

**Mental Health Outcomes After Sport Injury in Playing and Non-Playing Athletes**

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## Submission of Thesis and Dissertation

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### Abstract

**Aims:** The present study is sought to provide a better understanding of athletes and their mental health when they are actively playing and not actively playing due to an injury. The study examined whether athletes who are non-playing due to an injury suffer with their mental health compared to playing athletes. The relationship between mental health symptoms (i.e., depression and anxiety) in playing versus non-playing athletes was examined. It was hypothesised that injured non-playing athletes report on having feelings of depression, being less happy and more anxious with their mental health and playing athletes have less issues with their mental health. **Method:** Participants were given a questionnaire (n=97), which was shared with various athletic clubs in which the coaches and management relayed the information to athletes. The Beck's inventory depression scale and the general anxiety disorder scale was the scales used in the questionnaire to measure depression and anxiety. **Results:** A Mann-Whitney test result showed that levels in depression are higher in non-playing athletes compared to playing athletes. We also saw anxiety levels being twice as high in non-playing athletes compared to playing athletes. **Conclusion:** Findings from this study provide greater understanding of athlete's mental health while actively playing and not playing. Findings showed that non-playing injured athletes experience more mental health experiences compared to playing athletes. Implications for this study are discussed.

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It is hard to imagine a world without sports. Sports is featured everywhere, including on apparel, billboards, the evening news, social media, and even cereal boxes (McClure & Marino, 2020). Sports appeal to the majority of the world's population, hence cities frequently use sports as the foundation for their rebranding efforts. Athletes are on display during a sporting event, and coaches and spectators want them to perform well in any situation. (Singleton, 2016). Sport plays a significant role in both men's and women's life and provides that secure environment. Through socializing and participation in an activity that is widely accepted by society and that seems to have much more beneficial effects than negative ones, sport can have a significant positive impact on protective mental health (Drummond et al., 2022). Sport aims to increase one's mental as well as physical health and fitness (Akkaya, 2022). Physical activity promotes physical health and can enhance wellbeing (Koch et al., 2020). According to the social identity theory, people categorize who they are and become closer to fitting into a concrete or symbolic social group (Kim & Kim, 2019). Individuals can feel closely tied to their groups and encourage interpersonal growth since social interaction is crucial for maintaining psychological health. Taking part in sports can help people connect with other people in their community (Anderson & Stone, 1981). The demands of competitive sports foster the growth of psychological skills like tolerance and the ability to overcome obstacles (Ruvalcaba, Gallegos, Borges, & Gonzalez, 2017). The positive feelings that come from participating in sports could be a key component in obtaining emotional equilibrium (Gore, Farrell, & Gordon 2001). Positive affective reactions to physical activity are suggested by behavioural theories to motivate people to repeat those activities. Long-term effects of these good emotions could include an active lifestyle, which would boost quality of life, wellbeing, and health (Koch et al., 2020). Athletes' commitment to the work at hand rather than their ego is what predicts motivation and, in turn, self-esteem (Ruvalcaba et al., 2017). Happiness

improves when physical health improves. As a result, there is a beneficial relationship between playing sports and feeling happy (Frey & Gullo, 2021). Participating in an active sport increases chances for socialization, diverts attention from negative stimuli, boosts self-confidence, and fosters teamwork and communication skills (Frey & Gullo, 2021). Sports is good for one's self-concept and tends to lessen anxiety and depressive symptoms as well as depression caused by poor academic performance (Ruvalcaba et al., 2017). Sports engagement has positive effects on mental health, which can help participants achieve true self-awareness and personal growth, both of which are crucial for social wellbeing (Eime, Young, Harvey, Charity, & Payne 2013). For many young people who struggle academically in the classroom, participating in sports in particular can be a source of positive self-esteem (Gore et al., 2021).

Even though participating in sports can have great outcomes taking part in sports can also have negative impacts. Players who sustain severe or persistent injuries are said to be under significant physical and psychological stress (Gouttebauge, Frings-Dresen & Sluiter 2015). Psychological effects such as anxiety and depression are common. The diagnoses and symptoms of anxiety disorders and depressive disorders span a wide spectrum. Depressive and anxiety disorders share a complicated origin that includes genetic, environmental, and psychological factors (Kupcova, Danisovic, Grgac, & Harsanyi, 2022). Depression is a common disorder that has a considerable negative impact on quality of life, functional disability, and social expenses (Nixdorf, Frank, & Beckmann, 2016). Depression is a very common psychological disorder. Individuals with depression frequently experience these negative emotions and/or lose interest in the majority of their former hobbies. These symptoms typically occur on most days for a period of two weeks or longer, along with others (such as disturbed sleep, changes in appetite or weight, feelings of worthlessness, difficulties making decisions, etc.) (Watson & Beshai, 2021). Anxiety

is an undesirable psychological concept that is described as a person's response to a stressful scenario (Spielberger, 1966). Anxiety is the physical and mental reaction to stressful, risky, or unexpected circumstances. Anxiety symptoms will appear when a person reacts poorly to a stressful circumstance. Unpleasant feelings, cognitive changes, and behaviour changes, such as avoiding anxiety-provoking situations, are all common signs of anxiety (Craft, Magyar, Becker, Feltz, 2003) It's the nervousness, dread, or worry you feel prior to a major event (Srol, Mikuskova, & Cavojova, 2021). Often, when anxiety becomes particularly severe or overwhelming, it begins to interfere with daily living or have an impact on our relationships (Kupcova et al., 2022).

The sports medical team's first priority while treating an injured athlete is to address the injury's physical consequences. Yet, a lot of injured athletes exhibit negative psychological reactions (Covassin, T et al., 2014). It is normal to experience a psychological reaction to an injury. Injuries and pain are unavoidable workplace hazards and health risks in the careers of sports. Injuries occur often in a variety of sports. (Overbye, 2020). Mental health conditions like depression might, however, be caused when the emotional response to a physical injury gets worse and persists (Akkaya, 2022). Sports career transitions, injuries, life stress, performance setbacks or failures, post-Olympic experiences, and stressors in the team or sports organization are just a few challenging phases or situations that have been linked in the sport psychology literature to psychological symptoms of a depressive mood and anxiety (Lundqvist, 2020). The danger of injury in sports is generally believed to be significant. Many different things might cause an injury, and early studies on the psychology of injuries tended to concentrate on things like age, inactivity, injury history, and fatigue (Ortega, Cuberos, Cofre-Bolados, Knox, & Muros, 2018). Athletes feel injuries emotionally, and there is a wealth of study in the research on sport



psychology describing the different emotional reactions experienced after an injury, such as fear, anxiety, depression, and anger (Appaneal & Habif, 2013). Following an injury, athletes display different levels of emotional suffering (Hagger, Chatzisarantis, Griffin, & Thatcher, 2005). While undergoing recovery, emotional reactions change over time following injuries (Hsu, Meierbachtol & George 2016). Trait anxiety may be present in injured athletes due to the perception of a loss of athleticism, a lack of social support, discomfort, and a fear of reinjury (Covassin et al., 2014). Recreational athletes who get hurt may miss time from practicing and playing sports and experience severe psychological distress, grief and sadness (Hagger et al., 2005). An athlete's ability to recover from an injury and receive proper treatment can be hampered by a cycle of stress and depression (Herring, Kibler & Putukian, 2017). Athletes may face employment uncertainty after an injury, which exacerbates their mental suffering. They need to be recovered and losing them might mean losing their athletic identity. When these variables are eliminated, numerous negative emotional responses may result (Akkaya, 2022). Athletes' relationships, roles, and routines might be impacted if they become injured, which is linked to behavioral and emotional distress (Stephan et al., 2003). Injury-related career discontinuation is anticipated to have a more detrimental effect on athletes' mental health than career discontinuation brought on by a person's own decision to stop playing (Wippert & Wippert, 2008). Throughout their careers, athletes set goals for themselves, and accomplishing these goals has an impact on how they view themselves. When a player is injured, they no longer require athletic-based goals, and the transition is difficult because, in most cases, sports success has contributed to most of their lives, and to their subjective well-being. (Mannes et al., 2018). A major risk factor for psychological disturbance in athletes is known to be sports injuries (Kim & Kim, 2019). Athletes may be predisposed to anxiety and depression due to the physical and

psychological demands imposed on them by the sporting environment. If they are unable to perform, this increases their sensitivity and can make them more susceptible to further signs of common mental illnesses (Mannes et al., 2018). Compared to former athletes who weren't injured or had surgery, those who had many significant injuries or procedures were two to seven times more likely to report symptoms of common mental diseases. Athletes who have had an injury have higher rates of depression than uninjured athletes (Drawer, 2002). In the transition literature, other psychological effects of transition have been noted, such as depression, substance abuse, low self-esteem, eating disorders, and anxiety (Hadiyan & Cosh, 2019). Depression symptoms may appear quickly after the injury and may be linked to frustrations brought on by immobility, challenges completing daily tasks, and emotions of injustice and shock resulting from the damage (Sheinbein, 2016). Athletes' relationships, roles, and routines might be impacted if they become injured, which is linked to behavioral and emotional distress (Stephan, Billard, Ninot, & Delignieres, 2003). There is little research on the prevalence of common mental illnesses including anxiety and depression, among athletes (Gouttebauge et al., 2015).

Athletes who were unable to return to their sport, had feeling of resentment towards others, especially their friends who were prospering in life (Kaul, 2017). In one study, Athletes claimed that they were unable to imagine a life without their sport, where their existence would be meaningless (Akkaya, 2022). When an athlete is initially hurt, they are in shock and cannot comprehend how serious their condition is and how long recovery would take (Carson & Polman, 2008). Athletes who lose their independence may experience feelings of helplessness and depression. They may also worry about missing games and failing to meet their objectives (Akkaya, 2022). Recent studies on non-playing athletes have shown the prevalence of

psychological problems and the misunderstanding of the importance of injury as a contributing factor. One of the earlier studies looking at the relationship between athlete depression and injury found that athletes who had been injured the previous season had more depressive symptoms (33%) than athletes who had not been injured (27%) (Akkaya, 2022). A different study of 219 retired athletes from 11 countries revealed similar outcomes, with 35% reporting feelings of anxiety or depression (Sanders & Stevinson, 2017). In a different study, it was reported that, according to the Beck Depression Inventory, 51% of athletes reported experiencing mild to severe depressed symptoms. Athletes with anterior cruciate ligament injuries in particular exhibited higher levels of depression than those with concussions (Akkaya, 2022). A following study of 219 retired athletes from 13 countries discovered that 35% of them had signs of anxiety or depression (Gouttebauge et al., 2015). According to one investigation into the relationship between athlete injuries and mental health, depressed symptoms were more intense for one week after an injury and persisted in that state for one month (Wolanin, Gross, & Hong, 2015). In a different study, athletes who returned to play after 131 (22.2%) injury occurrences revealed depressive symptoms, while 164 (27.8%) injury events revealed anxious symptoms. (Yang et al., 2014).

Due to the social aspect of participation, sports engagement tends to be an effective instrument for generating beneficial social and psychological outcomes (Kim, Ryu, Lee, Kim, & Heo, 2021). When athletes get injured, these psychological outcomes can change. Athletes often suffer injuries, which may result in career ending outcomes. In general injuries can have a negative impact on mental health (Bordia, Read, & Bordia, 2020). Athletes who stop playing or retire due to injury can have feelings of loss and grief as they enter their new roles in life as not being an athlete (Menke & Germany, 2019). These negative impacts can have even more effect

on athletes who have involuntarily stopped playing (Mannes et al., 2018). Studies have shown that when professional athletes take a break or end their career because of an injury experience mental health issue such as depression, anxiety and common mental disorders. Even though there are many advances in medicines to heal an injury, there is little thought of how this injured individual is feeling psychologically and the effects it can have, which can prolong a full psychological recovery. Psychological health and wellbeing of these individuals are not usually assessed. We must learn more about how athletes respond to these injuries and to better understand playing and non-playing athletes' emotions. The current research will help us better understand the depressive and anxiety symptoms that athletes may have when they have left their sports participation due to injury in involuntary circumstances. In this study I want to see if an injury does affect the mental health of injured non-playing athletes and to find out if a significant number of these athletes have mental health problems. The study aims to examine the levels of anxiety and depression in playing and non-playing athletes. The hypothesis of this study is that injured non-playing athletes report on having feelings of depression, being less happy and more anxious with their mental health and playing athletes have less issues with their mental health. The mental health symptoms that are being measured is depression and anxiety.

## **Methodology**

### **Participants**

The research sample consisted of 97 participants within the current study (Males:  $n = 71$ ; Females:  $n = 26$ ). Out of the 97 participants 61 people responded that they were a playing athlete, and 36 responded that they were a non-playing injured athlete. The study implemented a non-probability, snowball sampling method that was used to recruit participants. Purposive sampling was also used to gather participants. An information letter about the study was distributed through different sports clubs and organisations (see Appendix A) and the coaches or management that wanted to take part sent out this information to the athletes, there was a direct link to the study if they wanted to take part. Participants had to be involved in sports to take part in the study. No incentives were offered for participation. Participants had to be at least 18 years old in order to take part due to ethical considerations. Participants, had to give their informed consent before answering the questionnaire (see Appendix B). Demographic information such as gender and playing or non-playing questions were collected from participants (see Appendix C).

### **Materials**

To merge two separate scales and demographic questions into the study questionnaire, Google Forms, a survey builder, was used. In order to develop a general profile of the study participants, questions on their gender and whether they are playing, or non-playing athletes were added in the demographic section. The two scales used was the Beck Depression Inventory and the Generalised Anxiety Disorder Assessment (GAD). The GAD-7 score is determined by allocating scores of 0, 1, 2, and 3, respectively, to the response categories "not at all," "a few days," "more than half the days," and "almost every day." (See Appendix E). Beck inventory depression is

given a numerical value of zero, one, two, or three to signify its level of seriousness with 0 being the least serious and 3 being more serious (see Appendix D).

### **Beck Depression Inventory**

The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI is a self-administered, 21-item self-report scale that is provided in multiple choice style. The BDI measures the characteristics, behaviours, and symptoms of depression without taking into account any particular theoretical bias in both adults and adolescents. The inventory's items are each connected to a certain category of depressive symptom or attitude. Each category includes a graded series of four self-evaluative statements and describes a particular behavioural manifestation of depression. The statements are weighted and ranked in order to reflect the intensity of the symptom, which might range from minimal to extreme, for example, '0- I do not feel sad' to '3- I am so sad or unhappy that I can't stand it'. Each statement is given a numerical value of zero, one, two, or three to signify its level of seriousness. The overall score is calculated by adding the results from each of the twenty-one questions, and it represents the severity of the depression. The BDI takes about 10 minutes to complete, but participants must be proficient readers. Internal consistency for the BDI ranges from .73 to .92, with a mean of .86. The BDI has high internal consistency, with alpha coefficients of .86 and .81 for psychiatric and non-psychiatric populations, respectively (Beck, Steer & Garbin 1988). In relation to this study on this 21-item depression scale, our sample data achieved a Cronbach value of .944 and as such this scale is reliable for the study that is undertaken.

### General Anxiety Disorder

The Generalised Anxiety Disorder Assessment (GAD-7; Spitzer, 2006). It is used to determine the severity of generalized anxiety disorder (GAD) and consists of seven questions. The respondent is asked to rank the importance of each symptom experienced over the last two weeks for each item. On a 4-point Likert scale, the responses to each GAD-7 question are rated as "Not at all," "a few days," "more than half the days," and "nearly every day". Giving answers to the categories "not at all," "a few days," "more than half the days," and "nearly every day" with values of 0, 1, 2, and 3, respectively, yields the GAD-7 score, which is then calculated by adding the results for each of the seven questions. Total scores range from 0 to 21, with higher scores indicating that anxiety disorders are more severe. The scores of 5, 10, and 15 correspond to the categories of none/normal (0-4), mild anxiety (5-9), moderate anxiety (10-14), and severe anxiety (15-21), respectively, for the cut-off points of the GAD-7 scores (Sun, Liang, Chi, & Chen 2021). The GAD-7 has been approved for use with patients in primary care, the general public, and adolescents who have GAD. According to research by Mossman et al. (2018), GAD-7 scores can be used to evaluate anxiety symptoms and distinguish between mild and moderate GAD in teenagers. It takes roughly two minutes to finish the self-administered GAD-7 patient questionnaire. Among populations with various characteristics, particularly adult groups, the GAD-7 has increasingly gained popularity as a measurement tool and has demonstrated satisfactory validity and reliability. GAD-7 offers good levels of test-retest reliability ( $r = .83$ ) as well as internal consistency ( $\alpha = .89-.92$ ; Blake et al., 2011). In relation to this study on this 7-item anxiety scale, our sample data achieved a Cronbach value of .92 and as such this scale is reliable for the study that is undertaken.

## Design

The current study's research strategy is cross-sectional as all the data were gathered at one particular period. Furthermore, quantitative in nature, the study used survey research to gather data. Purposive sampling and a snowball sampling procedure was used within this study. A Mann-Whitney test was conducted to see the levels of depression and anxiety in playing and non-playing athletes.

## Procedure

Data was collected using a Google Forms survey. An anonymous self-report questionnaire was employed in the current study. The questionnaire utilized in the present study was a self-report, anonymous questionnaire. A recruitment letter (see Appendix G) for the study was also brought around to different athletic clubs in which the coaches and management relayed the information to athletes, and they could take part in the questionnaire through the link that was presented in the email with an information letter (see Appendix A). Once the participant clicked in to the link they were brought to the questionnaire. The participant was given a brief explanation of the study's objectives and an estimated time for completion, which was up to 20 minutes, before signing a consent form/information sheet that was presented before the questionnaire itself (see Appendix B). At any time during the survey, participants had the option to leave the study without incurring any fees up until the time it was submitted. The consent form submitted prior to the questionnaire made this very apparent. Following that, participants were asked to check the box labelled "yes," indicating that they had read the policy, understood its conditions, and agree to participate. Also, individuals had to select "yes" in order to affirm that they were over the age of 18. Once this was proven, they could proceed to the questionnaire.



On the following page, demographic questions on age and gender, were asked (see Appendix C). The questionnaire consisted of two sections. The first section participants were required to complete the Becks Depression inventory in which depressive symptoms was assessed. The second part of the questionnaire participants were required to complete the General Anxiety Disorder in which anxiety was assessed. Following completion of these two sections of the questionnaire, there was a debrief sheet with my supervisors' and my own contact information as well as other helplines were also included in case any questionnaire items caused respondents any psychological distress (see Appendix F). This research project was approved by the National College of Ireland's Ethics Committee and complies with both the 2010 Psychological Society of Ireland Code of Professional Ethics and the NCI Ethical Guidelines and Procedures for Research with Human Participants. Although no overt harm was anticipated as a result of this study, the debriefing form contained helplines in case any participant felt psychologically triggered by the information.

### **Ethical Considerations**

All information was gathered in conformity with NCI's ethical standards and the Psychological Society of Ireland ethical standards. There was no inducement to participate in the study; all individuals gave informed consent after being fully informed of the risks. For participants who experienced distress as a result of participating in the study, the debrief form included contact information for helplines like Anxiety help Ireland and the Samaritans (see Appendix F).

## **Results**

This section presents the results of the study, we will first look at the descriptive statistics, then the results will be broken down in to two categories. The first category presents the results for anxiety levels in playing and non-playing athletes. The second category presents the results of depression levels in playing and non-playing athletes. The features of each variable being considered, as well as the outcomes of statistical tests, are provided with regard to both of these categories.

### **Descriptive Statistics**

97 participants made up the sample from which the current data was drawn ( $n = 97$ ). There were 71 males and 26 females in this group. Out of this group of 97 participants 61 of these were playing athletes and 36 were non-playing athletes. There are two categorical variables which are playing athletes and non-playing athletes.

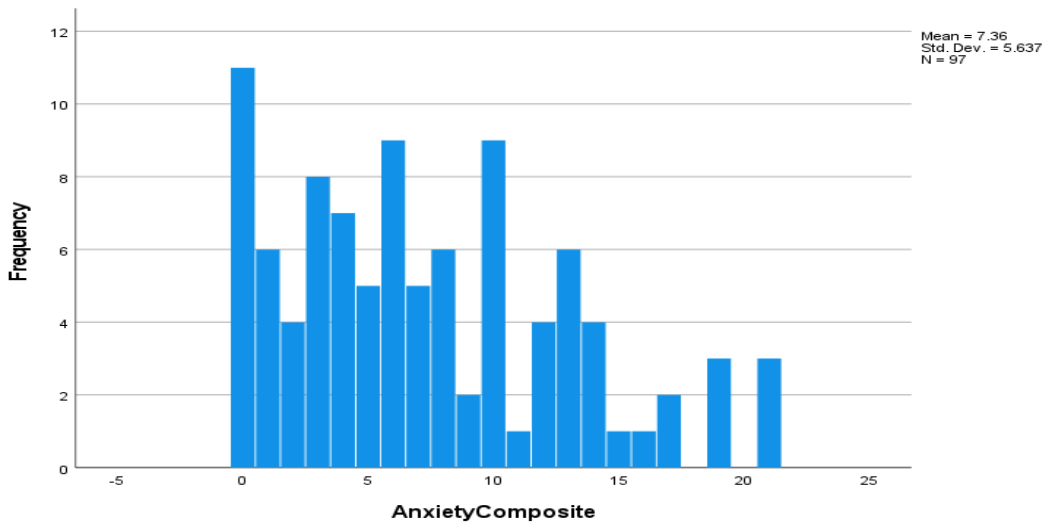
### **Anxiety**

In this section we present the results associated with an analysis of anxiety levels. We first present a descriptive overview of the anxiety distribution, presented through histograms, along with a numerical overview of the anxiety distribution. We then focus on presenting the same overview but at the playing and non-playing levels.

Overall anxiety score distribution is presented in Figure 1 below. The horizontal axis represents levels of anxiety, as measured through the anxiety scale. The vertical axis indicates how many sample participants reported specific anxiety magnitudes. A numerical summarisation of the anxiety scale distribution is presented in Table 1. The first column lists the usual descriptive

statistics, mean and standard deviation. Average anxiety scores are reported at 7.36 with an associated standard deviation of 5.64.

**Figure 1:** *Overall anxiety distribution*

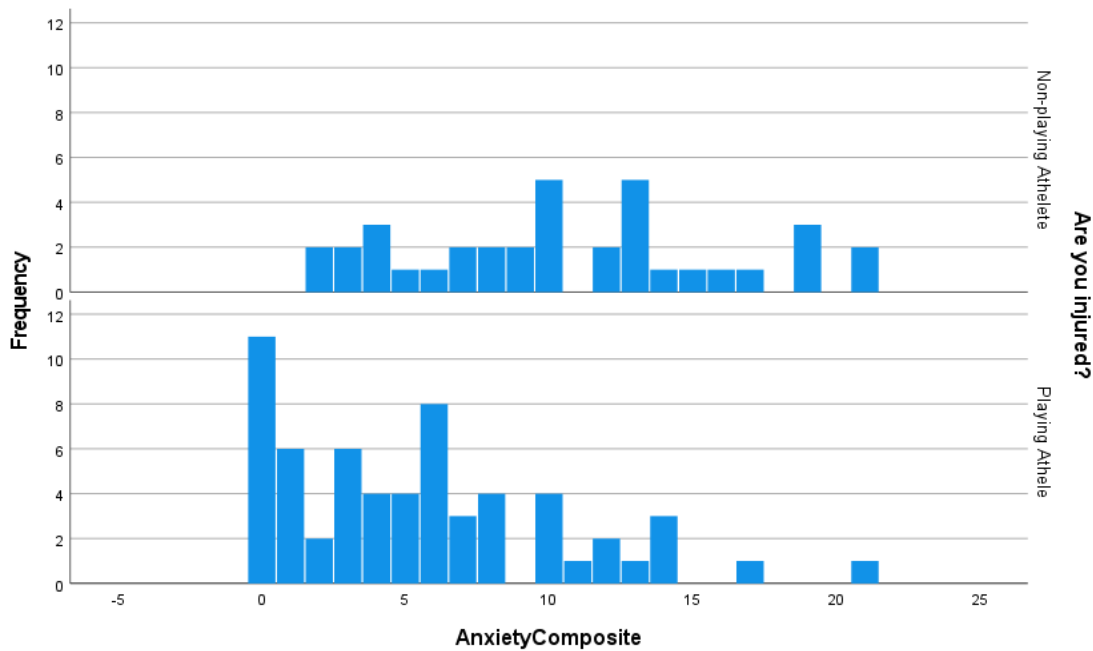


**Table 1:** *Numerical descriptive overview of the anxiety distribution*

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>
Anxiety	97	7.36	5.637	6.00

In Figure 2 and Table 2 we present the results from an analysis of anxiety levels based on whether a participant was a playing or non-playing athletes. We first present in Figure 2 for non-playing and then playing athletes through stacked histograms. The detailed numerical descriptive are presented in Table 2. Average non-playing athlete anxiety scores are reported at 10.58 with an associated standard deviation of 5.4. With respect to playing athletes anxiety scores are reported at 5.46 With an associated standard deviation of 4.83. The distribution is positively skewed, we report the median and skewness values associated with this distribution (Table 2).

**Figure 2:** Anxiety distribution associated with playing non-playing athletes.



**Table 2:** *Descriptive statistics for anxiety scores associated with playing and non-playing athletes*

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>	<i>Skewness</i>
Anxiety Playing	61	5.46	4.832	5.00	.957
Anxiety Non-playing	36	10.58	5.490	10.00	.233

### Tests of Difference in Anxiety Levels across Playing and Non-playing Athletes

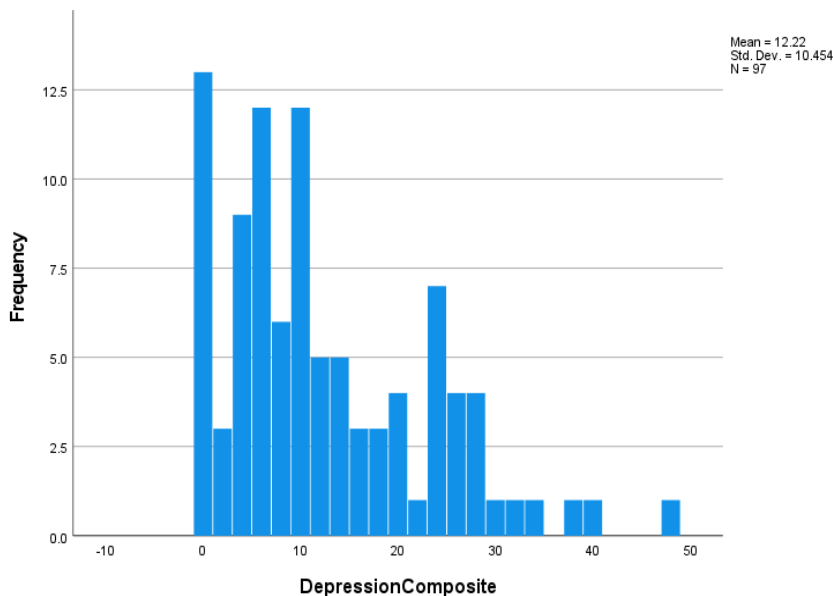
In order to compare levels of anxiety in playing and non-playing athletes an independent samples test was conducted. We first assessed for normality in both the non-playing and playing athletes groups. The results of the Shapiro-Wilks test of normality indicated statistically significant deviations from normality for the playing athlete group ( $W = 0.911$ ,  $df = 61$ ,  $p < .001$ ), there was no evidence of deviation from normality for the non-playing group ( $W = .959$ ,  $df = 36$ ,  $p = .193$ ). As such, a nonparametric independent sample Mann-Whitney test was conducted to determine if median anxiety levels were different between non-playing and playing athletes. The results of the Mann-Whitney test indicated statistically significant differences in median anxiety levels for the non-playing athletes' group ( $Md = 10.0$ ) compared to the playing athletes' group ( $Md = 5.0$ ),  $U = 522.5$ ,  $p < .001$ . Median levels of anxiety are different for playing athletes compared to non-playing athletes. Non-playing athletes are exhibiting anxiety levels twice as large as playing athletes.

**Depression**

In this section we present the results associated with an analysis of depression levels across our sample. We first present a descriptive overview of the depression distribution, presented through histograms, along with a numerical overview of the depression distribution. We then focus on presenting the same overview but at the playing and non-playing levels.

In Figure 3 we present a histogram representation of the overall depression score distribution. A numerical summarisation of the depression scale distribution is presented in Table 3. The first column lists the usual descriptive statistics, mean and standard deviation. Average depression scores are reported at 12.22 with an associated standard deviation of 10.454.

**Figure 3:** *Overall depression distribution*

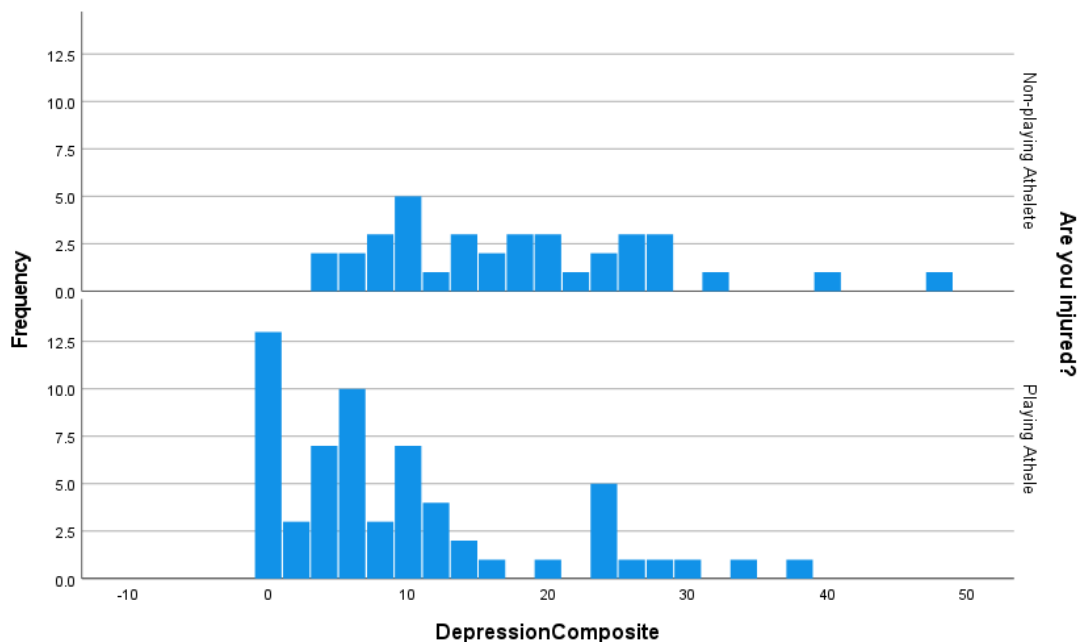


**Table 3:** Numerical descriptive overview of the depression distribution

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>
Depression	97	12.22	10.454	9.00

In Figure 4 and Table 4 we present the results from an analysis of depression levels based on whether a participant was a playing or non-playing athletes. We first present Figure for non-playing and then playing athletes. Average non-playing athlete depression scores are reported at 17.44 with an associated standard deviation of 10.123. With respect to playing athletes depression scores are reported at 9.13 with an associated standard deviation of 9.435. The distribution is positively skewed, we report the median and skewness values associated with this distribution (Table 4).

**Figure 4:** Depression distribution associated with playing non-playing athletes



**Table 4:** *Descriptive statistics for depression scores associated with playing and non-playing athletes.*

Variable	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>	<i>Skewness</i>
Depression Playing	61	9.13	9.435	6.00	1.288
Depression Non-playing	36	17.44	10.123	16.50	.874

### Tests of Difference in Depression Levels across Playing and Non-playing Athletes

In order to compare levels of depression in playing and non-playing athletes an independent samples test was conducted. We first assessed for normality in both the non-playing and playing athletes groups. The results of the Shapiro-Wilks test of normality indicated statistically significant deviations from normality for the playing athlete group ( $W = 0.845$ ,  $df = 61$ ,  $p < .001$ ). Similarly, statistically significant deviations from normality were observed in depression scores for the non-playing athlete group ( $W = .939$ ,  $df = 36$ ,  $p = .048$ ). As such, a nonparametric independent samples Mann-Whitney test was conducted to determine if median depression levels were different between non-playing and playing athletes. The results of the Mann-Whitney test indicated statistically significant differences in median anxiety levels for the non-playing athletes' group ( $Md = 16.5$ ) compared to the playing athletes' group ( $Md = 6.0$ ),  $U = 531.0$ ,  $p < .001$ . Median levels of depression are different for playing athletes compared to non-playing injured athletes. Non-playing injured athletes are exhibiting depression levels approximately three times as large as playing athletes.



### Discussion

The current study aimed to investigate whether athletes who are non-playing due to an injury suffer with their mental health compared to playing athletes. This study was explored in an Irish context involving athletes. The goal of the current study was to provide more insight on playing and non-playing athletes mental health by examining the levels of depression and anxiety in each category.

We discussed how actively engaging in a sport increases socialization opportunities, deflects attention from distracting factors, boosts self-confidence, and develops communication and teamwork abilities. Sports are beneficial for one's self-concept and have been shown to reduce anxiety, depressive symptoms, and depression brought on by subpar academic achievement. We saw how well-established sports injuries provide a significant risk for psychological distress in athletes. We discussed how Athletes may be predisposed to sadness and anxiety due to the demands placed on them physically and mentally by the sporting environment. If they are unable to function, this increases their sensitivity and can make them more susceptible to further signs of common mental illnesses. These discussions align with the findings from within the current study in which anxiety and depression was examined on playing and non-playing athletes. The athletes who took part in our study were those who met the requirements for participating to a sports club or organization. In this study we gained convincing evidence that athletes who are non-playing due to an injury exhibit more mental health issues such as anxiety and depression compared to athletes who are playing.

We have seen that anxiety is frequently a normal reaction to stress, feeling threatened, and that it can manifest itself in how we feel physically, psychologically, and behaviourally. The

relationship anxiety has with playing and non-playing athletes was examined. It was found that there is a statistically significant difference in average non-playing injured athletes' anxiety scores compared to the average anxiety scores on playing athletes. Non-playing athletes exhibited twice as much anxiety levels compared to playing athletes. This shows us that if you become injured you are more at risk of exhibiting symptoms of anxiety compared to if you are still playing sports. This is a great insight for individuals that may be injured. These findings are consistent with previous research in which it was found that athletes who returned to play reported anxious symptoms. (Yang et al., 2014). Similarly, athletes who had many significant injuries or procedures were two to seven times more likely to report symptoms of anxiety (Drawer, 2002). One study's overall conclusion, which was considered noteworthy, said that athletes from a variety of sports experience sport injury trait anxiety as a widespread, consistent, and ongoing fear about suffering an injury (Pal, Kalra, & Awasthi, 2021).

We considered how depression is a relatively prevalent psychological condition that significantly lowers life satisfaction, functional capacity, and social costs. These bad feelings are typically experienced by people who are experiencing depression, and they may also stop being interested in most of their previous pastimes. The relationship that depression has between playing and non-playing injured athletes was also examined. The results indicated that there is a statistically significant difference between the average depression scores of playing athletes and non-playing injured athletes. It was found that athletes who were not playing have depression levels that are almost three times higher than those who were playing. This shows us that individuals experience higher rates of depression while they are injured and has a great outlook for those who are experiencing injury and may not have known. The results of this study were consistent with previous research. In one study athletes who had been injured reported more

depressive symptoms (33%) than athletes who had not been injured (27%), (Akkaya, 2022). One study found that depressed athletes experienced depression not just one week after suffering an athletic injury, but even two months later (Nixdorf et al., 2016). According to a different study, athletes who were injured reported having mild to severe depressive symptoms, as measured by the Beck Depression Scale. Particularly among athletes who had anterior cruciate ligament injuries, depression levels were higher (Akkaya, 2022). Injured athletes had depression not just one week after an athletic accident but also had considerably higher depression ratings even two months after the incident, according to previous research that discovered during the sports career injuries were predictors for depressive syndromes (Nixdorf et al., 2016).

Furthermore, the results of this study were consistent with recent literature, which has suggested that, comparing the two playing and non-playing has different psychological and social ramifications. Based off of the above findings the hypothesis was accepted. Regular and easy screening methods for specific mental health difficulties, such as depression and anxiety disorders, are becoming more and more necessary as it has been demonstrated that mental health problems do occur in athletes. Overall, the results support earlier research by showing that, in an Irish context, there is associations with non-playing injured athletes' relationships with mental health issues including anxiety and depression.

### **Implications**

Overall, the result of this study shows that the mental health of an individual can be negatively impacted once injured. An important implication of this study relates to the type and level of support that injured athletes need. Consistently, government funding may be spent on increasing awareness in sports clubs and associations on mental health. These findings have

implications for training, education, and staff support, which can assist and identify ways to support athletes both while they are competing and when they are not. This study can help show coaches and management of athletes that athletes do suffer with mental health and this research can show them and coaches and management may be more inclined to reach out and give the athletes the option of support and awareness. Coaches can play a positive role in the recovery of an injured individual if they are more aware about the possible outcome and they could be beneficial to the sporting individual. The need to adopt preventive interventions based on psychological training programs should continue to keep growing. It seems necessary to create specific models of psychiatric intervention for athletes. Incorporating and implementing psychological health screening programs alongside physical fitness or health screening, as well as educating athletes and coaches, should be part of this.

### **Strengths and Limitations**

The strength of this study is that there now can be better understanding of mental health in sports clubs and associations. This research provides awareness to these associations and can facilitate the athletes in better ways. Athletes also can have greater awareness that it is normal how they are feeling and that they are not alone, this current research and previous research has shown this. Gathering of participants is a limitation of the current study as it was a specific target population which was individuals who are involved in sports clubs and associations. For the statistic to be valid and trustworthy, large sample sizes are required. Large samples are simpler to detect and boost the study's power. Nonetheless, significant results were found in the current study. A larger population sample would be needed for future research. Another limitation was that there were more playing athletes compared to non-playing athletes, it was difficult to find individuals who were injured compared to individuals that was not. We also got good results

even though there was a difference in playing athletes to non-playing injured athletes. Future research should require close to the same amount of playing and non-playing participants to get a more accurate result. One drawback of the current study was the scales' complete reliance on self-report metrics. Although being anonymous, some people might have felt uncomfortable or in denial of the seriousness of the questions being asked of them. By using self-report scales, the data is vulnerable to individuals not being truthful, which means that responses may have been tainted by how the person believes they should feel in 'normal' society. Nonetheless, this is a standard approach used in psychological research. Future research should examine gender to see if there is any difference in playing and non-playing athletes' mental health.

### **Conclusion**

Overall, there is strong evidence linking depression and anxiety to injured athletes who are unable to play, and our study adds to that body of knowledge while supporting previous findings. The current study contributes to previous literature by examining the impacts of being a playing and also a non-playing injured athlete within an Irish context. Future research should seek to address issues with mental health and its effect on non-playing injured athletes. Although depression and anxiety among athletes seems to be a topic of interest, research on mechanisms in this regard are still rare, more research needs to go into athletes' mental health while playing and not playing sports. More clarity is required for researchers to understand injury and the limits it causes for athletes. This study's synthesis of the research may help coaches and sports team members better understand athletes' needs in terms of their mental health. The goal of this dissertation is to further the discussion of athlete wellbeing and provide standardized tests for athletes' mental health.

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**Appendix A**

**Participant Information Leaflet**

**Mental health outcome after sport injury in playing and non-playing athletes.**

You've been asked to take part in a research study. Before selecting whether or not to join, please read this document, which explains why the study is being undertaken and what it would entail for you. If you have any questions about the material presented, please contact me using the information at the bottom of this page.

**What is this study about?**

I am in my final year in the National College of Ireland's BA in Psychology program. We must do an independent research project as part of our degree. For this project I am investigating whether athletes who are non-playing due to an injury suffer with their mental health with issues like depression and anxiety compared to playing athletes. The project will be supervised by myself Sophie Hales.

**What will taking part in the study involve?**

Each participant will take part in an online questionnaire. Participants will be asked different questions involving mental health, topics such as anxiety and depression. You can have up to an hour to answer all questions but will be given a certain date to have it done by.

**Who can take part?**

Individuals who are over 18 years old can take part in this study. Participants who have been invited to take part in the study have been chosen as they are athletes who are part of a club that

participate in athletics and who are playing and injured non-playing athletes. These are the only individuals that fit that criterion will take part in the study.

### **Do I have to take part?**

To participate in this study, it is completely voluntary. Participants have the right to refuse to participate, this decision to not take part will not have any consequences for the individual.

If you are interested in taking part of this study, you can follow the link below and this will guide you to the questionnaire. It can take up to 20 minutes to complete. During this questionnaire you can withdraw at any time up until the participant finish the questionnaire and they click submit. Once completed there will be no withdrawals. This project is supervised by me, Sophie Hales.

Email: [x19237634@student.ncirl.ie](mailto:x19237634@student.ncirl.ie)

Contact number: 0857085736

**Appendix B**

**Consent Form**

- I give Sophie Hales permission to use my information for the questionnaire. I consent to take part in this research study on my own volition.
- Even if I agree to participate now, I understand that I can withdraw at any time or refuse to answer any question without penalty. Only once submitted I know that I cannot withdraw my information.
- I was provided written descriptions of the study's goal and nature, as well as the chance to ask questions.
- I am aware that any information I provide for this study will be kept private.
- I understand that my identify will be kept anonymous in any report based on the findings of this study.
- I understand that I may contact any of the research participants for clarification or further information.

By ticking the box, I am consenting to participate in the research study and I give my permission to Sophie Hales to include my information that I provide into the research. I know that once I have submitted my questionnaire that it cannot be retrieved.

Date:

**Contact Details**

Sophie Hales

[x19237634@student.ncirl.ie](mailto:x19237634@student.ncirl.ie)

**Appendix C**

**Demographics**

Gender

- Male
- Female
- Other

Are you a?

- Playing Athlete
- Non-Playing Injured Athlete



**Appendix D**  
**BECK'S DEPRESSION**  
**INVENTORY**

**Instructions:** Please circle the number by the response for each question that best describes how you have felt during the past seven (7) days. Please do not omit any questions. Make sure you check one answer for each question. If more than one answer applies to how you have been feeling, check the higher number. If in doubt, make your best guess. This questionnaire consists of twenty-one questions. Each response on the test is given a score between 0 and 3, and the overall score is then compared to a key to evaluate the severity of the depression.

1.     0 - I do not feel sad.  
       1 - I feel sad.  
       2 - I am sad all the time and I can't snap out of it.  
       3- I am so sad or unhappy that I can't stand it
  
2.     0- I am not particularly discouraged about the future.  
       1 - I feel discouraged about the future.  
       2 - I feel I have nothing to look forward to.  
       3- I feel that the future is hopeless and that things cannot improve
  
3.     0-I do not feel like a failure.  
       1- I feel I have failed more than the average person.  
       2- As I look back on my life, all I can see is a lot of failures.

- 3 - I feel I am a complete failure as a person.
- 4. 0-I get as much satisfaction out of things as I used to.
  - 1- I don't enjoy things the way I used to.
  - 2- I don't get real satisfaction out of anything anymore.
  - 3- I am dissatisfied or bored with everything
- 5. 0 - I don't feel particularly guilty.
  - 1 - I feel guilty a good part of the time.
  - 2 - I feel quite guilty most of the time.
  - 3 - I feel guilty all of the time.
- 6. 0 - I don't feel I am being punished.
  - 1 - I feel I may be punished.
  - 2 - I expect to be punished.
  - 3 - I hate myself.
- 7. 0 - I don't feel disappointed in myself.
  - 1 - I am disappointed in myself.
  - 2 - I am disgusted with myself.
  - 3 - I hate myself.
- 8. 0 - I don't feel I am any worse than anybody else.
  - 1 - I am critical of myself for my weaknesses or mistakes.
  - 2 - I blame myself all the time for my faults.
  - 3 - I blame myself for everything bad that happens.
- 9. 0 - I don't have any thoughts of killing myself.
  - 1 - I have thoughts of killing myself, but I would not carry them out.

- 2 - I would like to kill myself.
  - 3 - I would kill myself if I had the chance.
10. 0 - I don't cry any more than usual.
- 1 - I cry more now than I used to.
  - 2 - I cry all the time now.
  - 3 - I used to be able to cry, but now I can't cry even though I want to.
11. 0 - I am no more irritated by things than I ever am.
- 1 - I am slightly more irritated now than usual.
  - 2 - I am quite annoyed or irritated a good deal of the time.
  - 3 - I feel irritated all the time now.
12. 0 - I have not lost interest in other people.
- 1 - I am less interested in other people than I used to be.
  - 2 - I have lost most of my interest in other people.
  - 3 - I have lost all of my interest in other people.
13. 0 - I make decisions about as well as I ever could.
- 1 - I put off making decisions more than I used to.
  - 2 - I have greater difficulty in making decisions than before.
  - 3 - I can't make decisions at all anymore.
14. 0 - I don't feel that I look any worse than I used to.
- 1 - I am worried that I am looking old or unattractive.
  - 2 - I feel that there are permanent changes in my appearance that make me look unattractive.
  - 3 - I believe that I look ugly.

15. 0 - I can work about as well as before.
  - 1 - It takes an extra effort to get started at doing something.
  - 2 - I have to push myself very hard to do anything.
  - 3 - I can't do any work at all.
16. 0 - I can sleep as well as usual.
  - 1 - I don't sleep as well as I used to.
  - 2 - I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
  - 3 - I wake up several hours earlier than I used to and cannot get back to sleep.
17. 0 - I don't get more tired than usual.
  - 1 - I get tired more easily than I used to.
  - 2 - I get tired from doing almost anything.
  - 3 - I am too tired to do anything.
18. 0 - My appetite is no worse than usual.
  - 1 - My appetite is not as good as it used to be.
  - 2 - My appetite is much worse now.
  - 3 - I have no appetite at all anymore.
19. 0 - I haven't lost or gained much weight, if any, lately.
  - 1 - I have lost or gained more than five pounds.
  - 2 - I have lost or gained more than ten pounds.
  - 3 - I have lost or gained more than fifteen pounds.
20. 0 - I am no more worried about my health than usual.
  - 1 - I am worried about physical problems such as aches and pains, or upset stomach, or constipation.

2 - I am very worried about physical problems and it's hard to think of much else.

3 – I am so worried about my physical problems that I cannot think of anything else.

21. 0 - I have not noticed any recent change in my interest in sex.

1 - I am less interested in sex than I used to be.

2 - I am much less interested in sex now.

3 - I have lost interest in sex completely.

**Appendix E**

**General Anxiety Disorder**

**Instructions:** You are prompted to rate the severity of each symptom during the previous two weeks in each item. The responses of all the items of the GAD-7 are graded on a 4-point Likert scale as "Not at all," "a few days," "more than half the days," and "almost every day". The GAD-7's seven items have total scores that range from 0 to 21 with higher scores indicating that anxiety disorders are more severe.

1. Feeling nervous, anxious or on edge?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

2. Not being able to stop or control worrying?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

3. Worrying too much about different things?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

4. Trouble relaxing?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

5. Being so restless that it is hard to sit still?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

6. Becoming easily annoyed or irritable?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

7. Feeling afraid as if something awful might happen?

- Not at all
- Several Days
- More than half the days
- Nearly everyday

**Appendix F**  
**Debriefing Form**

**Mental health outcomes after sport injury in playing and non-playing athletes**

Thank you for taking part in this study. The aim of this study is to investigate whether athletes who are non-playing due to an injury suffer with their mental health compared to play athletes.

The hypothesis of this study is that injured non-playing athletes have more issues with their mental health and playing athletes have less issues with their mental health.

This questionnaire will be anonymous.

This project is supervised by me, Sophie Hales.

Email: [sophiehales@gmail.com](mailto:sophiehales@gmail.com)

Contact number: 0857085736

Here are support numbers if you may ever feel like you need to talk to someone for free:

- 24/7 Free Depression Hotline, <https://www.mentalhelp.net/depression/hotline>, [1-866-299-4987](tel:1-866-299-4987)
- Samaritans, <https://www.samaritans.org>, 1-877-870-4673
- Samhsa, <https://www.samhsa.gov>, +1 240-276-2000
- Panic Attack Hotline, [mentalhealthhotline.org/panic-attack-hotline/](https://mentalhealthhotline.org/panic-attack-hotline/), 1-866-903-3787
- Anxiety help Ireland, <https://anxietyireland.ie/anxiety-help>, 1800222833
- Aware, [www.aware.ie](http://www.aware.ie), 1800 80 48 48



**Appendix G**

**Recruitment Letter**

**Mental health outcome after sport injury in playing and non-playing athletes.**

I am writing to inform you about an opportunity for athletes who are members of your club that are over 18 to participate in a research study about athletes who are playing and also non-playing due to an injury and to see if they suffer with their mental health with issues like depression and anxiety compared to playing athletes.

This study is being conducted by me, Sophie Hales at the National College of Ireland.

The study would entail each participant to take part in an online questionnaire. Participants will be asked different questions involving mental health, topics such as anxiety and depression.

If you have any questions, please feel free to contact me:

Email: [sophiehales@gmail.com](mailto:sophiehales@gmail.com)

Contact number: 0857085736

## Appendix H

### Proof of SPSS Data File

\*Fyp SPSS.sav [DataSet1] - IBM SPSS Statistics Data Editor

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1 PlayingAthelete	Numeric	8	0	Are you injured?	delete...	None	8	Right	Nominal	Input
2 Gender	Numeric	8	0	What is your Gender?	{0, Male}...	None	8	Right	Nominal	Input
3 Altem1	Numeric	8	0	Feeling nervous, anxious or on edge?	None	None	8	Right	Ordinal	Input
4 Altem2	Numeric	8	0	Not being able to stop or control worrying?	None	None	8	Right	Ordinal	Input
5 Altem3	Numeric	8	0	Worrying too much about different things?	None	None	8	Right	Ordinal	Input
6 Altem4	Numeric	8	0	Trouble relaxing?	None	None	8	Right	Ordinal	Input
7 Altem5	Numeric	8	0	Being so restless that it is hard to sit still?	None	None	8	Right	Ordinal	Input
8 Altem6	Numeric	8	0	Becoming easily annoyed or irritable?	None	None	8	Right	Ordinal	Input
9 Altem7	Numeric	8	0	Feeling afraid as if something awful might happen?	None	None	8	Right	Ordinal	Input
10 Ditem1	Numeric	8	0		None	None	8	Right	Ordinal	Input
11 Ditem2	Numeric	8	0		None	None	8	Right	Ordinal	Input
12 Ditem3	Numeric	8	0		None	None	8	Right	Ordinal	Input
13 Ditem4	Numeric	8	0		None	None	8	Right	Ordinal	Input
14 Ditem5	Numeric	8	0		None	None	8	Right	Ordinal	Input
15 Ditem6	Numeric	8	0		None	None	8	Right	Ordinal	Input
16 Ditem7	Numeric	8	0		None	None	8	Right	Ordinal	Input
17 Ditem8	Numeric	8	0		None	None	8	Right	Ordinal	Input
18 Ditem9	Numeric	8	0		None	None	8	Right	Ordinal	Input
19 Ditem10	Numeric	8	0		None	None	8	Right	Ordinal	Input
20 Ditem11	Numeric	8	0		None	None	8	Right	Ordinal	Input
21 Ditem12	Numeric	8	0		None	None	8	Right	Ordinal	Input
22 Ditem13	Numeric	8	0		None	None	8	Right	Ordinal	Input
23 Ditem14	Numeric	8	0		None	None	8	Right	Ordinal	Input
24 Ditem15	Numeric	8	0		None	None	8	Right	Ordinal	Input
25 Ditem16	Numeric	8	0		None	None	8	Right	Ordinal	Input
26 Ditem17	Numeric	8	0		None	None	8	Right	Ordinal	Input
27 Ditem18	Numeric	8	0		None	None	8	Right	Ordinal	Input

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\*Fyp SPSS.sav [DataSet1] - IBM SPSS Statistics Data Editor

8 : Ditem16    1    Visible: 32 of 32 Variables

	Playing Athelet e	Gender	Altem1	Altem2	Altem3	Altem4	Altem5	Altem6	Altem7	Ditem1	Ditem2	Ditem3	Ditem4	Ditem5	Ditem6	Ditem7	Ditem8	Ditem9	Ditem10	Ditem11	Ditem12	Ditem13	Ditem14	Ditem15	Ditem16	Ditem17	Ditem18
1	0	0	2	3	3	2	1	1	3	1	1	1	1	2	1	3	0	0									
2	0	0	1	1	3	3	2	1	2	1	0	2	0	1	1	2	3	1	0	3							
3	0	0	2	2	2	2	0	0	2	1	1	0	0	0	1	0	0	0	0								
4	0	0	2	3	3	3	2	3	3	0	2	1	0	0	1	1	1	0	2								
5	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0								
6	0	0	3	2	3	3	1	3	2	2	2	1	2	0	1	2	2	2	1	1							
7	0	0	1	2	1	3	0	2	1	1	2	1	1	0	1	1	1	0	0								
8	0	0	1	1	1	1	0	2	0	1	1	1	1	1	1	2	1	0	0								
9	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0								
10	0	0	2	3	3	2	1	1	2	1	0	1	1	0	0	1	1	0	0								
11	0	0	2	2	2	2	1	2	1	0	1	0	1	0	1	1	0	0	0								
12	0	0	2	2	2	2	1	3	1	1	1	1	1	0	0	1	1	0	0								
13	0	0	1	2	1	2	0	3	0	0	0	1	1	0	0	1	0	0	0								
14	0	0	1	0	1	0	0	2	0	1	0	1	1	0	0	1	1	1	0								
15	0	0	3	3	3	3	3	3	3	1	1	1	1	0	1	1	1	1	1								
16	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	1	0	0	0								
17	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	0	0								
18	0	0	1	0	0	1	0	2	0	0	0	0	1	0	0	0	1	0	0								
19	0	0	3	3	3	3	3	3	3	2	2	2	2	2	1	2	2	2	2								
20	0	0	2	2	2	2	2	2	1	1	0	1	1	0	1	1	2	0	0								
21	0	0	1	2	2	3	1	3	1	1	0	1	1	2	2	0	0	1	1								
22	0	0	1	1	2	1	1	3	1	1	2	1	0	1	1	2	0	0	1								
23	0	0	1	0	1	1	0	2	0	0	1	0	1	0	1	1	1	1	0								
24	0	0	1	0	0	1	1	3	2	1	1	2	1	0	1	1	1	0	1								

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# Appendix I

## Proof of SPSS Output File

SPSS-Output-Updated4Nonparametrics.spv [Document15] - IBM SPSS Statistics Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

Output

- Frequencies
  - Title
  - Notes
  - Statistics
- Frequencies
  - Title
  - Notes
  - Statistics
- Explore
  - Title
  - Notes
- Are you injured?
  - Title
  - Tests of Norm
- NPar Tests
  - Title
  - Notes
  - Mann-Whitney Tes
  - Title
  - Ranks
  - Test Statistics

**Frequencies**

**Statistics**

		AnxietyCompo site	DepressionCo mposite
Are you injured?			
Non-playing Athelete	N	36	36
	Valid		
	Missing	0	0
	Median	10.00	16.50
Playing Athele	N	61	61
	Valid		
	Missing	0	0
	Median	5.00	6.00
		Skewness	
		.233	.874
		Std. Error of Skewness	
		.393	.393
		Std. Error of Skewness	
		.306	.306

**Explore**

**Are you injured?**

**Tests of Normality**

	Are you injured?	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
AnxietyComposite	Non-playing Athelete	.098	36	.200 <sup>*</sup>	.959	36	.193
	Playing Athele	.129	61	.013	.911	61	<.001
DepressionComposite	Non-playing Athelete	.114	36	.200 <sup>*</sup>	.939	36	.048
	Playing Athele	.171	61	<.001	.845	61	<.001

\*. This is a lower bound of the true significance.

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