

Life Satisfaction, Depression & Perceived Stress in GAA inter-county and club players

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Declaration

Declaration

'I declare that this thesis that I have submitted to Dublin Business School for the award of BA (Hons) Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.'

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Abstract:

This study investigated variables which may be impacting on GAA players mental health. The main aim of this study was to examine how these variables can impact on GAA players mental health while they try to perform week in week out for games and training. The sample of this study focused on male GAA players who play both inter-county and club. They were examined on three scales, the Perceived Stress Scale (PSS), Satisfaction with Life Scale (SWLS) and the Depression sub-scale of the Depression and Anxiety Stress scale (DASS). All data was collected quantitatively through an online google document and the data was collected over a period of one month. The main findings of this study were that college students experience stronger feelings of depression compared to older individuals who are in full time employment. The main conclusions drawn from this study is that the GAA organisation needs to support its members and implement policies which will counteract the impact of these variables.

1. Introduction:

1.1 Overall Aim:

The overall aim of this research study is to investigate how different variables such as hours training, travelling and hours in college or work may impact on the mental health of male GAA players. More specifically it will investigate if these variables have an impact on their depression indicators, stress levels and satisfaction with life scores. The literature review will examine the research in the different areas in regard to this study. It will begin by explaining what each of the dependent variables are and how they may impact upon the independent variables. Following this the researcher will examine the various studies on sports athletes.

1.2 Depression

Depression, otherwise known as major depressive disorder or clinical depression, is a common and serious mood disorder. Individuals who suffer from depression experience persistent feelings of sadness, hopelessness and lose interest in activities and hobbies they once enjoyed. Despite depression causing huge emotional problems, individuals can also develop physical problems such as chronic pain or digestive issues (Shelton, 2018). Major Depression (MD) is a severe, life-threatening and widespread psychiatric disorder having an incidence rate of about 340 million cases worldwide. MD ranks fifth among leading causes of global disease burden including developing countries and by the year 2030, it is expected to represent one of the three leading causes of burden of disease worldwide (Mathers & Loncar, 2006) (Preventing Chronic Diseases: A Vital Investment, 2005). Depression is a common mental disorder that causes people to experience depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration (Depression - Mental Health Ireland, n.d.). Depression is a mental health condition which can affect thinking, energy, feelings and behaviour. It can vary from mild to severe and can have a profound impact on an

individual, affecting every aspect of their relationships, family and work life. Depression in Ireland affects 1 in 10 people at any one time, that equates to more than 450'000 people (Aware.ie, n.d.). It is commonly believed that in Ireland, Males are more affected by depression and this was shown in 2016 when statistics stated that 14 males per 100'000 committed suicide when compared to less than 5 females per 100'000 (Suicide - National Suicide Research Foundation, n.d.). There is a general belief that physical activity and exercise have a positive effect on an individual's mood and anxiety levels and that physical inactivity may also be associated with the development of mental disorders. Some clinical and epidemiological studies have shown associations between physical activity and symptoms of depression and anxiety (Strohle, 2008). To expand on this area of exercise and its effects on mood and anxiety, a study conducted by (Weinstein, Maayan, & Weinstein, 2005) found that individuals who exercised for professional purpose were more depressed than individuals who exercise for recreational purpose and therefore this relationship may not be as straightforward as previously thought. Most articles regarding depressive symptomology in elite athletes origin from US colleges. A study conducted by (Yang, et al., 2007) investigated the prevalence of symptoms of depression among competitive collegiate student athletes. This study also wanted to examine the factors associated with symptoms of depression among this population. The findings in this study showed that 21% of participants reported experiencing symptoms of depression. While sport and exercise is a well-known factor in preventing stress, depression and anxiety (Kelly, Banks, McGuinness, & Watson, 2018). A study conducted by (Schaal, et al., 2011) noted in their findings that practising sport at an elite level can give rise to anxiety, depression and other mental health difficulties. Along with this, as described in (Bauman, 2015), the culture of elite sport means that the subject of mental health is still considered taboo and prevalence rates of poor mental health are considered to be underestimated.

1.3 Stress

Stress is experienced when the environmental demands exceeds a person's adaptive capacity and is associated with health and diseases such as depression and cardiovascular diseases (Cohen, Janicki-Deverts, & Miller, Psychological Stress and Disease, 2007). It is a common assumption among health researchers that the impact of "objectively" stressful events is, to some degree, determined by an individual's own perceptions of their stressfulness (Cohen, Kamarck, & Mermelstein, A Global Measure of Perceived Stress, 1983). The actual or perceived threat to an organism is referred to as the 'stressor' and the response to the stressor is called the 'stress response'. Stressors give a major influence upon mood, our sense of well-being, behaviour and health. The relationship between psychosocial stressors and disease is affected by the nature, number and persistence of the stressor as well as by the individuals biological vulnerability (i.e. genetics, constitutional factors) psychosocial resources and learned patterns of coping (Schneiderman, Ironson, & Siegel, 2005). Stress is a significant individual and public health problem that is associated with numerous physical and mental health concerns. It is estimated that between 75% and 90% of primary care physician visits are caused by stress-related illnesses (Stress - The American Institute of Stress, n.d.). The tremendous psychological stress athletes are exposed to on a daily basis is frequently reported (Puffer & Mcshane, 1992), there can be many different stressors which range from exercise-based and competition-based to everyday stressors such as work and family life. A growing amount of studies mentions that both are equally impairing (Frank, Nixdorf, & Beckmann, 2015). Due to the challenging nature of the competitive environment, a substantial amount of research has now been conducted into the experience of stress in sport, one such study conducted by (Mellaclieu, Neil, Hanton, & Fletcher, 2009) which investigated competition stress in sport performers. In this study they examined the performance and organizational

stressors encountered by elite and non-elite athletes within the competition environment. The findings of this study suggest that prior to competing, sports performers encounter more stressors pertinent to performance than those emanating from the organization. These findings go to highlight that all demands faced by athletes of all levels should be considered and addressed when preparing and implementing interventions to manage competition stress. One of the main stressors which is faced by most inter-county GAA players is that they take time of work in order to participate in games and training and in doing so they lose out on money and due to the GAA being an amateur sport, some individuals can find themselves in financial trouble due to playing GAA.

1.4 Sports Studies:

A study which examined GAA players and their epidemiology of symptoms of common mental disorders found that prevalence of anxiety/depression was at 48% out of a 204 participant sample. Along with this, Severe musculoskeletal injuries, surgery, recent life events and career dissatisfaction led to an increased risk for common mental disorders (Gouttebauge, Tol, & Kerkhoffs, 2016). Another study conducted on elite athletes in 2013 investigated the prevalence of failure-based depression among elite athletes. In this study, 68% of athletes met the criteria for a major depressive episode before a competition. After the competition, it found that only 34% of the athletes met the diagnostic criteria, although the prevalence of depression doubled among the elite top 25% of athletes assessed. The study also found that more females experienced depression in comparison to male athletes. Their final discovery was that failure to perform was significantly associated with depression (Hammond, Gialloredo, Kubas, & Davis, 2013). A 2017 study examined the relationship between athletes team satisfaction and their own life satisfaction. It found an association between team satisfaction levels and life-satisfaction, with the athletes life-satisfaction more likely to be predicted by their feelings

towards their team (Chen, Wu, Lin, & Ye, 2017). Sports players in Ireland and globally face many problems. These problems can occur in many different areas of their lives and at different points in time; Sports individuals can struggle to find time to socialise with family and friends due to their training regimen, they also may struggle coping with the physical and mental exertion they have to endure while training and competing. They also have to cope with the pressures having to perform week in/week out in front of huge crowds that are highly critical and this can be hugely problematic for the individuals if the sports organisation or team do not have the appropriate resources and facilities for the players to avail from. There is a general consensus globally that exercise and activity is beneficial in regards to mental health. A 2010 study found that athletes reported significantly fewer depressive symptoms when compared to non-athletes while controlling for coping strategy selection. The results found that prevalence rates of depressive symptoms in athletes (15.6%) was considerably lower when compared to non-athletes (29.4%) (Proctor & Boan-Lenzo, 2010). In terms of the research showing that exercise significantly lowers depressive and stress symptoms, several plausible mechanisms have been proposed. In the developed world, taking regular exercise is seen as a virtue; the depressed patient who takes regular exercise may, as a result, get positive feedback from others and an increase of self-worth. Exercise may act as a diversion from negative thoughts, and the mastery of a new skill may be important. Social contact may be an important mechanism and physical activity may have physiological effects such as changes in endorphin and monoamine concentrations (Lawlor, 2001).

Despite this research and many more which are similar in nature, there is also research to the contrary. A study conducted in 2000 found that excessive physical activity may lead to overtraining and generate physiological symptoms that mimic depression (Paluska & Schwenk, 2000). “Depression in Elite Sport”, written by Sophie Watson, acknowledges the literature

which states that involvement in sport has been identified as positive and beneficial for self-esteem, anxiety and stress. She questions why so many elite athletes are experiencing and admitting to depressive episodes, symptoms and other stress-related illnesses if in fact these studies were right. A question which needs to be answered is “Can it be caused by sport itself?”. In terms of the research in this study, the current study is investigating how different variable such as work, travel and overall training and playing time of GAA can impact on different aspects of an amateur sport stars mental health. This is an area which has been in the media spotlight in recent months and years due to the professionalism of the game while the players themselves have remained amateur. Over the last few months and years, many GAA stars have spoken out about their experiences of the pressure they were under while playing and how they struggled to cope with the anxiety and stress (The Independent - Sport Hurling, 2015). Therefore this study was designed to investigate these factors in current GAA players to try and identify patterns or triggers for what may be causing these issues. As can be seen with the majority of the research which is reviewed, most of these studies have been conducted on both adolescents and adults but they are all elite athletes. This is their job and they get paid to participate in it. This is where this research study is different to so many others as there will be a sample of amateur athletes and this should highlight completely different issues which may cause depression, anxiety and low satisfaction with life scores. Due to the fact that they are playing their chosen sport (GAA) as an amateur they need to work around their Job, Holidays, Family and social life and this can put a lot of strain as they may find that they are losing touch with the other aspects of their lives and this can be the source of the problem. This is what this research study is focused on, and the aim is to examine these factors while excluding extraneous variables which may be impacting on my results. An article online used the Athlete Stress Inventory of 49 items to investigate the stress scores of 32 athletic performing women athletes in three intercollegiate teams. These teams included tennis, Gymnastics and

Basketball. Through choosing these sports, you have both group teams and single individuals and therefore are able to identify any differences. This study found that stress scores reported four days prior to the competition tended to be significantly correlated with performance for the individual sports but did not accurately predict performance in the group sport (Seggar, Pederson, Hawkes, & McGown, 1997).

1.5 Overtraining Syndrome (OTS):

Another aspect which is not examined in this study but may be a contributing factor to the results of the study is Overtraining Syndrome. Overtraining Syndrome (OTS) is a major threat for performance and health in athletes. OTS is caused by high levels of sport-specific stress in combination with insufficient recovery time between trainings and games. This syndrome shows similarities with chronic fatigue syndrome and major depression (Nederhof, Lemmink, Visscher, Meeusen, & Mulder, 2006). Overtraining Syndrome is a complex condition characterized by a variable group of symptoms and pathophysiologic abnormalities that always include performance and incompetence refractory to normal regeneration cycles. OTS is frequently observed in response to sustained high intensity/high volume athletic training, particularly when coupled with other stressors in the individuals life (Travel, Occupation, Inadequate Sleep). Due to the unethical nature of inducing athletes into a state of OTS, there are no evidence based means of preventing it. However, observation of training load, performance measures and mood questionnaires can help. Major components of prevention are screening and education. One should educate athletes at risk of overtraining that one of the initial signs of overreaching is increased rating of perceived exertion for a given workload. In order to track athletes, they should be monitored and questioned about training and also about personal stressors (interpersonal, family, sleep and ravel). (Kreher & Schwartz, 2012). Some of these stressors will be examine as part of this research study. A study conducted by (Morgan,

Brown, Raglin, O'Connor, & Ellickson, 1987) showed a decrease in 'burnout' in collegiate swimmers from 10% to zero when altering training load in response to the profile of mood states questionnaire. When the mood state decreased, training load was revised and decreased accordingly. Symptoms of burnout can include exhaustion stemming from the stress associated with intense training; having a reduced sense of athletic accomplishment and having a loss of motivation (Gustafsson, Kentta, & Hassmen, 2011). According to Gustafsson et al. (2011), the combination of physical and psychological stressors that elite sport can give rise to is linked to a range of common mental disorders (CMD) throughout the careers of elite sportspeople. The CMD symptoms include distress, depression, anxiety and substance dependency/abuse.

1.6 Training Load + Work Load:

Training load is another variable which will be investigated as part of this research study. In this research study, it will be investigated in terms of how many hours per week the participants have trained. Many research studies have examined the relationship between the training loads of players and sports injuries and illness. As reported in the ESRI paper (Kelly, Banks, McGuinness, & Watson, 2018), there seems to be a strong link between harsh training loads and player injuries and working from this link some research has focused on elite sports where there are severe and recurrent injuries where players may be at a greater risk of mental health problems during or after their sports career. A study conducted by (Putukian, 2015) found that physical injuries can and often do trigger mental health issues among elite athletes, including depression and anxiety. In terms of work load, it is commonplace worldwide for individuals to work long hours. The number of hours people are required to work has a pervasive influence not only physical health but also on mental health. Excessive weekly working time has negative effects on workers health including anxiety and depression (Afonso, Fonseca, & Pires, 2017). Due to both training loads an workloads both having significant effects on mental health, it can

be assumed that when both of these variables are paired together that there will also be a significant impact on mental health.

1.7 Travel:

People spend a lot of time commuting and often find it a burden. Commuting is an important aspect of our lives that demands a lot of our personal and valuable time. For most people, commuting is a mental and physical burden (Stutzer & Frey, 2008). This study conducted by Stutzer and Frey (2008) was based on the notion that the burden of commuting is chosen when compensated either on the labour or on the housing market so that individuals utility is equalized. This study examined when there was a direct test of this strong notion of equilibrium, they found that people with longer commute times reported systematically lower subjective well-being (Stutzer & Frey, 2008). Travel is an essential part of an athletes life both for competition and training. Long-distance travel is associated with a group of transient negative effects, collectively referred to as travel fatigue. This results from anxiety about the trip, the change to an individual's daily routine (Waterhouse, Reilly, & Edwards, 2004). In this area of commute times and how it may impact on satisfaction with life, there are very few studies which specifically examine internal/domestic commute times for athletes. Most studies seem to focus on long-haul travel usually through jet. Due to the GAA teams usually travelling to areas of the same county and inter-county teams travelling to other counties, the literature would be inappropriate to include as it is not significantly relevant to this research article. There is a clear gap of evident research in this area of short-haul/domestic travel and how it impacts on individuals satisfaction with life.

1.8 Age + College:

Another aspect of this study will be that it will examine the variable age. As you know, growing up is a very stressful time for adolescents as there are many different changes going on which can cause distress as they may not know fully what is happening to their body. This period of their life can become even more stressful if they are an elite athlete. Elite young athletes have to cope with many different aspects of their life such as multiple psychological demands (e.g. Training Volume, mental and physical fatigue) while also balancing their family life, social life/relationships and their education. A study conducted by Weber et al (2018) examined symptoms of anxiety and depression in Young Athletes. In this study a cross-sectional survey was carried out over a 2 year period on 326 young athletes aged between 12-18 years. The participants were recruited from many different sports, both team and individual sports. In this study, they found that there were prevalence rates of up to 9.5% on subclinical scales and 3.7% on clinical scales. They also found that young athletes are at risk of developing symptoms. This study shows that there are issues out there for young athletes which are completely different to that of adult athletes and there should be specialised interventions for the different age groups and therefore, this research study aims to find similar results when age is factored into the study.

1.9 Rationale:

It is important to investigate and monitor stressors and variables which may be adversely impacting on GAA players mental health, as they are already under extreme stress and participate in extremely highly pressurised situations during games. Players are more readily able to cope with this stress of playing a game as they have come to expect it as part of the role, whereas they may not notice these other variables that may be impacting on their mental health as they are not the typical stressors they have come to expect. With this in mind, this study will

examine how much of an impact these variables play, or if indeed they play a role at all, in the individuals mental health.

This research study will have 3 main hypothesis which will be tested and examined throughout this study.

1. Participants who spend more hours working and training in a week will have a higher perceived stress score.
2. Participants who travel the longest durations to and from training will have a lower satisfaction with life score
3. Participants who are in college will have a higher depression score.

To test these hypothesis there will be 3 scales used, these are;

1. Depression Scale form the Depression, Anxiety and Stress Scale (DASS)
2. Perceived Stress Scale (PSS-4)
3. Satisfaction with Life Scale (SWLS)

2. Method Section:

2.1 Participants:

The cohort of participants (n= 81) surveyed to gather the quantitative data were all males who compete and play GAA at both inter-county and club level. There were no missing samples in this survey. The age for the sample of participants ranged from 18 – 39 (Range = 21) with a mean age of 24.58 years old and the median age of the sample was 24 while the mode of the sample was 19. The sample consisted of both college students and individuals who are in full-time employment. 38 (46.9%) participants of the sample were college students while the other 43 (53.1%) were full-time workers. No Participant was pressurised or enticed into taking part in the questionnaire and they could withdraw from the study at any stage. This study was an example of snowball sampling.

To breakdown the other demographic questions asked, Number of hours spent participating in GAA activities in a week? Over 60% of the sample participated in more than 6 hours of GAA in a week. Along with this, just under 75% (69.2%) of the sample spent more than 30 hours working or in college a week. Furthermore 16.1% spend more than 50 hours in work or in college in a week. In the final demographic question, which examined the amount of hours spent travelling to and from training in a week, it was found that over one quarter of the sample spent more than 5 hours travelling. There was no particular selection criterion involved in this study, anybody who played the GAA could fill out the questionnaire.

2.2 Design:

A correlational approach was taken and all data was collected quantitatively for this study. The study itself was focused on the area of mental health. The demographics as part of the study were; Gender and Age. The independent variables of this study were

- Hours of GAA participation in a week

- Hours spent working/or in college
- Hours spent travelling to GAA activities.

Also in this study there were three dependent variables

- Perceived Stress
- Depression
- Satisfaction with Life.

There were also three questionnaires in which the participants had to complete as part of the study. The questionnaires were

- Perceived Stress Scale (PSS)
- Satisfaction With Life Scale (SWLS)
- Depression Subscale of the Depression and Anxiety Stress Scale (DASS).

This study, which examines the mental health of GAA players, poses three hypothesis which aim to be answered.

Hypothesis 1:

Participants who spend more hours working and more hours training in a week will have a higher perceived stress score.

Hypothesis 2:

Participants who travel the longest durations to and from training in a week will have a lower satisfaction with life score.

Hypothesis 3:

Participants who are in college will have a higher depression score compared to the individuals who are not in college.

2.3 Materials

During the data collection stage of this study, an online document was created which consisted of a debrief sheet, demographic and survey questions along with a consent form. This was created as the primary and only source of data collection. In terms of the coding and data analysis section of the study SPSS version 25 was used to input the data and carry out the statistical tests. The scales used in this study were the Perceived Stress Scale (PSS – 4), The Satisfaction With Life Scale (SWLS) and also the depression sub-scale from the Depression and Anxiety Stress Scale (DASS).

The Perceived Stress Scale's (Cohen, Kamarck, & Mermelstein, A Global Measure of Percieved Stress, 1983) purpose is to identify the degree to which an individual perceives their life as stressful. Participants who take part in the survey must indicate how often, over the last month, that they found their lives were uncontrollable, unpredictable and overloaded. The items in the PSS are easy to understand and the system in which responses are taken is simple to grasp. Therefore, this scale was easily comprehensible for all of the participants who took part in this study. The PSS consists of 4 questions (e.g. "In the last month, how often have you felt that things were going your way?") and it is a Likert type scale where items are scored from 0-4. Scores are obtained by summing across all 4 items but it is important to note that reverse coding occurs on both item #2 & #3. Scores are then totalled to give one overall subscale of perceived stress.

Scaling: 0 = Never; 1 = Almost Never; 2 = Sometimes; 3 = Fairly Often; 4 = Very Often.

Psychometrics:

Reliability: Cronbach's alpha = .78

Validity: Correlates in a predicted way with other measure of stress (e.g. Job Responsibilities Scale, Life Events Scale).§

The Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) is narrowly focused to assess global life satisfaction and does not tap related constructs such as positive affect or loneliness. The SWLS is suited for use with different age groups. The scale has also favourable psychometric properties, including high internal consistency and high temporal reliability. The SWLS consisted of 5 statements (e.g. “I am satisfied with my life”, “If I could live my life over, I would change almost nothing”) in which the participants can agree or disagree with. This scale is a Likert scale with scores ranging from 1-7. Scores are totalled from the 5 statements to give one overall satisfaction with life score. There is no reverse coding necessary with this scale.

Scaling: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither agree nor disagree, 5 = Slightly Agree, 6 = Agree, 7 = Strongly agree.

Psychometrics:

Reliability: Cronbach’s alpha = .82

Validity: Adequate criterion validity, good convergent and discriminant validity.

The Depression and Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995) is a self-report instrument designed to measure the three related negative emotional states of depression, anxiety and stress. The items in this questionnaire refer to the past week and there are 42 items on the full scales and 21 items on the shorter scale. The depression scale measures hopelessness, low self-esteem and low positive affect. In this study, only the Depression scale from the DASS was used and therefore it contains only 7 statements/items (e.g. “I felt down hearted and blue”, “I felt that life was meaningless”) in which the participants responded too.

This is a Likert type scale with scores ranging from 0-3. The score is multiplied by 2 at the end to find the total score and there is no reverse coding.

Scaling: 0 = Did not apply to me at all, 1 = Applied to me to some degree/or some of the time, 2 = Applied to me to a considerable degree/or a good part of the time, 3 = Applied to me very much/or most of the time

Psychometrics:

Reliability of DASS: Cronbach's alpha = .933

Reliability of Depression: Cronbach's alpha = .897 (On standardized items)

Validity: The DASS has good discriminant and convergent validity when compared with other validated measures.

2.4 Procedure:

Before data collection began, this study had to seek ethical approval by Dublin Business School Ethics Committee. Upon being approved, Data collection began on the 23rd of January 2019 and ceased on the 23rd of February 2019. A google document of the questionnaire was created and was emailed and sent out to relevant individuals. Over the month, the questionnaire was active and Male GAA players had been completing it. As this was being completed online, the potential participants were sent a link to the google document which contained the questionnaire. Once they had received the link and clicked on it, they were brought to the online google document where they could access the questionnaire. Once they reached the google document, they were given an information sheet. This was followed by a consent form which they had to complete in order to get access into the questionnaire. Once the participant consented to taking part in the questionnaire they were guided to the start of the study. They then completed the form which roughly took 10-15 minutes. Upon completion they were shown

a debrief sheet along with contact numbers to relevant helplines and organisations with regard to mental health. This was done as some of the topics in the survey may have brought up unwanted feelings for some participants and it would be unethical to not provide any helplines to the participants of the study.

2.5 Ethics:

Ethics is a fundamental area of all current research studies and this study is no different. All areas must be covered in order for this study to meet the ethical standards required in order for it to be approved. As stated previous, this study was approved by the DBS Ethics Committee as this study followed the guidelines which are outlined in both the DBS and PSI Code of ethics.

Due to the topics covered in this study, it may give rise to unwanted thoughts or feelings for some individuals. In order to counteract this ethical issue, a debrief sheet accompanied this study with relevant helpline numbers and contact details to organisations such as the Samaritans and Aware. Another ethical issue that may arise is the issue of informed consent. This issue was addressed by getting participants to read through a consent form before completing the questionnaire and getting them to sign it to show they have given consent to take part. As a result of this study gathering the information online, there was the ethical issue of storage and access to this personal information. To deal with this issue, all data collected from the questionnaire will be stored in a password protected file that no one will be able to access. The final ethical issue was the area of identity and anonymity. This was managed in the data collection stage as participants were not asked for their name, rather they were given a participant number thus ensuring their anonymity.

3. Results:

3.1 Overview

This section contains a fully comprehensive breakdown/summary of the findings with regard to all 3 hypothesis which were posed at the beginning of this study. There will also be an evaluation of the scales used in my study within this section.

3.2 Descriptive Statistics

All 3 questionnaire scales

- Depression from the DASS
- Perceived Stress Scale (PSS)
- Satisfaction with Life Scale (SWLS)

were checked for their reliability using Cronbach's Alpha Analysis. The results of this analysis showed that the Perceived Stress Scale is moderately reliable with a Cronbach's Alpha ($\alpha = .523$).

The Satisfaction with Life Scale showed it has high reliability with a Cronbach's Alpha ($\alpha = .856$).

The Depression scale of the DASS reported the highest reliability with a Cronbach's Alpha ($\alpha = .931$).

Table 1: Outlines Cronbach's Alpha scores for scales used in study.

Name of scale	Number of items	Cronbach's Alpha
Perceived Stress Scale	4	$\alpha = .523$
Satisfaction with life scale	5	$\alpha = .856$
Depression scale from DASS	7	$\alpha = .931$

3.3 Hypothesis 1:

Participants who spend more hours working and more hours training in a week will have a higher perceived stress score.

The null hypothesis states that there will be no significant difference between perceived stress scores and number of hours spent working and training while the alternative hypothesis states that there will be a difference in perceived stress scores depending on how many hours an individual worked or trained in a week. In regards to the first hypothesis, an assumption was made that the participants who trained and worked the most in a week would have the highest perceived stress scores compared to individuals who did not work and train as many hours. A two-way between-groups ANOVA was conducted to analysis this hypothesis. The two-way between-groups ANOVA examined the role of number of hours playing GAA in a week and number of hours working/or in college on perceived stress scores and found no significant interaction effect ($F(18,51) = .60, P = .885$). There was no main effect size reported for hours training ($F(5,51) = 1.77, P = .135$) or for hours in college/work ($F(6,51) = .52, P = .794$). However, there was a medium effect size for hours training (.15) and a small effect size for hours in college/work (.06). Therefore, the null hypothesis is accepted.

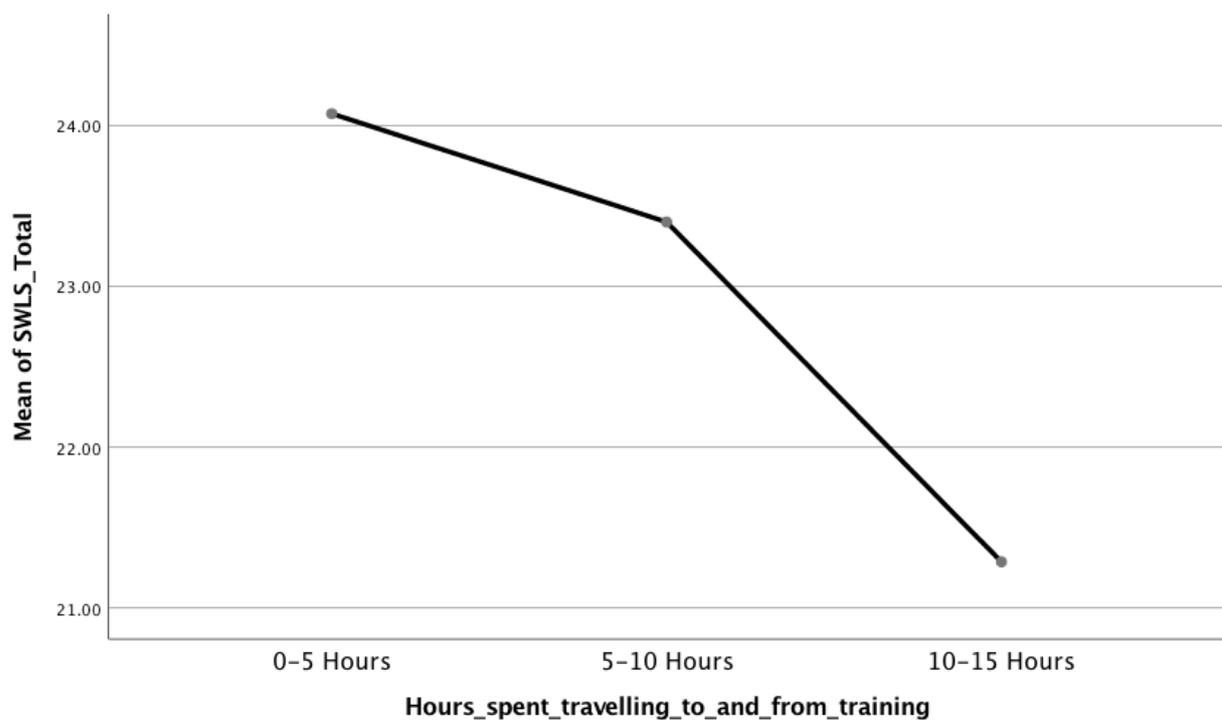
3.4 Hypothesis 2:

Participants who travel the longest durations to and from training will have a lower satisfaction with life.

The null hypothesis states that there will be no significant difference between satisfaction with life scores and the hours spent travelling to and from training, while the alternative hypothesis states that there will be a significant difference in satisfaction with life scores depending on the duration spent travelling to and from training. In order to test this hypothesis, a two-way

between-groups ANOVA was conducted. A one way analysis of variance showed that the scores on the satisfaction with life scale did not differ significantly between the three duration groups for travelling to and from training ($f(2,78) = 0.89, p = 0.416$). Therefore this highlighted that the duration of travel to and from training does not significantly affect individuals satisfaction with life scores. Although despite this showing no significant difference, there was a trend emerging and this can be seen in *Fig. 1*.

Fig. 1: The line plot below shows the mean SWLS and duration spent travelling to and from training.



In this line plot, it can be seen that increasing the duration of hours traveling to and from training does decrease individuals satisfaction with life scores. Therefore, it can be assumed that if participants had to travel an increased duration of 15+ hours, there may have been a significant difference.

3.5 Hypothesis 3:

Participants who are in college will have a higher depression score

The null hypothesis states there will be no significant difference in depression scores depending on whether they are in college or not. The alternative hypothesis states that there will be a significant difference in depression scores in individuals depending on whether they are in college or working. An Independent samples t-test was conducted to test this hypothesis. In this Independent samples t-test, it found that college students (mean = 6.79, SD = 6.25) had higher levels of depression when compared to individuals who are working (mean = 4.37, SD = 4.19). The 95% confidence limits shows that the population mean difference of the variables lies somewhere between 0.09 and 4.75. An independent samples t-test found that there was a significant difference between depression scores of college students and individuals who are working ($t(79) = 2.07$, $p = 0.042$). Therefore the null hypothesis is rejected.

4. Discussion:

4.1 Overview

This study was carried out to investigate how different variable such as travel duration, work and training may affect male GAA players mental health. Participants were examined on three different scales, all related to mental health. These scales were the Satisfaction with life scale (SWLS), Perceived stress scale (PSS) and the Depression sub-scale from the Depression and anxiety stress scale (DASS).

4.2 Interpretation of findings

In terms of the first hypothesis, it was assumed that individuals who participated in longer work hours and participated in more hours of football in a week would have a higher perceived stress score. When this questionnaire was conducted, this was assumed as it was a plausible hypothesis based on previous research. This study found that these variables did not significantly predict an individuals perceived stress score and when the data was examined in an infographic, there was no trends and the results were very uninterpretable. This finding was unexpected because based on the previous research in the area of long work hours (Afonso, Fonseca, & Pires, 2017) it can be seen that this alone can cause detrimental effects to individuals mental health. Therefore adding another stressor along (Training) with this already known cause (Work), it was assumed that this would easily predict perceived stress scores. When looking at the results now and exploring a potential reason for these findings, it could be hypothesised that individuals who are participating in GAA may not find going to training at all stressful and it may even perhaps have a polar opposite effect on them. Therefore, due to the previous research showing that work hours significantly does predict stress and depression scores, it can be hypothesised that participating in GAA training following this stressful period may just de-stress the individuals and allow them to take out their frustrations on the pitch. When examining the results for the second hypothesis, it is clear that there is a trend in the data

which occurred despite the results not being significant. The results showed that increased duration times to & from training resulted in lower satisfaction with life scores. This result was predicted in the hypothesis but the results were not as significant as the hypothesis suggested. As already stated in the literature review, this is an area which needs to be explored more in order to gather sufficient concrete data which supports one hypothesis or another. This result may be caused by the times in which the participants are returning home following the completion of the commute. The participants who are travelling the furthest distances may not be returning home before midnight. This may have altered the findings as these individuals would have to get up for work the following morning and due to their lack of sleep, their satisfaction scores may be lower. While the third hypothesis of this study found a significant result meaning that depression scores in college students were significantly higher than those individuals who were not in college. This result fits the hypothesis. This result was hypothesized due to the pressure and stress college students are under. For most college students this is their first time living away from home and being independent for themselves. Along with this huge change, they have to manage their life and this includes managing their finances, new social relationships, assignments, study and also GAA training. There are many variables which have to be controlled by college students and while they are adjusting to this change, their body is also adjusting to the puberty stage. Therefore, these young adults have to balance both aspects of their lives and this can elicit feelings of being overwhelmed and immense stress which results in the increased depression scores. Another aspect which may have affected these depression scores is the uncertainty of life which these college students are faced with in college in regard to potential jobs following college.

4.3 Critical Evaluation

4.3.1 Strengths and Weaknesses

In terms of the data which was collected and applied as part of this study, there were both strengths and weaknesses. One of the flaws of this study was the timing of the study in regard to the GAA season. Typically, a GAA season does not take off until the summer, this is when most teams are training and competing at the peak level. Therefore, the data which was collected and the scores given by the participants may not truly display how these individuals feel when they are in the midst of their season. Therefore in order to get a true reflection and reliable results, this study could be conducted again in the middle of summer with the same participants in order to compare results and use this study as a comparison. If a follow-up study was carried out, it would be hypothesized that there would be an increase in PSS scores and a decrease in SWLS due to there being more pressure on the individuals to perform and win matches compared to this early part of the season when there isn't much pressure at all. Another weakness of this study is the sample of the study. As can be seen in the methods section and throughout the study, the study sample consists of an all-male population. If this study was to incorporate females, it would give rise to much larger sample and also may raise findings between genders in some of the variables which are not visible with just an all-male sample. Along with this, it would also give more scope into the area of stressors and how there may be different stressors for each gender. Despite this flaw, it is also a strength of this study as it is gender specific and has both inter-county and club players involved. This presents then factors from both codes that can impact on the results. This area is particularly relevant in this sport as there is much more pressure imposed on the males who play GAA compared to the females and this can be seen in the advertising surrounding the sport and also with the volume of people who go to spectate the games. Therefore, it would be assumed that the males would have typically higher stress scores if they were to be compared against females. Males may also have lower satisfaction with life scores and higher depression scores due to the intense physicality of the games which results in more serious injuries. Another strength of this study was the

reliability and validity of the scales which were used. As shown in *Table 1*, all three scales had a medium to strong Cronbach's alpha score.

4.3.2 Future Research

With reference to future research, there can be many different avenues explored to further the research gathered in this study. As stated above, there could be the addition of a female sample to this study to investigate gender differences, there could also be a follow up study conducted during the summer while all the participants are in the middle of their season. A broader outlook on future research should be focused on the area of depression in the college students and aim to gain an insight in the factors that could be causing these higher depression scores and through doing this, facilities and protocols could be put in place in colleges which may help student athletes with these issues. Another area for future research could investigate the impact which travelling/commuting has on individuals as there is very little research in this area, especially in regard to long-haul travel in automobiles. There is research in the area of long duration travel in jets but due to GAA being an amateur sport played in Ireland, no football/hurling team would be travelling by plane to games or training. Due to the findings in this study, it seems this factor plays an important role and with future research it may be able to shed light on how much of an impact it plays. This study could also be replicated in other team sports in Ireland and abroad to examine if the results can be replicated. In terms of implications from this study and the application of the findings of this study. It was already touched upon above in terms of policies and protocols being put in place and implemented in colleges to help students and particularly student athletes with the transition to college. Due to the findings on the second hypothesis, and the worrying trend which emerged, the GAA could and should implement a strategy in order to reduce the duration of commute times to and from trainings and games in order to address the issue of SWLS decreasing as travel duration increases.

4.4 Conclusion

In conclusion, this study highlighted the many variables which are impacting on GAA players lives throughout a season and also revealed many other potential factors which could impact on these results. In order to maintain the GAA, the GAA along with the GPA, should conduct interviews and questionnaires with members in order to monitor their mental and physical health. Through doing this, GAA members will have a greater input into the policies and rules in which they are governed and this may greatly improve players overall health.

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6 Appendix:

Information Sheet

My name is Cillian Lee and I am conducting research in the Department of Psychology that explores how variables such as work hours, training hours and travel to and from training can impact on a GAA players mental health . This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached anonymous survey. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Thus responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

The questionnaires will be securely stored and data from the questionnaires will be stored on a password protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research, please contact me or my supervisor:

Cillian Lee at xxxxxxxx@mydbs.ie.

Garry Prentice at xxxxxxxx@mydbs.ie

Thank you for taking the time to complete this survey.

Consent Form

I have read and understood the attached Information Leaflet regarding this study. I have had the opportunity to ask questions and discuss the study with the researcher and I have received satisfactory answers to all my questions.

I understand that I am free to withdraw from the study at any time without giving a reason.

I agree to take part in the study.

1. I consent to take part in this study. Yes ___ No ____

Perceived Stress Scale

There are 4 questions in this questionnaire and they aim to find out how you felt or thought in the last month. Please select from 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 felt that you were unable to control the important things in your life?
 - 0
 - 1
 - 2
 - 3
 - 4

2. In the last month, how often have you felt confident about your ability to handle your personal problems?
 - 0
 - 1
 - 2
 - 3
 - 4

3. In the last month, how often have you felt that things were going your way?
 - 0
 - 1
 - 2
 - 3
 - 4

4. 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

Satisfaction With Life Scale

There are 5 statements in this questionnaire. Please select from the following options:

1 – Strongly Disagree, 2 – Disagree, 3 – Slightly Disagree, 4 – Neither Agree nor Disagree, 5 – Slightly Agree, 6 – Agree, 7 – Strongly Agree

1. In most ways my life is close to my ideal

- 1
- 2
- 3
- 4
- 5
- 6
- 7

2. The conditions of my life are excellent

- 1
- 2
- 3
- 4
- 5
- 6
- 7

3. I am satisfied with my life

- 1
- 2
- 3
- 4
- 5
- 6
- 7

4. So far, I have gotten the important things I want in my life

- 1
- 2
- 3
- 4
- 5
- 6
- 7

5. If I could live my life over, I would change almost nothing

- 1
- 2
- 3
- 4
- 5

- 6
- 7

Depression Scale from the DASS

There are 7 statements, please choose from the following options which one applies to you; 0 – Did not apply to me at all, 1 – Applied to me some degree/ or some of the time, 2 – Applied to me a considerable degree/or a good part of the time, 3 – Applied to me very much/or most of the time

1. I couldn't seem to experience any positive feelings at all
 - 0
 - 1
 - 2
 - 3
2. I found it difficult to work up the initiative to do things
 - 0
 - 1
 - 2
 - 3
3. I felt I had nothing to look forward to
 - 0
 - 1
 - 2
 - 3
4. I felt down hearted and blue
 - 0
 - 1
 - 2
 - 3
5. I was unable to become enthusiastic about anything
 - 0
 - 1
 - 2
 - 3
6. I felt I wasn't worth much as a person
 - 0
 - 1
 - 2
 - 3
7. I felt that life was meaningless
 - 0

- 1
- 2
- 3

Debrief Sheet

Thank you for your answers. Your response has been recorded.

If you feel that answering this survey has raised some issues for you, please consider contacting some of the support services listed below, or speak to a friend, family member or professional.

Aware:

The Aware Support Line 1890 303 302

Available Monday – Sunday, 10am to 10pm.

Email for support at: supportmail@aware.ie

Samaritans

Call on: 116 123

Available 24hrs a day, 365 days a year. Free to call.

Email: jo@samaritans.org