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Comparing Educational Stress Levels in Students Sitting A-Levels and the Leaving Certificate

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Abstract

The aim of this quantitative study is to look at two hypotheses; that students sitting the Leaving Certificate will experience higher levels of stress compared to students who sit the A-Levels examination due to the increased number of examinations and the short period of time which the leaving cert takes place; and that students who take part in transition year will have lower stress levels compared to students who go straight from the Junior Certificate into preparing for the Leaving Certificate due to having a year out for extra preparation. The participants of the study are 57 male and 37 female students from Northern Ireland; and 14 males and 8 female who completed transition year, and 19 male and 29 female who didn't complete transition year students from Southern Ireland. The criterion variable is Perceived Stress Scale and the predictor variables are Coping, Self-Esteem and Self Efficacy. A regression analysis was completed and found a significant result. It indicated that the amount of variance explained by the combined interaction of the eight predictor variables is 51.2% (Adjusted R Square = 0.0435, $F(8,155)=22.34$, $p<.001$). It was also found that Location has a significant moderately strong effect (Standardised Beta = .37, $p<.001$) on perceived stress levels. Sex (Standardised Beta = .25, $p<.001$).

A One-Way ANOVA showed that there was a statistically significant difference at the $p<.001$ level in PSS scores for the three groups (Northern Ireland, Transition and Leaving Certificate) [$F(2,161)=32.3$, $p=.000$].

A future direction would be to increase the number of participants and complete a health screening to see if the stress levels are high enough to cause side affects.

Introduction

Education plays a vital role in the world. Education helps people reach their goals in life and expands their knowledge. It opens new horizons, creates opportunity and leads to a sense of freedom. Without an adequate educational system countries would suffer from economical problems, which would lead to increased crime rates and a lower quality of life. Education comes in many forms from observational to academic. Most schools and college use the academic approach to teaching students. This technique has its benefits (educate a large number of student at a short time, can assess how well a student has taken in the knowledge) but also has some weaknesses (not suitable to every student, doesn't show the students true potential) that don't get addressed (Eggen & Kauchak, 2001).

This study focuses on comparing the educational stress levels of students who sat the Leaving Certificate examinations with students who sat the A-Level examinations. It also will look to see if students who take part in Transition year will have lower stress levels than students who skipped it. For this to be accomplished, an examination of the different educational systems is needed.

Republic of Ireland Education System

The educational system in the republic of Ireland is a nearly totally based on academic work. There are three core areas within the system; primary, secondary and third level education. The research in this thesis will focus on secondary level education. Students enter secondary level education at the age of 12/13 years old and finish at the

age of 17/18 years old. The first three years are focused on studying for the junior certificate examination. Then the students have the option of doing transition year.

This is a year where the students have time to relax from the stress of exams and have extra time to focus on what type of career they would like to focus on for the future. It also gives them the opportunity to try different occupations through work experience programs (Ireland, Department of Education and Science, 1995).

The students who don't apply for this option go straight into fifth year. Fifth and sixth year prepare the students for their final examination, the leaving certificate. The leaving certificate is seen as the gateway into third level education. Students can take six or more subjects (most taking seven); this must include English, Irish and Mathematics, the other subjects are based around foreign languages, different sciences, business studies and practical work (art, woodwork).

Within these subjects students have the option of choosing different levels; foundation level (this can only be picked with Irish and Mathematics) ordinary level (also referred to as pass) or higher level (also referred to as honours), these increase in difficulty respectively. However teachers usually place students into classes based on their junior certificate results.

After the two years are up, the leaving cert takes place over a period of ten working days. The total number of examinations that students have to sit averages around ten examinations; this is because English, Irish and Mathematics are split into two papers. The State Examination Commission oversees the leaving certificate and the examination papers are corrected by different teachers from all over Ireland. Once all the examination papers have been corrected the results are released (usually one to two months after the final examination has been completed). The results of the leaving cert are of major importance to the students as they are the key to opening the

gate into third level education. Students grades are transformed into points (this can be seen in the appendix Table 1) and these points need to add up to correspond with the course the students have chosen. The course points are based on the popularity of the course, however most courses have minimum requirements (e.g. a grade of D in English must be acquired) (Ireland, Department of Education and Science, 2004).

Northern Ireland Education System

The educational system in Northern Ireland is similar of that used in England and Wales; however it emphasizes a greater depth on education. The Advanced Level (A-level for short) is a general certificate of education taken by students in their final two years of secondary education (year 13 and year 14) and it is the equal alternative to the leaving certificate. A-levels are split into two parts, the AS (Advanced Subsidiary) and A2 examinations. The former is generally taken in Year 13 (also known as lower sixth) and the latter is generally taken in Year 14 (also known as upper sixth). With satisfactory achievement in both the AS and A2 units will results in the award of an A-level qualification. It is possible to sit only AS modules in which case only an AS grade would be gained, this is given half the points a full A-level. Students are usually around the age of 17-18 years old when they sit their finals. Students have a wide range of subjects that are much more focused on real jobs compared with the leaving certificate (Northern Ireland, Department of Education, 2005).

The number of subjects a student studies depends on the student, however a student must study a minimum of three subject in there final year. The most popular decision is for a student to study four subjects at AS-level and then drop down to three at A2 level. Some students obtain five A-levels, those that do have often taken

languages that they already speak fluently, or multiple Sciences and Mathematics courses, which can have overlapping content (Northern Ireland, Department of Education, 2005).

A-Level is graded from an A to E and a fail would be indicated by a U (Unclassified). The original mark of an examination paper is converted into Uniform Mark Schemes (UMS). Every A-Level is out of 600 UMS's, and every AS-level is out of 300 (half that of A-Levels). Percentages of these UMS scores are as follows; 80% is an A grade, 70% is a B grade, 60% is a C grade, 50% is a D grade and 40% is a E grade; anything lower is unclassified (U) (Northern Ireland, Department of Education, 2005).

Comparison of Systems

Northern Ireland use a totally different educational approach compared to the one used in the Republic of Ireland and this will provide interesting results compared to stress levels based on that educational approach. In Northern Ireland students have less examinations to think about and the work is assessed over a yearly period not like the Leaving certificate which is tested at the end of the two year period, while this may give the student more time to study, it may just creates a longer period of forgetting information, an increased amount of information to retain which could lead to information overload.

One of the major stressor that students in Southern Ireland could have is an information overload. Students who sit the leaving certificate would have higher chances of getting information overload due to the greater number of subjects that they have to study for (nearly double). Also because most of the subjects within the leaving certificate have little in common e.g. Irish and Spanish, Geography and

Business. This information overload has been found to cause a burden on coping resources and if it reaches extreme levels may lead to maladaptive behaviour (Carson, Butcher & Mineka, 1996). This could also have major implications not only to the student's results but also to their health as will be discussed later. It has also been found that the drop out rate for students in the leaving certificate cycle in Southern Ireland was 19% in 2000 (Fahey, 2000), however when the drop out rate for students in year 13 and 14 from Northern Ireland is examined they are lower at 17.82% (Northern Ireland, Department of Education, 2005). This increased drop out rate in Southern Ireland may be caused by the increase work load.

Why has a global educational system not been developed? (One that would leave gaps for different cultural, language and religious studies). Why is it that most engineers come from Asia (Berger, 2004)? Is it down to the fact that their educational system places more emphases on mathematics? (Stevenson et al., 2000). If a global educational system was developed wouldn't it be easier to assess students from different countries, create an easier route for student to travel and receive education in different countries and most importantly to develop a fair education worldwide.

STRESS

We hear people talking about stress in their everyday life, in different environments and at different occasions. But before going any further a definition of stress needs to be provided, because without a proper definition how are we going to measure it.

However this may prove to be problematic. A lot of research has been done on stress and as a result there are many different definitions of stress floating around, for instance; Dineen & Mc Leavey (1992) inform us that stress is any change that you must adapt to; which can range from extreme physical danger to achieving some long-desired success. The level of stress is determined by how we interpret/view the situation. Most students know the feeling of pre-examination stress and how they develop a perception of not being sufficiently prepared for the examination and letting themselves and others down if they don't perform adequately (Murray, 2002). As the students in Southern Ireland have a higher amount of examinations it would be thought that the students would have a darker view on the situation.

It was believed by King, Stanley & Burrows (1987) that stress should only relate to serious and negative reactions to events. However Carson, Butcher & Mineka (1996) disagree with this view and state that stress can related to both positive and negative situations that require adjustment. An event that would create positive stress would be seen as challenging and would provide growth (e.g. a new job or promotion). Negative stress would be seen in an event that would make the person feel threatened.

This was also found with Curtis (2000), he found that stress can be differentiated into stress that can be harmful/damaging (distress) and stress that is positive and beneficial (eustress).

In 1966 Richard Lazarus termed stress as a common name for all the problems that included "the stimuli producing stress reactions, the reactions themselves, and the various intervening processes." (Lazarus, 1966, p. 27). So when Lazarus was talking about the field of stress it included the physiological, sociological, and psychological concepts.

A recent study by Davis, Eshelman and Mc Kay in 2000 found that stress originated from four main sources; the environmental conditions e.g. the weather, social stressors e.g. exam deadlines, physiological factors e.g. adolescence a time of storm and stress (G. Stanley Hall, 1904) and lastly ones own internal thoughts.

Another recent study by Curtis (2000) said that a stressor is any event that someone can perceive as endangering to his or her physical or psychological well-being. He found that there were three types of stressors; internal, external and social stressors. An internal stressor would be a feeling of uncomforted or pain, an external stressor would be changes that are happening in the external environment e.g. rainy day, increases noise level and over crowding. And a social stressor would come about when having to deliver a speech to a large audience. Murray completed a study on stressors in 2002 and found that students, who are experiencing or have experienced high levels of stress, will be more vulnerable to any new stressor. Past experiences can play a major role here. If a student has suffered from failure in the pass, they will feel that this might happen again.

Models of Stress

With all the different research on stress it can be hard to focus on one definition. However as time went on models were developed that vary in there definition of stress, relationship between the person and their environment, and emphasis on physiological and psychological factors. This next section will look at the different models for stress that have been developed.

The Fight or Flight Model

In 1932 Cannon developed a model called the fight or flight model of stress. He believed that external pressures induced the fight or flight response, which in turn caused an increased activity rate and increased rate of arousal. These changes were to facilitate the person to escape or fight the source of the threat. This model views stress as a response to the external stressors. Cannon saw stress as an adaptive response but recognized that if stress was prolonged it could result in medical problems.

While Cannon's model did provide a foundation for stress research, it did contain several problems. The model views a person like a robot, having an automatic response to the environment and it never looked at individual variability.

Different theorists have developed different approaches to stress, but the main ones are as follows; the stimulus approach, the response approach and the transactional approach. These will now be described in detail.

The Stimulus Approach

The stimulus approach (engineering model) focuses on the stressor or event in the environment external to the person (Levy, 1998). Levy describes stress as an "individual's strain response in terms of a move toward restoring equilibrium" (Levy, 1998, p.203). However there are limitations with this approach; this approach generalizes the event to everyone who experiences it e.g. the leaving certificate and the A-Level examinations (stimulus) would be seen as stressful to all students at the same level. But we know this is not the case, as some students have less stress due to

different coping abilities (which will be discussed later) and because some students hold greater importance to the examinations than others.

The Response Approach

The response approach is quite opposite to the stimulus approach in that it views stress as a dependent variable, which focuses on the outcomes of the stress rather than on the nature of the stress. The response approach originates from medicine and it is more often than not viewed from a physiological perspective where the focus is on treating the symptoms and not necessarily the causes (Cooper et al, 2001). This approach would focus on biological changes due to stress e.g. heart rate, rapid breathing, increased blood pressure and increased anxiety. This approach also has some limitations; it carries with it the belief that any event that produces a stress response is immediately assumed to be a stressor; it does not take into account the ever-changing perceptions of the stress response of individuals (Levy, 1998).

This model was developed by Selye's in 1956. He developed the general adaptation syndrome (GAS); he described three stages to the stress process (Selye 1956). Firstly there is the 'alarm' stage, then 'resistance' and finally 'exhaustion'. The 'alarm' stage is described as an increased level of activity that occurs immediately after the person was exposed to a stressful situation. The next stage 'resistance' is when coping mechanisms kick in and try to reverse the effects of the alarm stage. And 'exhaustion' is reached when the person has been repeatedly been exposed to the stressful situation but was unable to cope.

This approach is also widely based on biological health and not psychological health but Selye does try to make it more psychological by including psychoneuroimmunology (PNI). There are also limitations of it not being universal and that it doesn't involve how people think.

The Transactional Approach

And finally there is the transactional approach, developed by Lazarus in 1987. Lazarus's work on stress introduced psychology to understanding the stress response (Lazarus and Cohen 1973, 1977; Lazarus 1975; Lazarus and Folkman 1987). This approach suggests that stress comes from a process involving a transaction between an individual's goals and the environment. The transaction is mediated by the individual's appraisal of the demands presented by the situation and his/her available means of coping (Levy, 1998). Individuals who tend to appraise difficult circumstances as challenges rather than threatening are more likely to cope effectively with the range of stressors. The strength of the transactional approach is that it takes into account the individual's subjective experience and perceptions in relation to stress, and the intervening psychological mechanisms that underlie these individual differences. It thus links the individual with the environment.

This person-environment relationship is mediated by three types of cognitive appraisals (Kahn & Byosiere, 1991); primary appraisal, secondary appraisal and re-appraisal. Primary appraisal is an individual's initial evaluation of the situation. Primary appraisal is broken up into three categories (1) Irrelevant (2) Positive (3) Stressful. Irrelevant: is something that has nothing to do with that person e.g. someone in your job has been let go. Positive: this is something that would help you grow as a person e.g. if you were promoted to a job with a higher workload you would see it as a challenge and not a burden. Stress is broken up into; harm/loss, which has to do with a damage (illness or injury or loss) that has occurred. Threat is when harm/loss has not taken place but the person is in constant anticipation. And challenge an event that will provide an opportunity for gain and growth.

Secondary appraisal then completes an evaluation of the coping resources that are available to the individual and decide which one is best suited to the job. Secondary appraisal tries to solve the problem of the stressful situation. Reappraisal sends feedback from transactions that took place after the first two appraisals. If the first and secondary appraisal methods don't work the reappraisal will change the primary appraisal, which will influence the perception of the skills available to deal with the situation at hand (Rice, 1999).

The work done by Speisman et al. (1964) was able to show that stress is based on the individual's interpretation or appraisal of the event through their experiment. The experiment involved showing a film on an initiation ceremony involving unpleasant genital surgery to three groups of participants. However the three groups heard different soundtracks to the film (trauma, denial and intellectualization). The group who heard the trauma track was most stressful at the end. This would suggest that the nature of the event itself is irrelevant and that it is all down to the person's perception of the event. However research has found that some events (salient events, overload, ambiguous events, and uncontrollable events) are more likely to result in a stress response than others (Swindle and Moos 1992; Glass and Singer 1972).

Other Factors Influencing Stress

Other factors have been found that can have an influence on the levels of stress; coping (Carver et al, 1986), self-esteem (Rosenberg, 1965) and self-efficacy (Bandura, 1977).

Coping

Lazarus described coping as the way people manage life conditions that are stressful. He saw coping and appraisal as mediators of an emotional response (Folkman & Lazarus, 1987).

Coping has been defined a process of managing stressors that have been appraised as taxing or exceeding a person's resources and as the 'effort to manage ... environment and internal demands' (Lazarus and Launier 1978). They realized that when coping fails the level of stress increase, but when coping is successful it can lower stress levels. Coping is seen as an interaction between the person and the stressor, this is similar to the way Lazarus and colleagues described response to stress (primary and secondary appraisal). Coping should have two effects; firstly it should reduce the intensity of the stressor, and secondly it should reduce the likelihood that stress would lead to illness.

Coping was found to be able to be broken up into two different modes, approach (positive) and avoidance (negative) (Roth and Cohen, 1986). Approach coping involved assembling information and dealing with the problem directly. Whereas avoidant coping involved minimizing the importance of the event. Research has show that the best type of coping mode to use depends on the nature of the stressor. Wong and Kaloupek (1986) found that avoidant coping might be best used for short term stressors; however Holahan and Moos (1986) found that this would be less effective in the long term.

Self-Efficacy

Another factor that influences stress is the person's levels of self-efficacy. Self-efficacy can be defined as "people's judgments of their capabilities to organize

and execute courses of action required to attain designated types of performance. It is concerned not with the skills one has, but with the judgments of what one can do with whatever skills one possesses” (Bandura, 1986, p.391). So self-efficacy is the perception one has of their capability to perform a specific behaviour.

Lazarus and Folkman have suggested that self-efficacy is a powerful factor in mediating the stress response. Also research has indicated that self-efficacy may have a role in mediating stress-induced immunosuppression and physiological changes such as blood pressure, heart rate and stress hormones (Bandura et al. 1982, 1988; Wiedenfeld et al. 1990).

Self-Esteem

Another factor that affects stress levels are levels of self-esteem. Self-esteem is defined as “a positive or negative attitude toward a particular object, namely, the self” (Rosenberg, 1965, p.30). In his work Rosenberg found that people who had low levels of self-esteem would isolate themselves away from others, have a tendency to be more self-conscious and have a higher likelihood to suffer from depression than those who had high levels of self-esteem.

Effects Stress Has On Health

As research developed on the topic of stress, it became apparent that stress had an impact on people's physiology. Hans Selye was the first psychologist to focus on this topic. He identified stress reactions of the body and was able to identify some chemical changes that were occurring in most events of sickness and other stress. He described how chemical "messengers" in the body were the stress chemicals.

Previous research has shown that hypertension rates are more commonly found in those that have high stress jobs e.g. air traffic controllers (Cobb and Rose 1973) when compared with less stressed jobs e.g. nuns (Timio et al. 1988). Further research has shown that stressful occupations are associated with a higher risk of coronary heart disease (CHD) (Karasek et al. 1981; Lynch et al. 1997; Kivimaki et al. 2002).

It has been suggested by Johnston (2002) that stress can cause illness through two interrelated mechanisms. He developed a model which involves chronic and acute processes. The chronic process details that stress leads to the production of disease through a prolonged interaction of physiological, behavioural and psychological factors. This tells us that chronic work stress may cause changes in a persons physiology and behaviour which over time may lead to damage to there cardiovascular system. Acute stress is when an event occurs suddenly that one is not prepared for. This type of stress could lead to health problems like a heart attack.

A lot of research has focus on stresses influence on CHD (Karasek et al. 1981; Lynch et al. 1997; Kivimaki et al. 2002), however some research has looked at other illnesses that can be cause by a change in behaviour (Krantz et al. 1981).

Wills (1985) found that smoking initiation in adolescents was related to the amount of stress in their lives. Research found that between the years of 1997-2001 the current smoking prevalence was at 31% among young people in Ireland and was 26% in the United Kingdom. (Currie, C., Roberts, C., et al, 2002)

Research on alcohol has suggested that work stress in particular, may promote alcohol use (Herold and Conlon 1981; Gupta and Jenkins 1984) due to its tension reducing properties (Cappell and Greeley 1987). Similarly, both Metcalfe et al. (2003) and Heslop et al. (2001) reported that there was an association between perceived stress and drinking more alcohol. Recent research on alcohol in Ireland has shown that the annual per capita consumption has increased by 41% between 1989 and 1999. Ireland is now the second highest in Europe (Ireland, Department of Health and Children, 2002).

To decipher which one is causing illness, either the physiological (psychoneuroimmunology (PNI)) or the behavioural (smoking, alcohol consumption), Ebrecht et al. (in press) assessed the link between perceived stress and wound healing while controlling for alcohol consumption, smoking, sleeping, exercise and diet. Their results showed that stress was related to wound healing regardless of change in behaviour. This indicates that the stress-immunity link may not be explained by an unhealthy lifestyle but must be explained by PNI.

Previous Research

Hardly any previous research has been published on stress levels of students in Ireland. The Kerry Mental Health Association completed a study on what stressed Leaving Certificate students out. Their findings indicated that out of 1,420 students in Kerry, 66% of the students believed that a fear of doing badly was their greatest source of stress and then followed by 46% of students who felt stressed from worrying about a career choice. (Kerry Mental Health Association, 2001).

There were no previous studies completed on comparing stress levels of students from different educational systems or comparing the stress levels of students who participated in transition year with students who skipped transition year.

Method

This study contains two aims; that Leaving Certificate students will have higher stress levels than A-Level students, and that students who took part in transition in southern Ireland will have lower stress levels than those who didn't.

Materials

A number of different questionnaires were used to correctly measure the different variables that have been proven to predict stress. These questionnaires were; the Generalized Self-Efficacy Scale (GSES) developed by Schwarzer and colleagues in 1992, this scale has a high internal consistency with alphas ranging from .82 to .93. The retest reliability was found to be .47 for men and .63 for women over a two year period (Johnston, Wright and Weinman., 1995).

The Perceived Stress Scale (PSS) designed by Cohen et al. (1983), this scale also has a high internal consistency with alpha scores ranging from .84 to .86. The retest reliability was .85 after two days and .55 after six weeks (Johnston, Wright and Weinman., 1995).

Self-Esteem Scale (SES) developed by Rosenberg in 1965, this scale also has a high internal consistency with alpha scores ranging from .77 to .88. The retest reliability was .85 after two weeks (Rosenberg, 1989).

And Coping (COPE) developed by Carver et al. (1989), this scale had an acceptable level of internal consistency since all the scales exceeded alpha scores of 0.6. The retest scores indicated that the COPE scale is reasonably stable, over six and

eight week periods scores ranged from .42 to .89(Carver, Scheier and Weintraub, 1989).

These questionnaires were then separated into different sections with an added section asking (factual information) questions on gender, age, location and employment. This created five sections in total. The questions on the questionnaire were kept as simple as possible with participants having to circle the correct response (if a mistake was committed the participant simply placed an X through the incorrect response and circled another correct response).

A cover sheet was included that gave the participants full instructions and asked them to be as honest as possible and to relate all the questions to an educational setting. The participants were also given a copy of tips to deal with examination stress and also a list of help lines and websites were provided for each participant.

Participants

A total of three schools were used to carry out the study. Two of these were located in Belfast in Northern Ireland, one was a mixed sex school (school B) and the other was a single sex school (school A). The other school was a mixed sex school (school C) located in Dublin in Southern Ireland. These schools were randomly chosen from a list of schools from the Department of Education in Southern Ireland and Northern Ireland.

The studies total number of participants is 164 mixed sex students from both Southern and Northern Ireland. This can be broken down into, 37 male students from school A, 20 male and 37 female students in school B, and 14 males and 8 female

who completed transition year, and 19 male and 29 female who didn't complete transition year students from school C. Participation in the study was completely voluntary and this was written on the cover letter and communicated to the students. Of the 170 questionnaires six were defaced and could not be used. The student's age ranged from 16 years to 19 years of age.

Design

The design of this study was quantitative. The dependent variable is the Perceived Stress Scale (PSS) and the independent variables are the Generalized Self-Efficacy Scale (GSES), the Self-Esteem Scale (SES), Coping (COPE), Gender, Location and Employment.

Procedure

The original communication took place in November 2006, through telephone with the principles of each school and then broke off to senior teachers and guidance counsellors. Confirmation was reached from each school when they heard what the study would entail, the length of time required to complete the study, how many students would be required and when it would take place. All schools were very interested in taking part in the study and requested that a copy of the thesis be sent to them when completed.

Pilot Study

After completing the final copy of the questionnaire it was tested out on a sample of leaving cert students. The purpose of this was to see if any of the students had problems with the wording of the questionnaire and to see how long the questionnaire would take to be completed. The results were that the students had no problems reading and understanding any of the questions, and that the questionnaire took no longer than 30 minutes to be completed. Then the questionnaires were sent to the schools and no problems were found from any of the schools.

Arrangements were made with the schools up the North and it was agreed that one school would be visited on Monday morning and the second school visited on the Tuesday morning. Once all the travel arrangements were finalised the schools were informed that everything was to go ahead as planned.

After completing the research in Northern Ireland focus was then given to Southern Ireland. Contact with the guidance councillor was made and a date arranged for the study to take place.

Main study

The main study took place in Northern Ireland in January 2007 and took place in Southern Ireland in March 2007. The questionnaire was handed out during free periods so not to disturb the students too much from schoolwork or study. It took place in library/study hall/class rooms. On entering the rooms with the students the teacher introduced the researcher to the students. The researcher then explained the study to them and told them that the study was completely voluntary. They were

assured that the questionnaire was completely private and that none of their teachers would see their answers. Once everything was explained and the students understood, the questionnaires were handed out. When the students were finished they raised their hand and the completed questionnaire was collected. When all the students had completed the questionnaire some information was distributed on how to deal with exam stress and a list of websites and help lines if they needed further support.

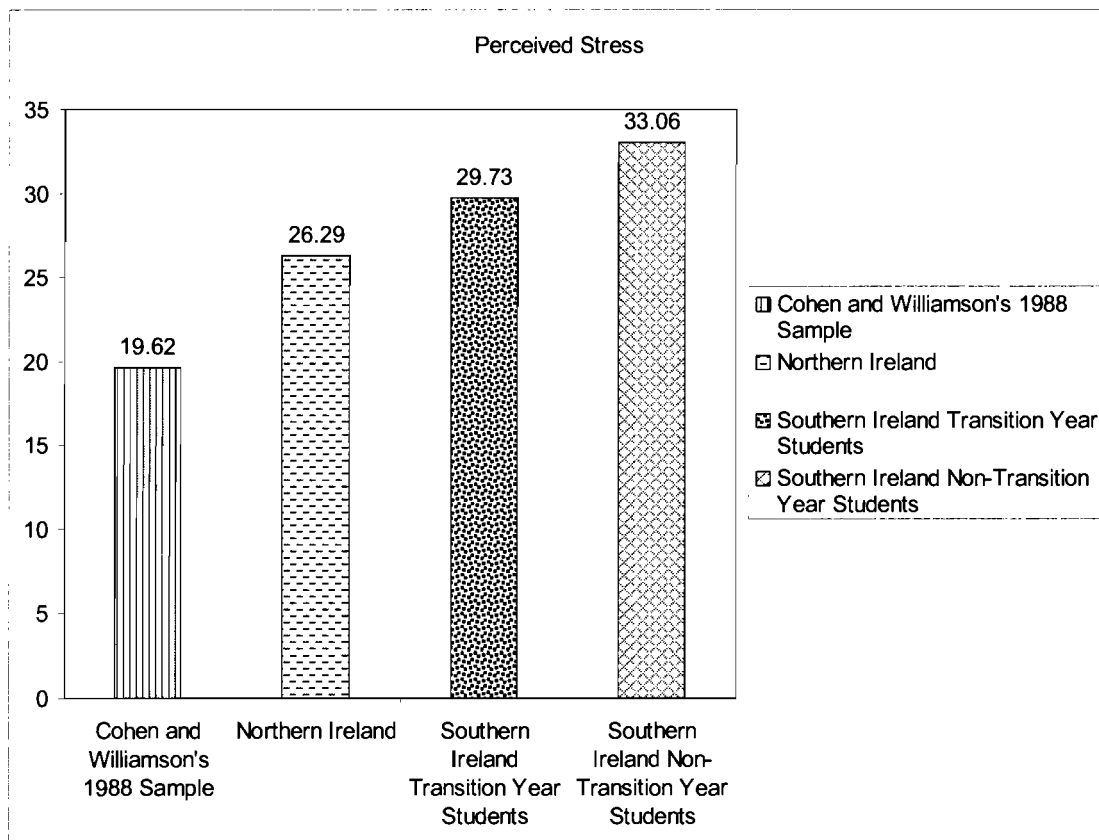
Results

Descriptive statistics

The descriptive results show that the mean value for perceived stress for all students was 28.73 this is significantly larger than 19.62, the value Cohen and Williamson (1988) found with their random sample of 2,387 people. When the students are broken up into two groups depending on their education system it can be seen that students in Northern Ireland have a mean score of 26.29 and the students in Southern Ireland have a mean score of 32.01. These results agree with the original hypothesis that students in Southern Ireland have higher levels of educational stress.

When the students in Southern Ireland are broken up into two groups; continuing straight from the junior certificate cycle into the leaving certificate cycle and students who go from the junior certificate cycle into the transition year, it is found that students who continue straight into the leaving certificate cycle have a mean perceived stress level of 33.06 and the students who went into transition year had a mean perceived stress level of 29.73 which is significantly lower.

Figure.1: Mean scores of samples perceived stress.



It was also found that students in Northern Ireland had higher levels of self-esteem than Southern Ireland. Rosenberg's self-esteem scale is calculated by a higher mean value equalling lower levels of self-esteem. It was found that students in Northern Ireland had a mean score of 18.53 with a standard deviation of 5.067, whereas the students in Southern Ireland had a mean score of 19.16 and a standard deviation of 5.800. This would agree with previous research that lower levels of self-esteem would predict higher levels of perceived stress.

The results from the generalized self-efficacy show that the higher the levels of self-efficacy the lower the levels of perceived stress. These findings show that

Northern Ireland students have a mean score of 29.59 and a standard deviation of 3.527, while the students from Southern Ireland have a mean score of 27.80 and a standard deviation of 4.228.

GENDER

Females in Northern Ireland were found to have higher levels of perceived stress ($M= 29.43$, $SD= 4.85$) compared to the male students ($M= 24.25$, $SD= 5.30$). This can also be seen in Southern Ireland, with females scoring ($M= 32.86$, $SD= 3.69$) and males scoring ($M=31.03$, $SD= 3.05$). Another similarity can be found between Northern Ireland and Southern Ireland, females in Northern Ireland had Generalised Self-Efficacy values of ($M= 28.92$, $SD= 2.74$) and males had values of ($M= 30.02$, $SD= 3.92$). This is also seen in Southern Ireland with females scoring ($M=27.59$, $SD= 5.18$) and males scoring ($M=28.03$, $SD= 2.89$). And again with females in Northern Ireland scoring ($M= 20.65$, $SD= 3.68$) on the Self-Esteem scale (higher score = lower levels of self esteem) and males scoring ($M=17.16$, $SD= 5.39$). And in Southern Ireland females scoring ($M=19.59$, $SD=5.81$) and males scoring ($M= 18.67$, $SD= 5.84$). These scores would agree with previous research.

No major difference were seen in positive or negative coping methods between females (positive $M= 101.00$, $SD= 18.37$; negative $M= 27.00$, $SD= 5.15$) and males (positive $M= 99.07$, $SD= 19.07$; negative $M= 28.91$, $SD= 6.91$) in Northern Ireland. However in Southern Ireland, females (positive $M= 103.46$, $SD= 21.77$; negative $M= 29.86$, $SD= 7.69$) were seen to have higher use of positive coping methods than males (positive $M= 93.88$, $SD= 18.87$; negative $M= 28.88$, $SD= 8.75$).

This female/male divide was also seen with the divide of transition year/non-transition year students. Female students who took transition year scored ($M= 32.00$, $SD= 3.89$) for perceived stress, scored ($M= 29.63$, $SD= 4.24$) for generalized self-efficacy and scored ($M= 18.63$, $SD= 3.62$) for self-esteem. Where as male students who took transition year scored ($M= 28.43$, $SD= 3.14$) for perceived stress, scored ($M= 29.21$, $SD= 3.14$) for generalized self-efficacy and scored ($M= 16.71$, $SD= 5.91$) for self-esteem. No major difference were seen with the positive or negative coping methods for females (positive $M= 93.00$, $SD= 17.46$; negative $M= 29.12$, $SD= 5.94$) or males (positive $M= 92.21$, $SD= 16.21$; negative $M= 32.57$, $SD= 10.94$).

This can also be seen with students who didn't do transition year. Female students who didn't take transition year scored ($M= 33.14$, $SD= 3.66$) for perceived stress, scored ($M= 27.03$, $SD= 5.33$) for generalized self-efficacy and scored ($M= 19.86$, $SD= 6.31$) for self-esteem. Where as male students who took transition year scored ($M= 32.95$, $SD= 2.22$) for perceived stress, scored ($M= 27.16$, $SD= 2.39$) for generalized self-efficacy and scored ($M= 20.11$, $SD= 5.50$) for self-esteem.

When looking at the positive and negative coping methods we can see that females who didn't do transition year score (positive $M= 106.34$, $SD= 22.20$; negative $M= 30.10$, $SD= 8.19$), while males scored (positive $M= 95.10$, $SD= 20.65$; negative $M= 27.63$, $SD= 6.76$). So from this it can be seen that it is the female students who didn't do transition year (positive $M= 106.34$, $SD= 22.20$) that have higher use of positive coping methods than female students who did do transition year (positive $M= 93.00$, $SD= 17.46$).

Figure.2 Mean scores of Perceived Stress scores for Transition year/ Non-Transition year students.

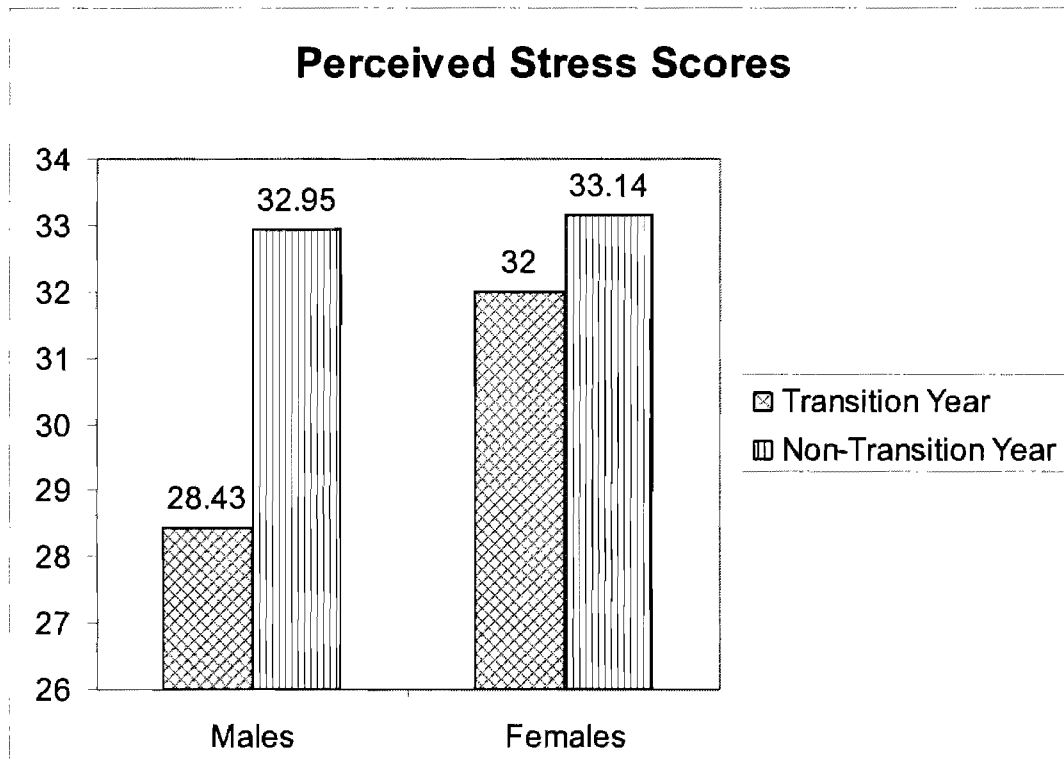
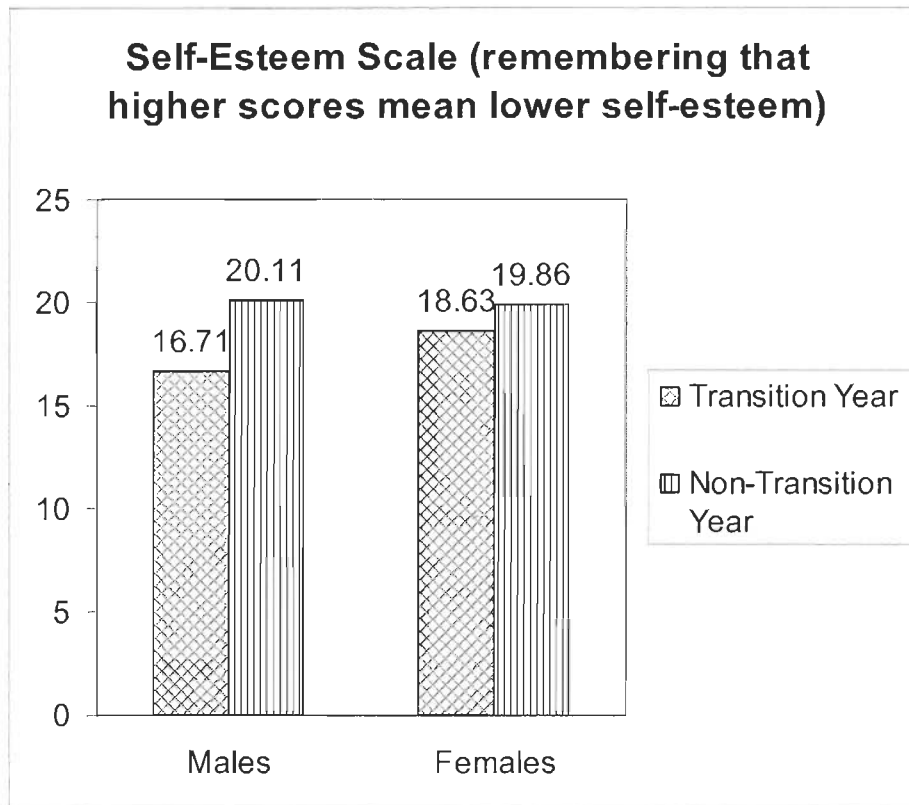


Figure.3 Mean scores of Generalized Self-Efficacy scores for Transition year/ Non-Transition year students.



Figure.4 Mean scores of Self-Esteem scores for Transition year/ Non-Transition year students.



Inferential statistics

Two statistical test were ran; a regression analysis and a one-way ANOVA. The regression was used to show how predictive the independent variables where of the dependant variable. Before looking at the results of the regression, it is a requirement to make sure that none of the assumptions are broken.

Assumptions

A multiple regression is one of the fussier of the statistical tests. It makes a few assumptions about that data that need to be checked.

Small samples don't work well with multiple regressions. Many authors differ on the guideline for sample size but Tabachnick and Fidell (2001, p. 117) have given a formula that is used to calculate the sample size requirement. This formula takes into account the number of different independent variables that are measured. Their formula indicates that this study requires over 114 cases. This assumption is not violated, as there are 120 cases in this study.

Multiple regressions don't like when multicollinearity or singularity occur. Multicollinearity occurs when the independent variables are highly correlated ($r=.9$ and above). Singularity is when one independent variable is a combination of other independent variables (e.g. when both subscale and total score are included). None of the scales used in this study include both subscale score and total score.

To check from multicollinearity we look in the Correlations table and can find that none of the independent variables are highly correlated. Tabachnick and Fidell (2001, p.84) tell us that you should 'think carefully before including two variables with a bivariate correlation of, say .7 or more in the same analysis'. In this study none of the variables correlate any higher than .504.

As an extra precaution we can also check the table Coefficients that will show any problems with multicollinearity that are not evident in the correlation matrix. In the Coefficients table if we find any score less than .10 in the Tolerance section this would indicate a high possibility of multicollinearity. Also if the score in the VIF (Variance inflation factor) section is higher than 10, this would suggest multicollinearity. None of the variables reach these limits so this would emphasize that there is no evidence of multicollinearity.

Table.2: Collinearity Statistics

	Tolerance	VIF
Sex	0.806338	1.240175
Location	0.76628	1.305006
Age	0.817414	1.22337
Work	0.779319	1.283171
Generalised Self-Efficacy	0.729739	1.370353
Self-Esteem	0.781827	1.279055
Pos_cope	0.772034	1.29528
Neg_cope	0.800092	1.249857

Another assumption of a regression analysis is that there are no outliers; there are no major deviations from normality, that there is linearity, homoscedasticity and independence of residuals. Inspecting the residuals scatterplot and the normal probability plot of the regression-standardised residuals can check these assumptions. In the normal probability plot (located in Appendix Two) it can be seen that the scores run along the line for normality, suggesting there are no major deviations. Tabachnick and Fidell (2001) define outliers as cases that have a standardised residual (as

displayed in the scatterplot in Appendix Tow) of more than 3.3 or less than -3.3. When inspecting the scatterplot, it is found that none of the cases violate these limits.

Regression Analysis

Now that none of the assumptions are violated. An evaluation of the model can take place. The multiple regression indicated that the amount of variance explained by the combined interaction of the eight predictor variables is 51.2% (Adjusted R Square = 0.0435, $F(8,155)=22.34$, $p<.001$). Therefore the combination of all the predictors does have significant predictive value in relation to perceived stress.

Location has a significant moderately strong effect (Standardised Beta = .37, $p<.001$) on perceived stress levels. Sex (Standardised Beta = .25, $p<.001$), Self-Esteem (Standardised Beta = .23, $p<.001$) and Generalised Self-Efficacy (Standardised Beta = .22, $p=.001$) also had a significant result, but these only had a weak effect on predicting perceived stress.

To find out which of the variables contributed to the prediction of the dependant variable we need to look at the table Coefficients. Here we look under Standardised Coefficients and in the column Beta. Here it can be seen that the variable Location has the highest Beta value of .369, this means that location (i.e. Educational system) makes the strongest unique (significance = .001) contribution to explaining the dependant variable. The next highest value is Sex, Beta value of .251 and a significance of .000. After that Self-Esteem, Beta value of .226 and a significance of .000 and then Generalised Self-Efficacy with a Beta value of .220 and a significance of .001.

Table.3: Standardized Coefficients

Model	Beta	Sig.
Sex	0.251	0.000
Location	0.369	0.000
Age	-0.102	0.094
Work	0.012	0.841
Generalised Self-Efficacy	-0.220	0.001
Self-Esteem	0.226	0.000
Pos_cope	-0.106	0.090
Neg_cope	0.118	0.055

One-way ANOVA

Because the regression analysis is so fussy the assumptions covered with that will cover the One-Way ANOVA.

A one-way between groups analysis of variance was conducted to explore the impact of transition year on levels of perceived stress, as measured by the Perceived Stress Scale (PSS). Subjects were divided into three groups; (Group 1: Leaving Cert students who did transition year; Group 2: Leaving cert students who didn't do transition year; and Group 3: Northern Ireland students). There was a statistically significant difference at the $p < .001$ level in PSS scores for the three groups

[$F(2,161)=32.3$, $p=.000$]. While reaching statistical significance, the actual difference in the mean scores between the groups was also high. The effect size, calculated using eta squared, was .29; Cohen (1988) describes anything over .14 as having a large effect. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 ($M= 29.73$, $SD= 3.19$) was significantly different from Group 2 ($M=33.06$, $SD= 3.14$), Group 2 was significantly different from Group 3 ($M= 26.29$, $SD=5.70$) and Group 1 was significantly different from Group 3.

Discussion

This study had two aims, to see if there was a significant difference in perceived stress levels of Leaving Certificate students in Southern Ireland compared with A-Level students in Northern Ireland, and to see if there was a significant difference in perceived stress levels of students who completed transition year compared with students who went straight from the junior certificate cycle straight into the leaving certificate cycle. Three schools were used in the study; two schools (one all boys and the other was a mixed sex) were located in Belfast, and the other school (mixed sex) was located in Dublin. It was hypothesised that students in Southern Ireland would have higher levels of perceived stress than students in Northern Ireland. It was also hypothesised that students who completed transition year would have lower levels of perceived stress than students who continued straight from the junior certificate cycle into the leaving certificate cycle. Both of these hypotheses were supported by the results.

Descriptive statistics showed that students in Northern Ireland had a mean perceived stress score of 26.29; however students from Southern Ireland had a mean value of 32.01. This is a significant difference in scores. A multi regression analysis showed that location was the best predictor of perceived stress. This agrees with the first hypothesis, so from this we can reject the null hypothesis.

The descriptive statistics for the second hypothesis showed that students who completed transition year had a mean perceived stress value of 29.73 were the students who went straight from the junior certificate cycle straight into the leaving

certificate cycle had a mean perceived stress value of 33.06. When an ANOVA was run on the scores it produced a significant result between each of the groups (completed transition year, skipped transition year, and Northern Ireland) of $p < .001$. The post hoc test was a Tukey HSD, this test showed that all the difference were significant at a .05 level of significance. This information agrees with the second hypothesis, so we can reject the null hypothesis.

The reason why students who have completed transition year have lower levels of stress may be down to them being more mature and being able to manage their coping mechanisms better than those who didn't complete transition year.

No previous research has been done on comparing the stress levels of students from different educational systems, however previous research has been on perceived stress levels, levels of self-esteem, levels of generalized self-efficacy and coping methods.

Perceived Stress

The descriptive results show that the mean value for perceived stress for all students was 28.73 this is significantly larger than 19.62, the value Cohen and Williamson (1988) found with their random sample of 2,387 people. Students in Northern Ireland have a mean score of 26.29 and the students in Southern Ireland have a mean score of 32.01. These results agree with the original hypothesis that students in Southern Ireland have higher levels of educational stress.

When the students in Southern Ireland are broken up into two groups; continuing straight from the junior certificate cycle into the leaving certificate cycle and students

who go from the junior certificate cycle into the transition year, it is found that students who continue straight into the leaving certificate cycle have a mean perceived stress level of 33.06 and the students who went into transition year had a mean perceived stress level of 29.73 which is significantly lower.

Self-Esteem

It was also found that students in Northern Ireland had higher levels of self-esteem than Southern Ireland. Rosenberg's self-esteem scale is calculated by a higher mean value equalling lower levels of self-esteem. It was found that students in Northern Ireland had a mean score of 18.53 with a standard deviation of 5.067, whereas the students in Southern Ireland had a mean score of 19.16 and a standard deviation of 5.800. This would agree with previous research that lower levels of self-esteem would predict higher levels of perceived stress (Rosenberg, 1965).

Self-Efficacy

The results from the generalized self-efficacy show that the higher the levels of self-efficacy the lower the levels of perceived stress (Bandura, 1977). Northern Ireland students have a mean score of 29.59 and a standard deviation of 3.527, while the students from Southern Ireland have a mean score of 27.80 and a standard deviation of 4.228. The results from Northern Ireland agree with previous research conducted by Bandura (1977), he found a mean score of 29.28 and a standard deviation of 4.6 out of a sample of 1660 German students.

Coping

No major difference were seen in positive or negative coping methods between females (positive $M= 101.00$, $SD= 18.37$; negative $M= 27.00$, $SD= 5.15$) and males (positive $M= 99.07$, $SD= 19.07$; negative $M= 28.91$, $SD= 6.91$) in Northern Ireland. However in Southern Ireland, females (positive $M= 103.46$, $SD= 21.77$; negative $M= 29.86$, $SD= 7.69$) were seen to have higher use of positive coping methods than males (positive $M= 93.88$, $SD= 18.87$; negative $M= 28.88$, $SD= 8.75$). However in Southern Ireland, females (positive $M= 103.46$, $SD= 21.77$; negative $M= 29.86$, $SD= 7.69$) were seen to have higher use of positive coping methods than males (positive $M= 93.88$, $SD= 18.87$; negative $M= 28.88$, $SD= 8.75$). The COPE scale was administered to 978 undergraduate students and found a mean of 104.26 and a SD of 30.46 with positive coping and a mean of 20.96 and a SD of 7.52 with negative coping.

Gender Difference

This female/male divide was also seen with the divide of transition year/non-transition year students. Female students who took transition year scored ($M= 32.00$, $SD= 3.89$) for perceived stress, scored ($M= 29.63$, $SD= 4.24$) for generalized self-efficacy and scored ($M= 18.63$, $SD= 3.62$) for self-esteem. Where as male students who took transition year scored ($M= 28.43$, $SD= 3.14$) for perceived stress, scored ($M= 29.21$, $SD= 3.14$) for generalized self-efficacy and scored ($M= 16.71$, $SD= 5.91$) for self-esteem. No major difference were seen with the positive or negative coping

methods for females (positive $M= 93.00$, $SD= 17.46$; negative $M= 29.12$, $SD= 5.94$) or males (positive $M= 92.21$, $SD= 16.21$; negative $M= 32.57$, $SD= 10.94$).

This can also be seen with students who didn't do transition year. Female students who didn't take transition year scored ($M= 33.14$, $SD= 3.66$) for perceived stress, scored ($M= 27.03$, $SD= 5.33$) for generalized self-efficacy and scored ($M= 19.86$, $SD= 6.31$) for self-esteem. Whereas male students who took transition year scored ($M= 32.95$, $SD= 2.22$) for perceived stress, scored ($M= 27.16$, $SD= 2.39$) for generalized self-efficacy and scored ($M= 20.11$, $SD= 5.50$) for self-esteem.

When looking at the positive and negative coping methods we can see that females who didn't do transition year score (positive $M= 106.34$, $SD= 22.20$; negative $M= 30.10$, $SD= 8.19$), while males scored (positive $M= 95.10$, $SD= 20.65$; negative $M= 27.63$, $SD= 6.76$). So from this it can be seen that it is the female students who didn't do transition year (positive $M= 106.34$, $SD= 22.20$) that have higher use of positive coping methods than female students who did do transition year (positive $M= 93.00$, $SD= 17.46$).

Previous Research

Previous research has shown that high levels of stress can have adverse effect on a person's health. So from this it can be assumed that because students in Southern Ireland have higher levels of stress than Cohen and Williamson's (1988) sample and students in Northern Ireland, they would also have a higher chance of resulting in illnesses that are caused by stress. Research done by the world health organisation (WHO) has shown that in Ireland there is a higher level of coronary heart disease

(CHD) mortality than in the UK (which includes Northern Ireland). A table is located in the abstract section that highlights the data over the last few years.

As we have seen in the introduction, stress can have effects on behaviour. Could the high levels of smoking (31%) among the teenagers in Ireland ((WHO Survey of Health Behaviour in School-aged Children (HBSC) conducted in 1993–1994 and 1997–1998)) be caused by the high levels of stress that were found among students. Because Wills (1985) did find that smoking initiation in adolescents was related to the amount of stress in their lives.

Could these high levels of stress also explain why Ireland is the second highest for consumption of alcohol in Europe (Strategic Task Force on Alcohol Interim Report. Department of Health and Children, Ireland 2002.), for Metcalfe et al. (2003) and Heslop et al. (2001) reported that there was an association between perceived stress and drinking more alcohol.

Weaknesses

While conducting the research a few weaknesses were found that would be changed for any future study, these were; the questionnaire should include a question asking if the student intended on continuing to further education. This would have been useful, because students who wanted to continue would have needed to work harder to obtain higher grades.

Another point that was seen, which can be seen as both a weakness and strength, was that this study is the first of its kind and as a result there is nothing to compare the results with.

Recommendations

One of the main recommendations would be the need for more research in this area; this study needs to be repeated for a comparison analysis to be conducted. The Department of Education needs to focus on this area of the schooling.

Another recommendation would be that the Department of Education in the Republic of Ireland completes a review of the process of the leaving certificate, instead of just changing the structure of subjects.

Subjects should be assessed over a yearly period, like in Northern Ireland. Examinations should be held at the end of each term with the final mark from each year being added together to give the Leaving Certificate grade.

Transition year should be made compulsory. As seen in the results, students who participated in transition year had significantly lower stress levels; while these results weren't as low as Northern Ireland they were still lower than of those who skipped transition year.

Subjects for the Leaving certificate should have a better focus on practical jobs (e.g. laborer, plumber, and electrician) instead of just focusing on academic subjects. This would facilitate students who have no interest in going on to further there education.

Even if the Department of Education does change the educational system in the Republic of Ireland, at least this study will be a baseline for past stress level that can be used to see if a new educational system will lower students stress levels.

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Appendix One

Table.1 *Points given for the Leaving Certificate, Dependant on Grade and Level*

Percentage Range	Grade	Points for Higher	Points for Ordinary
90 – 100	A1	100	60
85 – 89.9	A2	90	50
80 – 84.9	B1	85	45
75 – 79.9	B2	80	40
70 – 74.9	B3	75	35
65 – 69.9	C1	70	30
60 – 64.9	C2	65	25
55 – 59.9	C3	60	20
50 – 54.9	D1	55	15
45 – 49.9	D2	50	10
40 – 44.9	D3	45	5
25 – 39.9	E	0	0
10 – 24.9	F	0	0
0 – 9.9	NG	0	0

Appendix Two

Cover Sheet

Dear Student

This questionnaire looks at the stress levels of final year students in connection with the educational system. Please help this research by answering **honestly** and as **accurately** as possible. Please relate all the questions and your answers to **EXAMINATIONS** i.e. if you feel stress or unable to cope it should be due to exams.

There are no '**right**' or '**wrong**' answers to these questions. Please do not discuss your answers with anyone else, and do not pause too long over any one question.

Please complete the 5 sections of the questionnaire by circling the correct response. If you make a mistake; place an X through the mistake and circle another response.

Everything you write is completely private and you do not have to write your name on the questionnaire booklet. No one in your school will read your answers. I hope that you find the questionnaire interesting and enjoyable to do.

If you do not wish to participate in the research please leave the booklet blank.

If you have any questions about the results or the research, you can e-mail me at byrne.keith@gmail.com .

Thanks very much for your help and support in the research.

Keith Byrne

Questionnaire for Northern Ireland

Section 1.

Please circle correct response.

1.	Your gender is?	Male	Female
2.	Do you work full-time or part-time?	Yes	No
3.	You attend school in?	Southern Ireland	Northern Ireland
4.	What age are you?		

Section 2.

Please try to relate each of the situations presented below to how they apply to you within an **educational** context. Please answer all of the questions by circling the correct number. (1= Not at all true, 2= Barely true, 3= Moderately true or 4=Exactly true.)

		Not at all true	Barely true	Moderately true	Exactly true
1	I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
2	If someone opposes me, I can find means and ways to get what I want.	1	2	3	4
3	It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
4	I am confident that I could deal efficiently with unexpected events.	1	2	3	4
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
6	I can solve most problems if I invest the necessary effort.	1	2	3	4
7	I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
8	When I am confronted with a problem, I can usually find several solutions.	1	2	3	4
9	If I am in a difficult situation, I can usually think of something to do.	1	2	3	4
10	No matter what comes my way, I'm usually able to handle it.	1	2	3	4

Section 3.

In this section circle the correct response to how you feel about the statement relating to **YOU**. Please answer all questions.

		Strongly Agree	Agree	Disagree	Strongly Disagree
1	I feel that I am a person of worth, at least on an equal basis with others.	1	2	3	4
2	I feel that I have a number of good qualities.	1	2	3	4
3	All in all, I am inclined to feel that I am a failure.	1	2	3	4
4	I am able to do things as well as most other people.	1	2	3	4
5	I feel I do not have much to be proud of.	1	2	3	4
6	I take a positive attitude toward myself.	1	2	3	4
7	On the whole, I am satisfied with myself.	1	2	3	4
8	I wish I could have more respect for myself.	1	2	3	4
9	I certainly feel useless at times.	1	2	3	4
10	At times I think I am no good at all.	1	2	3	4

Section 4.

In this section please relate the situations to over the last year and try to keep them to an **educational** context. Please answer all the questions by circling the correct response.

		Never	Almost Never	Sometimes	Fairly Often	Very Often
1	In the last year, how often have you been upset because of something that happened unexpectedly?	1	2	3	4	5
2	In the last year, how often have you felt that you were unable to control the important things in your life?	1	2	3	4	5

		Never	Almost Never	Sometimes	Fairly Often	Very Often
3	In the last year, how often have you felt nervous and stressed?	1	2	3	4	5
4	In the last year, how often have you dealt with irritating life hassles?	1	2	3	4	5
5	In the last year, how often have you felt that you were effectively coping with important changes that were occurring in your life?	1	2	3	4	5
6	In the last year, how often have you felt confident about your ability to handle your personal problems?	1	2	3	4	5
7	In the last year, how often have you felt that things were going your way?	1	2	3	4	5
8	In the last year, how often have you found that you could not cope with all the things you had to do?	1	2	3	4	5
9	In the last year, how often have you been able to control irritations in your life?	1	2	3	4	5
10	In the last year, how often have you felt that you were on top of things?	1	2	3	4	5
11	In the last year, how often have you been angered because of things that happened that were outside of your control?	1	2	3	4	5
12	In the last year, how often have you found yourself thinking about things that you have to accomplish?	1	2	3	4	5
13	In the last year, how often have you been able to control the way you spend your time?	1	2	3	4	5
14	In the last year, how often have you felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5

Section 5.

In this section indicate what **YOU** usually do when **YOU** experience a stressful event in an **educational** context. Please answer all the questions.

		I usually don't do this at all.	I usually do this a little bit.	I usually do this a medium amount	I usually do this a lot.
1	I try to grow as a person as a result of the experience.	1	2	3	4
2	I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3	I get upset and let my emotions out.	1	2	3	4
4	I try to get advice from someone about what to do.	1	2	3	4
5	I concentrate my efforts on doing something about it.	1	2	3	4
6	I say to myself "this isn't real".	1	2	3	4
7	I put my trust in God.	1	2	3	4
8	I laugh about the situation.	1	2	3	4
9	I admit to myself that I can't deal with it, and give up trying.	1	2	3	4
10	I restrain myself from doing anything too quickly.	1	2	3	4
11	I discuss my feelings with someone.	1	2	3	4
12	I use alcohol or drugs to make myself feel better.	1	2	3	4
13	I get used to the idea that it happened.	1	2	3	4
14	I talk to someone to find out more about the situation.	1	2	3	4
15	I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
16	I daydream about things other than this.	1	2	3	4
17	I get upset, and am really aware of it.	1	2	3	4
18	I seek God's help.	1	2	3	4
19	I make a plan of action.	1	2	3	4

		I usually don't do this at all.	I usually do this a little bit.	I usually do this a medium amount	I usually do this a lot.
20	I make jokes about it.	1	2	3	4
21	I accept that this has happened and that it can't be changed.	1	2	3	4
22	I hold off doing anything about it until the situation permits.	1	2	3	4
23	I try to get emotional support from friends and relatives.	1	2	3	4
24	I just give up trying to reach my goal.	1	2	3	4
25	I take additional action to try to get rid of the problem.	1	2	3	4
26	I try to lose myself for a while by drinking alcohol or taking drugs.	1	2	3	4
27	I refuse to believe that it has happened.	1	2	3	4
28	I let my feelings out.	1	2	3	4
29	I try to see it in a different light, to make it seem more positive.	1	2	3	4
30	I talk to someone who could do something concrete about the problem.	1	2	3	4
31	I sleep more than usual.	1	2	3	4
32	I try to come up with a strategy about what to do.	1	2	3	4
33	I focus on dealing with this problem and, if necessary, let other things slip.	1	2	3	4
34	I get sympathy and understanding from someone.	1	2	3	4
35	I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
36	I kid around about it.	1	2	3	4
37	I give up the attempt to get what I want.	1	2	3	4

		I usually don't do this at all.	I usually do this a little bit.	I usually do this a medium amount	I usually do this a lot.
38	I look for something good in what is happening.	1	2	3	4
39	I think about how I might best handle the problem.	1	2	3	4
40	I pretend that it hasn't really happened.	1	2	3	4
41	I make sure not to make matters worse by acting too soon.	1	2	3	4
42	I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
43	I go to the cinema or watch television, to think about it less.	1	2	3	4
44	I accept the reality of the fact that it happened.	1	2	3	4
45	I ask people who have had similar experiences what they did.	1	2	3	4
46	I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
47	I take direct action to get around the problem.	1	2	3	4
48	I try to find comfort in my religion.	1	2	3	4
49	I force myself to wait for the right time to do something.	1	2	3	4
50	I make fun of the situation.	1	2	3	4
51	I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4
52	I talk to someone about how I feel.	1	2	3	4
53	I use alcohol or drugs to help me get through it.	1	2	3	4
54	I learn to live with it.	1	2	3	4
55	I put aside other activities in order to concentrate on this.	1	2	3	4

		I usually don't do this at all.	I usually do this a little bit.	I usually do this a medium amount	I usually do this a lot.
56	I think hard about what steps to take.	1	2	3	4
57	I act as though it hasn't even happened.	1	2	3	4
58	I do what has to be done, one step at a time.	1	2	3	4
59	I learn something from the experience.	1	2	3	4
60	I pray more than usual.	1	2	3	4

Questionnaire for Republic of Ireland

Section 1.

Please circle correct response.

1.	Your gender is?	Male	Female
2.	Do you work full-time or part-time?	Yes	No
3.	Did you complete Transition Year?	Yes	No
4.	What age are you?		

Section 2.

Please try to relate each of the situations presented below to how they apply to you within an **educational** context. Please answer all of the questions by circling the correct number. (1= Not at all true, 2= Barely true, 3= Moderately true or 4=Exactly true.)

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59	I learn something from the experience.	1	2	3	4
60	I pray more than usual.	1	2	3	4

Tips for Studnets

Tips to Beating Exam Stress

1. **Sleep Well** - Do not work all night. Get some sleep. Remember, your body needs rest. Students need at least eight and a half hours of sleep in order to start afresh.
2. **Eat Well** - Eating a proper meal at regular times is very important. Eating properly would ensure you have enough energy to tackle your daily studies.
3. **Talk to Someone** – If exams are really making you ill, worried or depressed, don't hide your feelings. Talk to someone about it. A problem shared is a problem halved.
4. **Take Breaks** - The concentration span of a human being is 45 minutes at a time. So don't tax yourself by trying to cram as much information as possible for hours. When your mind is saturated with information, whether you put in one hour or ten, it does not make a difference -- nothing will go in.
5. **Know your Peak** - Choose a time of the day when you feel most comfortable studying. It could be early morning, late at night or in the afternoon, depending on your preference.
6. **Plan your Day** - Try to establish a routine that allows time for meals, sleep, revising and relaxing. You are allowed to enjoy yourself, and it is important to take a break from studies.
7. **Get Help** – Don't be afraid to ask your teachers for help, that is what they are there for.
8. **Make a Plan** – This is a usfull way of keeping on top of things.
9. **Exercise** - You need exercise to work well. Not only will this help calm you down but it will also increase blood flow to the brain.

Helplines & Websites for Students

Helplines & Websites

Here is also a list of helplines if you need anyone to talk to about stress or any other problems.

Samaritans :- Dublin 1850 60 90 90

Belfast 028 90 664422

Here is also a list of websites that are useful in finding information on college courses and study skills.

Websites :- Dublin www.skool.ie

Belfast www.studentuk.com

Appendix Three

SPSS Output

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Percieved Stress	28.73	5.641	164
Sex	1.45	.499	164
Location	1.43	.496	164
Age	17.16	.694	164
Work	1.45	.499	164
Generalised Self-Efficacy	28.82	3.930	164
Self-Esteem	18.80	5.384	164
Pos_cope	99.4512	19.61260	164
Neg_cope	28.6951	7.16705	164

Correlations

		Pos_cope	Neg_cope
Pearson Correlation	Percieved Stress	-.030	.145
	Sex	.129	-.032
	Location	-.022	.087
	Age	-.072	-.061
	Work	-.075	.059
	Generalised Self-Efficacy	.126	-.038
	Self-Esteem	.112	.134
	Pos_cope	1.000	.407
	Neg_cope	.407	1.000
Sig. (1-tailed)	Percieved Stress	.352	.032
	Sex	.050	.344
	Location	.388	.134
	Age	.179	.218
	Work	.171	.227
	Generalised Self-Efficacy	.054	.315
	Self-Esteem	.077	.043
	Pos_cope	.	.000
	Neg_cope	.000	.
N	Percieved Stress	164	164
	Sex	164	164
	Location	164	164
	Age	164	164
	Work	164	164
	Generalised Self-Efficacy	164	164
	Self-Esteem	164	164
	Pos_cope	164	164
	Neg_cope	164	164

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732 ^a	.536	.512	3.942

a. Predictors: (Constant), Neg_cope, Sex, Work, Generalised Self-Efficacy, Age, Self-Esteem , Pos_cope, Location

b. Dependent Variable: Percieved Stress

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2777.562	8	347.195	22.343	.000 ^a
	Residual	2408.633	155	15.540		
	Total	5186.195	163			

a. Predictors: (Constant), Neg_cope, Sex, Work, Generalised Self-Efficacy, Age, Self-Esteem , Pos_cope, Location

b. Dependent Variable: Percieved Stress

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	37.655	9.171		4.106	.000	19.539	55.771
	Sex	2.833	.689	.251	4.112	.000	1.472	4.193
	Location	4.192	.711	.369	5.896	.000	2.787	5.596
	Age	-.828	.492	-.102	-1.683	.094	-1.800	.144
	Work	.141	.702	.012	.201	.841	-1.245	1.527
	Generalised Self-Efficacy	-.316	.092	-.220	-3.434	.001	-.497	-.134
	Self-Esteem	.237	.065	.226	3.658	.000	.109	.365
	Pos_cope	-.031	.018	-.106	-1.706	.090	-.066	.005
	Neg_cope	.093	.048	.118	1.934	.055	-.002	.188

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	Sex	.392	.314	.225	.806	1.240
	Location	.504	.428	.323	.766	1.305
	Age	-.332	-.134	-.092	.817	1.223
	Work	.224	.016	.011	.779	1.283
	Generalised Self-Efficacy	-.471	-.266	-.188	.730	1.370
	Self-Esteem	.402	.282	.200	.782	1.279
	Pos_cope	-.030	-.136	-.093	.772	1.295
	Neg_cope	.145	.154	.106	.800	1.250

a. Dependent Variable: Percieved Stress

Residuals Statistics^a

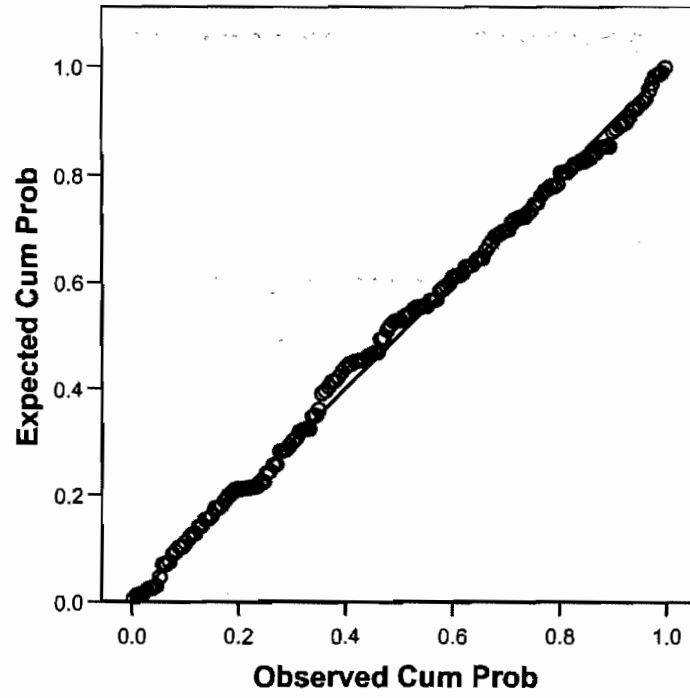
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	19.87	39.90	28.73	4.128	164
Std. Predicted Value	-2.147	2.706	.000	1.000	164
Standard Error of Predicted Value	.588	1.670	.903	.195	164
Adjusted Predicted Value	19.44	40.27	28.75	4.159	164
Residual	-9.973	11.583	.000	3.844	164
Std. Residual	-2.530	2.938	.000	.975	164
Stud. Residual	-2.793	2.984	-.002	1.004	164
Deleted Residual	-12.155	11.949	-.017	4.080	164
Stud. Deleted Residual	-2.857	3.064	-.002	1.011	164
Mahal. Distance	2.629	28.269	7.951	4.202	164
Cook's Distance	.000	.190	.007	.016	164
Centered Leverage Value	.016	.173	.049	.026	164

a. Dependent Variable: Percieved Stress

Charts

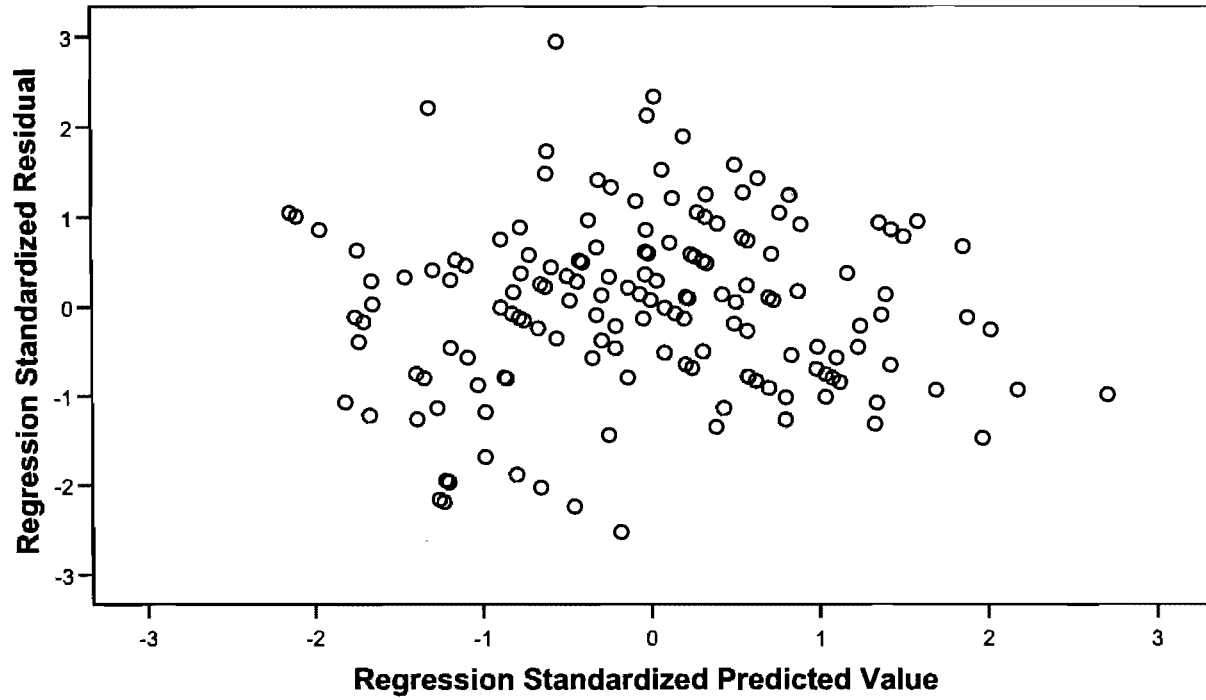
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Percieved Stress



Scatterplot

Dependent Variable: Percieved Stress



Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Generalised Self-Efficacy	164	17	40	28.82	3.930
Self-Esteem	164	10	40	18.80	5.384
Percieved Stress	164	15	39	28.73	5.641
Active Coping	164	4	16	9.79	2.629
Planning	164	4	16	9.40	2.704
Seeking Instrumental Social Support	164	4	16	9.80	3.351
Seeking Emotional Social Support	164	4	16	8.73	3.320
Suppression of Competing Activities	164	4	16	8.46	2.346
Turning to Religion	164	4	16	6.76	3.294
Positive Reinforcement and Growth	164	4	16	10.79	2.649
Restraint Coping	164	4	16	8.55	2.440
Acceptance	164	4	16	9.70	2.524
Focus on and Venting of Emotions	164	4	16	8.27	3.012
Denial	164	4	14	6.46	2.413
Mental Disengagement	164	4	16	9.54	2.488
Behavioural Disengagement	164	4	14	6.59	2.280
Alcohol/Drug Use	164	4	16	6.11	3.539
Humour	164	4	16	9.20	3.387
Pos_cope	164	58.00	151.00	99.4512	19.61260
Neg_cope	164	17.00	54.00	28.6951	7.16705
Valid N (listwise)	164				

Descriptives of Students split into Location

Descriptive Statistics

Location		N	Minimum	Maximum	Mean	Std. Deviation
Northern Ireland	Generalised Self-Efficacy	94	23	40	29.59	3.527
	Self-Esteem	94	10	40	18.53	5.067
	Percieved Stress	94	15	38	26.29	5.702
	Active Coping	94	4	16	9.85	2.458
	Planning	94	4	16	9.40	2.725

Descriptive Statistics

Location		N	Minimum	Maximum	Mean	Std. Deviation
Northern Ireland	Seeking Instrumental Social Support	94	4	15	9.56	3.032
	Seeking Emotional Social Support	94	4	16	8.57	3.043
	Suppression of Competing Activities	94	4	16	8.59	2.216
	Turning to Religion	94	4	16	7.34	3.487
	Positive Reinforcement and Growth	94	4	16	10.71	2.726
	Restraint Coping	94	4	14	8.54	2.435
	Acceptance	94	4	15	9.54	2.435
	Focus on and Venting of Emotions	94	4	15	8.05	2.795
	Denial	94	4	13	6.45	2.232
	Mental Disengagement	94	4	16	9.44	2.452
	Behavioural Disengagement	94	4	12	6.59	2.127
	Alcohol/Drug Use	94	4	16	5.69	3.138
	Humour	94	4	16	9.66	3.352
	Pos_cope	94	59.00	147.00	99.8298	18.72589
	Neg_cope	94	17.00	43.00	28.1596	6.31827
	Valid N (listwise)	94				

Descriptive Statistics

Location	N	Minimum	Maximum	Mean	Std. Deviation
Southern Ireland	70	17	40	27.80	4.228
Generalised Self-Efficacy	70	10	36	19.16	5.800
Self-Esteem	70	25	39	32.01	3.504
Percieved Stress	70	4	16	9.71	2.860
Active Coping	70	4	16	9.40	2.694
Planning	70	4	16	10.11	3.736
Seeking Instrumental Social Support	70	4	16	8.94	3.671
Seeking Emotional Social Support	70	4	14	8.30	2.516
Suppression of Competing Activities	70	4	16	5.97	2.854
Turning to Religion	70	5	16	10.89	2.557
Positive Reinforcement and Growth	70	5	16	8.56	2.465
Restraint Coping	70	4	16	9.90	2.644
Acceptance	70	4	16	8.57	3.277
Focus on and Venting of Emotions	70	4	14	6.47	2.652
Denial	70	4	15	9.67	2.547
Mental Disengagement	70	4	14	6.60	2.487
Behavioural Disengagement	70	4	16	6.67	3.970
Alcohol/Drug Use	70	4	16	8.59	3.360
Humour	70	58.00	151.00	98.9429	20.87081
Pos_cope	70	18.00	54.00	29.4143	8.16229
Neg_cope	70				
Valid N (listwise)	70				

Oneway

Descriptives

Perceived Stress

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes	22	29.73	3.195	.681	28.31	31.14	26	38
No	48	33.06	3.145	.454	32.15	33.98	25	39
Northern Ireland	94	26.29	5.702	.588	25.12	27.46	15	38
Total	164	28.73	5.641	.440	27.86	29.60	15	39

ANOVA

Perceived Stress

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1483.774	2	741.887	32.261	.000
Within Groups	3702.421	161	22.996		
Total	5186.195	163			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Perceived Stress

Tukey HSD

(I) Transition Year	(J) Transition Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Yes	No	-3.335*	1.235	.021	-6.26	-.41
	Northern Ireland	3.440*	1.136	.008	.75	6.13
No	Yes	3.335*	1.235	.021	.41	6.26
	Northern Ireland	6.775*	.851	.000	4.76	8.79
Northern Ireland	Yes	-3.440*	1.136	.008	-6.13	-.75
	No	-6.775*	.851	.000	-8.79	-4.76

*. The mean difference is significant at the .05 level.

Homogeneous Subsets

Perceived Stress

Tukey HSD^{a,b}

Transition Year	N	Subset for alpha = .05		
		1	2	3
Northern Ireland	94	26.29		
Yes	22		29.73	
No	48			33.06
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 38.998.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.