



A Quantitative Study Examining Gender, Coping Styles and Stress in a sample of third-level
Irish student

Ruth Ekada

X17507849

Supervisor: Dr. David Mothersill

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Name: Ruth Ekada

Student Number: x17507849

Degree for which thesis is submitted: B.A. (Hons) in Psychology

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Abstract

Aim: The current study examined whether motivation, coping and academic stressors predict perceived stress in third-level Irish students living in Ireland. **Methods:** The current study was conducted during COVID-19, therefore: a questionnaire was administered to third-level Irish Students living in Ireland ($n = 396$) through the convenience of social media which consisted of self-reported questions regarding academic stress, employment, Perceived stress scale (P.S.S) (Cohen et al.,1983), The Work Extrinsic and Intrinsic Motivation Scale (WEIM) (Deci and Ryan,2000) and The Coping Orientation to Problems Experienced (COPE)(Carver,1989).**Results:** A t-test was computed and reported that females reported to have higher levels of level of perceived stress than males. A Pearson's correlation was computed between the dependent variable and predictor variables and have reported that the overlapping module assignment due dates with other assignment due dates was associated with coursework (exams, continuous assessment and multiple choice questions) and the overlapping of class-hour with other classes amongst third level Irish students in Ireland. there was a significant, moderate, positive relationship between coping and motivation. The findings indicated that coping was associated with motivation in third level Irish students in Ireland. Findings from the Hierarchical multiple regression revealed a significant decrease with 15% variance explained due to student's motivation to do well in their studies during COVID-19. Implications for this study are discussed.

Literature Review

This study will examine the relationship between coping, motivation and perceived stress in a sample of third level Irish students living in Ireland which is important because stress can have a major effect on a person's mental health and make existing problems worse and can start to feel like a vicious cycle and might be hard to see where stress ends and a person's mental health begins (Mind,2020). According to the Mental Health Foundation (2020), stress is a degree to which a person may feel overwhelmed or unable to cope as a result of pressure that are unmanageable. However, Selye (1936) Stress Theory describes stress as "the non-specific response of the body to any demand for change". Due to the confusion and criticism Selye (1936) received, Selye (1976) (p.64) proposed another definition of stress as a "state manifested by a specific syndrome which consists of all the non-specifically induced changes within the biological system" (Selye, 1976, p.64, as cited in "Theories of Stress and Its Relationship to Health", Rice, 2012). Stress can have a powerful impact on various aspects of a person's life-it can affect moods, energy level relationships and work performance (U.M. N,2020). Chronic stress can increase the risks of developing depression and anxiety in some people (M. Q,2018).

This literature review will begin by providing a general overview of the area of stress, before describing more specific studies on, College students, and stress, Academic stressors, coping and motivation. For college students, stress comes through many shapes and forms (Gallagher et al.,2019). Research by Dexter et al. (2018), W.G.U, (2019) supports, Stress can affect everyone, it is necessary for students to know how to cope effectively, especially during the college semester(P. 1, para 1). Anderson and Durstine (2019), the American Psychological Association, Boyd and Wylie (1994), Frank et al., (2017) and Hristova et al., (2014) people who are aged 18-33years old suffer the highest levels of stress in the nation due to job, money and college(workload). Studies have found that some individuals experience a high level of life stress without their physical and psychological being compromised (Abdollahseini et al.,2011; Almeida et al.,2020; Ballinger et al.,2002; D'Zurilla et al.,1991; Krishnan and Sequeira,2012 & Kobash,1979).

College Students and Stress

Stress is an inevitable aspect of a college students' life due to society's tendency to consider college entrance as the demarcation to the onset of adulthood (Baghurst and Kelley 2013 & Chew et al.,2003).Every year many students enrol in universities with the intention of

obtaining a degree that will then hopefully lead to the acquisition of desirable careers and satisfied (Berger,2006; Conley, 2012; Karaman et al.,2017 p.41; Reysen et al.,2020 & Rosenbaum et al.,2010). On the other hand, regardless of gender, or educational level, Friedman (2019) considers that students are exposed to experience all forms of stress that can affect their academic performance. The perception of stress in a student's life can have both physiological and psychological effect. The effect physiological stress can have on a student's life can be due to level of muscle tension, hypertension and low immune defence system (Baghurst and Kelley ,2013). In relation to psychological stress, this can be affected by depression, anxiety and interpersonal problems (Baghurst and Kelley ,2013 p.439 & Ballinger et al.,2002).

Although stress can be an unavoidable part in a student's life, going to college can be a stressful time for many students Dexter et al., (2017) points out "some college students can adjust to overwhelming challenges that arise from this new life experience [transition into college life], whereas others struggle with the escalating stress "(as cited in Baghurst and Kelley,2013, p.438).In contrast, ways to differentiate between psychological and psychosocial stress would be; psychological stress can indicate unpleasant emotional subjective experience associated with the body. This could be due to pain, hunger or oxidative stress (Kogler et al.,2015; Pace-Schott et al.,2019, Peyron et al.,2000 & Price,2000). Whereas psychosocial stress induces situations of social threat that includes social evaluation, social exclusion and achievement situations calming goal-directed performance (Dickerson and Kemeny, 2004; Kogler et al.,2015; Massaccesi et al.,2020 and Pruessner, Hellhammer & Kirschbaum,1999).

Academic Stressors

Researchers observed, students transitioning from secondary schools to university can cause a psychological, social and economic shock as they are introduced to a new environment that involves new methods of teaching, academic requirements (module descriptors), relation between students and faculties and the new environment of friends (Iorga et al.,2020; Karvinen et al.,2018). Gallagher et al., (2019) (p.27), Joplin et al., (2014) and Otieno and Ofulla, (2009) suggest that personal stressors college students may face in general; they must be able to adjust to the academic demands and the heavy workload of exams and CAs. Several Studies have found that emotional intelligence and coping self-efficacy, lack of time management skills were also a significant predictor of academic stress (Joplin et al.,2014; Karamen, Lerma, Vela & Watson,2016, as cited in Waston and

Waston,2016, p.42; Karvinen et al.,2018, p.2; Saleh et al.,2017 and Yemane et al.,2018). Mayer and Salovey (1993) defines emotional intelligence that involves “the ability to monitor one’s own and others’ emotions to discriminate among them” (p. 1) (Maamari & Majdalani ,2017; Mayer et al.,1997). Bandura (1977) describes coping self-efficacy to where an individual ability to carry out behaviours that are necessary in reaching a goal.

However, the increase of negative mental health outcomes among the college students is growing, it should be noted, male college students are less anxious, depressed and are having less suicidal thoughts than female college students (Eisenberg et al.,2007; Garlow et al.,2008;Hefner and Eisenberg ,2009; Joespeh,2020 and Mackenzie et al.,2012), In relation to the stressors involved with academic stress (Library, transportation, academic demands and the heavy workload of exams and Cas) students may feel pressure adjusting to the campus environment, support on finding their class location, being late, making new friends and participating in group activities are examples that are associated with academic stress. In order to identify the academic components that cause students stress during college’ academic semester is by exploring the relationship between gender and academic stress (Karvinenetal.,2018; Kabat,2009; Khan,2007 & McGonigal,2013).

Motivation

Given that college students are experiencing the stress due to the heavy workload of (Continuous Assessments, Exams), time management and finances. Motivation plays a vital role in a way; a college student can cope with stress and achieve their goals. Motivation is defined as a personality characteristic that fosters fulfillment towards a personal goal of achievement. Conroy and Elliot, (2004) (Elliot and Thrash, (2004), Gomez et al.,(2019), Henry et al., (2019) Karaman et al., (2016) and Moreno-Murica et al., (2019) describes motivation as “a fear of failure and a goal of significant others or society”. Academic Stress can have negative relationships to motivation meaning, students with high levels of academic stress had lower levels of achievement motivation (Dowson and Martin,2009; Karaman et al.,2016; Meece et al.,2006 & Turner et al.,1998).

In addition, psychologists and educators have debated on ways to promote intrinsic motivation to college students, to create lifelong learners who want to master new skills (Davis et al.,2006; Deci et al.,1999; Cameron et al.,1994; Chaudhuri,2020 & Froiland,2012). Work motivation is described as a set of energetic forces that originates both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form,

direction, Intensity and duration (Latham and Pinder,2005 & Tremblay et al.,2009). Work motivation represents both competitive advantage and critical strategies asset in any work/study environment (Armstrong and Brown,2019; O’Riordan,2017 & Singh,2019).Self-determination Theory (SDT) focuses on the nature of motivation which is the “why of behavior” The underlying assumption is that “humans are alert, growth- oriented, who are naturally inclined towards integration of themselves into larger social structures generally apply to activities that people find interesting, optimally challenging aesthetically pleasing (Adam et al.,2017; Hussain et al.,2015; Sheldon & Prentice,2017 & Tremblay et al.,2009).

Coping Strategies

Based on the research provided surrounding the general overview of what students may come across when experiencing levels of perceived stress, students can use a form of coping mechanism to reduce their stress levels. Studies have reported that problem-focused coping is a form of coping mechanism aimed at resolving stressful situations such as academic planning. (Aldwin and Revenson,1987; Allen and Lapierre,2006; Banez et al.,1999; Champman and Mullis,2002 & Elliot and MacNair,1992). Whilst Emotional-focused coping is where people feel that they have no control over their stressors (Allen and Leary,2010; Carver et al.,1989; Compas and Forsythe,1987 & Judge et al.,2009). Research have found that students think of how they might best handle their problems , by creating a plan of action , ensuring what needs to be done at a time , reason as to why the situation occurred and concentrate on their efforts on resolving the situation and buying study guides (Aldwin and Revenson,1987; Allen and Lapierre,2006; Banez et al.,1999; Champman and Mullis,2002 & Elliot and MacNair,1992). In relations to how emotional focused coping effects levels of perceived stress in students would be that students get emotional support by friends and family , discuss their feelings to someone , refuse to believe that the situations has occurred , get upset and let their emotions out and are aware of it (Allen and Leary,2010; Carver et al.,1989; Compas and Forsythe,1987 & Judge et al.,2009).

Overview of the Findings

Prior research has been predominately focused on the impact of gender and coping Mechanisms on levels of perceived stress and have shown the effects academic stressors , coping strategies and motivation has on levels of perceived stress and reported; female students had higher scores of stress levels than male students (Calvarese, 2015; Dahlin, Joneborg & Bo Runeson, 2005 & Dhandapani ,2017). Through factors by students,

contributing to exam anxiety, were extensive course loads, lack of physical exercise and the long-term durations of exams (Chadhury et al.,2019; Harikiram et al., 2012 & Hasmat et al., 2008). These findings have been consistent with previous studies which revealed that women report higher levels of stress than men (Anbumalar et al.,2017; Barbavoka, 2019; Beall, DeHart,Riggs & Hensley, 2015; George & Balasubramaanian ,2016; Hogan, Carlson & Dua ,2002; Kizhakkeveetil, Vosko, Brash & Phillips, 2017 & McCarthy, Solomon Zhao & Garland, 2007).

However according to Bedewy and Gabriel (2015), they conducted a study on the Perception of Academic Stress. It consisted of ($n=100$) undergraduate students and ($n=12$) expertise within the field of psychology. Using the development and the psychometric assessment of a Perceived Academic stressor scale, the focus was on the student's academic stressors. These components of academic stressor were identified as parental pressure, exams, excessive workload and performance. Bedwey and Gabriel (2015) found that there were no differences between male and female students in their perceptions of academic stress, as most student reported confidently about their academic skills and their ability to succeed, these findings were based on medical students. Perhaps this suggest that stress can vary in different levels depending on their module. It is still unclear whether this difference is due to existing differences or to gender norms. When it came to leisure satisfaction and time management, Females have more effective time managements than males but however did not lower their levels of academic stress. This can be seen throughout their management with working a full or part time job while attending college (Misra and McKean, 2000).

These levels of perceived stress can be internal or external forces that can inhibit a student's ability to do well. Bedwey and Gabriel (2015) findings were also alluded with other researchers who believe with previous research and have also stated the negative impact that academic stress has on a student can affect their mental health and physical health (Bovier, Chamot & Perneger, 2004; Friedman, 2019 & Hystad et al.,2009; Karaca et al.,2019 & Pascoe, Hetrick & Parker, 2020). Its important different approaches are being used by students when dealing with stress (Friedman, 2019 & Ostafin & Proulx, 2020). Researchers have also reported differences in ways how students use coping mechanism to balance their stress level (Beall et al.,2015; Crockett et al., 2007 & Johnson et al., 2005). Majority of the male students use strategies such as alcohol, and smoking as a form of mechanism to help relieve with their stress level, while female students pray, eat, and talk to friends and families

to cope with stress (Calvarese,2015; Gacic et al.,2019; Gentry et al.,2007 & Shaikh et al.,2004).

It is evident that these problems focused coping examples are positively effective to students' levels of perceived stress. Struthers, Perry and Menec (2000) conducted an empirical study, consisting of 203 undergraduate students examining the relationship between motivation and levels of perceived stress and the relationship between coping and levels of perceived stress in college students. Struthers, Perry and Menec (2000) findings deduced that the effectiveness of motivation comes from achieving good grades. Misra and Castillo (2004) conducted a study how students respond to their academic stressor within American and International Students. It has been reported that American student's response to high levels of academic stress influenced behavioral and emotional reactions whereas for International Students it influenced their cognitive reactions. Suresh, Matthews and Coyne, conducted a cross sectional study to compare levels of stress between qualified nurses ($n = 31$) and third level nurses ($n = 40$) in Ireland. Results reported that third level of nurses experienced high levels of stress compared to general nurses due to inadequate preparation, death and heavy workload.

The COVID-19 pandemic resulted in a worldwide quarantine. Resulting all education and work be based from home. Hyland et al., (2020) conducted a study to estimate probable prevalence rates of anxiety and depression , identifying sociodemographic risk factors associated with screening positive for generalized anxiety disorder (GAD) and depression and determine if COVID-19 related anxiety was associated amongst those in society at greatest risk of mortality from COVID-19.It was reported that 27 % of the people screen positive for GAD and depression, GAD and depression was associated with younger age females , loss of income. However, Son et al., (2020) conducted interview surveys with ($n =195$) students from the united states on the effects of the pandemic on their mental health and wellbeing. It was reported that 71 % of the students indicated increased stress and anxiety due to the COVID-19 outbreak, also including the fear of their loved ones, lack of motivation, increased concerns on academic performance.

Specifically, the research question for the current study will review the following:

Does motivation, coping, and academic stressors predict perceived stress in third level Irish students living in Ireland?

We hypothesize, based on literature; that (PV) motivation, Coping (PV), employment (PV) academic stressors (PV) and gender (PV) predicts level of Perceived stress (DV) in a sample of third level Irish students living in Ireland.

The Current Study

With support of the findings that both coping, and motivation has a significant relationship with levels of perceived stress amongst third level national and international students , there was a gap in literature and little evidence of the effects of perceived stress in third level Irish students . Therefore, this project will examine whether motivation, coping and academic stressors predict perceived stress in third-level Irish students living in Ireland. Research by De La Fuente et al., (2020), Doron et al., (2011), Halamandaris and Power, (1999), Martinez et al., (2019) and Struthers el al., (2000) reported, a structural equation analysis showed that relationships between college students' academic stress and course grade was influenced by problem focused coping and motivation but not emotion-focused coping, meaning students who engaged in problem-focused coping was more likely to be motivated and perform better. However, other studies have found that emotion-focused coping, is also a good mechanism, college students can use (Sarath et al., 1998; Stevens et al., 2019).

According to Mcleod (2015) and Penely, Tomaka & Wiebe (2012).Emotion focused strategies are often less effective than using problem-focused methods meaning emotion-focused coping does not provide a long-term solution and can have negative side effects as it delays a person dealing with problems. As the world is facing a pandemic, Kecojevic, Basch , Sullivan and Davi (2020) reported that college students who experience an excessive amount of academic and everyday difficulties during COVID-19 increased their levels of mental health. Male students were less likely to report higher levels of stress, whereas females reported higher perceived stress levels than males. It can also note the self-concept of masculinity and femininity can lead to differential expression of attitudes and emotions towards life experiences. Therefore, it is possible that during these circumstances in the pandemic, female students were more likely to experience stress.

Methods

Participants

The study required 385 participants, using the sample-size power calculator, the confidence level was 95% ($Z= 1.96$), the standard deviation was .5 to ensure our sample size was large enough and margin of error ± 5 (SEE APPENDIX A). Due to the unexpected outcome of responses received, the study primarily consisted of 409 participants. However, 13 / 409 participants were removed from the study because the answers provided by the participants could not be converted into a number form, for use in the statistical analysis. Therefore, the study consisted of 396 third level Irish students living in Ireland. Participants were recruited through the convenience of a non-probability snowball sampling via social media, LinkedIn, Twitter, Facebook and Instagram. Of the participants recruited ,87.4 % ($n = 346$) were full time students and 12.6 % ($n = 50$) were part time students .Of the participant recruited, 44.9 % ($n=178$) were unemployed, 55.1 % ($n=218$) were employed.

Materials

The study was provided by Google Forms, a survey builder. The questionnaire consisted of a series of stress related questions regarding, academic stressors, their age, gender, years of education and occupation.

Perceived stress scale (P.S.S) (Cohen et al.,1983). Cohen's (1983) P.S.S is the most widely used psychological instrument that includes 10 items assessing control, overload, along with thoughts and feelings of stressful events or experiences. The scale will then assess the responses based on the respondent for example "how they felt over the past 3-4 weeks". The student's answers will be scored based on the 5-point Likert-type scale (1= never to 5= very often) to estimate "how often" they felt a certain way. A score ranging from 0 to 13 was considered as low levels of stress , scores ranging from 14 to 26 was considered as levels of moderate stress and lastly scores ranging from 27 to 40 was considered as level of high stress.The current study conducted an analysis to test the validity and reliability of the Cohen's (1983) P.S.S. The internal consistency reliability was .81 measured by Cronbach's alpha on SPSS. It was concluded that Cohen's (1983) P.S.S was reliable for the current study. The current findings also reflected with prior researchers who have used Cohen's P.S.S (Leung, Lam & Chan ,2010;Lu et al.,2017; Siqueira, Ferreira-Hino & Romélio Rodriguez Añez, 2010;Tus,2020) (SEE APPENDIX B).

The Work Extrinsic and Intrinsic Motivation Scale (WEIM) (Deci and Ryan,2000) will be used to measure the levels of motivation. Deci and Ryan (2000) WEIM is an 18-item questionnaire that is divided into three-item subscales. The students will respond to the types

of motivation structured by the Self-determination theory for examples (intrinsic motivation, integrated, identified, introjected, external regulations and amotivation. Students will then use a 7 Likert-type scale ranging from 1 (does not correspond at all) to 7 (corresponds exactly) the extent to which the items represent the reason they are presently involved in their work. The individual scores reflect on the self determination of the participant. A positive score, it indicates a self-determined profile and a negative score indicates a nonself – determined profile (Deci and Ryan, 2000). The current study conducted an analysis to test the validity and reliability of Deci and Ryan's (2000) WEIM. The internal consistency reliability was .84 measured by Cronbach's Alpha on SPSS. Research by Jin et al., (2020); Pelletier et al., (2004); Tremblay et al., (2009) supported these findings and have also indicated that Deci and Ryan's (2000) WEIM displayed high levels of reliability and validity. Concluding that Deci and Ryan's (2000) WEIM was reliable for the current study. **(SEE APPENDIX C).**

The Coping Orientation to Problems Experienced (COPE)(Carver,1989). COPE is a strategy people use in response to stress. There are two components for COPE which are Problem-focused coping and Emotion –focused coping. These components are a 5-item scale. The problem-focused coping measures the following: Active coping, planning, suppression of competing activities, restraint coping and seeking of instrumental social support, an example of a statement may include "I could concentrate my efforts on doing something about it" "I take additional action to try to get rid of the problem" and the Emotion-focused coping measures; seeking of emotional social support, positive reinterpretation, acceptance and denial. An example of statement may include "I discuss my feelings with someone ". It also contains a 3 scale that measures coping responses such as focus on venting of emotion, behavioural disengagement and mental disengagement, it may also include statements such as "I get upset and let my emotions out ""I get upset and am really aware of it "".

The student will use a Likert-type scale ranging from 1 (I usually don't do this at all) to 4 (I usually do this a lot). The COPE will be used to measure coping mechanism practiced by college students the current study conducted an analysis to test the validity and reliability of the Carver's (1989) COPE. The internal consistency reliability was .68 measured by Cronbach's alpha on SPSS. It was concluded that Carver's (1989) COPE was reliable for the current study. A study was conducted by Carver et al., (1993) to test the validity of the COPE scale. The internal consistency reliability for the study conducted by Carver et al., (1993) was adequate and ranged from .65 to .90. The current findings also reflected with prior

researchers who have used Carver's (1989) COPE (Gudjonsson & Sigurdsson, 2003; Fontaine, Manstead & Wagner, 1993; Faronbi et al., 2021) (**SEE APPENDIX D**).

Design

The study implemented a quantitative, non-experimental, descriptive cross-sectional study. Cross-sectional measured the difference between males and females, and between different coping styles on the outcomes of perceived stress and if academic stressors and motivation, years of education, employment status predict perceived stress. The hypothesis for this study suspects that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in a sample of third-level students. The null hypothesis for this study will deduct that academic stressors (PV), motivation (PV), gender (PV), employment status (PV) and coping (PV) do not predict levels of perceived stress (DV) in a sample of third-level students. The study consisted of male and female college full time, and part time students and who are over the age 18+ years.

Procedure

The data for the study was collected through an online questionnaire that was voluntary, and anonymous and was shared through social media (LinkedIn) (Facebook) (Instagram) (Twitter) via a link. Before the participants contributed to the study, participants were provided with information about everything that was involved in participation and any risks or benefits within the study (**SEE APPENDIX E**). Participant were provided with a consent form before commencing the questionnaire (**SEE APPENDIX F**) and were given an estimate time for to complete the study, which was roughly 15-20 minutes. Participants were able to withdraw from the study, at any time of the participation without penalty. This was clearly stated in both their participation in the study section and informed consent section.

The questionnaire then asked the participants to tick a box confirming they were over the age of 18 and give their consent to be in the study before complete questionnaire. The questionnaire consisted of 4 sections, participant were required to fill out a series of questions based on academic stressors i.e. what they find stressful in the academic year (exams, workload etc.), do their classes and module assignment overlap with other module assignments, how many hours do they study for and their employment status. Followed by the perceived stress scale, the cope inventory scale, and the work extrinsic and intrinsic motivation scale. Once the participants completed these sections, they were provided with a debrief form that included my own contact details, my supervisors details and helpline

numbers , encouraging people to reach out and seek for help if the questionnaire caused distress on to the individual (**SEE APPENDIX G**).

Ethical consideration

The current study submitted an Ethics Application Form to the National College of Ireland and was granted Ethical approval. The data collected was in accord with the NCI ethical guidelines. The benefits and risks of partaking the study were communicated to participants that there was no penalty from withdrawing from the study. Participants were also informed that if study surpasses a grade of or above a 2.1 it will be published in the NCI library. The data collected will be stored for 5 years in accordance with NCI policies for all students, professors and visitors to view. This information was also outlined in the debrief form. Support services such as NiteLine, The Samaritans, Pieta House and Aware Support Line were provided in the debrief form for those who have found the questionnaire distressful.

Results

The main concept of the study was to examine that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in third-level Irish students living in Ireland. Our data was collected from 3 academic stressors: coursework, class-hour and module assignment. The coursework question asked participants what they find stressful in the academic year. The coursework answers were categorized into 3 subcategories; Coursework1 identified as “Excessive amount of continuous assessment/ Multiple choice questions”, Coursework2 identified as “Exams” and Coursework3 identified as “All the above”. The participants would then pick from the subcategories Coursework1, Coursework2 and Coursework3). The class- hour question asked participants whether their classes overlapped with other classes. The class-hour was categorized into 3 subcategories; classhour1 identified as “yes”, classhour2 identified as “No” and classhour3 identified as “Sometimes”. The participants would then choose from the subcategories (classhour1, classhour2 and classhour3) to identify these findings.

Lastly the module assignment question asked participants whether their module assignment due date overlapped with other module assignment due date. The module assignment was also categorized into 3 subcategories; moduleassignment1 identified as “yes”, moduleassignment2 identified as “No” and moduleassignment3 identified as “Sometimes”. The participant would then choose from the subcategories (moduleassignment1, moduleassignment2, moduleassignment3) whether the module assignment due date overlapped with other module assignment due date. Given that all three academic stressors contained more than two categories, the validity of dichotomous dummy variables was required, to allow the variables to be entered into a hierarchical multiple regression. Age, gender, years of education employment status, overall PSS_Scores, Cope_Scores and WEIM_Scores were also collected for the analysis.

Descriptive statistics

Descriptive statistics was performed on all variables such as, academic stressors, employment status, years of education status, full time and part time students including perceived stress, coping and motivation. The current data was taken from a sample of 396 participants ($n = 396$). The sample consisted of 61.9 % females ($n = 245$), 37.1 of males ($n = 147$) and 1.0 % of no gender ($n = 4$). Of the participants recruited ,87.4 % ($n = 346$) were full time students and 12.6 % ($n = 50$) were part time students. In relations to employment status, 55.1% ($n = 218$) were employed and 44.9% ($n = 178$) were unemployed. The coursework

question asked participants what they find stressful in the academic year. Of the participants recruited ,34.1 % ($n = 135$) have chosen coursework 1(excessive amount of continuous assessments / multiple choice questions), 13.1 % ($n = 52$) have said coursework2 (Exams) and 52.8 % ($n = 209$) have chosen coursework3 (All the above).

The class- hour question asked participants whether their classes overlapped with other classes. Of the participants recruited, 45.5 % ($n = 180$) have chosen class-hour1 (yes), 19.7 % ($n=78$) have chosen class-hour2 (no) and 34.8 % ($n = 138$) have chosen class-hour3 (sometimes). the module assignment question asked participants whether their module assignment due date overlapped with other module assignment due date. Of the participants recruited, 45.5 % ($n = 180$) have chosen module assignment 1 (yes), 19.7 ($n = 78$) have chosen module assignment 2 (no) and 34.8% ($n = 138$) have chosen module assignment 3 (sometimes) are displayed in **Table 1** .

Table 1

Descriptive statistics for categorical variables $n = 396$

Variable		Frequency	Valid %
Gender	Male	147	37.1
	Female	245	61.9
	Other	4	1.0
Students	Full-Time Student	346	87.4
	Part-Time Student	50	12.6
Employment	Unemployed	178	44.9
	Employed	218	55.1
Coursework	Coursework 1	135	34.1
	Coursework 2	52	13.1
	Coursework 2	209	52.8
Class-Hour	Class-Hour 1	180	45.5
	Class-Hour 2	78	19.7
	Class- Hour 3	138	34.8
Module Assignments	Assignment 1	180	45.5
	Assignment 2	78	19.7
	Assignment 3	138	34.8

The mean (M), median (M), standard deviation (SD) and the range scores for age, years of education, perceived stress, coping, and motivation are displayed in **Table 2** below.

Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Histograms for all continuous variables in table 1, were normally distributed (see appendix below).

Table 2

Descriptive statistics for all continuous variables, n = 396

Variable	M [95% CI]	M	SD	Range
Age	22.53[21.88,23.18]	20	6.60	38
Years of Education	16.01[15.74,16.27]	16	2.66	37
Perceived Stress	22.57[21.93,23.20]	22	6.39	39
Coping	52.25[51.58,52.92]	53	6.77	53
Motivation	85.54[83.97,87.11]	85	15.28	100

Further analysis was examined to identify how third level Irish students experience levels of perceived stress in **Table 3**. According to Cohen's P.S.S (1983), "individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress". A score ranging from 0 to 13 was considered as low levels of stress, scores ranging from 14 to 26 was considered as moderate levels of stress and lastly scores ranging from 27 to 40 was considered as high level of stress. The average mean for ($n = 396$) third level Irish students in Ireland that experience levels of perceived stress was ($M = 22.57$). Therefore, this was considered as moderate. The five-point Likert scale is considered an interval scale. The mean is very significant from 1 to 1.8 (never), 1.8 to 2.60 (almost never), 2.61 to 3.40 (sometimes), 3.41 – 4.20 (fairly often) and 4.21 to 5 (very often). Of the Cohen's P.S.S (1983) questionnaire, the mean for P.S.S 1 was 2.20 indicates that majority of third level Irish students have almost never been upset because of something that happened unexpectedly. The mean for P.S.S 2 was 2.55 indicates that majority of the third level Irish students have almost never felt that they were unable to control the important things in your life. The mean

for P.S.S 3 was 2.86 indicates that majority of the third level Irish students have sometimes felt nervous and stressed. The mean for P.S.S 4 was 1.75 indicates that majority of the third level Irish students have never felt confident about their ability to handle their personal problems.

The mean for P.S.S 5 was 1.83 indicates that majority of the third level Irish students have never felt that things were going their way. The mean for P.S.S 6 was 2.48 indicates that majority of the third level Irish students have sometimes felt that they could not cope with all the things that they had to do. The mean for P.S.S 7 was 1.88 indicates that majority of the third level Irish students have never often been able to control irritations in their life. The mean for P.S.S 8 was 2.03 indicates that majority of the third level Irish students have sometimes felt that you were on top of things. The mean for P.S.S 9 was 2.50 indicates that majority of the third level Irish students have almost never been angered because of things that were outside of their control. Lastly the mean for P.S.S 10 was 2.48 indicates that majority of the third level Irish students have almost never felt difficulties were piling up so high that they could not overcome them.

Table 3

Descriptive statistic on levels of Perceived stress in third level Irish students, n =396

Statement	N	Min	Max	Mean	Std. deviation
P.S.S 1	396	0	4	2.20	1.128
P.S.S 2	396	0	4	2.55	1.105
P.S.S 3	396	0	4	2.86	.984
P.S.S 4	396	0	4	1.75	1.042
P.S.S 5	396	0	4	1.83	.964
P.S.S 6	396	0	4	2.48	1.066
P.S.S 7	396	0	4	1.88	.869
P.S.S 8	396	0	4	2.03	1.018
P.S.S 9	396	0	4	2.50	1.032
P.S.S 10	396	0	4	2.48	1.135

Inferential Statistics

A Pearson Correlation Coefficient was computed to assess the relationship both predictor variables and criterion variables. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant, small, positive relationship between coursework and class-hour ($r=.23$, $n = 396$, $p < .001$). This indicated that both variables shared approximately 5% of variance in **Table 4**. The results indicate that perceived stress is associated with coursework and class-hours and that data was suitable for a regression analysis.

A Pearson Correlation Coefficient was computed to assess the relationship both predictor variables and criterion variables. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant, moderate, positive relationship between, coursework ($r = .30$, $n = 396$, $p < .001$) and class-hour ($r = .23$, $n = 396$, $p < .001$) in **Table 4**. The results indicate that module assignment is associated with coursework and class-hour.

A Pearson Correlation Coefficient was computed to assess the relationship both predictor variables and criterion variables. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a negative significant, small, relationship between module assignment and perceived stress ($r = -.16$, $n = 396$, $p < .002$) in **Table 4**. The results indicate that module assignment is associated with perceived stress.

A Pearson Correlation Coefficient was computed to assess the relationship both predictor variables and criterion variables. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a non-significant, moderate, positive relationship between coping and perceived stress ($r = .34$, $n = 396$, $p = .50$) in **Table 4**. The result indicate that coping is not associated with perceived stress.

A Pearson Correlation Coefficient was computed to assess the relationship both predictor variables and criterion variables. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant, moderate, positive relationship between coping and motivation ($r = .35$, $n = 396$, $p < .000$) in **Table 4**. The results indicate that coping is associated with motivation.

Table 4*Pearson Correlation for continuous variables*

Variable	1.	2.	3.	4.	5.	6.
1. Coursework	1					
2. Class-hour	.227**	1				
3. Module Assignment	.295**	.226**	1			
4. Perceived Stress	.038	.062	-.157**	1		
5. Coping	.014	.008	.000	.034	1	
6. Motivation	-.020	.109*	-.050	.080	.355**	1

Note: N = 396, statistical significance: * $p < .05$, ** $p < .01$

A Hierarchical multiple regression was run to examine academic stressors, motivation, gender, employment status and coping predicts level of perceived stress in a sample of third level Irish students living in Ireland. Age, Education, full time and part time student and employment status were entered in block 1 of the model, explaining 3% of the variance in perceived stress scores, ($F(4,359) = 3.051, p = .017$ was positively statistically significant and no change in r value. Gender, coursework, class-hour, module assignment, coping and motivation were entered in block 2, explaining 18% of the variance in perceived scores, ($F(13,350) = 5.977, p < .001$. There was a statically significant decrease with 15% variance explained in perceived stress (see **Table 5** for full details). In the final model only five control measures were statistically significant module assignment 2 ($beta = -3.05, p < .001$) scoring higher than coursework 3 ($beta = 1.26, p = .08$), class-hour 1 ($beta = -1.78, p < .05$), coping ($beta = .03, p = .536$) and motivation ($beta = .003, p = .901$). To summaries these findings both exams and continuous assessment along with multiple choice questions effects third level Irish students' level of perceived stress. However as though, Irish third level students don't experience as much of an over lapping with other module assignment due dates, they are continuously motivated and apply coping strategies.

Our data was collected from 3 academic stressors: coursework, class-hour and module assignment. Given the fact that the academic stressors had 3 categorical responses, all responses were required to be transformed into dummy variables. Out of the dummy

variables created six of nine variables were excluded when conducting the hierarchical multiple regression. The current study discovered that when conducting a hierarchical multiple regression, it is only required to create up to two dummy variables with only two categorical responses.

An independent sample t-test was conducted to compare levels of perceived stress between males and females third level Irish students in Ireland. The results revealed that there was a significant difference with Irish females students ($M = 24.08$, $SD = 6.68$) scoring significantly higher than Irish males students ($M = 20.01$, $SD = 4.99$), $t(390) = 6.38$, $p < .000$, two tailed. The magnitude of the differences in the means (mean difference = 4.07, 95% CI: 2.81 – 5.32) was medium (Cohen's $d = .69$). Signifying that Irish third level female students experience higher levels of perceived stress than Irish male students in Ireland.

An additional independent t-test was conducted to compare levels of perceived stress between employed and unemployed third level Irish students in Ireland. The results revealed that there was a non-significant difference with employed students ($M = 22.56$, $SD = 6.64$) than unemployed students ($M = 22.58$, $SD = 6.09$), $t(394) = -.037$, $p = .971$, two tailed. The magnitude of the differences in the means (mean difference = $-.024$, 95% CI: $-1.30 - 1.247$) was small (Cohen's $d = .003$). To summarise these findings, there was no significant increase or decrease between employed and unemployed Irish third level students when compared to levels of perceived stress.

Table 5*hierarchical multiple regression model predicting perceived stress levels*

Variable	R^2	Adj. R^2	B	SE	β	CI95% (B)
Block 1	.033	.033				
Age			-.172*	.052	-.191	-.274/-.070
Education			-.040	.136	-.017	-.307/.226
FT/PT students			1.09**	1.10	.057	.322/-1.07
Employment			-.215	.675	-.017	.750/-1.54
Block2						
	182**	.149**				
Gender			-3.34	.672	-.261	-4.75/-2.11
CourseWork2			-1.27	1.04	-.068	-3.33/.779
CourseWork3			1.26**	.733	.099	-.171/2.71
ClassHour1			-1.78**	.918	-.104	-3.59/.018
ClassHour3			-.173	.732	-.013	-1.61/1.26
ModuleAssignment2			-3.05***	.889	-.190	-4.80/-1.31
ModuleAssignment3			-2.34	.768	-.175	-3.85/-.835
Coping			.032**	.051	.033	-.069/.132
Motivation			.003**	.022	.007	-.041/.046

Note: N= 396; R^2 = R-squared; Adj R^2 = Adjusted R-squared; B = unstandardised beta value; β = standardized beta value; SE = Standard errors of B ; CI95% (B) = 95% confidence interval for B .
 Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

Discussion

The current study aimed to examine academic stressors, motivation, gender, employment status and coping in levels of perceived stress in a sample of third-level Irish students in Ireland. The initial hypothesis deduced that there was a significant association between both predictor variables and dependent variable. Regarding gender difference in levels of perceived stress, in the current study, third level Irish female students are found to have high levels of perceived stress than third level Irish male student within their academic degree. A Pearson's Correlation Coefficient was computed to assess the relationship between both predictor variables and dependent variables. There was a significant, small, positive relationship between coursework and class-hour both variables shared approximately 5% of variance indicating that perceived stress was associated with exams , continuous assessment and the overlapping of classes with other class hours amongst third level Irish students in Ireland.

There was a significant, moderate, positive relationship between, coursework and class hour, this indicated that overlapping of module assignment due date with other module assignment was associated with coursework and the overlapping of classes with other class hours amongst third level Irish students in Ireland. There was a negative significant, small, relationship between module assignment and perceived stress. The findings indicated that module assignment was associated with perceived stress in third level Irish students in Ireland. There was a non-significant, moderate, positive relationship between coping and perceived stress. The findings indicated that coping was not associated with perceived stress. Lastly there was a significant, moderate, positive relationship between coping and motivation. The findings indicated that coping was associated with motivation in third level Irish students in Ireland.

The current study was also in support of Babakova (2019), Beall, Jennifer, DeHart, Riggs and Hensley (2015),Karaman et al.,(2019), Misra and McKean (2000), Rucker (2012) and Saleh, Camart, Romo (2017) findings of gender difference in levels of perceived stress. However, research by Gabriel (2015) , and Yikealo , Yemane and Karvinen (2018) were opposed to this notion of gender differences in levels of perceived stress and have found no difference between the two genders as both encountered the same levels of stress within their academic degree. In support of the initial hypothesis, a t -test was computed to examine whether employment status had a contribution to levels of perceived stress in a sample of third level college students during their academic degree.

The current study found that employment status had a minor contribution to levels of perceived stress. This could be due to the effects of COVID-19, given that all education and employments must be done from home (Bick, Blandin & Mertens, 2020). Research by Rucker (2012) stated that “many students have to work in order to gain financial support for their studies”. Kamtsos and Karagiannopoulou (2015) also reported that finance was also an issue for Greek college student. In their findings, they’ve pointed out that as though students may not be paying for their tuition fees but must cover for rent, which causes psychological stress to students. Prior evidence suggest that “academic stressors are good models of naturally occurring stress in humans” (as cited by, Ekpenyong, Daniel and Aribó, 2013).

In support of the initial hypothesis, finding whether academic stressors such as ; Course work (Multiple Choice Questions, Exams and Continuous Assessments), Class-hour (the overlapping of class hours with other classes) and Module assignments (the overlapping of due date with other module due date) had a contribution to levels of perceived stress in a sample of third level college students during their academic degree. The results indicated that college students experience high levels of perceived stress due the amount of CAs given, Mcqs and exam seasons. It could also be noted, within the findings of the current study, students experience high levels of stress due to the overlapping of their class hours with other classes, along with the overlapping of module assignment due dates with other assignment due dates. These findings also reflected with the research of Gabriel (2015), Misra and Mckean (2000), Saleh, Camart, Romo (2017), Yikealo, Yemane and Karvinen (2018). In concord to the current study’s findings, Alqarni and Alamee(2020), Babakova (2019),Friedman, (2019), Kamtsos and Karagiannopoulou (2015),Pariat et al., (2014).

Yikealo, Yemane and Karvinen (2018) revealed that the main source of academic stress for student when conducting the study was “time management, results, exams and course load”. Kausar (2010) conducted an empirical study to examine perceived stress, academic workloads and coping strategies used by ($n = 150$) students in Pakistan and have found positive relationships between academic workload and perceived stress among students. The findings employed that students how have more workload use more practical coping strategies compared to those who have less workload use distractive avoidance coping. Moreover, in the current study, a hierarchical multiple regression was performed to examine a model of perceived stress when controlling for age, years of education, full time, and part time students and employment status. The final model was accounted for 33% of the

variance in levels of perceived stress, however age and employment status were negatively significantly associated with levels of perceived stress. The current study also aimed to examine a model of perceived stress when controlling for Gender, coursework, class-hour, module assignment, coping and motivation. There was a significant decrease with the final model being accounted for 15% of variance in levels of perceived stress.

This suggests that most variables may not lead to as much perceived stress, such as class hour and coursework. These findings also reflect with the research of Gavin and Diaz (2015). However, the findings indicated that coping and motivation had a positive significant contribution in predicting levels of perceived stress in the sample of third level students. Nonis et al., (1998) suggest that most students will perform best under a moderate amount of stress whether it be “under low or high levels of stress, the performance will be lower”. In relations to motivation Karaman and Waston (2017) states that personality differences and the way college students’ assess their strengths are a significant factor therefore influences their achievement. Research by Ben-Zur and Zeidner (2012) conducted a study based on cognitive model of stress examining students’ stress appraisals, coping strategies and emotional behavioural reactions to academic stress. Ben-Zur and Zeidner (2012) findings were that students who experienced high levels of perceived stress were less likely to use adaptive coping strategies and reported both high levels of emotional states and risk-taking behaviours. These findings also reflected with the works of Aldwin and Revenson (1987); Allen and Lapierre (2006); Banez et al., (1999); Champman and Mullis (2002) and Elliot and MacNair (1992).

Implications

The current study demonstrated the importance of examining factors that contribute to levels of perceived stress amongst college students. The reliability and validity of the scales used to measure coping, motivation and levels of stress had great significance to this study especially motivation. The Cronbach alpha for motivation was .84 showing that the W.E.IM was effective to third level Irish students in Ireland hence why the average mean for level of perceived stress in third level Irish students in Ireland was 22.57, which is a moderate level to experience levels of perceived stress. The sample consisted of Irish third level student. Although prior research have examined factors that contribute to levels of perceived stress amongst college students international and national, there was little data on the same factors predicted levels of perceived stress in third level Irish students which would be important,

given that Ireland having the smallest population compared to other countries in Europe and America (Misra and Mckean, 2000). Along with the positive influence of coping strategies and motivation has on a student's way of achieving in their academic degree. Needless to say, academic stress is an inherent part of college stress (Waston and Waston, 2020). The current study also provided evidence on the effects of employment has on college students during their academic degree. Research suggests that problem-focused coping strategy that can be provided to college students would be time management (Ajibewa et al.,2020). Research by Misra and Costillo (2004) argues the importance of mental health and how mental health can affect student's ability to achieve goals and complete their degree. Although the findings show that male and female student differ in reaction of stress, it could be beneficial for mental health experts work within colleges to support students (Misra & Costillo,2004).

Limitation and Future research

Limitations of this study included the fact that the study lacked an adequate control group and used snowball sampling. The current study mainly consisted of 61.9 % (n=245) female student which limited our findings to determine the effect of stress has on male and female students. Further research would be required on the effects stress has on male students. The layout of the study was based on both Perceived stress scale (Cohen et al.,1985), WEIM (Deci and Ryan, 2000) , Cope (Carver, 1989) and self-reported questions. Lastly, this study was a cross-sectional design with no causality. Thus, further research would need to replicate these finding as a longitudinal design to compare students states from the start to the end of their academic year. COVID-19 has affected the world significantly when it comes to mental health and the wellbeing of students and resulting to restrictons (Hyland et al.,2020). Research by Kelly, (2020) supports that the effect of COVID -19 association restrictions significantly increased psychological distress. The findings indicated the significance of motivation and coping has on third level Irish students. As though the current study was conducted from home, during COVID-19 further research would need to replicate it during an appropriate time.

Conclusion

In addition to the limitation, it was expected, that stress has a vital impact on students' academic performance especially towards third level Irish female students as they reported to perceive more stress compared to third level Irish male students who perceived low levels of stress. College students will face many challenges throughout their degree to in which will

influence the fulfillment of their goals. In sum, the significance between motivation and stress, if the current study was able to get a deeper insight on the relationship of these variables, the current study may help how college students will or will not manage these challenges and handle their stress more effectively. The levels of perceived stress have remained the same amongst third level Irish students in Ireland. However, students are still motivated to achieve their goals whilst being in a pandemic. The pandemic has motivated majority of these students with problem focused strategies such as, humor, accepting these changes, writing out goals or setting a time set for their task.

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Appendices

Appendix A

Sample Size for study

$$((1.96)^2 \times .5(.5)) / (.05)^2$$

$$(3.8416 \times .25) / .0025$$

$$.9604 / .0025$$

$$384.16$$

385 participants

APPENDIX B**PERCEIVED STRESS SCALE**

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 by circling how often you felt or thought a certain way.

Name _____

Date _____ Age _____

Gender (Circle): M F Other _____

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?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and “stressed”?
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
5. In the last month, how often have you felt that things were going your way?
6. In the last month, how often have you found that you could not cope with all the things that you had to do?
7. In the last month, how often have you been able to control irritations in your life?
8. In the last month, how often have you felt that you were on top of things?
9. In the last month, how often have you been angered because of things that were outside of your control?
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix C

WEIM Scale

Why Do You Do Your Work?

Using the scale below, please indicate to what extent each of the following items corresponds to the reasons why you are presently involved in your work

Does not correspond at all		Corresponds moderately		Corresponds exactly		
1	2	3	4	5	6	7

1. Because this is the type of work, I chose to do to attain a certain lifestyle.
2. For the income it provides me.
3. I ask myself this question, I don't seem to be able to manage the important tasks related to this work.
4. Because I derive much pleasure from learning new things.
5. Because it has become a fundamental part of who I am.
6. Because I want to succeed at this job, if not I would be very ashamed of myself.
7. Because I chose this type of work to attain my career goals.
8. For the satisfaction I experience from taking on interesting challenges
9. Because it allows me to earn money.
10. Because it is part of the way in which I have chosen to live my life.
11. Because I want to be very good at this work, otherwise I would be very disappointed.
12. I don't know why, we are provided with unrealistic working conditions.
13. Because I want to be a "winner" in life.
14. Because it is the type of work I have chosen to attain certain important objectives.
15. For the satisfaction I experience when I am successful at doing difficult tasks.
16. Because this type of work provides me with security.
17. I don't know, too much is expected of us.
18. Because this job is a part of my life.

Appendix D

The COPE INVENTORY SCALE

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Then respond to each of the following items by blackening one number on your answer sheet for each, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

1 = I usually don't do this at all 2 = I usually do this a little bit 3 = I usually do this a medium amount 4 = I usually do this a lot

1. I try to grow as a person as a result of the experience.
2. I turn to work or other substitute activities to take my mind off things.
3. I daydream about things other than this.
4. I sleep more than usual.
5. I try to come up with a strategy about what to do.
6. I give up the attempt to get what I want.
7. I think about how I might best handle the problem.
8. I make sure not to make matters worse by acting too soon.
9. I try hard to prevent other things from interfering with my efforts at dealing with this.
10. I go to movies or watch TV, to think about it less.
11. I accept the reality of the fact that it happened.
12. I ask people who have had similar experiences what they did.
13. I reduce the amount of effort I'm putting into solving the problem.
14. I talk to someone about how I feel.
15. I use alcohol or drugs to help me get through it.
16. I learn to live with it.
17. I put aside other activities in order to concentrate on this.
18. I act as though it hasn't even happened.
19. I do what has to be done, one step at a time.

Appendix E

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For office use only



Letter to participants

INFORMATION SHEET AND CONSENT FORM

I, Ruth Ekada a Psychology undergraduate student from the National College of Ireland, am conducting a Quantitative Study Examining Gender, Coping Styles and Stress in a sample of third-level Irish student. This **study** does not harm or cause any risk to the participants involved in this **study**. The aim for this **study** is to examine that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in third-level Irish students living in Ireland. This **study** will aim the Following: Academic Stressors will be measured by asking college students about their modules, hours (classes/tutorials) and hours study. Motivation (coping mechanism) will be measured by the WEIM, Coping will be measured by the C.O.P.E and Perceived stress will be measured by the P.S.S. This **study** will not involve deception or the withholding of information. Deceiving participants can affect the study and lead researchers facing consequences and a result to the **study** being compromised and disciplinary.

DECEPTION: the action of deceiving someone.

DEBRIEF: a series of questions about a completed mission or undertaking

COERCION: the action or practice of persuading someone to do something by using force or threats.

Title of Research Project: A Quantitative Study Examining Gender, Coping Styles and Stress in a sample of third-level Irish student

The study has been described to me in language that I understand, and I freely and voluntarily agree to participate. **I understand that my identity and contribution** will not be disclosed and that I may withdraw from the study without giving any reason at any time and this will not negatively affect me in any way.

Participants' signature

Date

Should you have any questions regarding this study or wish to report any problems you have experience related to the study, please contact the study coordinator/Supervisor.

Study Coordinators Name: Ruth Ekada, Email: ruthekadafyp@gmail.com

Appendix F

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For office use only



Participant Information Leaflet

A Quantitative Study Examining Gender, Coping Styles and Stress in a sample of third-level Irish student. You are being invited to take part in a research study. Before deciding whether to take part, please take the time to read this document, which explains why the research is being done and what it would involve for you. If you have any questions about the information provided, please do not hesitate to contact me using the details at the end of this sheet.

My name is Ruth Ekada, I am a final year student in the BA in Psychology programme at National College of Ireland. As part of our degree we must carry out an independent research project. Quantitative Study Examining Gender, Coping Styles and Stress in a sample of third-level Irish student. This study does not harm or cause any risk to the participants involved in this study. For my paper I aim to examine that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in third-level Irish students living in Ireland. This study will aim the Following: Academic Stressors will be measured by asking college students about their modules, hours (classes/tutorials) and hours study. Motivation (coping mechanism) will be measured by the WEIM, Coping will be measured by the C.O.P.E and Perceived stress will be measured by the P.S.S... The project is supervised by, The NCI Ethics Committee. If you decide to take part in this research, you will be asked to complete an online questionnaire on coping mechanism, motivation and academic stress. Participants must agree to the terms to proceed with the questionnaire.

You cannot take part in this study if you have been told by a doctor that you have a diagnosis of dementia, or a problem with your memory or thinking that interferes with your day to day life. You have been invited to take part in this study because you currently use the befriending service Participation in this research is voluntary; you do not have to take part, and a decision not to take part will have no consequences for you. If you do decide to take part, you can withdraw from participation at any time. Once you have submitted your questionnaire, it will be possible to withdraw your data from the study, If you experience distress, you are free to discontinue participation and exit the questionnaire. Contact information for relevant support services are also provided at the end of the questionnaire.

The questionnaire is de-identified; it is not possible to identify a participant based on their responses to the questionnaire. All data collected for the study will be treated in the strictest confidence. e.g. All data will be treated in the strictest confidence. There will be no interviews for this study. Only the researcher and academic supervisor will have access to the data collected. Responses to the questionnaire will be stored securely in a password protected/encrypted file on the researcher's computer. Only the researcher and their supervisor will have access to the data. Data will be retained for 5 years in accordance with the NCI data retention policy. e.g. Paper records (e.g. signed consent forms, test sheets). The results of the project may be presented at conferences and/or submitted to an academic journal for publication. For further information do not hesitate to contact me on ruthekadafyp@gmail.com.

Appendix G

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For office use only



Debriefing Form

Thank you for participating in the present questionnaire measuring Gender, Coping Styles and Stress in a sample of third-level Irish student. The current study aims to examine that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in third-level Irish students living in Ireland. The aim for this study is to examine that academic stressors, motivation, gender, employment status and coping predict levels of perceived stress in third-level Irish students living in Ireland. Following: Academic Stressors will be measured by asking college students about their modules, hours (classes/tutorials) and hours study. Motivation (coping mechanism) will be measured by the WEIM, Coping will be measured by the C.O.P.E and Perceived stress will be measured by the P.S.S. The questionnaire is confidential and anonymous, therefore submitted responses cannot be withdrawn or removed as the responses will be stored among a pool of anonymous data and your answers will not be able to be identified or retrieved. The information gathered from this questionnaire will solely be used for my thesis and no further studies. However, if my final project surpasses a grade of or above a 2.1 it will be published in the NCI library. The data collected will be stored for 5 years in accordance with NCI policies, after this period however all data from this study will be destroyed.

I would like to sincerely thank you for taking the time to participate in my study. In the event that you felt psychological distress as a result of taking part in this survey, we encourage you to speak out to your family, friends and/or guardians. I have also provided helpline phone numbers below to allow you to seek additional support if needed.

Support Services

NiteLine: 1800 793 793

The Samaritans: (01) 872 7700

Pieta House: (01) 623 5606

Aware Support Line: +35316766166

Contact Information If you have any concerns or questions on the use of this data, or if you have any further questions about this questionnaire, please feel free to contact myself, Ruth Ekada through email : ruthekadafyp@gmail.com or the supervisor, Dr David Mothersill, David.Mothersill@ncirl.ie

Appendix H

Evidence of data and SPSS output (full data file available upon request)

The screenshot shows the IBM SPSS Statistics Data Editor interface. The main window displays a list of variables in 'Variable View'. The variables include demographic and course-related information, as well as psychological stress scores (P.S.S. 1-7).

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	Age	Numeric	2	0		None	12	Right	Scale	Input
2	Gender	Numeric	1	0		{0, F}...	12	Right	Nominal	Input
3	Education	Numeric	3	0		None	3	Right	Nominal	Input
4	FTandPTstu...	Numeric	17	0		{0, Full Tim...	17	Right	Nominal	Input
5	CourseWork	Numeric	40	0		{1, Excessiv...	50	Right	Nominal	Input
6	Coursework1	Numeric	8	0	Coursework1=...	{0, other}...	10	Right	Nominal	Input
7	Coursework2	Numeric	8	0	Coursework2=...	{0, other}...	10	Right	Nominal	Input
8	Coursework3	Numeric	8	0	Coursework3=...	{0, other}...	10	Right	Nominal	Input
9	ClassHour	Numeric	9	0		{1, Yes}...	9	Right	Nominal	Input
10	Classhour1	Numeric	8	0	Classhour1=Yes	{0, other}...	10	Right	Nominal	Input
11	Classhour2	Numeric	8	0	Classhour2=No	{0, other}...	10	Right	Nominal	Input
12	Classhour3	Numeric	8	0	Classhour3=So...	{0, other}...	10	Right	Nominal	Input
13	ModuleAssi...	Numeric	9	0		{1, Yes}...	9	Right	Nominal	Input
14	ModuleAssi...	Numeric	8	0	ModuleAssign...	{0, other}...	10	Right	Nominal	Input
15	ModuleAssi...	Numeric	8	0	ModuleAssign...	{0, other}...	10	Right	Nominal	Input
16	ModuleAssi...	Numeric	8	0	ModuleAssign...	{0, other}...	10	Right	Nominal	Input
17	Employment1	Numeric	17	0		{0, employe...	17	Right	Nominal	Input
18	P.S.S.1	Numeric	1	0		{0, never}...	12	Right	Scale	Input
19	P.S.S.2	Numeric	1	0		{0, never}...	12	Right	Scale	Input
20	P.S.S.3	Numeric	1	0		{0, never}...	12	Right	Scale	Input
21	P.S.S.4	Numeric	1	0		{0, never}...	12	Right	Scale	Input
22	P.S.S.5	Numeric	1	0		{0, never}...	12	Right	Scale	Input
23	P.S.S.6	Numeric	1	0		{0, never}...	12	Right	Scale	Input
24	P.S.S.7	Numeric	1	0		{0, never}...	12	Right	Scale	Input

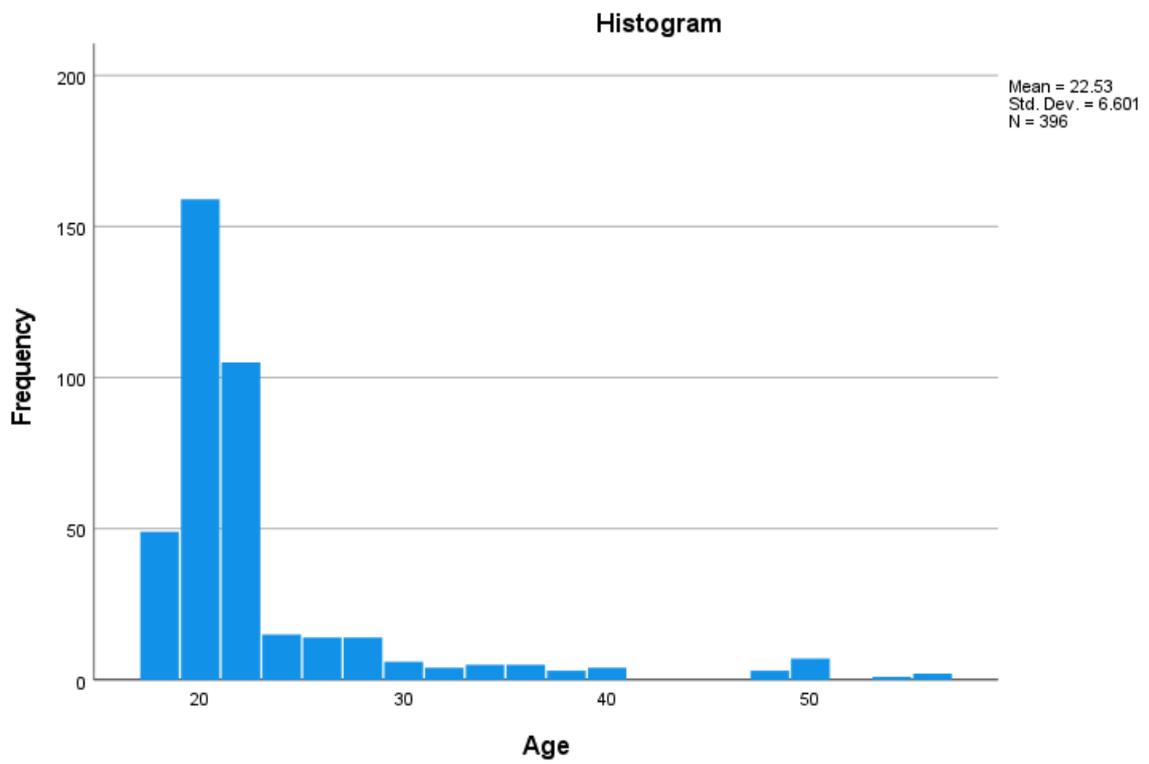
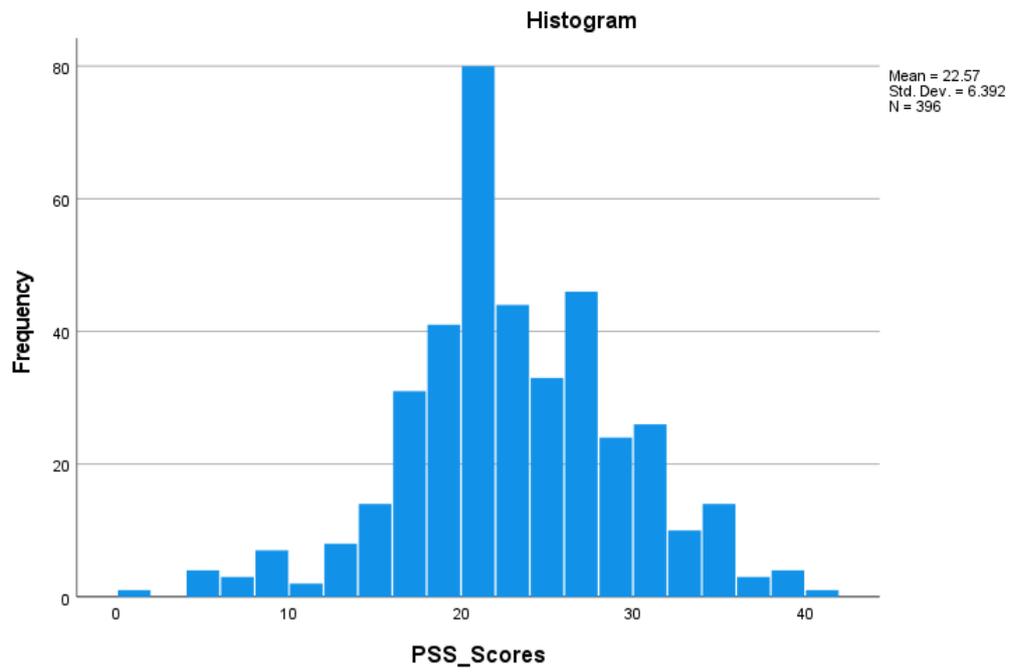
The screenshot shows the IBM SPSS Statistics Viewer interface. The main window displays the output of an Independent Samples T-Test. The output includes a table for the comparison of PSS_Scores by Gender, and a detailed T-Test table comparing PSS_Scores for employed and unemployed groups. The T-Test results show a significant difference (Sig. = .000) between the two groups.

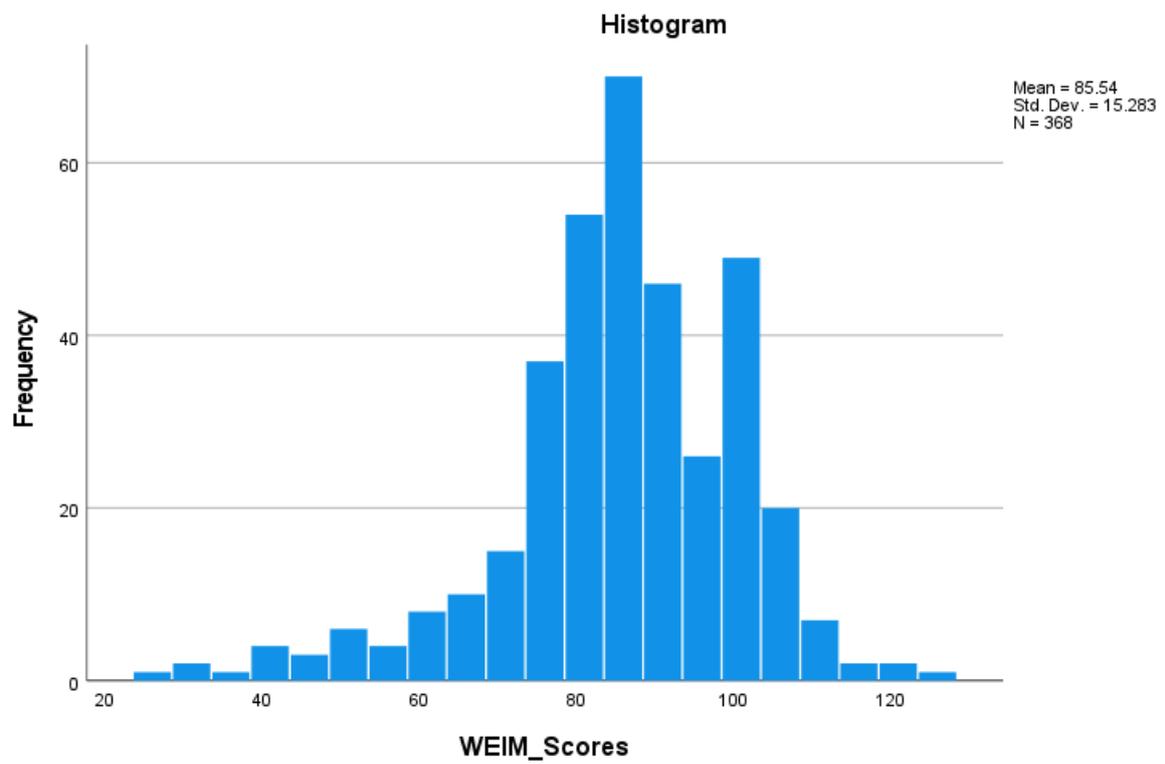
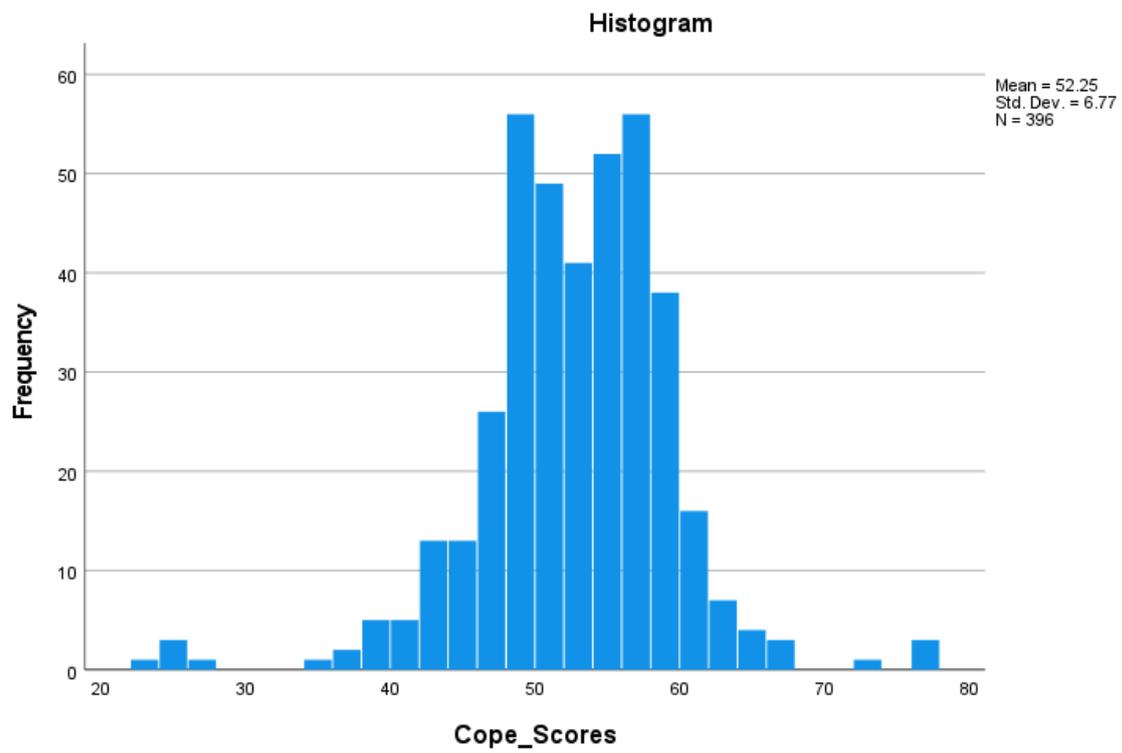
Gender	N	Mean	Std. Deviation	Std. Error Mean
PSS_Scores F	245	24.08	6.688	.427
PSS_Scores M	147	20.01	4.999	.412

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
PSS_Scores	25.648	.000	6.381	390	.000	4.068	.638	2.815	5.321
			6.851	371.575	.000	4.068	.594	2.900	5.236

T-TEST GROUPS=Employment1(0 1)
/MISSING=ANALYSIS
/VARIABLES=PSS_Scores
/CRITERIA=CI(.95).

	Group Statistics			
	Employment1	N	Mean	Std. Deviation
PSS_Scores employed	218	22.56	6.643	.450
PSS_Scores unemployed	178	22.58	6.089	.456





APPENDIX I

Cronbach Alpha's of P.S.S, C.O.P.E and W.E.I.M (full data available upon request)

