

**Social support, self-efficacy
and coping methods in
relation to perceived stress
in a student sample.**

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Contents

Title.....	3
Acknowledgements.....	4
Abstract.....	5
1. Introduction.....	6
2. Method.....	17
2.1 Participants.....	17
2.2 Design.....	18
2.3 Materials.....	18
2.4 Procedure.....	21
3. Results.....	23
4. Discussion.....	29
References.....	36
Appendix.....	42

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Abstract

The purpose of this study was to examine social support, self-efficacy and coping methods in relation to perceived stress in a student sample. Data was gathered from 82 students studying in a Dublin based institution. The data was gathered by means of self reported questionnaires, the general self-efficacy scale, the social support (short form) questionnaire, the brief cope and the perceived stress scale. The analysis showed that there was a significant relationship between perceived stress and self-efficacy, the amount of social support received and the coping methods: denial, planning and self blame. No significant difference was found in the perceived stress scores of full and part-time students or Irish and international students. A significant gender difference in the amount of social support received, emotional support and substance use used as a coping mechanism was found.

1. Introduction

A (2010) study conducted by Harmon & Foubert found that a very large proportion of students showed symptoms of chronic stress, including difficulties in concentrating, sleeping, catching colds and suffering headaches. Perceived stress is a big issue within psychological research today especially for college students, as there are many factors that can impact the amount of stress felt. The concept of perceived stress in relation to self-efficacy, coping strategies and social support is of particular interest for this study. Other areas of interest include gender differences, whether being Irish and studying in Ireland influences perceived stress levels as opposed to students studying outside their country of origin. This study is also interested in seeing if differences occur in full and part-time students perceived stress levels.

1.1 Perceived stress in college students

Stress can be defined as a negative feeling associated with varying physical and psychological symptoms ranging from increased heartbeat, sweaty palms and digestive upset to heightened emotional states, fear of losing control and feelings of being overpowered (Health and Safety Authority). The main sources of stress found in students were academic, financial, family and health. College can be a difficult and stressful time for students. Intrapersonal sources of stress have been found to be the greatest and most frequently cited sources of stress. New responsibilities, a higher workload and changes in sleeping and eating behaviours were among the most common stressors reported (Ross, Niebling, & Heckert, 1999). Feelings of hopelessness and depression may be more common in college students than those not in an educational setting due to higher levels of perceived stress and a larger work demand (Hirsch & Ellis, 1996). Reasons for elevated stress levels of college students have been found to range from lack of financial security, time management issues and the limited availability of emotional support (Cahir & Morris, 1991). Al-Dubai, Al-Naggar,

Alshagga, & Rampal, (2011) found 93.9% of 174 students reported some degree of stress with only 6.1% reporting no stress at all. Some students seem to be able to deal with stress better than others and this could be due to the different support systems they have available to them, the coping strategies used and personal levels of self efficacy.

Given the detrimental effects that stress can have on an individual it is important that institutions understand and provide resources for students so that they can manage and prepare for stress effectively (Pfeiffer, 2001). A study conducted by the Higher Education Authority showed that nearly one in six students leave third level education before progressing to second year Murray (2010). It is necessary to identify at-risk students as soon as possible in order to provide them with the necessary support (Redmond, Quin, Devitt & Archbold, 2011). A national survey found that the emotional health of students was at an all time low in 2010. It was found that only 51.9% of students rated their emotional health as above average, which is significantly lower than the 63.6% who felt the same way when emotional health was first measured in 1985 (Klein, 2010). Reasons for the declining mental well being of students today could be attributed to the current economic climate where financial worries are more apparent. Students may have to take on full-time or part-time work in order to be able to afford college and living expenses.

Oaten & Cheng (2005) observed that during particularly stressing times in college, such as exams, students reported a significant increase in perceived stress. Along with a rise in perceived stress, students also reported a rise in unhealthy behaviour such as smoking, caffeine consumption, and a decrease in healthy behaviour such as physical activity, taking care of themselves and the household, a lack of emotional control and a deterioration in sleep. Valerie (n.d) found that 83% of students worked during the college year even though half of them felt that this could have a negative effect on their degree grade, 58% did so to pay for daily living expenses.

1.2 Coping methods used by students

Prati, Pietrantoni & Cicognani (2011) define coping strategies as efforts made to help when a situation is deemed stressful. Seeking emotional support can be considered a positive coping strategy focused on the stressor and how to manage it, whereas avoidance coping strategies such as substance abuse can be considered maladaptive as the stressor is ignored and rewards are sought from external activities. Coping strategies can also be classed as problem-focused and emotion-focused (Brougham, Mendoza & Miller, 2009). Ben-Zur (2009) found problem focused coping to be positively correlated to positive affect and negatively correlated to negative affect, while avoidance coping was negatively related to positive affect and emotional support coping was positively related to positive affect.

Krohne (2002) describes the Lazarus (1991) theory of stress as being a relationship between the environment and how a specific individual interprets it. "Coping is a transaction between the threat, the appraisal, and the response" (Tamres, Janicki, & Helgeson, 2002, para 4). Tully (2004) found that students with high levels of distress used different methods of coping than those with lower distress levels. Problem solving coping methods such as speaking to others, asking for advice and taking one step at a time were used by those reporting lower levels of distress. Coping methods such as smoking, drinking alcohol and taking frustrations out on others were found to be used by those with higher distress levels. Martin & Dahlen (2005) reported self blame to be one of the main predictors in negative emotions such as stress. Lazarus (1993) suggests that the use of maladaptive coping strategies leads to greater levels of stress being experienced. It has been suggested by Devonport & Lane (2006) that planning allows students to manage time better and focus on individual tasks, thus helping to improve stress levels. Ward & Kennedy (2001) found that avoidant coping methods such as denial resulted in higher levels of psychological distress.

The current study aims to address which coping mechanisms students use to deal with perceived stress.

1.3 Social support

El- Ghoroury, Galper, Sawaqdeh & Bufka (2012) identified the main strategies for coping with stress. Getting support from friends was rated the highest with (72.4%) of students indicating they used it as a coping strategy, family support came in second with (64.8%) and speaking with classmates (62.8%) coming third. Lo's (2002) study indicated that social support was available to most students, this included family members or a spouse or partner. The social support provided ranged from emotional support to financial support.

Relationship issues play a large part in the mental and physical health of students. The dynamics of social support can change when leaving home to go to college and this can cause feelings of stress, moving away from friends, living with friends and not being able to adjust to a new routine. Moving away from a partner can also be a stressor along with trying to maintain a long distance relationship. Leaving the home for the first time can be extremely stressful as well (Lo, 2002). Friendships and feeling included in the college environment are hugely important for college students. This perception of social support has been found to play a major part for students in their decisions to continue with their college courses (Gloria, Castellanos, Lopez & Rosales, 2005). Engle & Tinto (2008) found that low-income students were at a greater risk of stress as they spend less time socialising and building support networks with fellow students because they have to work in order to attend college. This agrees with the hypothesis that building social support networks is important for the health of students. Hefner & Eisenberg (2009) also found support for the idea that students with lower social support are at a greater risk of experiencing health problems. A recent study found that empathy in students had also declined which would negatively affect the social support that

students get from one another (Szalavitz, 2011). Jackobs & Dood (2003) found that social support especially from friends was linked to low burnout levels among college students.

This current study aims to address how much social support students feel they have access to and how satisfied they are with it.

1.4 Self-Efficacy in students

Bandura (1997) described self-efficacy as “the belief in one's capabilities to organize and execute courses of action required to produce given attainments” (p. 3). Having the belief in one's ability to manage stressors, use problem-solving skills and make decisions effectively are part of having high self-efficacy. However students may also set higher goals, therefore putting themselves under greater pressure (Chemers & Garcia, 2001).

Self-efficacy has been frequently documented in relation to stress in students. According to Bandura (1993) students with lower self-efficacy are more vulnerable to academic anxiety. Dwyer & Cummings (2001) suggest that high self-efficacy may be important in moderating stress levels. While Stetz, Stetz, & Bliese (2006) found that given the levels of confidence that high self-efficacy individuals have, they view social support as a positive coping mechanism and this helps to minimize the effect of certain stressors. However those with low self-efficacy do not have the same confidence and belief in their abilities and feel under pressure and also that they're being scrutinized by the attention they receive from support networks. This can make them uncomfortable and embarrassed with the attention from family and friends which can worsen the effect of stress. People with high self-efficacy also make use of coping resources when it comes to dealing with stressors (Chemers & Garcia, 2001). Bassi, Steca, Fave & Caprara (2007) found that high self-efficacy students spent longer on learning activities and had a greater academic ambition than those with low self-efficacy. DeWitz & Walsh (2002) took a sample of 312 undergraduate students and

measured their self-efficacy and college satisfaction and they found that the two were significantly related. Zajacova, Lynch & Espenshade (2005) also found a negative correlation between self-efficacy and stress.

The current aims of this study are to evaluate the amount of self-efficacy students have and to investigate if it is significantly related to their perceived stress levels.

1.5 Gender differences in perceived stress levels of students

Cahir & Morris (1991) found significant gender differences with women reporting higher stress levels than men. Hirsch & Ellis (1996) also found that 56% of women indicated feeling high stress levels while only 39% of men felt the same. It was suggested by Cahir & Morris (1991) that the reason for this could be down to the perception of women as the more emotionally expressive gender and that actually males and females experience very similar levels of stress. However Wright (1967) found that men reported significant stress levels in a larger variation of areas than women. Out of 26 items men were found to have significant stress levels in 12 of these, while women only had 4 significant items. Reisberg (2000) found that women spent more time studying than men along with taking care of household responsibilities such as cleaning or taking care of children. Darling, McWey, Howard and Spencer (2007) found that females do better in emotional and physical health when they do not have stress in their parental or family relationships. Klein's (2010) study found that female students reported lower levels of emotional health than their male counterparts and were twice as likely to report feeling frequently overwhelmed by their workloads.

Brougham, et al., (2009) reported that female college students had higher overall levels of stress than their male counterparts along with greater stress levels in social, familial and daily life. They also found that female college students used more emotional focused coping while the males reported using self punishment methods.

In both sexes problem focused coping was used less than emotion focused coping. Coping behaviour has been shown to differ between genders. The gender socialisation theory suggests that men deal with stress by using avoidance coping methods as they are taught from a young age to cover up their emotions. Men are considered to be more problem focused and direct when it comes to dealing with stress (Tamres et al., 2002). Ptacek, Smith, & Zanas, (1992) also found that men were more likely than women to use problem focused coping methods while Lawrence, Ashford, & Dent, (2006) found women used emotion focused coping strategies while men tended to avoid them. It is suggested that gender exhibits different coping behaviours for the same stressor because males and females are more comfortable using different methods, for example, venting for women might be an effective stress reliever but might leave men feeling uncomfortable and more stressed (Tamres et al., 2002). Moffat, McConnachie, Ross & Morrison (2004) reported that female students used emotional support as a coping strategy for stress while male students used alcohol and drug use significantly more than females. Dwyer and Cummings (2001) found that women reported higher social support levels than men, as did Wohlgemuth & Betz (1991) who found that receiving low social support from family had a detrimental effect on the stress levels of women. However Dwyer and Cummings (2001) found no significant relationship between stress and social support. Females were found to do better in emotional and physical health when there is no stress in the parental or family relationships and males tend to manage better when there is less stress in their parental and friend relationships (Darling et al., 2007). Kieffer, Cronin & Gawet (2006) reported that men used alcohol to reduce tension on a much larger scale than women did.

The current study will address the gender differences in perceived stress along with the amount of social support received and satisfaction with it. Coping strategies for perceived

stress will also be investigated in relation to gender differences, such as females using emotional support more than males and males using substance use more than females.

1.6 Differences of perceived stress levels in full-time students and part-time students.

Students in part-time education face even more challenges than those able to take full-time classes. Part-time students are faced with work stress and family stress along with the academic workload.

In Lo's (2002) study it was found that 40% of the part-time class tested were mature students and this posed a problem of trying to balance the workload of college, family life and also having a job. The college in the present study provides a large number of part-time courses where many of the students work full-time as well as balancing college and home-life. Harmon & Foubert (2010) reported that more full-time students suffered from symptoms of stress than part-time students. Taylor and Owusu-Banahene (2010) found that stress affects students in full-time and part-time work more than those who don't work at all during college. Harmon & Foubert, (2010) found that over half (53%) of students worked during term time, with 72% of part-time students indicating that they worked regularly. This is most likely due to the economic climate at the moment where students can no longer depend on their parent's income to pay for college and living expenses. It has also become more expensive to attend college in recent years as the fees have increased and the availability of grants has decreased. Harmon & Foubert (2010) reported that education related items have increased in price by 6% over a one year period. Usher & Cervenak (2005) found that Ireland had a surprisingly high cost of education due to large registration fees.

The aim of the current study is to investigate if being in full-time or part-time education impacts perceived stress levels. The amount of social support received and the satisfaction with it will also be investigated in relation to this.

1.7 International students levels of perceived stress in relation to Irish students

Yeh & Inose (2003) recognised that moving away from home can be a very stressful time for all students but in particular international students who have had to leave the support system of family and friends. Parr, Bradley & Bingi (1992) as stated in (Arthur, 2008) also explained how international students moving abroad were faced with losing their immediate social support which can serve as a stressor. Yeh & Inose (2003) Found that international students who reported speaking English at a higher fluency level had lower levels of stress. Greater English fluency enables students to partake in more activities and be able to communicate with a broader range of other students on a day to day basis. International students may also have less feelings of embarrassment about their accents if they are more confident in their English skills, simple tasks such as going to a café for lunch and participating in class become less stressful and more enjoyable for the student (Kao & Gansneder, 1995) as seen in Yeh & Inose (2003).

Phinney & Haas (2003) found that students from ethnic minorities had greater financial difficulties; most had jobs as well as attending classes along with more household responsibilities. Students from different ethnic backgrounds may have cultures based on a strong family orientation, so being away at college could make it more difficult to deal with problems within family relationships (Constantine, Chen & Ceesay 1997). Kraamer, Pruffer-Kraamer, Stock & Jacques Tshiang (2004) found that international students studying in Germany had a higher level of perceived stress than native German students. However Brown (1998) found that students studying abroad had lower distress levels than their baseline mood prior to their departure from their native country.

Students that had high levels of perceived social support reported less feelings of distress, Solberg & Vollarreal (1997) found that social support was a moderator for stress

among students. Hefner & Eisenberg (2009) found that international students were among those experiencing greater levels of isolation.

This current study aims to investigate if being an international student or an Irish student impacts perceived stress. This study will also investigate if international students or Irish students report more social support and satisfaction with that support.

1.8 Rational for research

There have been several studies done in relation to perceived stress, social support and self-efficacy, however this study is focusing directly on a Dublin city college who has links with many third level institutions and offers courses to students from over 70 countries, it also offers both full and part-time courses. The purpose of this study was to investigate whether there is a significant relationship between perceived stress and self-efficacy and perceived stress and social support within a college sample. Another aim is to examine if there is a difference between males and females, Irish and international students and full and part-time students with perceived stress. This study is also focusing on whether males and females use different coping methods and if there is a difference in the coping methods used by stressed and non stressed students. It is hoped that the findings of the present study will add to previous literature on stress in relation to college students and help advance the knowledge of how to implement interventions best suited to the student population. Thus the hypotheses are as follows:

1. It is hypothesised that there will be a significant relationship between perceived stress and self-efficacy.
2. It is hypothesised that there will be a significant relationship between perceived stress and social support.

3. It is hypothesised that there will be a significant relationship between emotional support and perceived stress.
4. It is hypothesised that there will be a significant relationship between planning and perceived stress.
5. It is hypothesised that there will be a significant relationship between self blame and perceived stress.
6. It is hypothesised that there will be a significant relationship between denial and perceived stress.
7. It is hypothesised that there will be a significant difference in the perceived stress of male and female students.
8. It is hypothesised that there will be a significant difference in the perceived stress of international students and Irish students.
9. It is hypothesised that there will be a significant difference in the perceived stress of full and part-time students.
10. It is hypothesised that female students will score significantly higher in emotional support than males.
11. It is hypothesised that male students will score significantly higher than females in substance use.

2. Method

2.1 Participants

Participants were recruited from the college via an online survey on facebook and by asking lecturers permission to collect data from their classes. Participants were required to be over the age of 18 years. A total of 82 participants consented to participate, of those all 100% completed questionnaires and were included in data analysis. 59.8% were female and 40.2% were male, the majority 68.3% were Irish, with international students accounting for 31.7%, 63.4% were in full-time education with 36.6% in part-time education, the mean age of participants was 24.73 (SD=3.60) and the age range was 19 - 35.

2.1.1 Sampling

Participants were chosen using an opportunistic sample based on a homogeneous group. Consent was obtained from the participants. Participation was voluntary, and students were assured that participation would be confidential. No financial or academic reward was offered for participation. Approval was obtained from the ethics committee of a third level institute in Dublin city centre.

2.1.2 Inclusion criteria

Male and female adults in part-time and full-time education.

2.1.3 Exclusion criteria

Those who refused to give informed consent and those under the age of 18 years.

2.2 Design

This research was a quantitative design using a between participants cross sectional survey.

2.2.1 The predictor variables in this study will be, gender, education type (full or part-time student), nationality (Irish or international), social support, self efficacy and coping mechanisms.

2.2.2 The criterion variable in this study will be perceived stress score.

2.3 Materials

The researcher used self report measures to collect all data.

2.3.1 Demographic Information

The questionnaire included demographic information, such as age, gender, nationality and whether participants were in full or part-time education.

2.3.2 Perceived Stress Measure

The level of perceived stress was assessed using Cohen, Kamarck & Mermelstein (1983) PSS scale (Appendix 4). The level of stress perceived by each participant in the last month was rated on a 5 point Likert scale 0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often. There were 10 questions in total (eg. “In the last month, how often have you been angered because of things that were outside of your control?”) with a possible total score of 0 – 40, 40 being the highest level of perceived stress. The PSS-10 has a good reliability with Cronbach’s alpha values ranging from 0.84 to 0.86, the test-retest correlation is 0.85 (Cohen et al., 1983).

The PSS proved to be a better predictor of health and health related outcomes than other life event scales (Cohen et al., 1983). However the predictive validity drops after four to eight weeks due to the fact that the instrument was designed to measure perceived stress occurring within the last month (Cohen et al., 1983).

2.3.3 Coping Measure

For the purpose of this study, coping is defined as how college students respond to stress in their lives. The Brief COPE is a self report questionnaire (Appendix 6) which was developed by Carver (1997). It measures how participants cope with stress in their life. The Brief COPE was developed after participants became impatient with filling out the original version COPE questionnaire. The Brief COPE questionnaire measures student's responses to how they cope with perceived stress rather than to an actual stressor. The Brief COPE questionnaire consists of 28 items examples; of items include "I've been criticizing myself" and "I've been getting emotional support from others". Participants were asked to "think about what you usually do when you are under a lot of stress for example, exam stress, assignment deadlines approaching, family or relationship problems, and rate each item". Participants were asked to rate each item on a four point Likert scale 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. The Brief COPE questionnaire is a shorter version of the COPE inventory (Carver, Scheier, Weintraub, 1989). The items were scored to produce 14 dimensions, two items each reflecting the use of a coping strategy: active coping, planning, acceptance, denial, self-distraction, use of substance, use of emotional support, use of instrumental support, behavioural disengagement, venting, positive reframing, humour, religion, and self-blame, each with a possible total score of 2 – 8, 8 being the highest use of the coping strategy. It is a validated instrument in which the Cronbach's alpha values range 0.50–0.90, with only 3

coping strategies falling below 0.60. A factor analysis yielded a structure generally consistent with the original version of the COPE, nine factors with eigenvalues greater than 1.0, which accounted for 72.4% of the variance (Carver, 1997).

2.3.4 General Self-Efficacy Measure

General Self-efficacy Scale (GSE) – is a 10 items measure, with total scores ranging from 10 to 40 developed by Schwarzer & Jerusalem (1995) (Appendix 3). Responses are made on a 4-point Likert scale 1 = Not at all true, 2 = Hardly true, 3 = Moderately true, 4 = Exactly true, Perceived Self-Efficacy reflects an optimistic self belief (Schwarzer, 1992). The scores range from 10 – 40, with 40 being the highest score for self-efficacy (Schwarzer & Jerusalem, 1995). This is the belief in one's ability to perform difficult tasks and cope in adverse situations. An example of items is "I am confident that I could deal efficiently with unexpected events". The General Self-Efficacy Scale is used in samples from 23 nations, Cronbach's alphas ranged from 0.75 to 0.91 (Scholz, Dona, Sud & Schwarzer, 2002). Schroder, Schwarzer & Konertz (1998) found a retest-reliability of $r=.67$ for 6 months after initial testing. Schwarzer & Jerusalem (1999) as cited in (Scholz et al., 2002) found evidence for the validity of general self-efficacy, GES was correlated with optimism .49, perception of challenge .45, high correlations were also found for proactive coping, self regulation and procrastination with scores ranging from .55 to .58.

2.3.5 Social Support Measure

The Social Support Questionnaire short form (SSQS) (Sarason, Sarason, Shearin, & Pierce, 1987) (Appendix 5) is a 6-item questionnaire which was designed to measure social support. Each item has two parts, the first (SSQN) asks participants to list all of the people that fit the description of the question and the second part (SSQS) asks participants to indicate how

satisfied they are with the support they have listed. Total scores in the SSQN range from 0 – 54, with 54 being the highest level of social support and for the SSQS scores range from 6 – 36, with 36 being the most satisfied with social support received. This is a shortened version of the original Social Support Questionnaire (SSQ) which was a 27 item questionnaire designed to measure perceptions of social support and satisfaction with it. Sarason, Levine, Basham & Sarason (1983) report internal consistency reliabilities that range from 0.90-0.93 and a high correlation with the SSQ. Rascle, Bruchon-Schweitzer, & Sarason (2005) reported alphas of 0.82-0.96 and test-retest reliabilities of 0.84-0.89. The social support short form number scores correlated .39 with the Social Network List (Sarason et al., 1983).

2.4 Procedure

Data was collected in two ways, questions were entered into an online survey form using Google Docs and the questionnaire was uploaded onto the Facebook page of a particular class within the institution, all the same information was available on the online version as the hard copy version. For collecting hard copy versions the researcher entered a room within the school of arts, introduced themselves to those in the room and explained that the reason for the visit was to conduct a study on perceived stress in college students. The researcher informed those present that the questionnaires were completely voluntary and were entirely confidential. They were also made aware that they could withdraw at any time up until the questionnaires were collected and that after this point any data collected could not be withdrawn as questionnaires were anonymous and there would be no way to tell which one belonged to whom. It was explained to participants that the questionnaires would take approximately 10-15 minutes to complete. Participants were presented with a questionnaire pack which included a note explaining everything the researcher had just pointed out (Appendix 1). The measures used were also explained within. Contact details of organisations

they could contact were available at the back of the questionnaire pack which provided support for anyone affected by any of the issues raised in the questionnaire (Appendix 7). The researcher stayed in the room in case any questions arose. When participants were finished, they were thanked for their time and participation. The data was then recoded using SPSS (version 18).

3. Results

This research project used Independent samples t-tests and a multiple regression. A Multiple regression was used to examine relationships between the predictor variables and the effect they had on the criterion variable, which was perceived stress.

Non psychological data was obtained by a demographic questionnaire (Appendix 2).

3.1 Descriptive Statistics

Table 1 shows the mean, standard deviation and minimum and maximum scores of the data collected from the questionnaires used which were, General Self-Efficacy, Social Support (Short form) which is divided into two subscales SSQN and SSQS, Perceived Stress Scale and the Brief Cope which was divided into 14 subscales which include: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humour, Acceptance, Religion, Self-blame.

Table 1 Minimum Maximum Mean and Standard Deviation scores of data collected

	N	Range of scores	Minimum	Maximum	Mean	SD
Perceived Stress Scale	82	0 – 40	9.00	36.00	20.79	6.72
Self-Efficacy	82	10 – 40	14.00	40.00	29.73	5.39
Social Support (SSQN)	82	0 – 54	0.00	56.50	16.96	10.53
Social Support (SSQS)	82	6 – 36	7.17	31.00	25.63	5.08
Self-distraction	82	2 – 8	2.00	8.00	5.41	1.42
Active coping	82	2 – 8	2.00	8.00	5.34	1.64
Denial	82	2 – 8	2.00	8.00	3.24	1.64
Substance use	82	2 – 8	2.00	8.00	3.39	1.66
Use of emotional support	82	2 – 8	2.00	8.00	4.98	1.71
Use of instrumental support	82	2 – 8	2.00	8.00	5.02	1.71
Behavioural disengagement	82	2 – 8	2.00	7.00	3.44	1.12
Venting	82	2 – 8	2.00	8.00	3.44	1.12
Positive reframing	82	2 – 8	2.00	8.00	4.91	1.77
Planning	82	2 – 8	2.00	8.00	5.29	1.73
Humour	82	2 – 8	2.00	8.00	4.23	2.05
Acceptance	82	2 – 8	2.00	8.00	5.35	1.55
Religion	82	2 – 8	2.00	8.00	3.02	1.66
Self-blame	82	2 – 8	2.00	8.00	4.94	1.95

3.2 Inferential Statistics

The equality of the variance assumption was checked using Levene's test for all t-tests. Data agreed with assumptions of normality.

An Independent samples t-test was conducted to compare the emotional support scores of males 4.33 (SD= 1.76) and females 5.41 (SD= 1.54). The result showed that there was a significance difference between the mean scores of the two groups ($t(80)=-2.924$, $P=.004$).

The mean score for females being higher at 5.41, than males at 4.33 suggests that there is a

significant difference between the use of emotional support as a coping strategy used by males and females.

An Independent samples t-test was conducted to compare the substance use, scores of males 4.00 (SD= 1.82) and females 2.98 (SD= 1.42). The result showed that there was a significance difference between the mean scores of the two groups ($t(80)=2.845$, $P=.006$). The mean score for males being higher at 4.00, than females at 2.98 suggests that there is a significant difference between the use of substance use as a coping strategy used by males and females.

A Multiple regression was used to test whether gender, full-time/part-time education, nationality (Irish/international), self-efficacy, social support (SSQN/SSQS) and coping strategies: self distraction, active coping, denial, substance use, emotional support, instrumental support, behavioural disengagement venting, positive reframing, planning, humour, acceptance, religion and self blame were predictors of perceived stress.

Table 2 Regression table showing standardizes betas, t values and significant values of all predictor variables

Variable	β	T	p-level
Gender	.144	1.632	.108
Education	-.023	-.253	.810
Nationality	.057	.512	.610
Self-efficacy	-.344	-3.466	.001*
SSQN	-.282	-3.084	.003*
SSQS	.030	.315	.754
Self distraction	.042	.415	.679
Active coping	-.089	-.705	.483
Denial	.279	2.852	.006*
Substance use	-.060	-.648	.519
Emotional support	.205	1.683	.097
Instrumental support	-.195	-1.546	.127
Behavioral disengagement	-.013	-.122	.903
Venting	.130	1.315	.194
Positive reframing	-.082	-.692	.491
Planning	.277	2.085	.041*
Humor	-.141	-1.434	.157
Acceptance	-.167	-1.481	.144
Religion	-.146	-1.410	.164
Self blame	.315	3.190	.002*

Note: p significant at 0.05 level.

The results of the regression indicated that 20 predictors explained 58% of the variance ($R^2 = .58$, $F(20, 61) = 6.51$, $p < .001$). It was found that self-efficacy ($\beta = -.344$, $p = .001$, 95% CI = $-.677 - -.182$), social support (SSQN) ($\beta = -.282$, $p = .003$, 95% CI = $-.297 - -.063$), denial ($\beta = .279$, $p = .006$, 95% CI = $.340 - 1.937$), planning ($\beta = .277$, $p = .041$, 95% CI = $.044 - 2.106$) and self blame ($\beta = .315$, $p = .002$, 95% CI = $.404 - 1.762$) significantly predicted perceived stress. Obtained Beta values suggest that self-efficacy along with self blame is a moderately strong predictor of perceived stress while social support (SSQN), denial and planning show weak effects but are still statistically significant. Beta values for self-efficacy and social support (SSQN) are negative, which means that these have a negative association

with perceived stress, while beta values for denial, planning and self blame are positive meaning that they have a positive association with perceived stress.

An Independent samples t-test was conducted to compare the social support (SSQN) scores of males 14.84 (SD = 10.39) and females 18.39 (SD = 10.49). The mean scores differed slightly however, the result showed that there was no significance difference between the mean scores of the two groups ($t(80)=-1.508$, $P=.135$). The mean score for females being higher at 18.39, than males 14.84 suggests that females have more social support than males, however there is no significant difference in the amount of social support for males and females.

An Independent samples t-test was conducted to compare the social support (SSQS) scores of males 24.37 (SD= 4.85) and females 26.47 (SD= 5.11). The mean scores differed slightly, however the result showed that there was no significance difference between the mean scores of the two groups ($t(80)=-1.867$, $P=.066$). The mean score for females being higher at 26.47, than males 24.37 suggests that females are more satisfied with their social support than males, however there is no significant difference in the satisfaction of social support for males and females

An Independent samples t-test was conducted to compare the social support (SSQN) scores of Irish 17.74 (SD = 11.32) and international 15.27 (SD = 8.56) students. The mean scores differed slightly, however the result showed that there was no significance difference between the mean scores of the two groups ($t(80)=.990$, $P=.325$). The mean score for Irish participants being higher at 17.74, than international participants 15.27 suggests that Irish

participants had slightly higher levels of social support than international participants, however there is no significant difference in the amount of social support received.

An Independent samples t-test was conducted to compare the social support (SSQS) scores of Irish 26.04 (SD= 5.25) and international 24.74 (SD= 4.67) students. The mean scores differed slightly, however the result showed that there was no significance difference between the mean scores of the two groups ($t(80)=1.073$, $P=.287$). The mean score for Irish participants being higher at 26.04, than international participants 24.74 suggests that Irish participants had slightly higher levels of satisfaction with social support than international participants, however there is no significant difference in satisfaction with social support received.

4. Discussion

The aim of this study was to examine the concept of perceived stress in college students and how self-efficacy, coping strategies and social support impacted on it. It was hypothesised that there would be a significant relationship between perceived stress and self-efficacy, social support, emotional support, planning, self-blame and denial. It was also hypothesised that there would be a significant difference in the perceived stress of males and females, full and part-time students and in Irish and international students. Lastly it was hypothesised that females would score higher in emotional support as a coping mechanism and that males would score higher in substance use than females.

The first question of this study hypothesised that there would be a significant relationship between perceived stress and self-efficacy. The results of this study agreed with the hypothesis. It was found that individuals with low self-efficacy had higher perceived stress levels as previous findings (Bandura, 1993; Zajoncova et al., 2005) suggest. Self-efficacy can be described as have the belief in one's ability to manage stressors (Chemers & Garcia, 2001). Bandura (1993) found that low self-efficacy was related to stress in students, Stetz et al., (2006) reported that low self-efficacy individuals lacked confidence in their abilities, this is in line with the findings of this study as low self-efficacy was shown to accurately predict high levels of perceived stress in college students.

The second question hypothesised that there would be a significant relationship between perceived stress and social support. The results of this study agreed with the hypothesis. It was found that individuals with lower numbers of social support had higher perceived stress levels as previous findings (Hefner & Eisenberg, 2009) suggest, however satisfaction with social support did not show a significant relationship to perceived stress. El-Ghoroury et al. (2012) identified that the main coping strategies students used for coping with stress were getting support from friends, family and other students. Hefner & Eisenberg (2009) reported

that lower levels of social support can leave students at a greater risk of health problems. This is in line with the results of this study which found that the amount of social support students reported influenced their perceived stress levels. The more social support students feel they have available to them the less stress is reported.

The third question hypothesised that there would be a significant relationship between emotional support and perceived stress. The results of this study were not in line with previous findings (Cahir & Morris, 1991; Ben-Zur, 2009) which suggest that emotional support has a significant relationship with stress. Emotional support can also be considered a positive coping strategy which has been previously found to positively relate to positive affect (Ben-Zur, 2009). This study found an insignificant relationship between perceived stress and emotional support. Lo's (2002) study suggested that emotional support was included in the social support students received, however it was only one factor of social support, which also included support in areas such as financial support. It is possible that emotional support is only a small factor in reducing stress levels, other larger areas may include financial security and time management (Cahir & Morris, 1991).

The fourth question hypothesised that there would be a significant relationship between planning and perceived stress. The results of this study were in line with previous findings (Devonport & Lane, 2006) which suggest that planning has a significant relationship with perceived stress. However Cahir & Morris (1991) suggest that time management has an impact on reducing stress levels in students; this agrees with Davenport & Lane's (2006) findings that planning helps to alleviate stress levels. Findings in this research do not agree as planning was found to be negatively related to perceived stress. Tully (2004) suggests that taking one step at a time leads to lower distress levels, it is possible that planning leads to over thinking which might cause higher stress levels in students.

The fifth question hypothesised that there would be a significant relationship between self blame and perceived stress. The results of this study were in line with previous findings (Martin & Dahlen, 2005) which suggest that self blame has a significant relationship with perceived stress.

The sixth question hypothesises that there would be a significant relationship between denial and perceived stress. The results of this study agreed with the hypothesis. It was found that denial had a significant relationship with perceived stress which was in line with previous research (Ward & Kennedy, 2001). Lazarus (1993) suggested that maladaptive coping strategies can result in greater stress levels. The results of this study agreed with the fifth and sixth hypothesis that self blame and denial were found to significantly predict higher levels of perceived stress. Martin & Dahlen (2005) also reported self blame to be a main predictor of elevated stress levels, while Ward & Kennedy (2001) found that denial resulted in higher levels of psychological distress.

The seventh question hypothesised that there would be a significant difference in the perceived stress levels of males and females. The results of this study were not in line with the previous research (Cahir & Morris, 1991; Hirsch & Ellis, 1996; Klein, 2010; Brougham et al., 2009) which found that there was a significant difference in perceived stress levels of males and females. Tamres et al. (2002) suggest that males and females use different coping behaviours for the same stressors, so it is possible that both genders are experiencing the same stress levels but use different coping methods to deal with it. An Independent samples t-test was also conducted to test if there was a significant difference in the amount of social support (SSQN) received and the participant's satisfaction with it (SSQS), no significant difference was found between males and females this disagrees with the Dwyer & Cummings (2001) study that found women reported higher social support levels than men.

The eighth question hypothesised that there would be a significant difference in the perceived stress levels of Irish and international students. The results were not in line with previous research (Kraamer et al., 2004; Brown 1998) which found a significant difference in perceived stress levels of international students and native students. It is possible that that no significant difference was found because the length of time international students lived in Ireland was not taken into account. An Independent samples t-test was conducted to compare the amount of social support (SSQN) and the satisfaction (SSQS) with social support received. No significant difference was found between Irish and international participants. This does not agree with (Yeh & Inose, 2003) who state that students who move away for college do not have the same social support system available to them. It is possible that this contributed to the non significant results found in relation to perceived stress, as both Irish and international students had similar amounts of social support available to them and had similar satisfaction levels with the support they received.

The ninth question hypothesised that there would be a significant difference in the perceived stress levels of full-time and part-time students. The results were not in line with previous research (Harmon & Foubert, 2010) that found a significant difference in stress levels of full and part-time students. It is possible that there was not enough part-time students in the current sample as only 36.6% took part in the research.

The tenth question hypothesised that female students would score higher in emotional support than their male counterparts. The results agreed with previous research (Moffat et al., 2004) that females used emotional support as a coping mechanism significantly more than males. Tully (2004) reported that problem solving coping methods such as speaking to others and asking for advice were used by participants reporting lower levels of distress. In (2006) Ashford & Dent found that women tended to use emotion focused coping more than men as

they are not as comfortable with it, this agrees with the findings of this study that women used more emotional support than men.

The eleventh question hypothesised that male students would score higher in substance use than females. The results agreed with previous research (Moffat et al., 2004; Keiffer et al. 2006), that males used substance uses as a coping mechanism significantly more than females. Keiffer et al. (2006) also reported that men use alcohol to relieve tension more than women do.

There are limitations to this study that need to be considered. The first relates to the location of the sample. Due to the limited availability of participants, the sample of students were all attending one Dublin Institution. The fact that large amounts of students were looking to collect data using a limited amount of participants only one part-time and one full-time class was included in the study. The results of this study are not generalisable to other populations. If future research could incorporate other institutions within Dublin or even within Ireland, results may differ and a better representation of the population could be obtained. Data was collected during January and February this may account for the average perceived stress scores, mean 20.79 SD= 6.72 (the highest score for perceived stress is 40) as exams in the institution tested take place in December and May; it is possible that student stress was lower when data was collected for this study. If future research could account for exam stress, stress scores may differ. Research could be carried out throughout the year to test for this. The two classes that took part in research were first year students and third year students, the research did not ask participants to identify which year they were in, if a comparison were done between years, different results may have been found. Future research could examine all years and compare stress scores. It is also possible that lower perceived stress scores were found because many of the participants completed the questionnaire online in their leisure time away from the college environment.

The demographic factors included did not ask students to identify how long they have lived in Ireland. Yeh & Inose (2003) found that moving away from home is stressful for international students in particular, however this study did not account for the possibility that international students may have moved a number of years ago and not just for the purpose of college. If student's satisfaction with their English fluency had been measured it may have had an impact on results, (Kao & Gansneder, 1995) as seen in Yeh & Inose (2003) suggested that students who are more confident with their English skills lead to class participation being less stressful and more enjoyable. Future research could ask participants to identify how long they have lived in the country they are studying in and how satisfied they are with their level of fluency in the spoken language of the country. In addition there were a disproportionate number of females compared to males, full compared to part-time students and Irish compared to international students in the sample. Findings may have been influenced by one group having more statistical power than the other.

Although the internal reliability of the perceived stress scale was adequate for this study, items may not have been suitable to properly account for the specific stresses perceived by college students.

Self report measures were used in this study, these have the advantage of being a quick and easy approach to collecting data. However, there are also disadvantages as questions are fixed and do not have any flexibility. In addition, a longitudinal design would have provided a more thorough depiction of the perceived stress and coping methods throughout college instead of an examination of stress at one particular point in time.

Regardless of the limitations of the current study there were many strengths to it. Firstly, looking at gender in this study helped to clarify masking effects that may have been present in college students perceived stress scores. This study has added to the current information in relation to perceived stress in college students and the coping methods they use. The ability

and coping mechanisms of students under stress is an important area for psychologists, health professionals and colleges to understand. Institutions can take the initiative to implement counter measures for student stress, manage courses and course content to be sensitive to these issues and prevent a stressor pile-up for students. Having an awareness of student stress will assist institutions and instructors to be more empathetic to some students who lack social support and resources to deal with stress adequately.

The limitations of this study are in areas in which future research may be able to strengthen what is known about stress and coping in students. Further research could include several different institutions and could compare different years on their stress levels. A longitudinal design could give a better idea of stress and coping methods throughout college, taking into account exam times. Future research should take into account the length of time international students have lived in the country and their satisfaction levels with their spoken language ability of that country. A different measure for stress in college students could also be used to take into account the individual stressors students are faced with.

In conclusion, the current study aimed to examine the relationship between self-efficacy, coping methods, social support and perceived stress. The results from this study supported seven out of the eleven hypotheses. The results indicated that males and females have different coping methods for dealing with stress, also that self-efficacy, the amount of social support available, planning, denial and self-blame were significantly related to perceived stress. This study highlights the importance of the understanding of perceived stress in college students. It adds to the literature available to institutions and health professionals to better understand how to effectively implement measures to help students deal with stress and which coping methods are more effective than others.

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Appendix 1

Dear Participant,

My name is Adriana Leonard and I am a final year psychology student in Dublin Business School. I am conducting research as part of my final year project and would be very grateful for your participation.

My project is in the area of perceived stress in college students. The questionnaire you have received has a list of questions to which there are no correct or incorrect answers.

Please answer these questions as accurately as possible.

These questionnaires are fully anonymous and do not require you to give your name and only myself and my supervisor will have access to any data collected.

Please note that you have the right to withdraw at any stage during the questionnaire and there is no obligation to participate.

Please note that all participants should be 18 years or older.

Thank you for your co-operation.

Appendix 2

Demographic Questions

1. Gender

Male () Female ()

2. Age _____

3. Are you a Full-time () or Part-time () student?

4. What is your nationality?.....

Appendix 3

General self-efficacy scale

Please read the sentences below and select an answer for each statement which indicates how much the statement applies to you.

1 = **Not at all true** 2 = **Hardly true** 3 = **Moderately true** 4 = **Exactly true**

1	I can always manage to solve difficult problems if I try hard enough.	
2	If someone opposes me, I can find the means and ways to get what I want.	
3	It is easy for me to stick to my aims and accomplish my goals.	
4	I am confident that I could deal efficiently with unexpected events.	
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	
6	I can solve most problems if I invest the necessary effort.	
7	I can remain calm when facing difficulties because I can rely on my coping abilities.	
8	When I am confronted with a problem, I can usually find several solutions.	
9	If I am in trouble, I can usually think of a solution.	
10	I can usually handle whatever comes my way.	

Appendix 4

Perceived stress scale

Instructions

The questions in this scale ask you about your feelings and thoughts during the last month.

In each case, you will be asked to indicate how often you felt or thought a certain way.

For each question circle one of the following options :

0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often

1	In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2	In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3	In the last month, how often have you felt nervous and stressed?	0	1	2	3	4
4	In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5	In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6	In the last month, how often have you found that you could not cope with all the things you had to do?	0	1	2	3	4
7	In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8	In the last month, how often have you felt that you were on top of things?	0	1	2	3	4

9	In the last month, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix 5

Social Support Questionnaire (Short Form)

SSQSR

Instructions:

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the person's initials, their relationship to you (see example). Do not list more than one person next to each of the numbers beneath the question.

For the second part, circle how satisfied you are with the overall support you have.

If you have had no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all the questions as best as you can. All your responses will be kept confidential.

EXAMPLE:

Who do you know whom you can trust with information that could get you in trouble?

No one	1) T.N. (brother)	4) T.N. (father)	7)
	2) L.M (friend)	5) L.M (employer)	8)
	3) R.S. (friend)	6)	9)

How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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1. Whom can you really count on to be dependable when you need help?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

2. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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3. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

4. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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5. Who accepts you totally, including both your worst and your best points?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

6. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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7. Whom can you really count on to care about you, regardless of what is happening to you?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

8. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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9. Whom can you really count on to help you feel better when you are feeling generally down-in-the dumps?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

10. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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11. Whom can you count on to console you when you are very upset?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

12. How satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
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Appendix 6

Brief COPE

These items deal with ways you've been coping with the stress in your life. 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 stress. 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. Think about what you usually do when you are under a lot of stress for example, exam stress, assignment deadlines approaching, family or relationship problems, and rate each item accordingly.

- 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 7

The purpose of this research is to determine whether a relationship exists between Self-Efficacy and Perceived Stress, Social-Support and Perceived Stress and Coping Methods and Perceived Stress. I am also interested to see if a difference occurs in specific variables such as gender, being in full-time or part-time education and nationality in relation to perceived stress.

If this questionnaire has raised any issues/ feelings that you may want to discuss further you can contact.

Aware

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If you have any questions or concerns about this research, please feel free to contact me at



Thank you again for helping with this research.