stressor. These strategies include venting, self-blame, blaming others, engaging in wishful thinking, seeking emotional support, and trying to control one's own emotions.

Emotion-focused coping can be separated into active coping or avoidance coping. With avoidant emotion-focused coping, a person engages in activities to avoid directly dealing with the issue or stressors at hand. This category includes distraction, withdrawal, denial, social diversion, behavioural disengagement, alcohol use, and substance abuse (Lazarus & Folkman, 1984; Tamres, Janicki, & Helgeson, 2002). With active emotion-focused coping, a person attempts to change the way they think about the stressor. This includes positive reframing and acceptance. Active emotion-focused coping is thought to be a more effective coping strategy than avoidant emotion-focused coping, which is considered as a psychological risk factor.

### ***The use of coping strategies***

Research has shown a positive relationship between active coping strategies and good psychological health (Lu, 1991) and lower levels of substance use (Robertson, et al., 2010). Avoidant coping has been associated with higher levels of substance use (Robertson, et al., 2010). The use of emotion-focused strategies, especially avoidance strategies, has been associated with negative outcomes and negative adjustment indicators such as depression, anxiety, and poor health (Flynn & Rudolph, 2011; Ingledew, Hardy, & Cooper, 1997). The use of problem-solving strategies has been found to be associated with positive outcomes in university. Perceptions of stress and academic load have been shown to have a significant effect on coping strategies used, with academic stress related to the use of emotion focused strategies (Kariv & Heiman, 2005).

In order to explore the coping strategies that students use during their transition to university life, Richardson et al. (2012) surveyed students about their experiences. The study found that students who reported themselves as 'thriving' were more likely to report using strategies in which they acted by dealing with the stressor and then allowing themselves time to relax. Action responses included focusing on the task, asking for help, and talking to others. Students who were 'just surviving' by self-report were more likely to report using avoidance and passive type strategies which did not improve their feelings about the stressor. Avoidance and passive responses included ignoring the situation, putting things on hold, and crying. Students who reported themselves as 'just surviving' were more likely to report being unable to manage and balance the different demands such as study, work, family, and personal life. They reported negative views about their own abilities. On the other hand, students who

reported themselves as 'surviving' understood that life was more complicated and there were more demands, but tried to manage these in a positive way. They believed in their ability and reported good time-management as well as ensuring they had time to do positive and fun activities. 'Thriving' students reported themselves to be more engaged more than students who were 'just surviving', intellectually, socially, and emotionally. While academic skills are considered important to the transition period, other skills such as interpersonal skills, social skills, stress-management and organisational skills were found to be just as important during this time.

Sources of stress and coping strategies in medical students was considered by Al-Dubai, Al-Naggar, Alshagga and Rampal (2011). Thirty-six medical and medical science students at a Malaysian university completed measures of perceived stress, stressors experienced, coping strategies as well as socio-demographic information. A high prevalence of stress was found in this cohort with just under half (46.3%) of students reporting high stress levels. The study found that students were more likely to report using active coping strategies such as active coping, reframing, planning and acceptance than avoidant strategies such as denial, self-blame, and alcohol or substance use. However, it is important to acknowledge that some students did use avoidant strategies in response to stressors. Male students were less likely to use active coping and more likely to report higher levels of alcohol and substance use than female students. Older students were more likely to use active coping strategies, planning and reframing than younger students. The research suggests that older students may adapt better to stressors and the university environment. The most common reported stressors by the students in the study were concerns about the future, financial problems, and general academic concerns. A relationship was seen between students' perceived stress and the coping strategies they used. The authors suggest that a student's way of coping may impact on how they perceive the stressor and therefore teaching appropriate coping strategies may reduce stress and stress perception.

Gall et al. (2000) explored the process of adjustment during the first year of university for students from the University of Ontario. The study consisted of 68 students who completed measures of life events, cognitive appraisal, coping, social support, general behavioural, illness and life satisfaction. The results showed that while students were more likely to appraise events negatively early on during entry to university, these tended to reduce as the year went on. The researchers suggest that

early indicators of low well-being may be related to the multiple demands that people experienced during this transition time and acknowledge that these demands come at a time when a person's usual support resources are not available to them. Without such supports the student may rely on avoidant coping strategies in a way of preventing emotional overload. While avoidant coping strategies were added to the students' strategies, they still consistently used active coping strategies. The study found that female students were more likely to use active-behavioural coping strategies than male students. Active-behavioural coping was found to be an important resource for a successful transition. However, the use of active-cognitive coping styles early in the transition was seen to be especially problematic in relation to the academic and dating domains. The researchers suggest that this could be related to students spending too much time thinking about the stressors, which may not be a productive way of dealing with stress when combined with the multiple and conflicting demands of university life. A reliance on active-cognitive strategies may lead to confusion and difficulty sorting through demands. Active-behavioural coping strategies and doing something appears to be a better response for students. This supports the research by Richardson et al. (2012) in which 'thriving' students were more likely to report the use of more action oriented coping strategies.

Expanding on the gender differences noted by Al-Dubai et al. (2011), Kariv and Heiman (2005) reported that females are more likely to engage in avoidant coping behaviours than males. Downing, Chan, Downing, Kwong, and Lam (2008) identified that female students showed better ability to focus attention and problem solving strategies such as scheduling and study aids which increased their ability to cope academically. Other research has shown that female students cope better with the academic changes associated with university than male students (Yau, Sun, & Cheng, 2013). Castagnetti and Rosti (2009) found that female students exerted more effort than male students, which could explain this difference in academic adjustment. Yau, Sun, and Cheng (2013) also found that male students cope better with the social changes associated with university than female students.

Lawrence, Ashford, and Dent (2006) examined gender differences in coping strategies in a group of undergraduate students and reported that male students were more likely to adopt coping strategies that the researchers considered more appropriate than female students. This includes a more direct, active, and positive approach to deal

with stressors and issues. On the other hand, the researchers report that female students were more likely to avoid their issues which resulted in higher levels of depressive symptoms. Male students were more likely to report detaching emotions and the use of emotional inhibition strategies such as bottling up their emotions. Male students were more likely to avoid the use of emotion focused coping strategies, whereas this was the most commonly employed strategy of female students. The research supports a link between coping strategies and self-esteem. Dodgson and Wood (1998) explains this link in that people with higher levels of self-esteem are more likely to perceive a potentially stressful situation as controllable and therefore are more likely to react in a more positive way by focusing on changing the cause of the stress.

The transition between adolescence and early adulthood is an important stage in the development of positive ways of coping. Coping influences how someone responds with stressors they experience. The previous research reviewed identifies that students can access a variety of coping strategies during the transition to university. More active type coping strategies have been shown to have a positive relationship with well-being while more avoidant type coping strategies have been shown to have a negative relationship with well-being.

### ***Accessing Resources/Services***

Access to resources may also impact on a person's coping abilities and can be considered a coping strategy (Gall, et al., 2000) and the importance of access to student support services has been emphasized (Pitkethly & Prosser, 2001). It has been suggested that coping at university can be related to the students' own initiative in seeking support from the available resources (Morosanu, Handley, & O'Donovan, 2010). Access to such resources may influence how well a person can cope with the stressors in their lives. Depending on the level of change one experiences, some of these resources may be limited during this time of a person's life.

Longitudinal research in the United States found low levels of service use in students screened for a mental disorder (Zivin, et al., 2009). Stallman (2010) reported 34.3% of students with an elevated level of psychological distress accessed services. Eisenberg et al. (2007) report that 15% of students access psychological treatment in America. Zivin et al. (2009) link the low service use to a lack of perceived need for help and service intervention. This is concerning due to the high number of students in the

research reporting mental distress. Many of the students who might have benefited from some services did not receive any mental health treatment.

Eisenberg et al. (2007) examined use of mental health services and associated factors in university students. The web-based study consisted of 2785 participants and collected measures of mental health (depressive and anxiety symptoms), academic functioning, perceived need for services, medication use and factors associated with the likelihood of receiving mental health support. The research found that students who reported a level of depressive and/or anxiety symptoms that was suggestive of a disorder were more likely to access services than students who did not screen for these disorders. However, only 36% of these students reported accessing services, meaning many students with depression or anxiety are not getting the support they need. The study identified factors which impacted on students' help-seeking behaviours. They found students were unaware of their options when it came to services available. Students reporting depressive symptoms also identified some beliefs that the use of medication and/or therapy would not significantly improve their symptoms, which the authors suggest linked into the often-poor quality of mental health services. The most common factor found was a lack of perceived need to access services. The authors linked this to beliefs that it is normal to be stressed at university and it is normal to have not enough time. Financial reasons were not a significant factor in accessing services; however, students from low-socio-economic upbringings were less likely to access services. The authors suggest this may be linked to patterns and norms in accessing mental health services from their upbringing.

### ***Social support***

Social support is considered as a protective factor for students beginning university (Friedlander, Reid, Shupak and Cribbie, 2007) and can be considered a moderating variable which promotes the experience of positive affect and a reduction in psychological distress in response to stressful events (Gall, et al., 2000). Social support can include both social resources readily available and students' perceptions of available social resources (Morosanu, et al., 2010). Morosanu et al. (2010) identify that friendships developed at university often become significant sources of support for many students during this time.

Halamandaris and Power (1997) completed a 1-year longitudinal study which found students' perceptions of their social support and social resources was a predictor for psychosocial adjustment to university. Similarly, Holahan, Valentiner and Moos (1995) found that perceived parental support was a predictor of positive adjustment to university. This is supported by Gall et al. (2000) who identified that the size of a students' support network and how happy students were with such support was important for a successful university adjustment across time. Other research has not demonstrated a relationship between positive social support and stress, but has demonstrated a significant relationship between low social support and the experience of stress symptomology (Edwards, Hershberger, Russell, & Markert, 2001). Students consider family support as a way of staying connected with their past lives (McMillan, 2013). Students with family members who had previously attended university could use them as a tool to draw insight into the university experience. For some students, support came from knowing that someone else cared and was interested in their studies (McMillan, 2013).

Social support during the transition was considered by Wilcox et al. (2005). The qualitative study examined 34 students and included students who had completed the first year of university as well as students who had withdrawn during their first year. The study illustrated the importance of students making compatible friends during this time. Relationships formed during this time become students' main sources of social support during the semester. Interestingly, the researchers note that while living in the halls of residence initially can be a positive social support system it can later become a source of stress. Relationships formed with other students within the halls of residence can become strained due to living so closely and lack of privacy. Wilcox et al. (2005) also reported the significance of having to learn to live in a new environment which is quite different from their familiar home environment. The fear associated with the social side of university life and the loss of significant social attachments at home was a contributor to students withdrawing from university.

Paul and Brier (2001) also found that relationships back home had an impact on adjustment to university. Paul and Brier (2001) examined "friend sickness" during the transition to first-year. The study longitudinal consisted of 70 first year students at an American college. Participants completed measures of friend-sickness, precollege predictors, and dimensions of college adjustment. "Friend-sickness: relates to the

experience of loss or change in relationships that formed prior to students beginning university. More than half of the student participants reported moderate to high friend-sickness. The study found that students who were preoccupied and spent a lot of worrying about their precollege friendships were more likely to report a poorer adjustment to college life. This was reported as a demonstration of backward thinking where students were focused on the past. Students who had concerns about making friends showed forward thinking which resulted in less reports of friend-sickness.

Similar themes were reported by Friedlander et al. (2007) who examined the relationship between stress, self-esteem, and social support in relation to the adjustment period to university. The longitudinal study had a final sample of 115 participants with a mean age of 19.01 years ( $SD = 0.55$ ). The large majority of the sample lived in student residences (81%) and were attending a university away from home (90%). Despite being away from their families, 97% of the students surveyed had contact with their parents at least once a week. The study design consisted of an initial survey during the initial semester of university, with a follow-up survey 10 weeks later. The measures included perceived social support, perceived stress, self-perceptions, depression, student adaptation to college, and general demographics. The study found that social support was to be an important protective factor during the university adjustment period (Friedlander, et al., 2007). As perceived social support increased so too did positive university adjustment variables. Social support from friends was shown to have a stronger influence on changes in adjustment over the time measures for many variables. However, overall adjustment was only influenced by family social support. The authors suggest that this relationship may be linked to the role social support can play in coping such as the offer of advice and encouragement supporting the use of active problem solving coping strategies and information seeking. Holahan, Valentiner, and Moos (1995) suggest that such strategies for dealing with environmental stressors can promote positive adjustment.

In relation to gender, Yau, et al. (2013) found that male students reported perceiving university as being a supportive social experience and were able to make friends better than female students. Male students also reported that they adjusted psychologically better than female students. In contrast to the results from Yau, Sun, and Cheng (2013), Smith and Zhang (2009) found that female students reported positive and helpful social relationships developed during this time. Smith and Zhang (2009)

examined student perceptions and experiences during the transition from high school to college. In this study, female students were more likely to report value in their friendships than male students. From the research, it is unclear why there is inconsistency regarding whether there is a gender difference.

Maunder et al. (2013) suggest that supporting the development of social relationships early in the university experience is important in increasing student feelings of support and integration. Offering workshops and seminars can assist in socialising new students (Keup & Barefoot, 2005). Orientation week can benefit new students by introducing them to the university life. However, Clark and Hall (2010) discusses how orientation programmes can induce information overload. Students reported that while orientation is typically a social event, it does not necessarily bring together course specific students and teachers (Clark & Hall, 2010). Students who resided in the halls of residence forged strong relationships which gave them a sense of belonging similar to that of being in a family (Bell, 2014; McMillan, 2013). Positive transition can be supported by positive social relationships which can be formed with other students as well as university staff (Johnson & Watson, 2004; Keup & Barefoot, 2005).

### ***Alcohol use***

Alcohol use is an area of concern in New Zealand and is considered to be a public health issue (Huckle, You, & Casswell, 2011). University students demonstrate a high prevalence of risky alcohol use both internationally (Hallett, et al., 2012; Lorant, Nicaise, Soto, & d'Hoore, 2013; Murugiah, 2012; Reavley, Jorm, McCann, & Lubman, 2011) and in New Zealand (Kypri, Langley, McGee, Saunders, & Williams, 2002; McGee & Kypri, 2004). Students within the university age range are at high risk of preventable illness, injury and/or death due to their engagement in risky health behaviour (Grace, 1997).

### ***Alcohol use in the New Zealand population***

The New Zealand Mental Health Survey examined alcohol use disorders in the New Zealand population (Wells, Baxter, & Schaaf, 2006). The survey found 20% of the population over the age of 16 reported hazardous alcohol intake as measured by the AUDIT scale. Twenty-eight percent of males and 12.5% of females in the general

population reported an AUDIT score of 8 or more, indicating hazardous drinking. Hazardous drinking was reported by approximately two out of five people aged 16 to 24 and approximately one out of five people aged 25 to 44. When considering ethnicities, 35.4% of Maori, 21.4% of Pacific Islanders, and 17.9% of those from other ethnicities reported scores indicating hazardous drinking across all age groups. When considering alcohol use for the past twelve months, Pacific Islanders had a lower prevalence of alcohol use than Maori and those of other ethnicities. Across ethnicities, males reported higher rates of alcohol consumption and hazardous drinking than females.

Foulds, Wells, Lacey, Adamson, and Mulder (2012) examined alcohol problems in the New Zealand population. The survey results found a pattern of hazardous alcohol use as occurring in the majority of the university population. Of these, less than 10% accessed primary care services about their concerns. Huckle, You and Casswell (2011) report that alcohol trends in New Zealand have changed over time. The researchers analysed trends from three national surveys which contained identical measures. Between the first survey in 1995 and the third in 2000, a significant increase was seen in how many drinks a person consumes on an occasion. This was seen across most age groups and both males and females. However, females reportedly consumed lower quantities than males. The authors attribute these findings to several changes that occurred during this time such as the lowering of the alcohol purchasing age and the introduction of beer into supermarkets.

Bramley, Broad, Harris, Reid, and Jackson (2003) examined five New Zealand surveys with an aim to get a better understanding on differences in alcohol use between Maori and non-Maori in New Zealand. The results showed that Maori had a different pattern of alcohol use compared to non-Maori. Non-Maori were more likely to be drinkers and drink on more occasions than Maori across all age groups. However, Maori were more likely to reported consuming a higher frequency of alcohol during an occasion than non-Maori. This supports the research by Wells et al. (2006) who found Maori reported higher rates of hazardous drinking than non-Maori.

### ***Alcohol use in university students***

Alcohol use in university students has been well researched internationally. Hallett et al. (2012) examined the prevalence of hazardous drinking and its effects on a sample of 7237 students from an Australian university. Ninety percent of students

reported themselves to be current drinkers, with female students reporting a mean of 5.1 (SD = 5.0) standard drinks on an occasion and male students reporting a mean of 8.7 (SD = 8.6). Just under half of the students surveyed (48%) reported drinking that was hazardous. Male students were significantly more likely than female students to report hazardous drinking (50.6% vs. 37.5%). Students aged 17-19 years were likely to report more hazardous drinking than students aged 20-25 (44.5% vs. 39.1%).

Reavley et al. (2011) examined alcohol use, associated problems and help-seeking, and understanding of alcohol guidelines in Australian university students in comparison to university staff. The study compared a sample of 774 students (mean age = 24.5, SD = 8.4) and 422 staff (mean age = 44.4, SD = 11.2). Seventy percent of staff reported drinking on two or more occasions a month compared to 48% of students. However, students reported higher levels of risky drinking than staff, with 33% of students reporting 6 or more drinks a session in comparison to 21% of staff. The mean scores recorded on the AUDIT were higher for students at 6.0 (SD = 5.7) than for staff at 5.0 (SD = 4.5). The mean scores on the AUDIT were also higher for male students at 7.0 (SD = 6.4) than female students at 5.4 (SD = 5.2). Both these differences were significant. Approximately two out of five students reported alcohol consumption indicative of a hazardous level. The study found that psychological distress was associated with both negative drinking consequences and risky drinking behaviour.

In order to try to understand the meanings attached to drinking behaviour and binge drinking, Murugiah (2012) completed a study with female university students. The Australian study used a qualitative approach, conducting interviews of 20 female students who were aged between 18 and 24. Nearly all female students in the study (95%) reported drinking at least once every week, reporting more than four standard drinks an occasion. Students reported this drinking pattern as being for social reasons. The young women in the study felt more sociable and confident when they were drunk and more open to approaching other people. An element of peer pressure was also reported within the university environment and with the emphasis on nightlife entertainment. Explanations of the binge drinking element focused around cost, with students reporting that it is too expensive to drink at bars, hence they pre-load before heading out to save money. Interestingly, the students did not understand the concept of binge drinking and tended to relate it to drinking every weekend, or drinking to the point where behaviour became impaired. Those who understood binge drinking as

drinking a large amount of alcohol in a sitting linked it to larger quantities such as ten or more drinks in the space of an hour.

Elements related to alcohol use were reported by Lorant et al. (2013). The researchers examined alcohol use in Belgian college students. Students reported currently drinking an average of 7.0 times a month ( $SD = 6.6$ ), with an average of 2.8 times a month ( $SD = 4.4$ ) where they reported risky drinking behaviour. Students in the study were asked to provide positive consequences to their drinking and the most common responses were socially related, such as being able to approach other people, being more open to conversation and increasing energy to party and dance. Students who lived on campus reported more frequent drinking than students who did not live on campus. This can be linked to the more social factors involved in living on campus. Having a pre-party before another social event was common among students. This was also related to social factors, making students more confident in engaging with other people and linked in with the social element reported by Murugiah (2012).

In an attempt to predict students who would be more likely to be heavy drinkers across the transition based on pre-college influences, Sher, and Rutledge (2007) completed a study on first year college students in America. While there are many factors which influence alcohol use during one's time at college, the study attempted to predict which students would drink heavily prior to them starting university. The researchers found that pre-college variables account for more than 50% of the variance in alcohol use during the first semester, demonstrating that it is possible to identify a group more at risk. High alcohol intake pre-college was the one the most significant predictors of heavy drinking in the first semester, demonstrating an increase in already existing behaviours. Other predictors included students who were male, smoked cigarettes, used other substance, had peers that drunk heavily, valued college parties, identified as Catholic or Christian but were not highly religious, had easy access to alcohol, and did not see themselves at college to seek knowledge. The researchers suggest this information can have a valuable implication by providing potential targets of intervention to reduce alcohol concerns in this cohort. The researchers suggest that some interventions may need to extend back to pre-college.

A high prevalence of dangerous drinking behaviours can be seen in New Zealand university students. Kypri et al. (2002) examined prevalence of harmful alcohol use at a New Zealand university. The study included measures of health, mental well-being,

family relationships, alcohol and substance use and the related consequences, and general demographics. The measures were completed at two different time intervals, shortly after starting university and part-way through the second semester. A high proportion of students reportedly drank in excessive amounts approximately two times per week. Students' scores indicated a slight increase in drinking across time. Of concern were the quantities of alcohol reportedly consumed. Male students reported a mean of 24.2 standard drinks per week with one in three reporting drinking more than 16 standard drinks in one night. Female students reported a mean of 13.5 standard drinks per week with one in 14 reporting more than 16 standard drinks on an occasion. This concerning alcohol consumption was supported by a later study by Kypri et al. (2009), who reported four in five students had drunk alcohol in the previous four weeks, with just under two in five students having had at least one binge drinking episode in the previous week. Sixty-eight percent of students who reported having consumed alcohol reported this drinking to be at a hazardous level.

In order to better understand the alcohol related experience of students, McGee and Kypri (2004) surveyed students at a New Zealand university. The survey included the use of the Alcohol Use Disorders Identification Test (AUDIT) followed by an alcohol-related problem scale and academic problem scale. The results showed common alcohol-related problems which impacted on physical wellbeing, academic functioning, interpersonal relationships and anti-social behaviour. Common physical concerns included hangovers, vomiting and blackouts. Common interpersonal concerns included outbursts and unwanted sexual activity. Academic performance was impacted by students being late to or absent from class. Gender differences were noted, with female students more likely to report emotional based concerns whereas male students were more likely to report anti-social and aggressive concerns. Both male and female students reported an inability to concentrate after a binge drinking episode. The results of the study suggest that concerns related to alcohol consumption are very common in New Zealand university students. These concerns reported are common with alcohol consumption and involve potential harm to students' well-being. Across the reported research, it was evident that while students may not drink every day, when they do drink it is often at a risky level.

New Zealand statistics report a high prevalence of concerning alcohol use within the general population with university students report a higher prevalence of hazardous

drinking than the general population (Foulds, et al., 2012; Fryer, et al., 2011; Baxter, et al., 2006). This supports the consideration of alcohol use as an important concern. The use of alcohol in the university population has been linked to perceived social benefits (Lorant, et al., 2013; Murugiah, 2012). Previous research indicates that a relationship between the experience of both stressors and psychological distress can be related to alcohol use (Reavley, et al., 2011). Alcohol use has been shown to potentially have significant effects on well-being (McGee & Kypri, 2004).

### ***Current Research***

Overall, previous research has examined many different factors related to the transition to university. However, these studies tend to look at single aspects of the transitional stage. Internationally, the transition to university is an area of increasing research. However, research within a New Zealand context is limited. It is useful for universities to understand student experiences during their transition to university in relation to students' experiences of psychological distress, the coping strategies they use, and the resources that they access.

The aim of the current research is to provide an understanding of the transition to university for first-year students at the University of Waikato, and the factors which were associated with both positive and negative adjustment. The research also aimed to identify what coping strategies and resources students' access during their transition and experiences of stress. In forming an understanding of the transition, a variety of relationships were explored, including those among psychological distress, previous life stressors, change, coping strategies, resource access, and alcohol use. The study looked at these issues from an exploratory angle due to the inconsistent results in the some of the previous research.

The current research focused on the following hypotheses:

- Students from the minority groups will experience more distress during the first year of university than students from the majority groups. In this study, this includes:
  - o Non-New Zealand European students will experience more distress during the first year of university than New Zealand European students.

- Mature students will experience more distress during the first year of university than younger students.
- Students who are experiencing significant changes will experience more distress during the first year of university than students who are not. In this study, this includes:
  - Students who self-report a higher amount of change will experience higher levels of distress than students who report a lower amount of change.
  - Students who moved towns to attend university will experience more distress during the first year of university than students who did not move town.
  - Students who are living out of the family home for the first time will experience higher levels of distress than students who are not.
- Students who experience significant stressors will experience higher levels of distress. In this study, this includes:
  - Students who are working alongside university or experiencing financial difficulties will experience more distress during the first year of university than students who are not.
  - Students who report significant life events having occurred in the twelve months prior to starting university will experience more distress than students who do not report significant life events. Students who report more significant life events will reported higher levels of distress than students who reported less significant life events.
- Students who report higher levels of psychological distress will report higher levels of concerning alcohol use.
- Students who report lower levels of distress will report more active coping strategies and the use of resources than students who report higher levels of distress.

## Methods

### ***Recruitment***

Participants were students at the University of Waikato. The procedures for the research and participant recruitment were approved through the School of Psychology Research and Ethics Committee at the University of Waikato. Posters were displayed on noticeboards throughout the University of Waikato campus (Appendix 1). Flyers were emailed to students enrolled in first-year papers and residing in the halls of residence (Appendix 1). The researcher also introduced the research in first year paper lectures, and lecturers provided flyer information to interested students. Tauranga students were emailed the flyer through the student services email. The posters and flyers provided interested students with a link in which they could access the research information sheet and the online survey. The criteria for inclusion in the research required students to be enrolled at the University of Waikato and currently be in their first year of university study.

### ***Participants***

The current sample consisted of 135 first-year students at The University of Waikato who were enrolled in Semester B of 2014, or Semester A of 2015. The University of Waikato (2014) reports the university population was made up of 43% ( $n = 58$ ) male students and 57% ( $n = 77$ ) female students during the year 2014. The current study was made up of 30% ( $n = 41$ ) male students and 70% ( $n = 94$ ) female students. The median age of all participants was 19 years old, with ages ranging from 17 years to 64 years. The percentage range of participant ages is shown in Figure 1. The median age of male participants was 18 years, ranging from 17 years to 43 years. The median age of female participants was 19 years, ranging from 17 years to 64 years.

The majority of students who participated in the survey were New Zealand European (68.1%,  $n = 92$ ). Other ethnicities included Maori (12.6%,  $n = 17$ ), Asian (7.4%,  $n = 10$ ), Pacific Islanders (3.0%,  $n = 4$ ), Indian (3.0%,  $n = 4$ ), or of another ethnicity (5.9%,  $n = 8$ ). The University of Waikato (2014) report ethnicities by equivalent full time student (EFTS) as New Zealand European (44.7%), Maori (18.4%), Chinese (10.2%), Pacific Islanders (4.7%), Indian (3.7%) and other ethnicities (18.3%). In the current study, New

Zealand Europeans are over-represented while other ethnicities were under-represented in the current study.

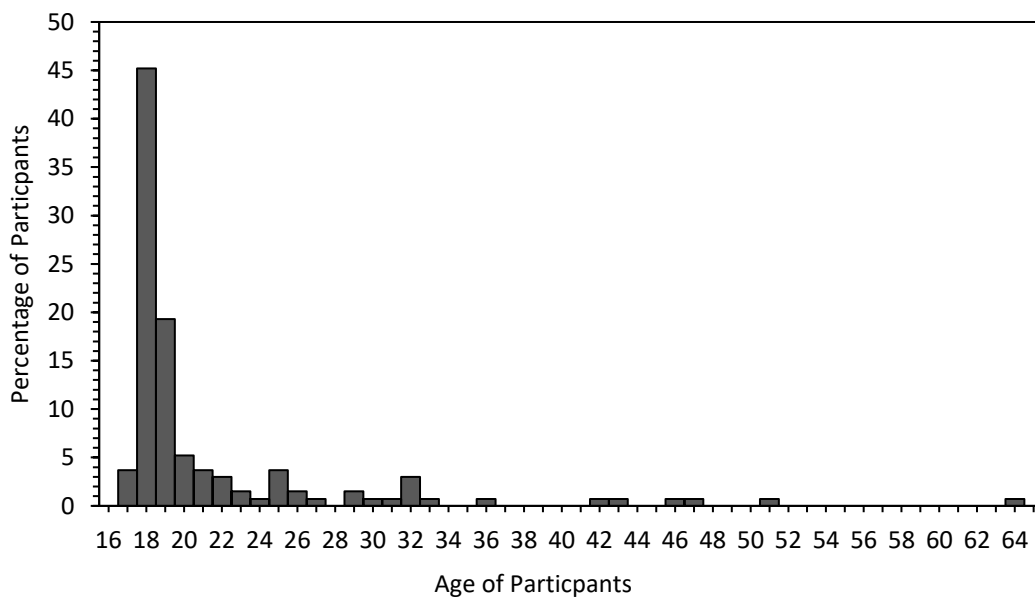


Figure 1. Age of participants

The majority of students identified their sexual orientation as straight or heterosexual (88.9%,  $n = 120$ ). Other sexual orientations reported included bisexual (4.4%,  $n = 6$ ); lesbian, gay or homosexual (1.5%,  $n = 2$ ), or other (3.7%,  $n = 5$ ) while some students did not specify their sexual orientation (1.5%,  $n = 2$ ). The majority of students reported their current relationship status as single (62.2%,  $n = 84$ ) while 18.5% ( $n = 25$ ) reported being in relationship but not living together and 12.6% reported being in relationship and living together. A small percentage of students reported being married (3.0%,  $n = 4$ ) or currently divorced (0.7%,  $n = 1$ ). Of the 11.1% ( $n = 15$ ) of students who had children, the average number of children was 2, ranging from 1 child to 5 children.

The majority of students reported their highest educational qualifications as NCEA Level 3 or equivalent (71.9%,  $n = 97$ ). Other students reported NCEA Level 2 or equivalent (8.1%,  $n = 11$ ) and NCEA Level 1 or equivalent (1.5%,  $n = 2$ ). Some students reported having another second school degree obtained overseas (8.1%,  $n = 11$ ) or another higher-level qualification (7.4%,  $n = 10$ ) while 0.7% ( $n = 1$ ) of participants did not specify their highest level of education.

## **Materials**

The materials used in this study were:

- Recruitment poster and flyer – *Appendix 1*
- Research information sheet and consent form – *Appendix 2*
- List of service providers – *Appendix 3*
- Demographic questionnaire - *Appendix 4*
- Change Questionnaire – *Appendix 5*
- College adjustment test - *Appendix 6*
- Access to resources questionnaire - *Appendix 7*
- Recent life events questionnaire - *Appendix 8*
- Brief COPE - *Appendix 9*
- Alcohol use disorders identification test – *Appendix 10*
- Depression, anxiety, and stress scale 21 – *Appendix 11*
- SF-8™ health survey – *Appendix 12*
- Positive experiences

### **Demographic Information, Current Situation, and Change Ratings**

Demographic information was collected in two parts. In the first part, general demographic information was collected (Appendix 4). Questions included age, gender, sexual orientation, relationship status, parenting status, and level of highest of education. Participants selected an option from a list of answers to each question. In the second part, information related to the students' current situation and change ratings (Appendix 5). Participants provided a rating on a scale of 0 and 100 in relation to how much change they had experienced since starting at university, how happy they were with the changes, and how well they felt they had coped with the changes. This was followed by questions relating to their current living situation; relocation and previous living location; what students were doing in the year before university; student's current financial and employment situation; current university status and hours spent in class and studying; current degree information; reasons for attending university and degree choice; international student status; and languages within the home. Participants selected an option from a list of answers to each question. However, participants also had the opportunity to add answers if the selections did not fit their situation.

### **University Adjustment**

University adjustment was measured with the *'College Adjustment Test'* (CAT) which was developed by Pennebaker et al. (1990). The CAT is a measure of adjustment developed for use in freshman college students, which is the equivalent to first year university students in New Zealand. The questionnaire was used to measure adjustment and transition to university. Some words in the questionnaire were adjusted to suit the New Zealand context. This included changing the word college to university, as university is the New Zealand equivalent of an American college. Other changes included adding the word whanau to questions about family. The CAT consists of 19 questions related to students' experiences of various thoughts and feelings about being at university (Appendix 6). Examples of questions included *'liked your class'*, *'worried about being at university in general'*, and *'felt lonely'*. Participants were asked to indicate their thoughts and feelings in the past four weeks on a 7-point Likert scale, with 1 indicating *'not at all'*, 4 indicating *'somewhat'*, and 7 indicating *'a great deal'*.

Scores were calculated to create an overall adjustment score as well as three sub scores for positive affect, negative affect, and homesickness. The positive affect scale was a measure of positive university adjustment and the average score was made of six items. An example of an item on this sub scale included *'liked university in general'*. The negative affect scale was a measure of negative university adjustment and the average score was made up of nine items. An example of an item on this sub scale included *'felt anxious or nervous'*. The homesickness scale was a measure of homesickness and the average score was made up of six items. An example of an item on this subscale included *'missed your home'*. Pennebaker, Colder and Sharp (1990) report the questionnaire has acceptable internal consistency based on two samples (Cronbach alpha = .79). The test demonstrates good test-retest reliability with a two-month follow up ( $r=.65$ ). Factor analyses yield three stable factors that account for 46% of the variance on the CAT. These included negative affect about coming to college, positive affect or optimism and homesickness (Pennebaker, Colder, & Sharp, 1990).

### **Access to Resources**

Access to university resources was measured with a table checklist (Appendix 7). A list of 19 student services at the University of Waikato were derived from the University of Waikato Website. For each service, participants indicated whether they

had heard of the service and whether they had used the service. Finally, those students who reported having used the service were asked to indicate on a 4-point scale how helpful they found the service, with 1 indicating *'not helpful'* and 4 indicating *'helpful a lot'*.

### **Recent Life Events**

Recent life events were measured with the *'Recent Life Events Questionnaire'* as developed by Cox and Bentovim (2000) based upon research by Brugha, Bedington, Tennant, and Hurry (1985). The Recent Life Events Questionnaire is a measure of significant life events that have occurred in a person's life in the past 12 months. Items on the list include experiences which have a high chance of having a moderate to long-term impact on a person (Andrews & Wilding, 2004). The Recent Life Events Questionnaire consisted of 20 questions around significant life events plus the option for participants to add their own significant life events (Appendix 8). Examples of the questions included *'Have you had a serious illness or been seriously injured?'*, *'Have any one of your immediate family died?'*, *'Have you separated from your partner?'*, *'Have you had any major financial difficulties?'*, *'Have you or another individual who lives with you given birth?'*. Participants were asked to indicate by way of tick box if the event had occurred for them in the past 12 months and whether the event still had an effect on their life. Life events were tallied for both number life events having occurred in the previous 12 months and number of life events still affecting students. Research has shown that a count of life-events is a more reliable measure than a weighted scoring system (Tausing, 1982). Adaptations of the *'List of Threatening Experiences'* (Brugha, et al., 1985) of which the questionnaire is based has commonly been used in research, including with adolescents (Patton, et al., 2003).

### **Coping**

Coping was measured with the *'Brief COPE Scale'* which was developed by Carver (1997). The Brief COPE is a measure of how a person responds to stressful situations in their life. The Brief COPE Scale consisted of 28 statements describing different ways of coping with a stressful situation (Appendix 9). Example of statements includes *'I've been turning to work or other activities to take my mind off things'*, *'I've been getting emotional support from others'*, *'I've been making jokes about it'*, *'I've been expressing my negative feelings'*, *'I've been praying or meditating.'* Each of these

questions represent a way of coping that a person may use in a difficult situation (Monzani, et al., 2015). These include both thoughts and actions. Participants were asked to think about what they generally do and feel when they experience stressful events in their lives. For each statement, participants were asked to indicate how frequently they used each strategy on a 4-point scale with 1 indicating *'I haven't been doing this at all'* and 4 indicating *'I've been doing this a lot'*.

Scores were calculated into 14 sub-scales which included self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioural disengagement, venting, positive reframing, planning, humour, acceptance, religion, and self-blame. These scales reflect a broad range of coping behaviours.

Scores were also calculated into three scales representing problem focused coping, active emotion-focused coping and avoidant emotion-focused coping based on previous literature (Carver & Scheier, 1994; Litman, 2006; Folkman & Lazarus, 1985). The problem focused category was made up of active coping, planning and instrumental support. The avoidance emotion-focused category was made up of self-distraction, behavioural disengagement, self-blame, and substance use. The active emotion-focused category was made up of acceptance, emotional support, positive reframing and humour. Due to the un-even number of factors, each of these scales were divided by the number of contributing questions to create an average score.

The Brief COPE is a shortened version of the COPE Inventory (Carver, Schieier, & Weintraub, 1989). The Brief COPE has demonstrated adequate internal reliability and factor structure is generally in line with the full COPE (Carver, 1997). The authors report acceptable internal reliabilities on all scales of the Brief COPE with the scales of venting, denial and acceptance exceeding 0.50 on Alpha's Cronbach reliability and all other scales exceeding 0.60 (Carver, 1997). Monzani et al. (2015) supports the use of the Brief COPE as a reliable and valid measure which demonstrates acceptable internal reliability for all 14 factors supporting the theoretical loading originally suggested by Carver (1997).

### ***Alcohol Use***

Alcohol use was measured with the *'Alcohol Use Disorders Identification Test'* (AUDIT) which is developed by the World Health Organisation (Barbor, Higgins-Biddle, Saunders, & Monterio, 2001). The AUDIT is a screening measure of excessive drinking and is designed to assist in a brief assessment (Barbor et al., 2001). The AUDIT has been

used in a variety of subpopulations including with university students (Fleming, Barry, & MacDonald, 1991). The AUDIT has also been used in a variety of countries and cultures which has demonstrated its use as an international screening test. The AUDIT consisted of 10 questions relating to alcohol use (Appendix 10). Examples of questions included ‘How often do you have a drink containing alcohol?’ and ‘Have you or someone else been injured as a result of your drinking?’ Participants were provided with a diagram which explained a standard drink (Appendix 10). The AUDIT not only measures an overall score of alcohol use but also three conceptual domains (Reinert & Allen, 2002). These domains include alcohol intake (questions 1 to 3), alcohol dependence (questions 4 to 6) and adverse consequences (questions 7 to 10). Participants were asked to answer each question by tick box, indicating their alcohol use over the past year. Each question had between three and five available answers to select, each having an assigned score between 0 and 4.

Scores were combined to get an overall score of alcohol use. Scores were then put into category zones as shown in Table 2. Longitudinal studies identified that a score of 8 is an indication of a potential alcohol problem such as hazardous drinking (Reinert & Allen, 2002). This score has widely been accepted (Reinert & Allen, 2007).

Table 2. *Categories for total scores on the AUDIT*

Risk Level	Intervention	AUDIT Score
Zone I	Alcohol education	0-7
Zone II	Simple advice	8-15
Zone III	Simple advice plus brief counselling and continued monitoring	16-19
Zone IV	Referral to specialist for diagnostic evaluation and treatment	20-40

The AUDIT has shown high internal consistency with Reinert and Allen (2007) reporting a median reliability of 0.81, ranging from 0.59 to 0.91 in a range of studies before 2000. In 18 studies reviewed between 2002 and 2005 a medium reliability coefficient of 0.83 was reported, ranging from 0.75 to 0.97. The AUDIT has shown high test-retest reliability ranging from 0.70 to 0.89 in a variety of studies (Barbor, et al., 2001; Reinert & Allen, 2007). The AUDIT has shown a high internal reliability indicating it measures a single construct (Fleming, Barry, & MacDonald, 1991).

### **Psychological distress**

Psychological distress was measured with the ‘*Depression, Anxiety and Stress Scale 21*’ (DASS-21) which was developed by Lovibond and Lovibond (1995). The DASS 21 is a measure of current levels of psychological functioning. The DASS 21 consists of 21 statements related to negative emotional states (Appendix 11). Examples of statements included ‘*I found myself getting upset by quite trivial things*’, ‘*I found it difficult to relax*’, and ‘*I felt that I had lost interest in just about everything*’. Each item describes a symptom of anxiety, depression, or stress. Participants were asked to indicate the degree and frequency at which they had experienced symptoms of distress over the previous week. Answers were identified on a 4-point scale, with 0 indicating the statement ‘*did not apply to me at all*’ and 4 indicating the statement ‘*applied to me very much, or most of the time*’.

Scores were calculated into a total score of general distress and three domains of depression, anxiety, and stress. Each domain was made up of seven questions and the score was doubled to make data comparable to the DASS-42 norms. Scores were categorised into normal, mild, moderate, severe, and extremely severe based on normative data. The scores for each category are shown in Table 3.

Table 3. *Categories for scores for the depression, anxiety, and stress subscales of the DASS*

Categories	<u>Scores for each category</u>		
	Depression	Anxiety	Stress
Normal	0 – 9	0 – 7	0 – 14
Mild	10 – 13	8 – 9	15 – 18
Moderate	14 – 20	10 – 14	19 – 25
Severe	21 – 27	15 – 19	26 – 33
Extremely Severe	28 +	20 +	34 +

The DASS-21 is a well-validated short version of the DASS-42, with research demonstrating an internal consistency ranging from 0.87 to 0.92 across all three domains and test-retest reliability ranging from 0.71 to 0.81 across all three domains

(Anthony, Bieling, Cox, Enns, & Swinson, 1998; Brown, Chorpita, Korotisch, & Barlow, 1997). Crawford and Henry (2003) examined reliabilities, and reported a Cronbach alpha of 0.90 for the anxiety subscale, 0.95 for the depression subscale, and 0.93 for the stress subscale, 0.97 for the overall scale.

The DASS has been shown to clearly distinguish between depression and anxiety as well as more generalised stress symptoms (Anthony, et al., 1998). This is supported by Crawford and Henry (2003) who report the DASS to be a reliable and valid measure of these constructs.

### ***SF-8™ Health Survey***

The SF-8™ Health Survey (SF-8™) was developed by Ware, Kosinski, Dewey, and Gendek (2001). The SF-8™ is a measure of health-related quality of life. Permission was sought from QualityMetric Incorporated for use of the survey and a licence agreement was received before the survey was used. The SF-8™ consisted of eight questions which each measure a different health dimension including physical function, role-physical, bodily pain, general health, vitality, social function, mental health, and role emotion (Appendix 12). Examples of questions include *'How much bodily pain have you had during the past 4 weeks?'* and *'During the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?'*. Participants were asked to indicate the degree to which each question applied to them over the past four weeks. Questions were answered by way of tick box where participants selected what best represented how they were feeling. Five to six answer options were provided for each question. Scores were tallied to create an overall score of health and the two subscales of mental and physical health. The SF-8™ is a short version of the SF-36™ and measures the same eight health domains. The SF-8™ has been shown to correlate well with the concepts measured in the SF-36™, with the content being quite similar (Ware, et al., 2001). The SF-8™ has been used in numerous studies and is well-validated in various populations (Wang, et al., 2013). Ware et al., (2001) report test-retest reliability for the eight scales as ranging from 0.59 and 0.70; for the physical component as 0.73; and the mental component as 0.74.

### ***Positive Experiences***

The final section included a qualitative question where participants were asked to identify three positive changes they had experienced during their transition to university (Appendix 13). The purpose of this section was to end the questionnaire on a more positive note.

### ***Procedure***

The study used an online questionnaire for data collection. Participants followed the link provided on the posters and flyers, which took them to a University of Waikato Psychology webpage. This webpage provided information regarding the requirements and procedure of the research (Appendix 2). As part of this information, students were informed that they could receive 1% course credit for specific courses or go in the draw for a \$50.00 Warehouse voucher as a thank you for their time. On this webpage, participants were also provided with a link to a list of service providers (Appendix 3). The webpage identified that by continuing with the survey participants were giving their consent for participation; however, participants could withdraw at any time before submitting their answers. At this point, participants were given the option to begin the questionnaire and thereby give consent.

On selecting to continue, participants were directed to the questionnaire which was presented on Qualtrics Online Survey Software. Questions were presented from the measures listed above in the order of: demographic, situational and change information; the college adjustment questionnaire; access to resources; recent life events questionnaire; the brief COPE scale; the alcohol use disorders identification test; the depression anxiety and stress scale 21; the SF-8™ health survey; and the open-ended positive transition questions.

On completion of the questionnaire, participants were thanked for their time and provided with a code number. Participants were reminded of the details for entering the prize draw and claiming course credit as explained at the beginning of the questionnaire and as shown in the information sheet (Appendix 2). At this point, participants were once again provided with a list of service providers/resources they could access if they were feeling distressed or wanted to talk to someone about a variety of issues (Appendix 3).

### **Data Analysis**

Data was analysed using IBM SPSS Statistics 21 Software and Microsoft Office 2013 Excel 2013.

Variables were examined for normality. Several variables were skewed. Application of the logarithmic transformation yielded normal distribution for the following skewed variables: life events occurred in the previous 12 months, life events still having an effect, avoidant emotion coping, depression symptoms on the DASS, total psychological distress on the DASS and total score on the AUDIT. The following skewed variables were not normalised: age, effect of working on university, hours of paid employment, and anxiety on the DASS.

Correlational analysis was used to examine relationships between variables. For variables that were normally distributed or normalised by transformations described above, Pearson's correlation co-efficient were used; for those that were not normalised, Spearman's correlation was used. Two-tailed *t* tests were used to evaluate group comparisons of variables considering whether differences in factors were statistically different. Multiple regression was used to test for predictors of distress from variables that were statistically significant.

A *p* value less than or equal to 0.05 was considered statistically significant.

## Results

### *General demographics and experiences of change*

#### *Global Measures*

Participants self-reported how much change they had experienced since transitioning to university, how happy they were with the changes that had occurred, and how well they thought they had coped with the changes they had experiences. Self-reported were based on a 100-point scale. The statistical information regarding participants self-reported global measures are shown in Table 4.

Table 4. *Statistical results of students self-reports of change*

Self-report	<i>n</i>	Mean	Median	SD	Range
How much change?	134	71.08	72.00	22.29	10-100
Happy with change?	133	71.56	75.00	17.98	20-100
Coping with change?	133	72.35	77.00	19.45	0-100

Age was significantly correlated with self-reports of how much change a person had experienced ( $r_s = 0.21, p = .018$ ). No correlation was seen between age and self-reports of how happy one was with their changes or with self-reports of how one was coping with change.

#### *Current Living Situation*

The most common living situation reported by first-year students was living in the halls of residence (33.3%,  $n = 45$ ), followed by living in private shared accommodation such as flatting or boarding (28.9%,  $n = 39$ ), living with their parents (25.2%,  $n = 34$ ), living with other family members (8.1%,  $n = 11$ ), and living in private single accommodation (3.7%,  $n = 5$ ). Of those participants not currently living in the family home, just over half (51.6%,  $n = 48$ ) reported this was their first experience of living out of the family home. Just over half of the participants (54.1%,  $n = 73$ ) reported moving cities to attend the University of Waikato. Where participants moved from is shown in Figure 2.

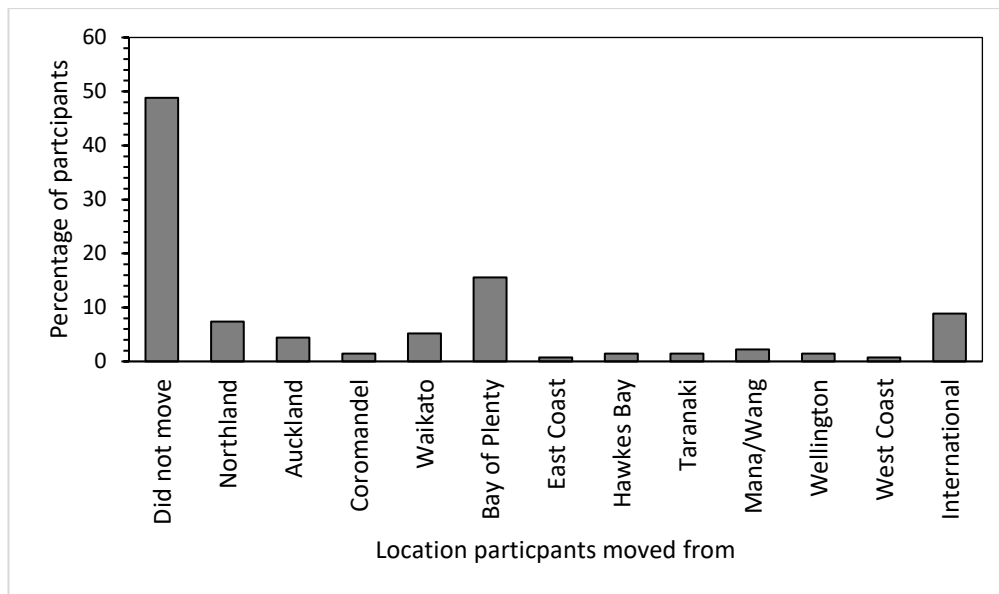


Figure 2. Students' location they moved from to attend university

### ***Previous activities and educational history***

Students reported what they were doing during the previous year. Students could select more than one option, which is shown in Table 5. Students' highest level of education is shown in Table 6.

Table 5. Student's main activity in the previous year before attending university

Activity	Percentage (%)	Number ( <i>n</i> )
Secondary School Student	63.0	85
Polytechnic Student	6.7	9
Full-time Worker	11.1	15
Part-time Worker	31.9	43
Unemployed	8.9	12
Stay at Home Parent	5.2	7
Other Education	7.4	10
Other Activity	5.9	8

Table 6. *Students' highest level of education prior to starting university*

Activity	Percentage (%)	Number ( <i>n</i> )
None	1.5	2
NCEA Level 1 or equivalent	2.2	3
NCEA Level 2 or equivalent	8.1	11
NCEA Level 3 or equivalent	72.4	98
Other/Higher Education	8.2	11
Other Education International	7.5	10
None	1.5	2

### ***Current university status***

The majority of students (96.3%,  $n = 130$ ) were enrolled as full-time university students; 3% were enrolled as part-time students; and 0.7% ( $n = 1$ ) did not specify their enrolment status. The majority of participants (83.7%,  $n = 113$ ) were enrolled at the Hamilton campus of the University of Waikato while 16.3% ( $n = 22$ ) were enrolled at the Tauranga campus. More than half of the participants (59.3%,  $n = 80$ ) completed the survey during Semester A while 40.7% ( $n = 55$ ) of students completed the survey during Semester B.

Participants reported spending between 4 hours and 39 hours in classroom based activities per week, such as lectures and tutorials. The mean hours in class activities were 18.06 hours per week (SD 6.99). Participants spent between 0 hours and 50 hours in outside of classroom based activities per week, such as completing readings, studying, and working on assignments. The mean hours spent on outside of class activities was 15.96 hours per week (SD 10.99). Participants spent between 7 hours and 78 hours across all university activities per week. The mean number of hours per week was 34.09 (SD = 12.62). Students reported in what faculty they were currently enrolled as shown in Table 7. Students could select more than one option.

Table 7. *Students' current university faculty*

Faculty	Percentage (%)	Number ( <i>n</i> )
Faculty of Arts and Social Sciences	47.4	64
Faculty of Computing and Mathematics	9.6	13
Faculty of Education	10.4	14
Faculty of Law	4.4	6
Faculty of Maori and Pacific Development	1.5	2
Faculty of Science and Engineering	25.9	35
Faculty of Management	11.9	16

### ***Current financial and employment situation***

Participants' current financial assistance is shown in Figure 3. Students could select as many options that currently applied to their situation. Participants indicated their current employment status. This is shown in Table 8. The range of hours' students worked ranged from 0 hours a week to 40 hours a week with a mean of 13.6 hours per week (SD 10.44). Participants reported their main reasons for being employed and were asked to select as many options as what applied to them. These are shown in Table 9.

Students reported the effect they thought working was having on university on a scale of 0 to 100. The mean effect reported by students was 50.29 (SD = 27.07) and reported scores ranged from 0 to 100. This self-report of effect was significantly correlated with the number of hours of paid employment,  $r_s = 0.34$ ,  $p = .024$ .

Table 8. *Students' current employment status*

Faculty	Percentage (%)	Number ( <i>n</i> )
Unemployed	60.7	82
Employed fulltime	2.2	6
Employed part-time	34.1	46
Completing volunteer work	8.6	11

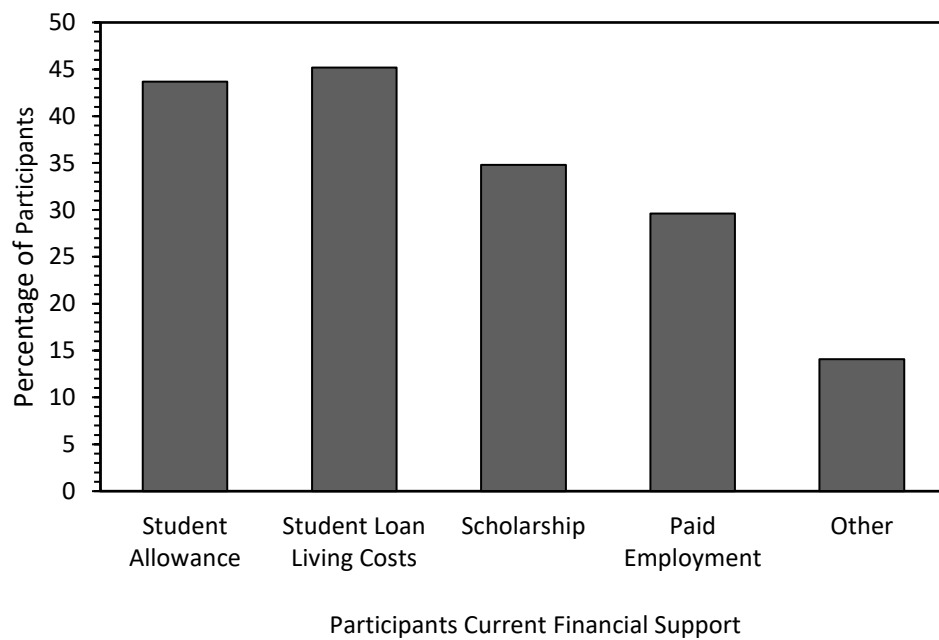


Figure 3. Students identified current financial support

Table 9. Students' main reasons for being employed

Reason for employment	Percentage (%)	Number (n)
To cover the cost of basic needs such as food, accommodation and essential transportation	68.1	92
To afford extras such as entertainment and travel	59.9	81
To be financially independent	54.0	73
To save for the future	45.9	62
To pay for current loans and/or debts	36.3	49
To improve employability for after university	30.3	41
To gain experience relevant to their current study	17.8	24
To support their family	17.8	24

### ***Students' reasons to attend university and degree choices***

Participants reported their reasons for coming to university their reasons for coming to selecting their specific programme of study. Participants were asked to select as many options as what applied to them. This is shown in Table 10 and Table 11.

Table 10. *Students' reasons from coming to university*

Reasons for coming to university	%	<i>n</i>
Field of interest	82.9	112
Job prospects	74.7	101
Specific career	52.5	71
Skill development	58.5	79
New friends	29.6	40
Parental influence	22.9	31
Other	3.7	5

Table 11. *Students' reasons for selecting their specific programme of study*

Reasons for selecting programme of study	%	<i>n</i>
Parental influence	16.3	22
Teacher influence	18.5	25
Employment prospects	46.6	63
Love of subject	82.1	111
Career advisor recommendation	22.9	30
Peer influence	5.2	7
Other	9.6	13

### ***International students and current language***

Of the participants, 5.9% ( $n = 8$ ) reported themselves to be international students. Participants reported the language they most commonly spoke at home. The majority of students (91.0%,  $n = 123$ ) reported this as English, 0.7% ( $n = 1$ ) reported this as Te Reo Maori, and 8.1% ( $n = 11$ ) of participants reported this as another language. Other languages included Afrikaans, Mandarin, German, Mauritian Creole, Maldivian and Telgu. Participants reported whether there was a second language they commonly

spoke at home. The majority of students (74.7%,  $n = 101$ ) reported no other language was spoken at home, while 25.2% ( $n = 34$ ) of participants reported a second language. Across all students, 12.6% ( $n = 17$ ) participants reported their second language as English, 5.9% ( $n = 8$ ) reported this as Te Reo Maori, and 6.7% ( $n = 9$ ) reported this as another language. Other languages included Afrikaans, French, Saalisan, Dutch, Chinese, Samoan, Cantonese, and Fijian.

### ***The experience of psychological distress and well-being in university students***

#### ***Depression, Anxiety, and Stress Scale (DASS21)***

Students completed measures of depression, anxiety, stress, and overall distress. Mean scores for male and female students are shown in Table 12. Participants scores were categorised into different levels of distress as identified in Table 3. Students in the different stress categories are shown in Figure 4, depression categories are shown in Figure 5, and anxiety categories are shown in Figure 6. Participants' categorised scores by ethnicity are shown in Figures 7, 8, and 9.

Table 12. Mean scores on the DASS Subscales and DASS Total Score by Gender

DASS Subscale	Range	Males		Females		All Students	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Stress	0 - 38	8.8	8.4	12.0	8.5	11.0	8.5
Anxiety	0 - 34	7.3	7.7	7.7	7.5	7.6	7.6
Depression	0 - 42	10.0	9.9	8.9	9.7	9.2	9.7
Total	0 - 110	26.4	23.4	28.6	22.1	27.8	22.4

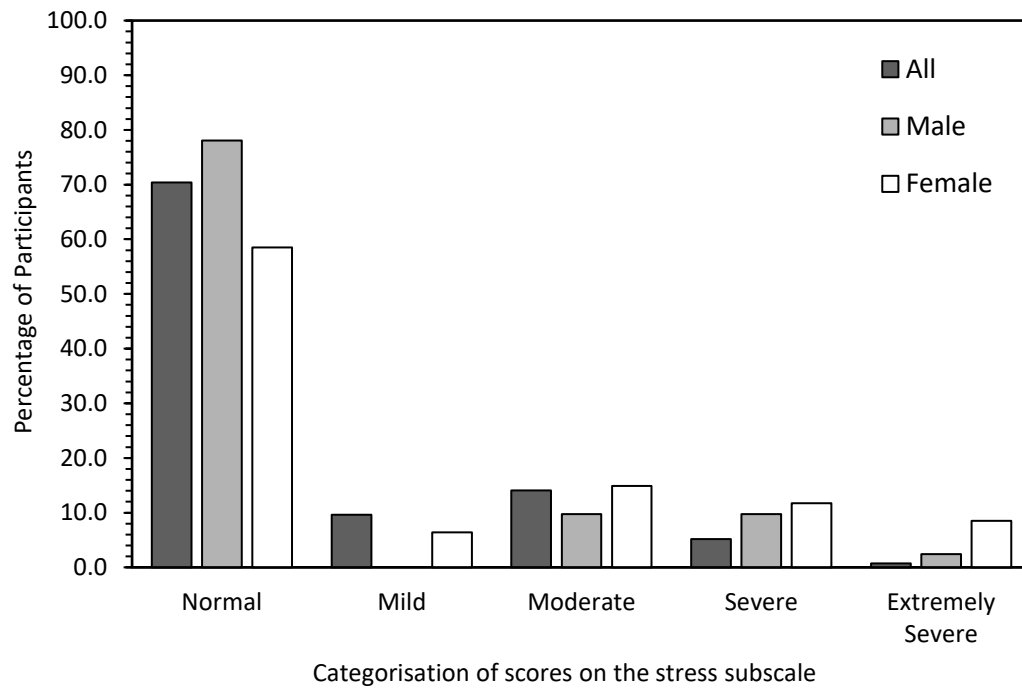


Figure 4. Students in categories on the stress subscale of the DASS21

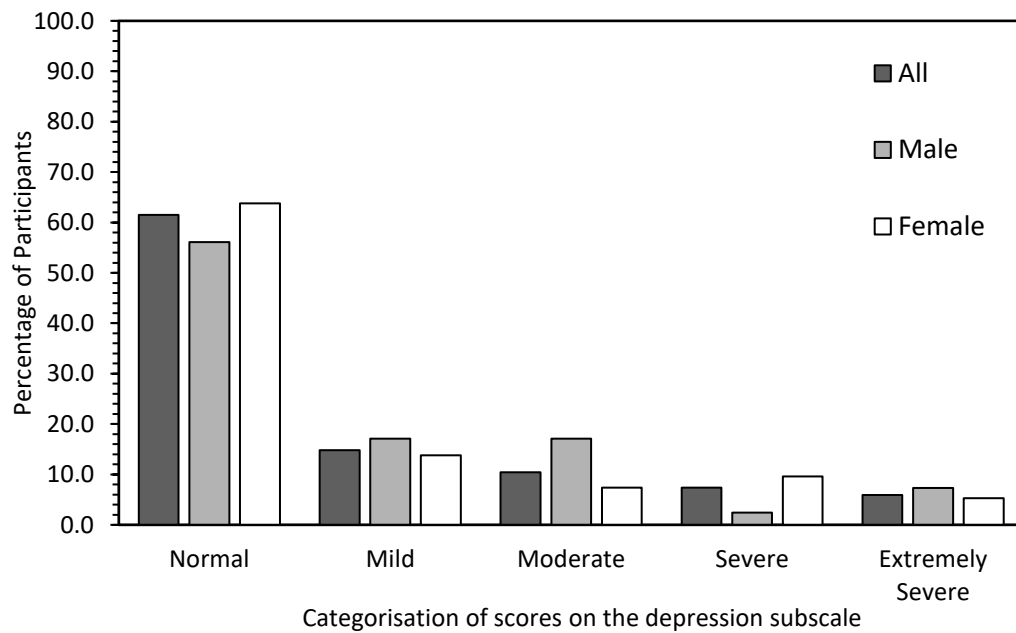


Figure 5. Students in categories on the depression subscale of the DASS21.

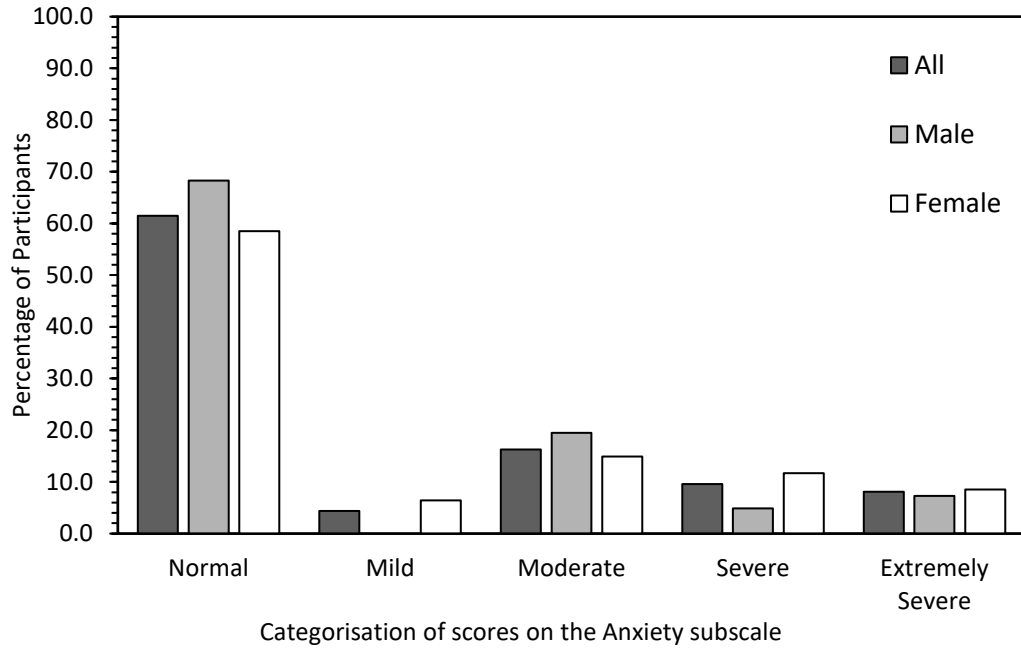


Figure 6. Students in categories on the anxiety subscale of the DASS21.

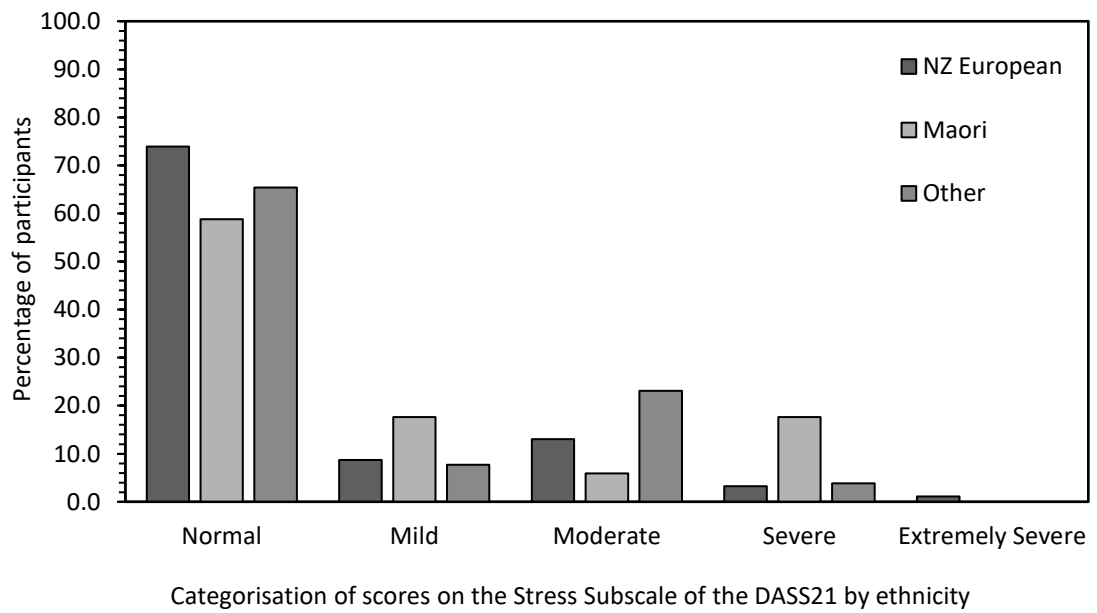


Figure 7. Students in categories on the stress subscale of the DASS21

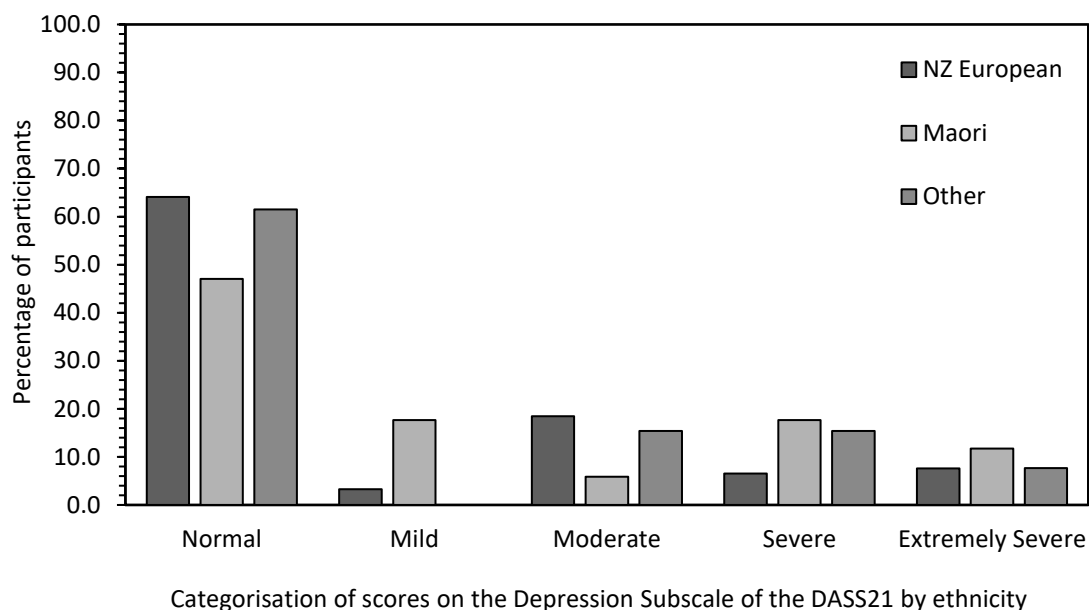


Figure 8. Students in categories on the depression subscale of the DASS21

### **College Adjustment Test (CAT)**

Students completed measures of positive affect, negative affect, homesickness, and overall university adjustment. Table 13 shows the range and mean scores on the college adjustment test total scale and the individual subscales. Table 14 includes the mean scores on the individual questions reported by students on the CAT.

Table 13. Scores on the CAT Subscales and CAT Total Adjustment by Gender

CAT Subscale	Range	Males		Females		All Students	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Positive Affect	10 - 42	26.8	7.6	26.8	7.0	26.6	7.2
Negative Affect	12 - 62	31.8	12.4	34.5	11.2	33.7	11.6
Homesickness	8-42	22.1	7.1	34.5	11.2	22.7	6.6
Total	30 - 121	83.6	15.4	81.2	16.2	81.9	15.9

Table 14. Scores on the CAT Subscales and CAT Total Adjustment by Gender

Individual questions on the CAT	Mean score	SD
1. Missed your friend from high school	3.5	2.1
2. Missed your home	3.0	2.1
3. Missed your parents and other family	3.5	2.2
4. Worried about how you would perform academically	5.6	1.5
5. Worried about love or intimate relationships with others	3.4	2.1
6. Worried about the way you look	3.8	2.0
7. Worried about the impression you make on others	3.9	2.0
8. Worried about being in university in general	3.8	1.9
9. Liked your class	4.9	1.6
10. Liked your roommate(s)	3.7	2.4
11. Liked being away from your parents	3.0	2.1
12. Liked your social life	4.1	1.9
13. Liked university in general	4.9	1.6
14. Felt angry	2.8	1.9
15. Felt lonely	3.4	2.2
16. Felt anxious or lonely	4.4	2.0
17. Felt depressed	2.6	2.1
18. Felt optimistic about your future at university	4.6	1.7
19. Felt good about yourself	4.5	1.7

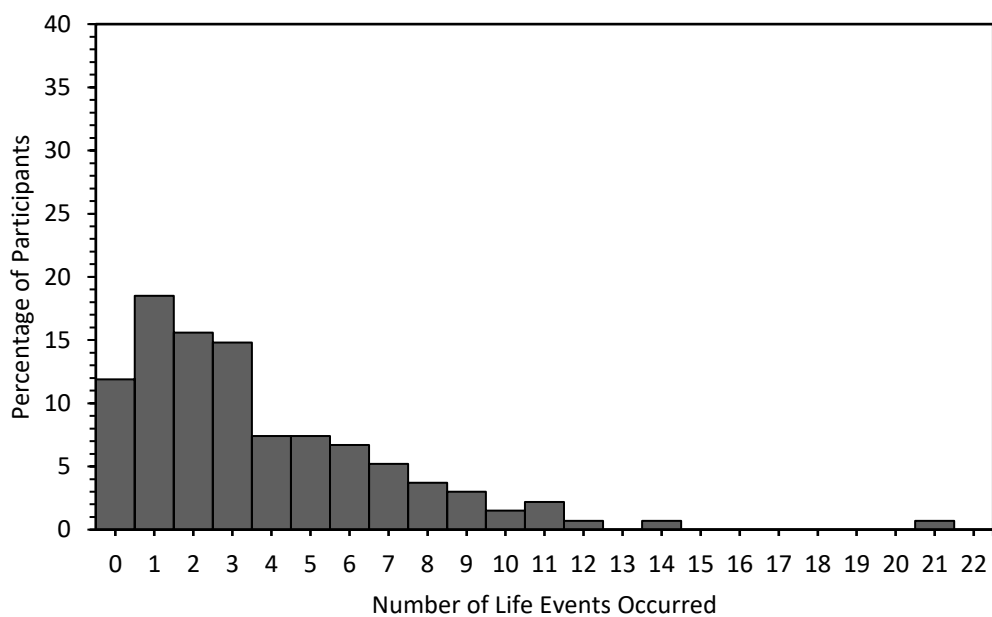
### **Physical complaints**

Scores on the SF8 Physical subscale ranged from 4 to 17, with participants reporting a mean score of 8.15 (SD = 2.95). The minimum score possible on this subscale was 4, while the maximum score possible was 22. Scores on the SF8 Mental subscale ranged from 4 to 16, with participants reporting a mean score of 9.19 (SD = 2.95). The minimum score possible on this subscale was 4, while the maximum score possible was 20. Physical symptoms were significantly correlated to anxiety symptoms,  $r_s = 0.38$ ,  $p < .001$ ; depression symptoms,  $r = 0.32$ ,  $p < .001$ ; stress symptoms,  $r = 0.27$ ,  $p = .002$ ; overall psychological distress,  $r = 0.38$ ,  $p < .001$ ; and negative affect,  $r = .22$ ,  $p = .012$ . Physical symptoms were not significantly correlated to positive affect, home sickness, or overall university adjustment.

### ***The experience of significant life events***

Scores on the recent life events scales were tallied to produce an overall number of life events that participants had experienced in the past 12 months and an overall number of life events still affecting participants currently. The percentage of students experiencing significant life events is shown in Figure 9 and Figure 10. Participants reports ranged from 0 life events to 21 life events that had occurred in their lives in their previous 12 months. The mean number of life events reported was 3.7 (SD 3.4). Participants reports ranged from 0 life events to 20 life events that were having a current effect in their life. The mean of events still affecting participants was 1.8 (SD 2.5).

The three most common life events having occurred over the previous twelve months included having moved by choice (43.7%,  $n = 59$ ), themselves or their partner being unemployed or seeking work for more than a month (32.6%,  $n = 44$ ), and an immediate family member being seriously ill or injured (31.9%,  $n = 43$ ). The three most common life events having a current effect on students included an immediate family member being seriously ill or injured (18.5%,  $n = 25$ ), themselves or their partner being unemployed or seeking work for more than a month (16.3%,  $n = 22$ ), and having moved by choice (16.3%,  $n = 22$ ).



*Figure 9.* Students' number of life events in the previous 12 months.

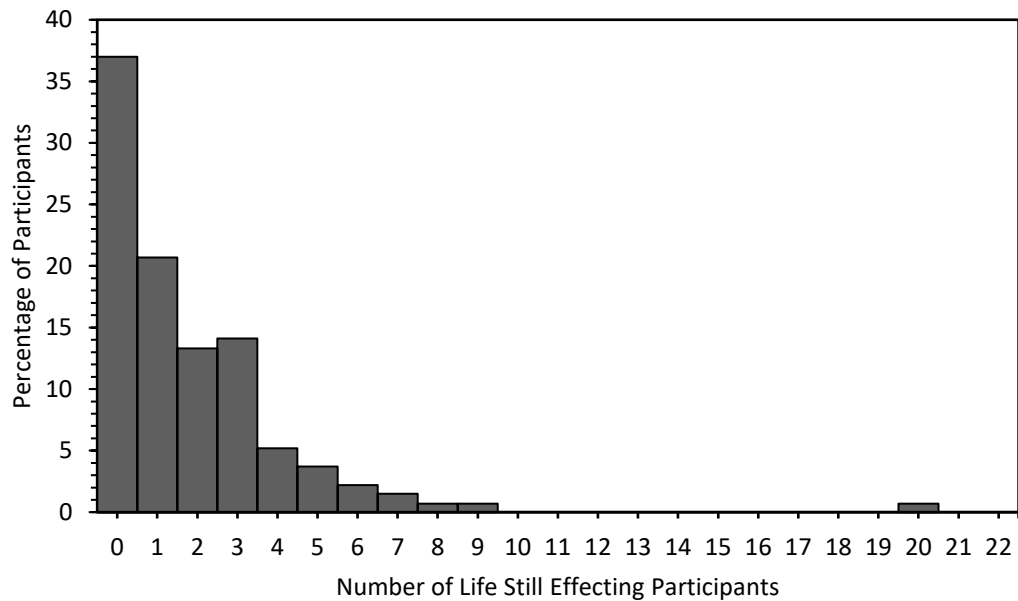


Figure 10. Students' number of life events that have still having a current effect

### ***Alcohol use in University students***

The mean scores on the total AUDIT for participants was 6.19 (SD = 5.91) from a range of 0 to 28. The mean total AUDIT score for male students was 7.1 (SD = 6.5) and for female students 5.8 (SD 5.6). The mean score for alcohol intake was 3.89 (SD = 2.97) from a range of 0 to 11. The mean score for alcohol dependence was 0.52 (SD = 1.00) from a range of 0 to 5. The mean score for alcohol related consequences was 1.78 (SD = 2.88) from a range of 0 to 14. The percentage of students' responses to the individual questions on the AUDIT are shown in Table 15. The distribution of students overall scores is shown in Figure 11. AUDIT scores were arranged into risk categories and separated into gender as shown in Figure 12.

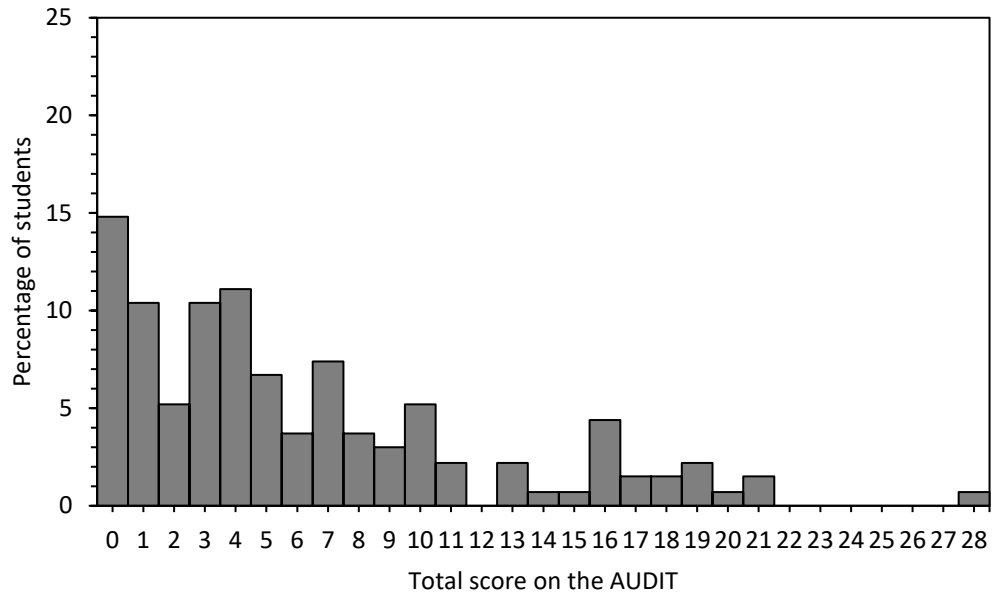


Figure 11. Students overall AUDIT score.

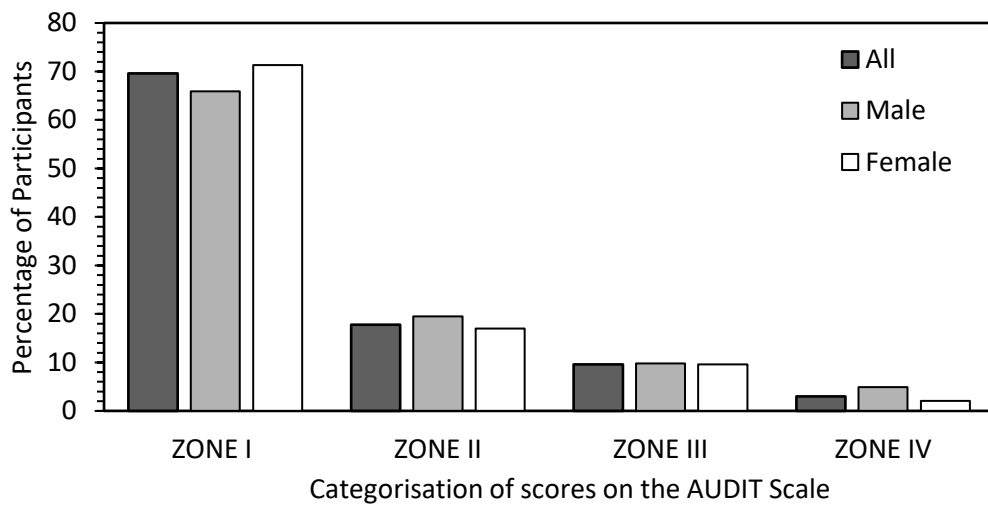


Figure 12. Students in overall categories on the AUDIT including gender distributions.

Table 15. *Students' responses to questions on the AUDIT questionnaire*

AUDIT Question	Percentage (%)	Number (n)
How often do you have a drink containing alcohol?		
Never	17.0	23
Monthly or less	31.1	42
Two to four times a month	28.9	39
Two to three times a week	17.8	24
Four or more times a week	5.2	7
How many drinks containing alcohol did you consume on a typical day when you were drinking?	42.2	57
One or two drinks	19.3	26
Three to four drinks	20.7	28
Five to six drinks	11.9	16
Seven to nine drinks	5.9	8
Ten or more drinks		
How often do you have six or more drinks on an occasion?		
Never	37.8	51
Less than monthly	33.3	45
Monthly	15.6	21
Weekly	11.9	16
Daily or almost daily	1.5	2
How often during the last year did you find you were not able to stop drinking once you had started?		
Never	79.3	103
Less than monthly	14.8	20
Monthly	4.4	6
Weekly	0.0	0
Daily or almost daily	1.5	2
How much in the past year have you failed to do what was expected of you because of your drinking?		
Never	83.7	113
Less than monthly	14.1	19
Monthly	2.2	3
Weekly	0.0	0
Daily or almost daily	0.0	0
How often in the past year did you need a first drink in the morning to get yourself up after a heavy drinking session?		
Never	98.5	133
Less than monthly	0.7	1
Monthly	0.0	0
Weekly	0.7	1
Daily or almost daily	0.0	0
How often in the past year have had you had feelings of guilt or remorse after drinking?		
Never	70.4	95
Less than monthly	21.5	29
Monthly	4.4	6
Weekly	3.0	4
Daily or almost daily	0.7	1
How often during the past year have you been unable to remember what happened the night before because of your drinking?	64.4	87
Never	27.4	37
Less than monthly	5.9	8

Monthly	1.5	2
Weekly	0.7	1
Daily or almost daily		
Have you or anyone else been injured because of your drinking?		
No	83.0	127
Yes, but not in the last year	5.9	4
Yes, during the last year	11.1	9
Has a relative, friend, doctor or someone else been concerned about your drinking or made a suggestion to cut down?		
No	90.4	127
Yes, but not in the last year	3.0	4
Yes, during the last year	6.7	9

### ***The relationship among change, stressors, and life events on University students***

Overall adjustment was significantly correlated with overall psychological distress ( $r = -0.39, p < .001$ ).

#### ***Gender and psychological distress***

Gender was not significantly related to overall psychological distress as measured by the total DASS score, university adjustment as measured by the total CAT score or alcohol use as measured by the AUDIT.

On average, male students reported lower levels of stress symptoms ( $M = 8.83, SD = 8.35, SE = 1.31$ ), than female students ( $M = 11.96, SD = 8.49, SE = 0.88$ ). This difference, 3.13, was significant  $t(133) = 1.98, p = .05$ , representing a moderate-sized effect,  $d_{cohen} = 0.37, CI_{95} [0.001, 0.74]$ .

Transformed data (logged) was used to examine gender differences in the number of life events due to the significant skewness of the data. No significant difference was reported between males and females on the number of life events reported in the previous 12 months. However, on average male students reported a lower number of life events still having a current effect ( $M = 1.12, SD = 1.58, SE = .25$ ), than female students ( $M = 2.10, SD = 2.73, SE = 0.28$ ). This difference,  $-.974$ , was significant  $t(133) = -2.49, p = 0.014$ ; representing a moderate-sized effect,  $d_{cohen} = 0.47, CI_{95} [0.96, 0.84]$ .

Table 16. Independent t-test analysis for difference between groups of people in relation to reports of psychological distress

<b>Variables for comparison</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>	<b>Mean difference</b>
Gender (Male; Female)	-0.68	133	.498	-2.47
Age (20 years above; 19 years and under)	-0.16	133	.877	-3.16
Ethnicity (NZ European; other ethnicity)	0.83	133	.406	-4.84
First time out of the family home (Yes; No)	2.10	84.16	.039	10.02

Table 17. Independent t-test analysis for difference between groups of people in relation to reports of overall adjustment on the CAT

<b>Variables for comparison</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>	<b>Mean difference</b>
Gender (Male; Female)	0.78	133	.437	2.33
Age (20 years above; 19 years and under)	1.47	133	.140	4.32
Ethnicity (NZ European; other ethnicity)	-0.71	133	.464	-2.17
Move cities (Yes; No)	-1.11	133	.267	-3.06
First time out of the family home (Yes; No)	-1.32	91	.189	-4.56

Table 18. Independent t-test analysis for difference between groups of people in relation to reports of overall adjustment on the AUDIT

<b>Variables for comparison</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>	<b>Mean difference</b>
Gender (Male; Female)	1.9	133	.201	1.38
Ethnicity (NZ European; other ethnicity)	1.20	70.82	.234	-0.61
Move cities (Yes; No)	3.34	133.0	.001	2.788
First time out of the family home (Yes; No)	-.72	91	.472	-.054

### ***Age and psychological distress***

Age was modestly significantly related to anxiety symptoms,  $r_s = -0.20$ ,  $p = .020$ ; and depressive symptoms  $r_s = -0.18$ ,  $p = .040$ , with older students less likely to be anxious or depressed than young students.

No significant difference was found between mature students (those 20 years and older) and younger students (those under 20 years) in regards to the experience of psychological distress or overall adjustment. The independent t-test analysis for these differences is shown in Table 16 and Table 17.

### ***Ethnicity and psychological distress***

No significant difference was found between those who identified as New Zealand European and those who identified as another ethnicity in regards to overall adjustment, psychological distress, or alcohol use. These ethnicities included Maori, Pacific Island, Asian, Indian, and Other. The independent t-test analysis for these differences is shown in Table 16 and Table 17.

### ***Amount of change***

Students overall reported level of change was significantly related to reports of overall distress,  $r = -0.19$ ,  $p = .033$ , with students reporting more change more likely to be experiencing higher levels of distress.

### ***Living situation and psychological distress***

On average, students who were experiencing their first time living out of the family home reported higher levels of psychological distress ( $M = 34.33$ ,  $SD = 26.85$ ) than students who had previously experienced living out of the family home ( $M = 24.31$ ,  $SD = 18.70$ ). This difference, 10.02, was significant  $t(84.16) = 2.10$ ,  $p = .039$ , and represented a moderate-sized effect,  $d_{cohen} = 0.43$ .

No significant difference was found between students who were living in the halls of residence in comparison to those who were not. No significant difference was found between students who were flatting in comparison to those who were not. No significant difference was found between students who were living with their parents in

comparison to those who were not. The independent t-test analysis for these differences is shown in Table 16 and Table 17.

### ***Life events***

Psychological distress was significantly correlated to both life events that occurred in the previous 12 months,  $r = 0.22$ ,  $p = .011$  and life events still affecting a person currently,  $r = 0.26$ ,  $p = .002$ . Overall university adjustment as measured on the CAT was not significantly correlated to the experience of life events. Physical symptoms were significantly correlated with both the number of life events occurred in the previous 12 months,  $r = 0.36$ ,  $p < .001$ ; and life events still having a current effect,  $r = 0.42$ ,  $p < .001$ .

### ***Alcohol***

Overall alcohol use as indicated by the total AUDIT score was not significantly correlated with either psychological distress as indicated by the total DASS score or university adjustment as indicated by the total CAT score.

Alcohol intake was not significantly correlated with psychological distress or university adjustment. Alcohol dependence was significantly correlated with depressive symptoms,  $r_s = 0.20$ ,  $p = .023$ . Alcohol related consequences was significantly correlated with depressive symptoms,  $r = 0.18$ ,  $p = .032$ ; and overall psychological distress,  $r = 0.17$ ,  $p = .048$ .

### ***Predictor Variables***

Variables that were shown to have a significant relationship with distress were used to examine predictors of distress using a multiple regression. A multiple regression was run to predict overall distress from first time living out of home, life events occurred life events current, action emotion coping, and avoidant emotion coping. These variables statistically significantly predicted overall distress,  $F(5, 129) = 19.37$ ,  $p < .001$ ,  $R^2 = .43$ ,  $R^2_{Adjusted} = .41$ . The analysis shows that first time living out of home, life events occurred life events current, and action emotion coping did not significantly predict overall distress. However, avoidant emotion coping did significantly predict overall distress ( $Beta = .60$ ,  $t(134) = 8.4$ ,  $p < .001$ ). These results are shown in Table 19.

Table 19. Predictors of distress using a regression analysis

Variable	Beta	t	Sig
First experience out home	-.06	-.92	.358
Life events occurred	.05	.54	.589
Life events current	.07	.81	.422
Avoidant emotion coping	.61	8.3	.000
Action emotion coping	.01	.18	.855

Variables that were shown to have a significant relationship with alcohol use were used to examine predictors of distress using a multiple regression. A multiple regression was run to predict overall alcohol use from avoidant emotion coping and moving cities to attend university. These variables statistically significantly predicted overall alcohol use,  $F(2, 132) = 12.95$ ,  $p < .001$ ,  $R^2 = .16$ ,  $R^2_{Adjusted} = .15$ . The analysis shows that both avoidant emotion coping, ( $Beta = .30$ ,  $t(134) = 3.7$ ,  $p < .001$ ) and moving cities, ( $Beta = -.25$ ,  $t(134) = -3.1$ ,  $p = .002$ ) predicted alcohol use.

### ***Coping strategies and accessing resources***

#### ***Brief COPE***

Students reported coping strategies they typically used. These scores were organised into three categories: problem solving coping, action emotion coping, and avoidant emotion coping. Mean scores are shown in Table 20. Coping style was not significantly correlated with age.

Table 20. Mean scores on different categories of coping

Coping Category	Range	Males		Females		All Students	
		M	SD	M	SD	M	SD
Problem Solving Coping	6 – 22	4.1	1.2	4.7	1.5	4.5	1.4
Action Emotion Coping	8 – 30	4.5	1.2	4.5	1.2	4.5	1.2
Avoidant Emotion Coping	8 - 32	3.8	1.3	3.6	1.1	3.7	1.1

Self-reports of how much change a person had experienced since beginning university was significantly correlated with both problem-solving coping,  $r = 0.20$ ,  $p = .024$ ; and action emotion coping,  $r = 0.22$ ,  $p = .010$ . However, these self-reports were not significantly correlated to avoidant emotion coping.

Self-reports of how happy a person was with the change they had experienced since beginning university was significantly correlated with both avoidant emotion coping,  $r = -0.22$ ,  $p = .010$ ; and problem solving coping,  $r = 0.22$ ,  $p = .012$ . However, these self-reports were not significantly correlated with action emotion coping.

Self-reports of how a person felt they were coping with the changes they had experienced since beginning university was significantly correlated with avoidant emotion coping,  $r = -0.28$ ,  $p = .001$ . However, these self-reports were not significantly correlated with problem solving or action emotion coping.

Psychological distress was significantly correlated with avoidant emotion coping,  $r = -0.64$ ,  $p < .001$ ; and action emotion coping,  $r = 0.21$ ,  $p = .013$ . Psychological distress was not significantly correlated with problem solving coping.

Overall university adjustment was significantly correlated with avoidant emotion coping,  $r = -0.31$ ,  $p < .001$ , with students who reported a more positive adjustment more likely to report lower levels of avoidant emotion coping. University adjustment was not significantly correlated with either problem solving coping, or action emotion coping.

### ***Accessing resources***

Students were provided with a list of 19 students services offered through the University of Waikato. For each service, participants indicated whether they had heard of the service and whether they had used the service. Students who had reported using a service were asked to indicate how effective they found the service, ranging from 1 indicating '*not helpful*' to 4 indicating '*helpful a lot*'. These results are shown in Table 21. Table 22 shows the number of students who reported experiencing an above normal category of distress on the DASS who accessed services through the University Waikato. Students who reported a higher level of distress were not more likely to access services than students who reported a lower level of distress. This is shown in Table 23.

Table 21. *Students reports of university services they had heard of, accessed and the usefulness of the service*

Student service	<u>Heard of service</u> (% students)	<u>Used service</u> (% students)	<u>Effectiveness</u> (average)
Student health services: Nurse	87.3	31.8	3.0
Student health services: Doctor	76.2	22.2	3.4
Student counselling services	78.4	8.9	2.6
Disability support services	56.2	6.7	2.0
Citizens advice bureau drop in sessions	35.5	3.0	2.0
Legal services advice	41.4	3.0	2.3
Career development workshops	50.3	1.5	2.0
Chaplaincy services	39.2	5.9	2.8
WSU advocacy service	50.3	1.5	2.0
Accommodation and conference services	37.0	10.4	3.2
Student financial advisory service	43.7	4.44	2.0
Library tutorials on APA referencing	82.1	18.5	3.1
Other library tutorials	59.2	7.4	2.6
Library tours	73.3	15.5	3.1
International student orientation	28.9	4.4	2.7
Faculty orientation	52.5	20.0	3.0
Te Puna Tautoko service	14.1	3.7	2.3
Student learning workshops	57.0	9.6	3.4
Student learning consultations	42.9	9.6	3.2

Table 22. *Students experiencing stress, depression, and anxiety above a normal range who accessed university services*

Student service	<u>Stress</u>		<u>Depression</u>		<u>Anxiety</u>	
	%	<i>N</i>	%	<i>n</i>	%	<i>n</i>
Student health services: Nurse	37.5	15	34.6	18	40.4	21
Student health services: Doctor	22.5	9	21.2	11	26.9	14
Student counselling services	12.5	5	9.6	5	15.4	8
Disability support services	12.5	5	7.7	4	9.6	5
Citizens advice drop in sessions	5.0	2	3.8	2	1.9	1
Legal services advice	7.5	3	3.8	2	1.9	1
Career development workshops	5.0	2	3.8	2	1.9	1
Chaplaincy services	7.5	3	5.8	3	5.8	3

Table 23. *Independent t-test analysis for access to services for people experiencing a higher level of psychological distress per the DASS21*

<b>Service</b>	<b><i>t</i></b>	<b><i>df</i></b>	<b><i>Sig.</i></b>
Student health services: Nurse	1.24	133	.219
Student health services: Doctor	0.73	133	.466
Student counselling services	0.46	133	.645
Disability support services	1.06	133	.291
Citizens advice bureau drop in sessions	0.17	133	.866
Chaplaincy services	-0.09	133	.930

## Discussion

Every year, many students transition to university. This is a time of change and new experiences (Richardson et al., 2012). A time of new roles, new ways of learning, and increased independence. Alongside the positive experiences which can be associated with this time, the transition can create uncertainty and stress for students (Andrews & Wilding, 2004; McInnis et al., 1995). Students' first experiences of university are important as these are what shape future university engagement and students' continuing in higher education as well as student's overall well-being (McInnis et al., 1995). Difficulties during this time may impact on students' opportunities for growth and well-being. Both internationally and within New Zealand, university students have been shown to have a higher level of psychological distress than the general population (Leahy, et al. 2010; Stallman, 2010). Not all students that transition to university experience distress. This difference may be related to the changes, stressors, and significant recent life event each person experiences alongside their coping strategies and the resources they access to support them during this time. It has also been previously identified that many university students engage in concerning alcohol use which may impact on students' well-being and coping.

The stress and coping experiences of first year university students was the focus of this current study. The aim of the current study was to identify factors that were associated with a positive and negative transition experience.

### ***Psychological distress, adjustment, and alcohol use in first-year university students***

#### ***Psychological distress in the university population***

Previous research has identified that students in the university population are experiencing high levels of distress (Bewick, et al., 2010; Kitzrow, 2003; Samaranayake & Fernando, 2011; Samaranayake, Arroll, & Fernando, 2014; Stallman, 2010). Aspects of psychological distress can include stress, anxiety, and depressive factors (Olsson, et al., 1999; Verger, et al., 2009). The current study examined these factors in first-year university students. The results of the current study support the idea that psychological wellbeing within the university population is an important area to consider. While most students reported stress, anxiety and depressive symptoms within the normal range,

approximately two in five students reported levels of symptoms indicating from mild distress through to extremely severe distress. One in five students reported stress above a normal range, while two in five students reported anxiety and depressive symptoms above a normal range, demonstrating elevated levels of stress, anxiety, and depression symptoms in some first-year university students.

At the severe to extremely severe end of the scale, more students reported anxiety symptoms than depressive symptoms. This supports previous research which indicates that the university experience is more anxiety provoking than depressive (Andrews & Wilding, 2004; Bewick, et al., 2010, Samaranayake, et al., 2014). University is associated with change and new experiences which may result in increased anxiety. Also, in general, anxiety disorders have the highest prevalence. Therefore, these results may reflect higher rates of anxiety in the population.

### ***Students reports of university adjustment***

While considering the elements of depression, anxiety and stress, the current study considered students reports of their adjustment to the university environment. This was measured by positive and negative affect towards being at university, homesickness, and an overall level of adjustment. Overall, most students reported a positive adjustment, which indicated their experience had been generally positive. While some students reported they were enjoying the change to university and had positive experiences, some students reported they were having some difficulties with the transition and experiencing some negative emotions.

A relationship was found between students reported distress and their adjustment with students who reported a more positive overall adjustment experience also more likely to report lower overall levels of psychological distress.

### ***The experience of physical symptoms***

Distress not only impacts on psychological health, but also can impact on one's physical health (Gerber & Pühse, 2008; Murberg & Bru, 2004; Torsheim, et al., 2001). The current study measured students' physical well-being. Physical symptoms were broad to include general health, physical health, bodily pain and how these impact on one's usual activities. Most students reported a low level of physical complaints however some students reported experiencing a high number of physical complaints. A

relationship was found between levels of physical symptoms and symptoms of psychological distress, with higher levels of physical symptoms shown to be associated with higher levels of anxiety symptoms, depressive symptoms, stress symptoms and overall psychological distress. Students who reported higher rates of physical symptoms were also more likely to report higher levels of negative affect in regards to university adjustment. However, level of physical symptoms was not associated with positive affect, homesickness, or overall adjustment to university. The current study supports the idea that distress is associated with physical symptoms (Grace, 1997). This supports previous research by Greene and Walker (1997) who suggest distress can increase one's risk of somatic symptoms. However, from the current research it is difficult to determine if stress results in more physical symptoms, whether physical symptoms increase stress, or whether there is a combination of both.

### ***Alcohol use in the university population***

Previous research has identified concerns about alcohol use among university students both internationally (Hallett, et al., 2012; Lorant et al., 2013; Murugiah, 2012; Reavley, et al., 2011) and in New Zealand (Kypri, et al., 2002; McGee & Kypri, 2004). The current research supports these concerns of heavy drinking among university students.

In the current study, students reported a mean score on *the 'Alcohol use disorders identification test'* (AUDIT) of 6.19 (SD = 5.91) from a possible range of 0 to 40, where a higher score indicates more concerning alcohol use. Hazardous drinking was identified by an AUDIT score of 8 or more. An AUDIT score of eight or more is considered a reliable indication of alcohol concerns indicating hazardous drinking (Barbor, et al., 2001; Reinert & Allen, 2002; Reinert & Allen, 2007). In the current study three out of ten students reported alcohol use of a hazardous level. Foulds et al. (2012) reported 17.7% of the general New Zealand population reported hazardous alcohol consumption indicative of an AUDIT score of eight or more. This demonstrates that first-year university students in the current study, had higher rates of hazardous alcohol consumption than the general population. This was seen across genders, with 34.1% of male students in the current study reporting hazardous drinking compared to 28.0% of male in the general population as reported by Wells et al. (2006). Female students were more than twice as likely to report hazardous alcohol use than the general population, with 28.7% female students in the current study reporting hazardous drinking compared to 12.5% of the general population as reported by Wells et al. (2006). When considering

these differences, it is important to note that alcohol use in the general population was not age-matched and therefore the age demographics differ from the current study which has a lower age average. Within the New Zealand populations studies, the highest risk of hazardous alcohol consumption is seen in males aged between 18 and 34 and females between 18 to 24 (Foulds, et al., 2012).

While the rates of hazardous drinking in the current study were lower than that reported elsewhere, a significant number of students are still consuming alcohol to a dangerous level. Students were categorised into Zone's per the AUDIT guidelines. Just under 20% of students scored within Zone II, indicating they may benefit from an intervention of simple advice. One in ten students scored within Zone III, indicating these students would benefit from an intervention of simple advice plus brief counselling and continued monitoring. Only a small number (3%) scored with Zone IV, indicating students would benefit from an intervention of a referral to specialist for diagnostic evaluation and treatment.

The Alcohol Advisory Council of New Zealand report binge drinking to be five or more drinks on an occasion for those aged 25 and under, and seven or more for those aged over 25 (Wells, et al., 2006). When considering binge drinking as five or more standard drinks in a session, just less than two in five students (38.5%) indicated binge drinking on a typical drinking session. Many students do not consider the concept of binge drinking and what it means, with many students not linking it to drinking a large quantity of alcohol in a short amount of time (Murugiah, 2012). Students who do understand this concept, often connect it with higher amounts of alcohol (Murugiah, 2012). Therefore, while there is this higher number of students engaging in regular binge drinking, they may not realise that this what they are doing. McGee and Kypri (2004) identify that binge drinking has a significant impact, both on students who engage in binge drinking and other people. They identify the impact alcohol use has on education such as on students being late to and missing classes, struggling to concentrate and not completing assignments and university tasks on time. Beyond the university and academic influences, student alcohol use impacts on a variety of other aspects, including an increase in interpersonal concerns, physical complaints, health concerns and/or financial concerns. Therefore, the effects of alcohol use can be widespread in university students (McGee & Kypri, 2004).

Students in the current study reported alcohol related consequences with three out of ten students reporting feeling guilt or remorse after drinking, three out ten students reporting being in a position whether they were unable to remember what occurred the previous night because of their drinking, and just under two out of ten reporting they had injured themselves or someone else because of their drinking. Previous research examined alcohol related consequences and many students could report positive consequences to their alcohol use. Lorant et al. (2013) reported the most common positive consequences were related to social aspects such as being able to approach other people, being more open to conversation and increasing energy to party and dance. While students experience an array of negative consequences, perhaps the positive consequences outweigh the negative consequences in that many students are feeling anxious and lonely and alcohol use is almost a pathway to socialisation for these students. Perceived positive consequences of alcohol use were not assessed in this study, but further research might focus on this in order to better understand the drinking culture in New Zealand university students.

#### ***Gender in relation to distress and adjustment***

The previous literature has shown mixed results for whether there are gender differences in distress levels for university students. The current study expected to find support for a gender difference in levels of distress. However, in the current study no significant differences were found between male students and female students on measures of psychological distress, which is consistent with the previous research by Bewick et al. (2010) and Leahy et al. (2010). This differs from both New Zealand and International research which has found a gender difference does exist (Dusselier, et al., 2005; Gall, et al., 2000; Patton, et al., 2003; Samaranayake & Fernando, 2011).

In relation to university adjustment, there was no significant differences between male and female students in regards to the transition to university, with both male and females reporting similar average scores across positive affect, negative affect, home sickness and overall adjustment. No significant gender differences were reported between male and female students in the report of physical complaints which differs from research by Greene and Walker (1997) who reported female students are more likely to report physical complaints than male students.

It is worth asking whether previous research identifies a gender difference because there are differences in clinical status or if it is due to reporting bias in which there is more stigma for males to report distress, disorder and adjustment concerns. The current study consisted of a higher number of female students than male students which may have impacted on the results. The participants were also volunteers. Therefore, the students who were more likely to volunteer to participate in a study on well-being, may have been students who were more willing to discuss their concerns. This could suggest that the students in the current study were less affected for stigma which may account for why there was no gender difference evident.

### ***Age in relation to distress and adjustment***

The current study expected that mature students would experience more distress during the first year of university than younger students due to them being part of a minority group. In the current study, younger students were more likely to report higher levels of anxiety and depressive symptoms than older students. No age differences were seen for stress or overall psychological distress or adjustment. These results did not support the hypothesis which aligned with research by Briggs et al. (2012) who identify that mature students, those who do not come straight from school, may have difficulty with this transition due to the large social displacement. Instead, the results support an idea by Stallman (2010) in which mature students appear to be more resilient, with more mature students in the current study showing lower levels of anxiety and depression. This was not relevant for stress or overall psychological distress. This may suggest that the first-year university experience may be stressful for some students regardless of age.

### ***Ethnicity in relation to distress and adjustment***

It was expected that non-New Zealand European students, which included Maori, Pacific Island, Asian, Indian, and other non-specified ethnicity, would experience more distress during the first year of university than European students due to them being part of the minority group. The current study found no significant differences between those who identified as New Zealand European and those who identified as another ethnicity in reported in relation to distress. Due to the small sample size, those who were not identifying as New Zealand European were combined during analysis. This may have masked differences that could have been important. A larger study with

sufficient samples of all groups of ethnicities would help to eliminate this issue and possibly produce differing results to the current study.

### ***Change and stressors which are associated with distress***

Not every person who transitions to university experiences high levels of psychological distress and adjustment difficulties. So, what factors play a role in these differences?

Change is an important part of any transitional phase. Change contributes to development, from a dependent adolescent to an independent adult (Brougham, et al., 2009). Students are effectively making decisions that have a significant impact on their future (Arnett, 2000). The transition to university includes many potential changes which can be considered as significant stressors (Besser & Hill, 2014). Stressors have been shown to be associated with higher levels of psychological distress (Olsson et al., 1999). The transition to university is considered as a significant transition as it is often made up of a variety of smaller changes (Hussey & Smith, 2010). The students in the current study reported varying levels of change with some students experiencing minimal changes while some students reported high levels of change. Students who reported more change were more likely to report higher levels of distress. This could suggest that it is not the specific changes that students are experience, but rather the changes may be varied and difficult to identify. Previous research has identified that students felt it was hard to learn to balance all the new changes (Palmer, O'Kane, & Owens, 2014). However, it might not even be the number of changes a person experiences that influence their well-being but how they perceive that change to be.

### ***Life events***

On average, students in the current study reported four life events in the previous 12 months and two life events still having an effect in their lives. There was no significant difference in the number of life events having occurred in the previous 12 months between male and female students. However, a significant difference was found in relation to gender and life events still having an effect, with female students reporting more currently effecting life events than male students.

Consistent with the bulk of research showing an association between life events and psychological distress, this study found significant associations between the number

of significant life events a student had experienced in the previous 12 months and their level of distress. Students who reported experiencing more life events in the previous twelve months were more likely to report higher levels of depressive symptoms, anxiety symptoms and stress. This differs from research which does not identify the number of life events as a predictor of well-being (Gall, Evans, & Bellerose, 2000). However, supports research which identifies significant life events as a risk factor for the development of psychological disorders such as anxiety and depression (Kessler, et al., 1995; Goodyer, 2001; Monroe & Simons, 1991).

### ***The experience of other stressors***

The most common reported difficulties in relation the transition to university included students worrying about their academic performance, feeling anxious or lonely, and worrying about the way they looked. In relation to worries about academic performance, previous research identifies that students report confusion and uncertainty around academic expectation (McMillan, 2013; Morosanu et al., 2010). Richardson et al. (2012) identify that students often felt like they could not deal with the increase in demands, reporting that differing commitments to family, personal, study and work life were often competing. These difficulties were commonly reported by students who stated they were *'just surviving'* at university as opposed to students who reported they were *'thriving'* who experienced the same competing conflicts but could identify ways in which they deal with these. In relation to reports of feeling lonely by students in the current study, students can become disconnected from their social supports during the transition to university. The current study expected to find that students who experienced significant stressors would report higher levels of distress. The current research found a relationship students' self-identified overall level of change and overall distress. This supported a common theme found in previous research that students experiencing a lot of change are more likely to report lower levels of well-being (Bitsika, et al., 2010; Goto & Martin, 2007; Lewis, Dickson-Swift, Talbot, & Snow, 2007). This relationship was not evident for overall adjustment.

For some students, the transition to university involves a change in environment and a change in cities (Brinkwood, et al., 2009). Just over half of the students surveyed reported having to move cities to attend university. While for some students this was from within the wider Waikato region, many of those who had moved came from the Bay of Plenty region. Other students reported moving from as far up as Northland and as

far down as the South Island. The current study expected that students who moved towns to attend university would report a higher amount of distress than students who did not move out of town. While some students reported moving cities with their family, most students who moved did not. The majority of students lived either in the halls of residence, a flatting or boarding situation, or with their parents. For just over half of the students not living with their family, this was their first experience living out of the family home. As expected, the current study found that students who were living out of the family home for the first time were more likely to be experiencing distress than students who had previously experienced living away from their family.

The New Zealand Union of Students' Associations (2014) report that the combined pressure of financial stress, extra working hours, and study has been associated with increasing stress and anxiety. Internationally, there has been an increase in financial challenges with many students needing to work alongside university to cover costs of university (Grace, 1997; Lewis, et al., 2007; Manthei & Gilmore, 2005). In the current study, about two in five of the students reported being in paid employment. Students in paid employment reported working on average 13.6 hours per week. The majority of students who were working reported that they were working to cover the cost of basic needs such as food, accommodation, and essential transportation. Previous research has also identified this as the main reason students are employed alongside their university commitments (Holmes, 2008; Manthei & Gilmore, 2005). Curtis and Williams (2002) found that around half of students work for experience. However, Holmes (2008) report that only a small percentage (5%) of students are working primarily for the opportunity to gain relevant experience. In the current study, approximately one in five students reported this as their reason for employment, less than those working for financial reasons.

Based on the previous literature, it was thought that students who were working alongside university would experience higher levels of distress than students who were not working. In the current study, students who were in paid employment reported that this impacted on their university work a medium amount, with students who worked more hours more likely to report a higher effect. This supports previous research in which students have reported that employment during university had a negative impact on their academic work in the long term (Manthei & Gilmore, 2005; Morosanu, Handley, & O'Donovan, 2010). Manthei and Gilmore (2005) identify that

working alongside study meant that the university year was particularly busy. Students may end up missing classes and limiting their access to other services (Lewis, Dickson-Swift, Talbot, & Snow, 2007). Working students may also need to select their course options around their work schedule due to the financial pressures (The New Zealand Union of Students' Associations, 2014). Previously, students have reported that given the opportunity they would prefer not to work so that they could focus full-time on their study and grades (Manthei & Gilmore, 2005).

Previous research has listed financial concerns as a significant stressor for university students (Al-Dubai, et al., 2011; Andrews & Wilding, 2004; Bitsika, et al., 2010; Stallman, 2010). In regards to financial assistance in the current study, students were supported in many ways including student loan living costs, student allowance, scholarships, paid employment, government benefits or parental support. Approximately half of students received financial assistance from more than one source. Costs of weekly living have increased significantly over the past ten years; however, the level of financial support has not increased to the same degree (The New Zealand Union of Students' Associations, 2014). It has been reported that many students in New Zealand have reported going without the essentials and struggling financially to make ends meet (The New Zealand Union of Students' Associations, 2014).

Based on the previous literature, it was thought that financial stressors would be a significant factor in relation to distress (Andrews & Wilding, 2004; Stallman, 2010). In the current study, approximately one in five students reported having had a major financial difficulty in the previous twelve months and 14.1% of students reported they had major financial difficulties that still affected them currently. While several students are experiencing major financial difficulties, the current study found no significant relationship between this and symptoms of psychological distress. This certainly does not say that financial difficulties are not distressing to many, but that across the wide range of students in this study, financial difficulties are not associated with general distress.

### ***Predicting overall distress***

Students first experience living out of home, life events that had occurred in the previous 12 months, life events still impacting, avoidant emotion coping and action emotion coping were all shown to have a significant relationship with students reports of overall distress. These factors were used to predict overall distress. Combined they

accounted for 43% of the variance. Avoidant emotion coping was the only variable from this selection that was shown to significantly predict overall distress. The current study was not able to identify specific predictors that could be used to identify students prior to starting university who might experience distress. A larger sample size may have found differing results as many minority groups were underrepresented in the study.

### ***Alcohol use and psychological distress***

Previous research has shown mixed results on whether alcohol use is related to psychological distress. The current study expected that students who reported higher levels of distress would also report higher levels of concerning alcohol use. In the current study, no significant relationship was seen between alcohol use and psychological distress. This is supported by Dawson, McGrant, Stinson and Chou (2005) who report that while adult drinkers report increased risk of mood disorders and anxiety disorders, college students rarely report these in association to alcohol use. Dusselier et al. (2005) report that alcohol use in students was related to stress. However, the current research did not find a relationship between alcohol use and stress.

While no relationship between psychological distress and alcohol use was reported, it is important to consider that some students still report high levels of alcohol use. This could suggest that students are consuming alcohol as a social element rather than as a reaction to stress or psychological distress. Dawson et al. (2005) supports this idea in which binge drinking culture has been associated with college as part of the college experience, and that students tend to engage in heavy-drinking occasions regardless of their experience of clinical symptomology. This idea is also supported by Robertson et al. (2010) who suggest that young people may engage in risky alcohol consumption regardless of their life experiences.

In the current study, a relationship was seen between concerning alcohol consumption and the experience of significant life events. Students who reported more significant life events in the previous twelve months were more likely significantly more likely to report higher rates of alcohol use. This supports previous research indicating that adolescents with increased exposure to significant life events reported greater substance use (Robertson, Xu, & Stripling, 2010). However, this was not noted for life events that still affected a person currently. This difference appears puzzling but may

due to less life events still impacting compared events that occurred over the past twelve months.

### ***Predicting alcohol use***

Avoidant emotion coping and moving cities to attend university were all shown to have a significant relationship with students' reports of alcohol use. These factors were used to predict overall distress. Combined they accounted for 16% of the variance and both significantly predict alcohol use. However, they only accounted for a small amount. It is still not known what other factors may play a role. A larger sample size with more representation of age, ethnicity, and gender, may have found differing results.

### ***Coping strategies and accessing resources during the first-year of university***

While many students are experiencing change and stressors during the transition to university, not every person experiences high levels of distress. An understanding of the coping strategies students use and resources they access during their first year of university may provide some understanding in why students experience varying levels of distress and adjustment.

### ***The use of coping strategies and the relationship with distress***

Previous research has found that active coping strategies were more commonly used by university students than avoidant coping strategies (Al-Dubai et al., 2011; Gall et al., 2000). Students in the current study reported similar use of problem solving coping and active emotion coping and avoidant emotion coping. However, avoidant emotion coping was the least commonly used. No gender differences were found between these categories. These differs from previous research which reported a gender difference in the types of coping strategies students use (Al-Dubai, et al., 2011; Brougham et al., Gall, et al., 2000; Lawrence, et al., 2006).

The current study expected to find that students who reported lower levels of distress would be more likely to report using more active coping strategies than students who were reporting higher levels of distress. The results found a significant relationship between overall distress and avoidant emotion coping and active emotion coping. Students who reported higher levels of distress were more likely to report higher

levels of avoidant emotion coping and higher levels of active emotion coping. This relationship was stronger for avoidant emotion coping. This could be interpreted in that students who were using more unhealthy coping strategies such as those associated with the avoidant category, were more likely to continue to experience high level of distress. It should be noted that many students used a variety of different types of coping strategies with none only using avoidant.

In regards to alcohol consumption, students who reported higher levels of concerning alcohol use more likely to report using more avoidant emotion coping strategies. So, while students who report the use of avoidant emotion coping strategies are not more likely to be distressed, they are more likely to display more concerning alcohol use. Robertson, Xu, and Stripling (2010) found that of these strategies, only the use of humour was related to an increase in substance use. A relationship was not seen between alcohol use and either problem solving coping or action emotion coping. Robertson, Xu, and Stripling (2010) also found no relationship between substance use and more active coping strategies. Alcohol use can be seen as a form of avoidant coping strategies and that may explain why this relationship is evident.

### ***Access to resources and the relationship with distress***

While a variety of resource may be available to students, Morosanu et al., (2010) ask the question, what are the resources that students access? This question is an important part of learning about the transition experience. Previous research emphasises the importance of access to resources (Pitkethly & Prosser, 2001). While resources offered outside of the university environment were not measured in this study, the use of resources offered by the university are also important to understand. Resources and services are important during the first year of university as students have less access to resources they may have relied on in the past (Frydenberg, 2008)

The most common used services were related to student health doctor and nurse services. Access to other services was minimal with most other services reaching less than one in ten students and many students reported they were not aware of many of the services provided. However, students who did access the services reported them to be mostly helpful. The current study showed students who were experiencing psychological distress above a normal range were not more likely to access students support services than students who were reported in the normal range. Previous

research has identified a theme in which students who are reporting distress do not always access the relevant services. The lack of association in the current study implies that there are also students who have accessed the services but are not reporting distress. That could be wither because the services worked, or because distress is not the reason students access them.

Financial concerns are raised in previous literature as a significant area of concern for university student (Al-Dubai, et al., 2011; Andrews & Wilding, 2004; Bitsika, et al., 2010). In the current study, one in five students had reported major financial difficulty in the past year and many students were working to cover the basic costs of living. However, less than half of students surveyed had heard about the student financial advisory service (43.7%) and only one in twenty students (4.44%) had accessed the service. Students who had accessed the advisory service on average reported the service to be '*a little helpful*'.

### ***Summary and implications***

The current research supports that there is a high number of students experiencing some form of psychological distress during their first-year of university, with the current study reporting two in five students reporting distress above a normal level. It is important to identify and monitor students who may be at risk (James, Krause, & Jennings, 2010). The purpose of the study was to identify factors that may predict if a student is more at risk of becoming distressed. In relation to change and stressors, it was found that students who were living out of the family home for the first time, those who reported more significant life events, and those using avoidant emotion and active emotion coping were more likely to report higher levels of overall distress. Avoidant emotion was seen to be the most contributing predictor.

Students in employment reported more difficulty in university which may be an area of consideration. Student undertaking paid employment during university has been noted as a concern in previous reports (James, Krause, & Jennings, 2010). As the cost of living and the cost of university increases, universities may need to put additional consideration into some student's need to work to meet their basic needs or to enjoy the university experience. While universities do not influence income and cost of living or a student's financial need to work, there are other areas in which students could be supported in this area. Previous research has identified that students have felt that

lecturers do not always support their need to work (Brinkwood et al., 2009). Literature has identified some positive benefits for students who are employed including enhancing learning opportunities, providing relevant experience, enhancing organisational and time management skills, and helping to teach students important life skills (Manthei & Gilmore, 2005; McInnis, 2001). Therefore, the solution may not be about trying to stop students from being in employment, but learning to navigate dual roles and responsibilities. Holmes (2008) suggests this can be supported by running some form of seminar to demonstrate to students how to manage these dual roles.

The current study identified that perhaps it is the amount of change that a person is experiencing rather than the individual elements of change that is associated with distress, which supports the need for services to be flexible and varied. Each student also brings with them the experience of different changes. Each student brings with them a template for managing change and new experiences (Crafter & Maunder, 2012). This can impact the effectiveness of the support strategies and resources that universities put in place, with a one-size strategy not necessarily meeting the needs of all students.

Students need support during the transition to university. Many universities adopt some form of intervention strategies to support learning and retention during the transition to university (Palmer, O'Kane, & Owens, 2014). This often includes the development of many initiatives classified as best practice. Many of these include strategies such as open days, orientation days, study skill and first-year seminars. Palmer et al. (2014) identify many strategies are focused around retention and therefore building meaningful connections to the university. The University of Waikato offer a variety of services for students. Previous research identifies that students need to be better prepared for the university experience (Wilcox, et al., 2005). Early interventions are required to prepare students for the real experience of university (Brinkwood, et al., 2009). Research by Briggs et al. (2009) and Clark and Hall (2010) identify that while there were many opportunities for students to visit and prepare for university life, many parents and students were not always aware that these opportunities existed.

If service providers, such as the health team or counsellors, are aware of the core stressors that students are experiencing, it may allow them to focus upon these stressors and how they affect their well-being and ability to study and concentrate. Future research could more specifically examine stressors that students are

experiencing and their reports of distress related to the stressors. This could be used to support services offered.

The low rate of service use suggests that the way we currently support students' needs to be examined. Previous research has identified potential barriers to accessing resources. Eisenberg, et al. (2007) found that many students were not aware of many of the services that were available, which can be considered as a barrier. This was supported by the previous research which identified many students did not know about the services that were offered through the university. However, Morosanu et al. (2010) suggest that the resources and strategies implemented in universities are not always embraced by students (Morosanu, Handley, & O'Donovan, 2010). Education provided to students on what resources are available to them could help to increase support for students.

Other reasons for not accessing services include an expectation that distress is part of being a student (Stallman, 2010); or a view that services may not be helpful (Eisenberg, et al., 2007). In the current study, those who accessed services typically reported that they were mostly helpful. This indicates that these services are meeting the needs of most of the students who access them.

Managing the transition to university is not just the responsibility of universities (Palmer, O'Kane, & Owens, 2014). Richardson et al. (2012) suggest that it is both the responsibility of the students and the university to improve the transition to university experience.

Richardson et al. (2012) identified that developing students' non-academic skills was just as important as developing academic skills. Students who had good interpersonal skills, social skills, coping strategies, organisational skills and stress-management skills are more likely to respond positively to the university experience. Student services need to go beyond offering academic support and offer more social support for students. The emphasis of social resources is an important tool in facilitating the transition to university (Crafter & Maunder, 2012). Gall et al. (2000) suggest the distress during this time may stem not only from all the changes and demands, but also the reduction in usual support systems that are available during this time. A lack of social support has been shown to increase the risk of burnout and impact negatively on quality of life (Henning, et al., 2009). Richardson et al. (2012) raise the importance of

building positive relationships in the university context to promote a positive university experience. Wilcox et al. (2005) support the importance of building compatible friendships for both social and academic integration. Supporting the development of pro-social interpersonal supports could support a decrease in somatic symptoms in students (Murberg & Bru, 2004). Crafter and Maunder (2012) suggest that universities should offer lots of opportunities for students to network, not only with other first year university students but also to encourage relationships to build between the new first year students and students who are already enmeshed in the university environment. Crafter and Maunder (2012) suggest this could be done through strategies such as buddying or mentoring. Students should be encouraged to build relationships, not only with the other students, but also with staff (Murberg & Bru, 2004).

It is important to consider that the transitional period is not limited to a short period. Therefore, services and strategies to support the transition needs to go beyond initial induction periods (Maunder et al., 2013). Access to student services is emphasised by Pitkethly and Prosser (2001). Support should be offered both before and after students begin university life (Briggs, et al., 2012). Maunder et al. (2013) identifies that support services need to go beyond the induction period and support students' ongoing transitions.

### ***Limitations and future research***

Some limitations should be considered when interpreting the results of the current study. The current sample was small and limited to one university. This means that the results are not necessarily generalisable to all first-year university students in New Zealand or elsewhere.

Participants in the current study volunteered their time and participation. This means the sample is open to bias. Students who were working more or feeling more stressed may have been less likely to complete the survey. Alternatively, the study may have been more likely to attract those students who are feeling more stressed and wanted to opportunity to express this.

The study only considers one point of a student's time at university and as the recruitment was completed over the space of twelve months, this time of the year was different for different students. In the current study, there was no significant differences between students who completed the study in Semester A or B. However, there may be

a difference between different levels of study. Previous research has identified changes in distress symptomology across different periods of university life. Bewick et al. (2010) reports that the highest levels of distress are found in the first semesters of both years one and two with a reduction in distress in the second semesters. Andrews and Wilding (2004) report an increase in symptoms in the period before university with a reduction mid-way through the year. Future research could examine how students' response change over time, or examine their experiences at specific periods of the year.

The study examined significant life events as a predictor of distress as well as other factors of change and stress. It may have been helpful to examine daily hassles alongside these to see what regular stressors students were experiencing and how this may have impacted on their wellbeing.

In terms of services examined within the current research, the list of services was compiled from the University of Waikato website rather than directly from student services. Therefore, the research may not include a comprehensive list of services that are offered for all years. However, this would be the same information easily accessible for university students.

Research that focuses on the transition to university and the experiences of first-year students can be considered when planning the effective use of limited resources (Hunt & Eisenberg, 2010). However, there is currently a lack of research supporting effective programs and policies that could deal with some of the issues raised. Hunt and Eisenberg (2010) identify promising principles include that holistic strategies and incorporate public health, focusing not only on dealing with concerns raised but also looking at both the prevention of concerns and the promotion of positive well-being.

## Conclusion

The current research found that two in five students were reporting overall distress beyond normal level. Students who were living out of the family home for the first time, those who reported more significant life events, and those using avoidant emotion and active emotion coping were more likely to report higher levels of overall distress. However, avoidant emotion coping was the only factor that significantly predicted distress. Students self-identified overall level of change was related to overall distress, which suggests that it may be students perceived overall level of change that impacts on their well-being rather than the specific changes itself.

Three out of ten students reported alcohol use of a hazardous level. The current study did not find a relationship with alcohol use and overall distress. Avoidant emotion coping and moving cities were shown to be predictors of overall alcohol use.

Students in the study reported low use of services and many students did not know about the services that are available. Students who were experiencing psychological distress above a normal range were not more likely to access students support services than students who were reported in the normal range. This is considered an area where intervention could occur with more information provided to students about how to access services when they need them.

## References

- Al-Dubai, S. A., Al-Naggar, R. A., Alshagga, M. A., & Rampal, K. G. (2011). Stress and coping strategies of students in a medical faculty in Malaysia. *Malaysian Journal of Medical Science, 18*(3), 57-64.
- Aldwin, C. M. (2009). *Stress, coping and development: An integrative perspective* (2nd ed.). USA: The Guilford Press.
- Andrews, B., & Wilding, J. M. (2004). The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology, 95*, 509-521.
- Anthony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment, 10*(2), 176-181.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469-480. doi:10.1037/0003-066x.55.5.469
- Arthur, N. (1998). The effects of stress, depression and anxiety on postsecondary students' coping strategies. *Journal of College Student Development, 39*, 11-22.
- Barbor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monterio, M. G. (2001). *The Alcohol Use Disorders Identification Test: Guidelines for use in primary care* (Second ed.). Geneva, Switzerland: World Health Organisation.
- Bell, A. (2014). From school to university: Transition to adulthood. *Independence, 39*(1), 22-25.
- Bernhardsdóttir, J., & Vilhjálmsón, R. (2013). Psychological distress among university female students. *Journal of Psychiatric and Mental Health Nursing, 20*, 672-678.
- Besser, A., & Zeigler-Hill, V. (2014). Positive personality features and stress among first-year university students: Implications for psychological distress, functional impairment, and self-esteem. *Self and Identity, 13*(1), 24-44. doi:10.1080/15298868.2012.736690

- Bewick, B., Koutsopoulou, G., Miles, J., Slaa, E., & Barkham, M. (2010). Changes in undergraduate students' psychological well-being as they progress through university. *Studies in Higher Education, 35*(6), 633-645.  
doi:10.1080/03075070903216643
- Bitsika, V., Sharpley, C., & Rubenstein, V. (2010). What stresses university students: An interview investigation of the demands of tertiary studies. *Australian Journal of Guidance & Counselling, 20*(1), 41-54. doi:10.1375/ajgc.20.1.41
- Bramley, D., Broad, J., Harris, R., Reid, P., & Jackson, R. (2003). Differences in patterns of alcohol consumption between Maori and non-Maori in Aoteroa (New Zealand). *The New Zealand Medical Journal, 116*(1184), 1-17.
- Briggs, A. R., Clark, J., & Hall, I. (2009). *Bridging the gap: Project report on student transition*. UK: New Castle University. Retrieved from [www.ncl.ac.uk/cflat/documents/BridgingtheGapfinalreportv6.pdf](http://www.ncl.ac.uk/cflat/documents/BridgingtheGapfinalreportv6.pdf)
- Briggs, A. R., Clark, J., & Hall, I. (2012). Building bridges: Understanding student transition to university. *Quality in Higher Education, 18*(1), 3-21.  
doi:10.1080/13538322.2011.614468
- Brinkwood, R., McCann, B., Matthews, C., & Nordstrom, K. (2009). First year expectations and experiences: student and teacher perspectives. *Higher Education, 58*(157), 157-173.
- Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current Psychology, 28*(85), 85-97. doi:10.1007/s12144-009-9047-0
- Brown, T. A., Chorpita, B. F., Korotisch, W., & Barlow, D. H. (1997). Psychometric properties of the Depression Anxiety Stress Scales (DASS) in clinical samples. *Behavior Research and Therapy, 35*, 79-89.
- Brugha, T., Bedington, P., Tennant, C., & Hurry, J. (1985). The list of threatening experiences: A subset of 12 life event categories with considerable long-term conceptual threat. *Psychological Medicine, 15*, 189-194.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioural Medicine, 4*, 92-100.

- Carver, C. S., & Scheier, M. F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology, 66*, 184-195.
- Carver, C. S., Schieier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality & Social Psychology, 56*(2), 267-283.
- Castagnetti, C., & Rosti, L. (2009). Effort allocation in tournaments: The effect of gender on academic performance in Italian universities. *Economics of Education Review, 28*, 357-369.
- Clark, J., & Hall, I. (2010). *Exploring transition: The experiences of students at Newcastle University in their first year*. UK: Newcastle University. Retrieved from [http://eprint.ncl.ac.uk/pub\\_details2.aspx?pub\\_id=166707](http://eprint.ncl.ac.uk/pub_details2.aspx?pub_id=166707)
- Cook, A., & Leckley, J. (1999). Do expectations meet reality? A survey of changes in first-year student opinion. *Journal of Further and Higher Education, 23*(2), 157-171. doi:10.1080/0309877990230201
- Cox, A., & Bentovim, A. (2000). *The family pack of questionnaires and scales*. London: Department of Health.
- Crafter, S., & Maunder, R. (2012). Understanding transitions using a sociocultural framework. *Educational & Child Psychology, 29*(1), 10-18.
- Crawford, J. R., & Henry, J. D. (2003). The depression anxiety stress scales (DASS): Normative data and latent structure in a large non-clinical sample. *British Journal of Clinical Psychology, 42*, 111-131.
- Dawson, D. A., Grant, B. F., Stinson, S., & Chou, P. S. (2005). Psychopathology associated with drinking and alcohol use disorders in the college and general adult populations. *Drug and Alcohol Dependence, 77*, 139-150. doi:10.1016/j.drugalcdep.2004.07.012
- Dodgson, P. G., & Wood, J. V. (1998). Self-esteem and the cognitive accessibility of strengths and weaknesses after failure. *Journal of Personality and Social Psychology, 75*(1), 178-197.

- Dusselier, L., Dunn, B., Wang, Y., Shelley, M. C., & Whalen, D. F. (2005). Personal, health, academic, and environmental predictors of stress for residence hall students. *Journal of American College Health, 54*(1), 15-24.
- Dwyer, A. L., & Cummings, A. L. (2001). Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling, 35*(3), 208-220.
- Edwards, K. J., Hershberger, P. J., Russell, R. K., & Markert, R. J. (2001). Stress, negative social exchange, and health symptoms. *Journal of American College Health, 50*, 75-79.
- Eisenberg, D., Golberstein, E., & Gollust, S. E. (2007). Help-seeking and access to mental health care in a university student population. *Medical Care, 45*(7), 594-601.
- Eriksen, H. R., & Ursin, H. (2004). Subjective health complaints, sensitization, and sustained cognitive activation. *Journal of Psychosomatic Research, 56*, 445-448.
- Felsten, G. (1998). Gender & Coping: Use of distinct strategies and associations with stress and depression. *Anxiety, Stress and Coping, 11*(4), 289-309.
- Fleming, M. F., Barry, K. L., & MacDonald, R. (1991). The alcohol use disorders identification test (AUDIT) in a college sample. *International Journal of the Addictions, 26*, 1173-1185.
- Flynn, M., & Rudolph, K. D. (2011). Stress generation and adolescent depression: Contribution of interpersonal stress response. *Journal of Abnormal Child Psychology, 39*(1187), 1187-1198.
- Folkman, S., & Lazarus, R. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*, 150-170.
- Foulds, J., Wells, J. E., Lacey, C., Adamson, S., & Mulder, R. (2012). Harmful drinking and talking about alcohol in primary care: New Zealand population survey findings. *Acta Psychiatrica Scandinavica, 126*, 434-439. doi:10.1111/j.1600-0447.2012.01871.x
- Friedlander, L. J., Reid, G. J., Shupak, N., & Cribbie, R. (2007). Social support, self-esteem, and stress as predictors of adjustment to university among first-year

undergraduates. *Journal of College Student Development*, 48(3), 259-274.  
doi:10.1353/csd.2007.0024

- Frydenberg, E. (2008). *Adolescent Coping: Advances in theory, research and practice*. New York: Routledge.
- Fryer, K., Jones, O., & Kalafatelis, E. (2011). *ALAC alcohol monitor - Adults & youth 2009-10 drinking behaviours report*. New Zealand: Research New Zealand.
- Gall, T. L., Evans, D. R., & Bellerose, S. (2000). Transition to first-year university: Patterns of change in adjustment across life domains and time. *Journal of Social and Clinical Psychology*, 19(4), 544-567.
- Ge, X., Conger, R. D., & Elder, G. H. (2001). Pubertal transition, stressful life events, and the emergence of gender differences in adolescent depressive symptoms. *Developmental Psychology*, 37, 404-417.
- Gerber, M., & Pühse, U. (2008). 'Don't crack under pressure' - Do leisure time physical activity and self-esteem moderate the relationship between school-based stress and psychosomatic complaints? *Journal of Psychosomatic Research*, 65, 363-369.
- Gerrig, R. J., Zimbardo, P. G., Campbell, A. J., Cumming, S. R., & Wilkes, F. J. (2009). *Psychology and Life: Australian Edition*. NSW: Pearson Education Australia.
- Goodyear, I., Kolvin, I., & Gatzanis, S. (1987). The impact of recent undesirable life events on psychiatric disorders in childhood and adolescence. *British Journal of Psychiatry*, 151, 179-184.
- Goodyer, I. M. (2001). Life events: their nature and effects. In I. M. Goodyer, *Depressed child and adolescent* (pp. 204-232). London/New York: Cambridge University Press.
- Goto, S., & Martin, C. (2007). Psychology of success: overcoming barriers to pursuing further education. *Journal of Continuing Higher Education*, 57(1), 10-21.  
doi:10.1080/07377360902810744
- Grace, T. W. (1997). Health problems of college students. *The Journal of American College Health*, 45, 243-250.

- Grant, K. E., Compas, B. E., Stuhlmacher, A. F., Thurm, A. E., McMahon, S. D., & Halpert, J. A. (2003). Stressors and child and adolescent psychopathology: Moving from markers to mechanisms of risk. *Psychological Bulletin, 129*(3), 447-466.
- Greene, J. W., & Walker, L. S. (1997). Psychosomatic problems and stress in adolescence. *Adolescent Medicine, 44.*, 1557-1572.
- Halamandaris, K. F., & Power, K. G. (1997). Individual differences, dysfunctional attitudes, and social support: A study of psychosocial adjustment to university life of home students. *Personality and Individual Differences, 22*, 93-104.
- Hallett, J., Howat, P. M., Maycock, B. R., McManus, A., Kypri, K., & Dhaliwal, S. S. (2012). Undergraduate student drinking and related harms at an Australian university: web-based survey of a large random sample. *BMC Public Health, 37*, 1-8.
- Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy & Behavior, 8*, 102-114. doi:10.1016/j.yebeh.2005/10.012
- Haugland, S., & Wold, B. (2001). Subjective health complaints in adolescence - Reliability and validity of survey methods. *Journal of Adolescence, 24*, 611-624.
- Henning, M. A., Hawken, S. J., & Hill, A. G. (2009). The quality of life of New Zealand doctors and medical students: what can be done to avoid burnout? *The New Zealand Medical Journal, 122*(1307), 102-110.
- Holahan, C. J., Valentiner, D. P., & Moos, R. H. (1995). Parental support, coping strategies, and psychological adjustment: An integrative model with late adolescents. *Journal of Youth and Adolescence, 24*(6), 633-648.
- Holmes, V. (2008). Working to live: Why university students balance full-time study and employment. *Emerald Insight, 50*(40), 305-314.  
doi:10.1108/00400910810880542
- Huckle, T., You, R. Q., & Casswell, S. (2011). Increases in quantities consumed in drinking occasions in New Zealand 1995-2004. *Drug and Alcohol Review, 30*, 366-371.  
doi:10.1111/j.146-3362.2010.00220.x
- Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking among college students. *Journal of Adolescent Health, 46*, 3-10.  
doi:10.1016/j.jadohealth.2009.08.008

- Hussey, T., & Smith, P. (2010). Transitions in higher education. *Innovations in Education and Teaching*, 47(2), 155-164.
- Ingledeu, D. K., Hardy, L., & Cooper, C. L. (1997). Do resources bolster coping and does coping buffer stress? An organizational study with longitudinal aspect and control for negative affectivity. *Journal of Occupational Health Psychology*, 2(2), 118-133.
- James, R., Krause, K., & Jennings, C. (2010). *The first year experience in Australian Universities: Findings from 1994 to 2009*. Australia: The University of Melbourne.
- Johnson, G. C., & Watson, G. (2004). "Oh gawd, How am I going to fit into this?" Producing [mature] first-year student identity. *Language and Education*, 18(6), 474-487.
- Kariv, D., & Heiman, T. (2005). Task-oriented versus emotion-oriented coping strategies: the case of college students. *College Student Journal*, 39(1), 72-84.
- Kessler, R. C., Foster, C. L., Saunders, W. B., & Al, e. (1995). Social consequences of psychiatric disorders, I: educational attainment. *American Journal of Psychiatry*, 152, 1026-1032.
- Keup, J. R., & Barefoot, B. O. (2005). Learning how to be a successful student: Exploring the impact of first-year seminars on student outcomes. *Journal of the First-Year Experience and Students in Transition*, 17(1), 11-47.
- Kitzrow, M. A. (2003). The mental health needs of today's college student: Challenges and recommendations. *NASPA Journal*, 41, 167-181.
- Kypri, K., Cronin, M., & Wright, C. (2005). Do university students drink more hazardously than their non-student peers? *Addiction*, 100(5), 713-714. doi:10.1111/j.1360-0443.2005.01116x
- Kypri, K., Langley, J. D., McGee, R., Saunders, J. B., & Williams, S. (2002). High prevalence persistent hazardous drinking in New Zealand tertiary students. *Alcohol Alcohol*, 37(5), 457-464.
- Kypri, K., Paschall, M. J., Langley, J., Baxter, J., Cashell-Smith, M., & Bourdeau, B. (2009). Drinking and alcohol related harm among New Zealand university students:

- findings from a national web-based survey. *Alcoholism Clinical and Experimental Research*, 33(2), 307-314.
- Lawrence, J., Ashford, K., & Dent, P. (2006). Gender differences in coping strategies of undergraduate students and their impact on self-esteem and attainment. *Active Learning in Higher Education*, 7, 272-281.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Leahy, C. M., Peterson, R. F., Wilson, I. G., Newbury, J. W., Tonkin, A. L., & Turnbull, D. (2010). Distress levels and self-reported treatment rates for medicine, law, psychology and mechanical engineering tertiary students: cross-sectional study. *Australian and New Zealand Journal of Psychiatry*, 44(608), 608-615.
- Lester, D. (1990). Depression and suicide in college students and adolescents. *Personality and Individual Differences*, 11, 757-758.
- Lewis, C., Dickson-Swift, V., Talbot, L., & Snow, P. (2007). Regional tertiary students and living away from home: A priceless experience that costs too much? *The Australian Journal of Social Issues*, 42(4), 531-547.
- Litman, J. A. (2006). The COPE inventory: Dimensionality and relationships with approach- and avoidance-motives and positive and negative traits. *Personality and Individual Differences*, 41, 273-284. doi:10.1016/j.paid.2005.11.032
- Lorant, V., Nicaise, P., Soto, V. E., & d'Hoore, W. (2013). Alcohol drinking among college students: college responsibility for personal troubles. *Bio Med Central Public Health*, 13(615), 2-9.
- Lu, L. (1991). Daily hassles and mental health: A longitudinal study. *British Journal of Psychology*, 82(4), 441-447.
- Lucy, H., & Reay, D. (2000). Identities in transition: Anxiety and excitement in the move to secondary school. *Oxford Review of Education*, 26(2), 191-205.
- Manthei, R. J., & Gilmore, A. (2005). The effect of paid employment on university students' lives. *Education + Training*, 47(3), 202-215.

- Marx, M. B., Garrity, T. F., & Bowers, F. R. (1975). The influence of recent life experience on the health of college freshman. *Journal of Psychosomatic Research, 19*, 87-98.
- Maunder, R. E., Cunliffe, M., Galvin, J., Mjali, S., & Rogers, J. (2013). Listening to student voices: student researchers exploring undergraduate experiences of university transition. *Higher Education, 66*, 139-152.
- McCarthy, C. A., Vander Stoep, A., Kuo, E. S., & McCauley, E. (2006). Depressive symptoms among delinquent youth: Testing models of association with stress and support. *Journal of Psychopathology and Behavioral Assessment, 28*(2), 85-93. doi:10.1007/s10862-006-7486-6
- McGee, R., & Kypri, K. (2004). Alcohol-related problems experienced by university students in New Zealand. *Australian and New Zealand Journal of Public Health, 28*(4), 321-323.
- McInnis, C. (2001). Researching the first year experience: Where to from here? *Higher Education Research and Development, 20*(2), 105-114. doi:10.1080/07294360125188
- McInnis, C., James, R., & McNaught, C. (1995). *First year on campus: diversity in the initial experiences of Australian undergraduates*. Melbourne: University of Melbourne Centre for the Study of Higher Education.
- McMillan, W. (2013). Transition to university: the role played by emotion. *European Journal of Dental Education, 17*, 169-176. doi:10.1111/eje.12026
- McNamara, S. (2006). *Helping young people to beat stress*. New York: Continuum.
- Ministry of Education. (2014). *Ministry of Education*. Retrieved 2015, from <http://www.minedu.govt.nz>
- Ministry of Health. (2012). *The Health of New Zealand Adults 2011/12: Key findings of the New Zealand Health Survey*. Ministry of Health: Wellington.
- Moksnes, U. K., Rannestad, T., Byrne, D. G., & Espnes, G. A. (2010). The association between stress, sense of coherence and subjective health complaints in adolescents: Sense of coherence as a potential moderator. *Stress and Health, 27*, 157-165.

- Monroe, S. M., & Simons, A. D. (1991). Diathesis/stress theories in the context of life stress research: implications for the depressive disorders. *Psychol Bull*, *110*, 406-425.
- Monzani, D., Steca, P., Greco, A., D'Addario, M., Cappelletti, E., & Pancani, L. (2015). The situational version of the brief COPE: Dimensionality and relationships with goal-related variables. *Europe's Journal of Psychology*, *11*(2), 295-310.  
doi:10.5964/ejop.v11i2.935
- Moreau, M. P., & Leathwood, C. (2006). Balancing paid work and studies: working (-class) students in higher education. *Studies in Higher Education*, *31*, 23-42.
- Morosanu, L., Handley, K., & O'Donovan, B. (2010). Seeking support: researching first-year student's experiences of coping with academic life. *Higher Education Research and Development*, *29*(6), 665-678.
- Murberg, T. A., & Bru, E. (2004). School-related stress and psychosomatic symptoms among Norwegian adolescents. *School Psychology International*, *25*, 317-332.
- Murugiah, S. (2012). A discrepancy of definitions: Binge drinking and female students at an Australian . *Youth Studies Australia*, 26-34.
- Olsson, I. G., Nordstrom, M., Arinell, H., & von Knorring, A.-I. (1999). Adolescent depression and stressful life events: A case-control study within diagnostic subgroups. *Nordic Journal of Psychiatry*, *53*(5), 339-346.
- Palmer, M., O'Kane, P., & Owens, M. (2014). Betwixt spaces: student accounts of turning point experiences in the first-year transition. *Studies in Higher Education*, *34*(1), 37-54.
- Patton, G. C., Coffey, C., Posterino, M., Carlin, J. B., & Bows, G. (2003). Life events and early onset depression: cause or consequence? *Psychological Medicine*, *33*, 1203-1210.
- Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counselling & Development*, *79*, 77-89.
- Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, *58*, 528-537.

- Pitkethly, A., & Prosser, M. (2001). The first year experience project: A model for university-wide change. *Higher Education Research and Development, 20*(2), 185-198.
- Reavley, N. J., Jorm, A. F., McCann, T. V., & Lubman, D. I. (2011). Alcohol consumption in tertiary education students. *MioMed Central Public Health, 545*, 1-9.
- Reinert, D. F., & Allen, J. P. (2002). The Alcohol Use Disorders Identification Test (AUDIT): A review of recent research. *Alcoholism: Clinical and Experimental Research, 26*(2), 272-279.
- Reinert, D. F., & Allen, J. P. (2007). The Alcohol Use Disorders Identification Test: An update of research findings. *Alcoholism: Clinical and Experimental Research, 31*(2), 185-199.
- Richardson, A., King, S., Garrett, R., & Wrench, A. (2012). Thriving or just surviving? Exploring student strategies for a smoother transition to university. A practice report. *The International Journal of the First Year in Higher Education, 3*(2), 87-93. doi:10.5204/intjfyhe.v3i2.133
- Richardson, J. J., Kemp, S., Malinen, S., & Haultain, S. A. (2013). The academic achievement of students in a New Zealand university: Does it pay to work? *Journal of Further and Higher Education, 37*(6), 864-882. doi:10.1080/0309877X.2012.699517
- Robertson, A. A., Xu, X., & Stripling, A. (2010). Adverse events and substance use among female adolescent offenders: effects of coping and family support. *Substance Use Misuse, 45*(3), 451-472. doi:10.3109/10826080903452512
- Rowlinson, R. T., & Felner, R. D. (1988). Major life events, hassles and adaptation in adolescence: Confounding in the conceptualization and measurement of life stress and adjustment revisited. *Journal of Personality and Social Psychology, 55*, 432-44.
- Samaranayake, C. B., & Fernando, A. T. (2011). Satisfaction with life and depression among medical students in Auckland, New Zealand. *The New Zealand Medical Journal, 124*(1341), 12-17.

- Samaranayake, C. B., Arroll, B., & Fernando, A. T. (2014). Sleep disorders, depression, anxiety and satisfaction with life among young adults: a survey of university students in Auckland, New Zealand. *Journal of the New Zealand, 127*(1399), 13-22.
- Sher, K. J., & Rutledge, P. C. (2007). Heavy drinking across the transition to college: Predicting first-semester heavy drinking variables. *Addictive Behaviors, 32*, 819-835. doi:10.1016/j.addbeh.2006.06.024
- Smith, W., & Zhang, P. (2009). Students' perceptions and experiences with key factors during the transition from high school to college. *College Student Journal, 43*(2), 643-657.
- Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist, 45*(4), 249-257. doi:10.1080/00050067.2010.482109
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behaviour: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review, 6*(1), 2-30.
- Tausig, M. (1982). Measuring life events. *Journal of Health and Social Behavior, 23*, 52-64.
- The Mental Health Foundation. (2014). *Quick Facts and Stats 2014*. Wellington: The Mental Health Foundation.
- The New Zealand Union of Students' Associations. (2014). *Income and Expenditure Survey 2014*. New Zealand: The New Zealand Union of Students' Associations. Retrieved 2016, from <http://www.students.org.nz/>
- The University of Waikato. (2014). *Annual Report*. Hamilton: The University of Waikato.
- Torsheim, T., Aaroe, L. E., & Wold, B. (2001). Sense of coherence and school-related stress as predictors of subjective health complaints in early adolescence: Interactive, indirect or direct relationships? *Social Science and Medicine, 53*, 603-614.
- Verger, P., Combes, J., Kovess-Masfety, V., Choquet, M., Guagliardo, V., Roullion, F., & Peretti-Wattel. (2009). Psychological distress in first year students:

socioeconomic and academic stressors, mastery and social support in young men and women. *Social Psychiatry and Psychiatric Epidemiology*, *44*, 643-650.

- Vredenburg, K., O'Brien, E., & Krames, L. (1988). Depression in college students: Personality and experiential factors. *Journal of Counseling Psychology*, *35*, 419-425.
- Wang, P., Fu, A. Z., Wee, H. L., Lee, J., Tai, E. S., Thumboo, J., & Luo, N. (2013). Predicting preference-based SF-6D index scores from the SF-8 health survey. *Quality of Life Research*, *22*, 1675-1683. doi:10.1007/s11136-012-0284-6
- Ware, J., Kosinski, M., Dewey, J., & Gendek, B. (2001). *How to score and interpret single-item health status measures: A manual for users of the SF-8 Health Survey*. Boston: QualityMetric.
- Wells, J. E., Baxter, J., & Schaaf, D. (Eds.). (2006). *Substance use disorders in Te Rau Hinengaro: The New Zealand mental health survey*. Wellington: Alcohol Advisory Council of New Zealand.
- Wilcox, P., Winn, S., & Fyvie-Gauld, M. (2005). 'It was nothing to do with the university, it was just the people': the role of social support in the first-year experience of higher education. *Studies in Higher Education*, *30*(6), 702-722. doi:10.1080/03075070500340036
- Wong, J. G., Cheung, E. P., Chan, K. K., Ma, K. K., & Tang, S. W. (2006). Web-based survey of depression, anxiety and stress in first-year tertiary education students in Hong Kong. *Australian and New Zealand Journal of Psychiatry*, *40*, 777-782.
- Yau, H. K., Sun, H., & Cheng, A. L. (2013). An empirical study on gender differences in the perception of support during transition to university. *Journal of Further and Higher Education*, *37*(4), 443-461. doi:10.1080/0309877X.2011.645460
- Young, R. A., Marhsall, S. K., Valach, L., Domene, J. F., Graham, M. D., & Zaidman-Zait, A. (2011). *Transition to adulthood: Actions, projects and counseling*. New York, USA: Springer.
- Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders*, *117*, 180-185.

## Appendices

### Appendix 1. Recruitment posters and flyers

**Participants wanted for research**

**TRANSITION TO UNIVERSITY**

I am looking for *first year university students* to take part in a Masters Research project about their transition to university.

Participants will complete an online questionnaire which will take approximately 20-30 minutes.

As a thank you for their time, participants will have the option to go in a draw to win a \$50 Warehouse voucher. PSYC103 students have the option to receive 1% course credit towards their paper instead.

All information collected will remain private and anonymous. The study has ethics approval from the Psychology Research and Ethics Committee.

To participate or if you have any queries please email the researcher Katie Clifton (kc62@students.waikato.ac.nz)

For any other queries you can contact the supervisors of this study Dr Carrie Barber (ccbarber@waikato.ac.nz) or Associate Professor Samuel Charlton (samiam@waikato.ac.nz)



[CTRL+CLICK HERE TO PARTICIPATE](http://psychology.waikato.ac.nz/Transitions.html)

<http://psychology.waikato.ac.nz/Transitions.html>

## Appendix 2. Information Sheet

### Transition to University of First-Year Students

You are being invited to take part in a research study examining the transition to university for first-year students and the factors which may influence adjustment. The research is being conducted by Katie Clifton as part of a Masters Thesis through the University of Waikato. The research is supervised by Dr Carrie Barber and Associate Professor Samuel Charlton. The study has been approved by the Psychology Research and Ethics Committee at the University of Waikato.

#### Procedure

This study consists of an online survey in which you will be asked to answer a series of questions related to your transition to university, the changes you have experienced, the coping strategies and resources you may have accessed, and your well-being. **If at any time you come across a question you do not feel comfortable asking, please leave it and move on to the next question.** You are not obliged to answer any question and you can discontinue taking the survey at any time. The questionnaire typically takes between 30 and 45 minutes.

As a thank-you for your time, you will be provided the option to go in the draw for a \$50 Warehouse voucher. Students enrolled in PSYC103 have the option to receive 1% credit instead of going in the draw for the voucher. At the end of the questionnaire you will be provided with a code. Please email me (kc62@waikato.ac.nz) with this code and whether you would like to go in the draw or receive course credit. Once received, your name and email will be added to the draw list and the email deleted. The code will not be recorded next to your name in any way to ensure that your responses will be kept strictly private and anonymous. If you would like to receive an overview of the results of this study, please email me with this request.

#### Participant Rights and Confidentiality

Your participation in this study is voluntary and you are under no obligation to complete the survey. You have the right to withdraw from the questionnaire at any time without submitting your responses. However, it is important to note that once you submit your questionnaire at the end it will be entered into a pool of data. This means that you will not be able to withdraw your data beyond this point.

Your responses to the questionnaire will be used for research purposes only and will be kept strictly private and anonymous. Individual information will not be identified in any publication or dissemination of the research findings.

#### For Further Information

If you have any questions, or require any further information, you can contact the researcher or supervisors of this study:

Katie Clifton - kc62@waikato.ac.nz

Dr Carrie Barber – ccbarber@waikato.ac.nz

Associate Professor Samuel Charlton - samiam@waikato.ac.nz

If you have any concerns or questions about your rights as a participant in this research you can contact the chair of the ethics committee:

Mike O'Driscoll - psyc0181@waikato.ac.nz

#### Consent

By continuing on with this survey you are giving consent for your participation. However, you can still withdraw from the study at any time without submitting your answers.

### Appendix 3. Supports for students

If you are experiencing any distress you can make contact with the following services:

#### Student Counselling Service – The University of Waikato

The counselling service can help with a range of problems by helping to find solution that suit you.  
 Reception: Student health entrance, Gate 1 Car Park  
 Email: [student\\_services@waikato.ac.nz](mailto:student_services@waikato.ac.nz)  
 Phone: 07 838 4037

#### Student Health Services – The University of Waikato

The student health services have doctors, practice nurses and administrative support to look after your health care. The service is available Monday 9.00am-5.00pm, and Tuesday to Friday 8.30am-5.00pm  
 Reception: Student services building, Student health entrance, Gate 1 Car Park  
 Phone: 07 838 4037

If you would like to talk to someone, or would just like more information, you can contact the following helplines and websites:

##### Lifeline

0800 543 354 (available 24/7)

[www.lifeline.org.nz](http://www.lifeline.org.nz)

##### Suicide Crisis Helpline

0800 828 865 (available 24/7)

##### Youthline

800 376 633

[www.youthline.co.nz](http://www.youthline.co.nz)

##### Depression Helpline

0800 111 757 (available 24/7)

[www.depression.org.nz](http://www.depression.org.nz)

If you or someone you know is experiencing problems with alcohol or drug addiction, or you would just like more information, you can access the following resources and services:

##### Alcohol Drug Helpline

0800 787 797

[www.adaz.org.nz](http://www.adaz.org.nz)

##### Alcoholics Anonymous Helpline

0800 229 6757

[www.aa.org.nz](http://www.aa.org.nz)

If you are experiencing any difficulties during your time at university, whether it be academically or financially, the following services/resources are available for you to access on campus:

#### Disability Support Services

Te Tari Kai Awhina Hauā provides you with access to a range of services, including lecture material, learning support, alternative examination arrangements, access to assistive technology, alternative formatting, ergonomic furniture, hearing equipment, specialist staffing and much more.  
 Email: [disability@waikato.ac.nz](mailto:disability@waikato.ac.nz)

#### Maori Students – Te Puna Tautoko

Te Puna Tautoko is a network of specialist support staff from across the University. The objective of this service is to 'tautoko', to ensure that Māori students get the most out of their time here at Te Whare Wānanga o Waikato.

Phone: 07 858 5175

Email: [tepunatautoko@waikato.ac.nz](mailto:tepunatautoko@waikato.ac.nz)

#### Student Financial Advisory Services

Student Financial Advisory Services can assist you if you need help in managing your budget or are in financial difficulties.  
 Location: Accommodation and Conference Services Office, Gate 2a, Knighton Road.  
 Phone: 07 838 4201 for an appointment

#### Student Learning

Student Learning offers tools to help you become a successful, independent, and self-directed learner. The tutors can help you with assignment preparation and writing. They can also assist with the development of specific skills such as time management, essay writing, note-taking, or exam preparation.

Student learning offers face-to-face workshops, consultations and online workshops and resources.

[www.waikato.ac.nz/students/student-learning/](http://www.waikato.ac.nz/students/student-learning/)

Phone: 07 838 4657

Reception: IT S.G.11

For a list of other services available to university students go to [www.waikato.ac.nz/students/](http://www.waikato.ac.nz/students/)

**Appendix 4. Questionnaire – General**

What is your age? \_\_\_\_\_

What is your gender?

- Male
- Female
- Transgender

What is your sexual orientation?

- Straight or heterosexual
- Lesbian, gay or homosexual
- Bisexual
- Other or not sure

What is your current relationship status?

- Single
- Relationship but not living together
- Relationship and living together
- Married
- Divorced
- Widowed

Do you have any children?

- Yes (please specify how many) \_\_\_\_\_
- No

What ethnicity do you identify with? (select all that apply)

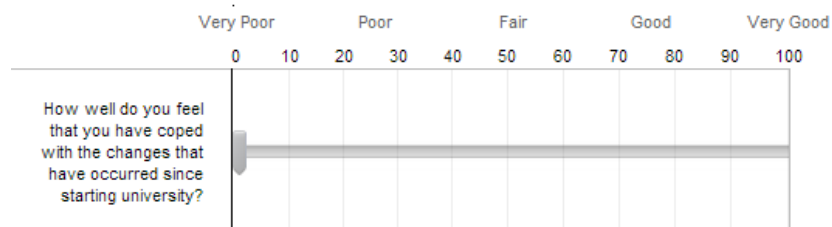
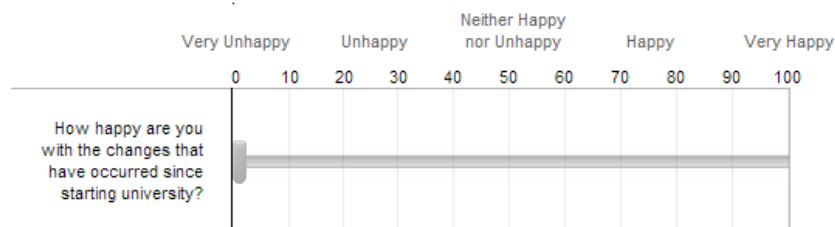
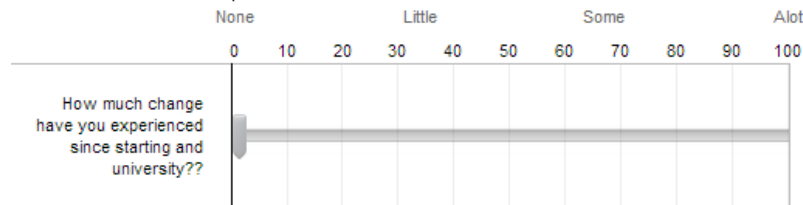
- NZ European
- Maori
- Pacific Islander
- Chinese
- Indian
- Other (please specify) \_\_\_\_\_

What is your highest level of education?

- No secondary school qualification
- NCEA Level 1/NZ School Certificate/National Certificate Level 1/or equivalent
- NCEA Level 2/NZ Sixth Form Certificate/National Certificate Level 2/or equivalent
- NCEA Level 3/NZ University Bursary/National Certificate Level 3/or equivalent
- Other secondary school degree obtained overseas (please specify) \_\_\_\_\_
- Other or Higher level qualification (please specify) \_\_\_\_\_

### Appendix 5. Questionnaire – Change and current situation

Think about the changes that may have occurred in your life since beginning at university and answer the following questions.



What describes your current living situation?

- Parent/guardian home
- Halls of residence
- Private shared accommodation (i.e. flatting/boarding)
- Private single accommodation (live alone)
- With other family/whanau
- Other (please specify) \_\_\_\_\_

If you are current living away from the family home, is this your first experience living out of home?

- Yes
- No
- Not applicable

Did you move cities to attend the University of Waikato?

- Yes
- No

Question displayed if for question 'Did you move cities to attend the University of Waikato?', 'Yes' Is Selected

Which region did you move from?

- Northland
- Auckland
- Coromandel
- Waikato
- Bay of Plenty
- East Coast
- Central Plateau
- Hawkes Bay
- Taranaki
- Manawatu-Wanganui
- Wairarapa
- Wellington
- Nelson
- Marlborough
- West Coast
- Canterbury
- Otago
- Fiordland
- Southland
- International - Other country

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What were your main activities during 2013? (select all that apply)

- Secondary school student
- Polytechnic student
- Full-time employee
- Part-time employee
- Unemployed
- Stay at home parent
- Other educational activity (please specify) \_\_\_\_\_
- Other (please specify) \_\_\_\_\_

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What financial support do you currently receive? (select all that apply)

- Student allowance
- Student loan living costs
- Scholarship
- Paid employment
- Other (please specify) \_\_\_\_\_

What is your current employment status?

- Full-time employee
- Part-time employee
- Volunteer Work
- Unemployed

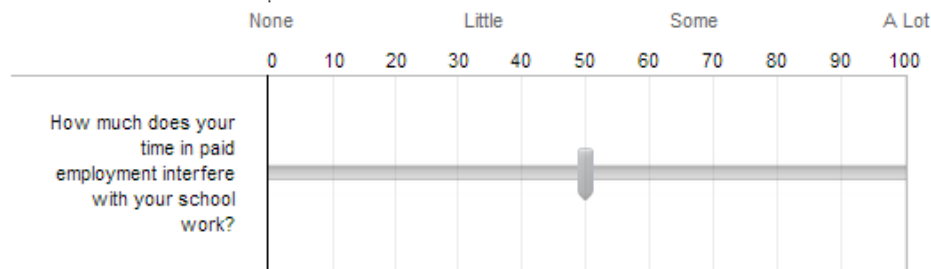
On average, how many hours to do spend a week in paid employment? \_\_\_\_\_

What are your main reasons for being in paid employment? (select all that apply)

- To become financially independent
- To cover the cost of 'basic needs' (e.g. food, accommodation and essential transportation)
- To afford 'extras' (e.g. entertainment and travel)
- To save for the future
- To pay for current loans and/or debts
- To support family
- To improve employability for after university

- To gain experience relevant to your current study

How does your job affect your university work?



What is your current university status?

- Full-time student  
 Part-time student

On average, how many hours a week do you usually spend on in class activities per week? (e.g. lecture and tutorial time) \_\_\_\_\_

On average, how many hours a week do you usually spend outside of class time on activities related to your academic study? (e.g. completing readings, studying and working on assignments) \_\_\_\_\_

What faculty/school are you studying through?

- Faculty of Arts and Social Sciences  
 Faculty of Computing and Mathematical Sciences  
 Faculty of Education  
 Faculty of Law - Te Piringa  
 School of Maori and Pacific Development  
 Faculty of Science and Engineering  
 Waikato Management School

What subjects are you currently studying?

Major \_\_\_\_\_

Second Major \_\_\_\_\_

Supporting subject \_\_\_\_\_

Why did you decide to go to university? (select all that apply)

- To study in a field that interests me  
 To improve my job prospects  
 To get training for a specific career  
 To develop my skills  
 To meet new friends  
 Parental influence  
 Other (please specify) \_\_\_\_\_

Why did you choose your particular programme of study? (select all that apply)

- Parental influence  
 School teacher influence  
 Employment prospects  
 Love of the subject  
 Career advisor recommendation  
 Peer influence  
 Other (please specify) \_\_\_\_\_

Are you an international student?

- Yes
- No

Question displayed if for question 'Are you an international student?', 'Yes' Is Selected  
Where is your home country? \_\_\_\_\_)

Question displayed if for question 'Are you an international student?', 'Yes' Is Selected  
Do you have any family who live in New Zealand?

- Yes
- No

Question displayed if for question 'Are you an international student?', 'Yes' Is Selected  
Is English your first language?

- Yes
- No

What language do you speak **most often** at home?

- English
- Maori
- Other (please specify) \_\_\_\_\_

What **other** languages do you speak on a regular basis at home?

- English
- Te Reo Maori
- Other (please specify) \_\_\_\_\_
- No other language

**Appendix 6. Questionnaire – College Adjustment Test (CAT)****College Adjustment Test**

Using the seven point Likert scale answer each of the following questions

Scale: 1 = Not at all; 4 = Somewhat; 7 = A great deal

Within the past **four weeks**, to what degree have you....

1. Missed your friend from high school
2. Missed your home
3. Missed your parents and other family members/whanau
4. Worried about how you would perform academically at university
5. Worried about love or intimate relationships
6. Worried about the way you look
7. Worried about the impression you make on others
8. Worried about being in university in general
9. Liked your class
10. Liked your roommate(s)
11. Liked being away from your parents
12. Liked your social life
13. Liked university in general
14. Felt angry
15. Felt lonely
16. Felt anxious or nervous
17. Felt depressed
18. Felt optimistic about your future at university
19. Felt good about yourself

Pennebaker, J., Colder, M., & Sharp, L. L. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, 5, 528-537.



## Appendix 8. Questionnaire – Life Events

### Life Events Questionnaire

Listed below are a number of events. Please read each item carefully and then indicate whether or not each event has happened to you *in the past year*. Please tick the ‘yes’ box if the event has occurred. Please tick the ‘Yes, still affects me’ box if the event is still having an effect on your life.

Please note that for this question immediate family includes: mother, father, sister, brother, partner, child.

1. Have you had a serious illness or been seriously injured?
2. Has one of your immediate family been seriously ill or injured?
3. Have any of your close friends or other relatives been seriously ill or injured?
4. Have any of your immediate family died?
5. Have any of your other close relatives or close friends died?
6. Have you separated from your partner (not including death)?
7. Have you had any serious problems with a close friend, neighbour or relative?
8. Have you, or an immediate family member been subjected to serious racial abuse, attack or/threats?
9. Have you, or an immediate family member been subject to any abuse, attack, threat due to you or someone close to you having a disability of any kind (i.e. a mental health problem, a learning disability, or a physical problem)?
10. Have you, or an immediate family member been subject to any other form of serious abuse, attack, or threat?
11. Have you or your partner been unemployed or seeking work for more than one month?
12. Have you or your partner been sacked from your job or made redundant?
13. Have you had any major financial difficulties (e.g. debts, difficulty paying bills)?
14. Have you, or an immediate family member had any police contact or been in a court appearance?
15. Have you or an immediate member of your family been burgled or mugged?
16. Have you or another individual who lives with you given birth?
17. Have you or another individual who live with you suffered from a miscarriage or had a stillbirth?
18. Have you moved house (through choice)?
19. Have you moved house (not through choice)?
20. Have you had any housing difficulties?
21. Have you had any other significant event (please specify)?

Cox, A., & Bentovim, A. (2000). *The family pack of questionnaires and scales*. London: Department of Health.

### **Appendix 9. Questionnaire – Brief COPE**

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

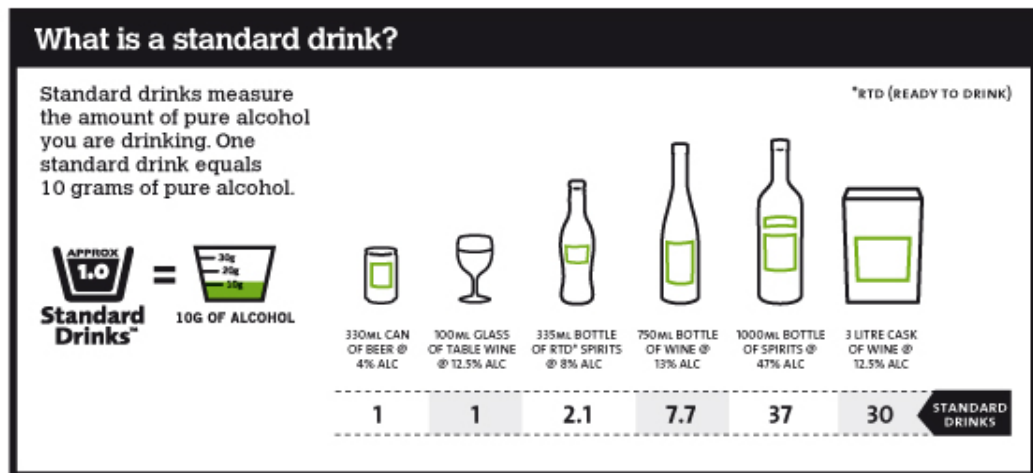
- 1 = I haven't been doing this at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

## Appendix 10. Questionnaire – AUDIT

This series of questions asks you about your use of alcoholic drinks during the **past year**. Answer every question by selecting the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.

When the questions ask about how much alcohol you consume, please identify your answers in relation to '**standard drinks**'. The following picture provides a guide for how much standard drinks a typical alcoholic drink contains.



How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you failed to do what was expected of you because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you been unable to remember what happened the night before because of your drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

Have you or someone else been injured because of your drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

Has a relative, friend, doctor or other health care worker been concerned about your drinking or suggested you cut down?

- No
- Yes, but not in the last year
- Yes, during the last year

**Appendix 11. Questionnaire – Depression, Anxiety, and Stress Scale (DASS21)**

**Depression, Anxiety, and Stress Scale (DASS21)**

Please read each statement and indicate how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

	Did not apply to me at all	Applied to me to some degree, or some of the time	Applied to me a considerable degree, or a good part of the time	Applied to me very much, or most of the time
I found it hard to wind down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of dryness of y mouth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I couldn't seem to experience any positive feeling at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced breathing difficulty (e.g. excessively rapid breathing in the absence of physical exertin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficultto work up the initiative to do thigs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tended to over-react to situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced trembling (e.g. in the hads)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was using a lt of nervous energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was worried about situations in which I might panc and make a fool of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I had nothing to look forward to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found myself getting agitated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to relax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I flt down-hearted and blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was intolerant of anything that kept me fromgetting on with what I was dong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I was close to panic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was unable to become enthusiastic about anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I wasn't worth much as person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was rather touch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a bear)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt scared without any goo reason	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt tht life was meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Appendix 12. Questionnaire – Health Survey (SF-8)****Health Survey**

This series of questions asks for your views about your health. Answer every question by selecting the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.

Overall, how would you rate your health during the past four weeks?

- Excellent
- Very Good
- Good
- Fair
- Poor
- Very Poor

During the past 4 weeks, how much did physical health problems limit your usual activities (such as walking or climbing stairs)?

- None at all
- Very little
- Somewhat
- Quite a lot
- Could not do physical activities

During the past 4 weeks, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health?

- None at all
- A little bit
- Some
- Quite a lot
- Could not do daily work

How much bodily pain have you had during the past 4 weeks?

- None
- Very mild
- Mild
- Moderate
- Severe
- Very severe

During the past 4 weeks, how much energy did you have?

- Very much
- Quite a lot
- Some
- A little
- None

During the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends?

- Not at all
- Very little
- Somewhat
- Quite a lot
- Could not do social activities

During the past 4 weeks, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?

- Not at all
- Slightly
- Moderately
- Quite a lot
- Extremely

During the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?

- Not at all
- Very little
- Somewhat
- Quite a lot
- Could not do daily activities