Does Team Vs Solo Irish Dancing Produce Different Psychological Outcomes on Anxiety Level and Stress Management Ability?

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Abstract

The present study investigated the differences in psychological outcomes of anxiety and stress between competitive Irish dancers of different levels and different types of Irish dance e.g., solo Irish dance, team Irish dance, or both solo and team Irish dance. Previous research has identified differences in psychological outcomes based on the level and the type of sport the individual engaged in. A total of 149 competitive Irish dancers completed the online questionnaire which measured their anxiety and stress levels using the Liebowitz Social Anxiety Self-Report scale (LSAS-SR) and the Perceived Stress Scale (PSS). Findings from t-tests, multiple regression analyses and Mann-Whitney U-tests showed no significant differences between Irish dancers at different levels and types on the outcomes of anxiety and stress. Findings contrast with previous studies on the topic which include different sports. Study implications and suggestions for future research are discussed.

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Introduction

A systematic analysis has suggested that the prevalence of disease and illness resulting from mental health problems has been steadily on the rise in recent years (Imboden et al., 2022). Mental health problems affect 75% of people over forty years of age and 25% of these problems start at fifteen years old (Javed et al., 2022). In Ireland, The Healthy Ireland Survey conducted in 2021, indicated a rise in psychological distress among the whole population (O'Leary, 2021). As of 2019, severe anxiety affected 13% of Irish secondary school students and 26% of 19-25-year-olds (Kearns, 2019). Over a third of adults suffer from anxiety in Ireland (Joyce & Ryan, 2019). Over a third of adults and over half of 18-35-year-olds in Ireland, also suffer from stress regularly (Bell, 2021). Numerous empirical studies have emphasized the significant negative impacts mental health problems can have on an individual, psychologically, physically, and socially and some of these include the pervasiveness of hypertension, decreased immune system functioning, obesity, diabetes, increased risk of suffering from chronic diseases, increased risk of cardiovascular diseases and sleeping disorders, decreased quality of life, lower self-esteem and confidence, and influence of unemployment (Aarons et al., 2008; Angrist & Krueger, 2001; Butterworth et al., 2011; Connell et al., 2012; Hoang et al., 2019; Javed et al., 2022).

Anxiety and Stress

Anxiety and stress are two components that have been heavily researched in the psychological field and the empirical research findings suggest that both can have serious negative psychological and physical impacts (Karnatak, 2016; Shaw et al., 2021). Anxiety is a negative state of feeling characterized by tension, worry, and dread and can cause physiological changes in the body (American Psychological Association, 2021). The physiological changes produced by anxiety include autonomic hyperactivity e.g., increased heart rate and shortness of breath,

increased motor tension e.g., muscle tension, fatigue, and restlessness, and increased vigilance e.g., feeling nervous or stimulated, and this can also impact concentration (Aquin et al., 2017; Gale & Oakley-Browne, 2004) Anxiety is a physiological, psychological and behavioural state triggered by a perceived threat and it evokes physiological changes to help cope with a threat or an unexpected threatening situation, either actual or potential (Steimer, 2002). Anxiety can encourage focus on negative life events and result in concentration problems which can then cause work and social problems (Robinson et al., 2013). Anxiety is a leading cause of disability worldwide and anxiety disorders are often chronic (Knight & Depue, 2019; Shackman & Fox, 2021). Anxiety is complex as one individual could perceive a stimulus as threatening and therefore provoke feelings of anxiety but for another, the same stimulus could be seen as a challenging activity and for another, this stimulus could be neutral and provoke no reaction (Hanin, 2000). An experience that elicits anxiety for many is competition as a performer's abilities and skills are being scrutinized and evaluated in a challenging environment and there is pressure for them to perform well (Eysenck et al., 2007; Ford et al., 2017).

As mentioned previously, stress is among components like anxiety that can cause negative impacts on health status both psychologically and physically (Karnatak, 2016; Kasl, 1984; Shaw et al., 2021). Stress is a feeling experienced when one feels pressure emotionally or physically and it can affect nearly every system in the body, thus giving it the ability to decrease quality of life if experienced severely, or over a prolonged period (Schneiderman et al., 2015). Early theorists believed that stress worked as a two-way process between the person and the environment that causes the stressor (Lazarus & Folkman, 1987). The correlation between stressors and their negative impacts on an individual is dependent on multiple factors including the individual's biological components e.g., genetics, the amount, type, and persistence of the stressors, the

accessible resources available, and the individual's coping mechanisms in relation to stress (Schneiderman et al., 2015). Furthermore, the extent to which a stressor negatively affects a person is based on multiple items also, one being, their ability to manage stress (McLafferty et al., 2019). The ability to manage stress is based on how threatening a person believes a stressor is and how they perceive their own ability to deal with the stressor. Stress can be elicited in different environments e.g., competing at a sporting competition can elicit stress for performers and this is shown in multiple studies (Carrasco Páez & Martínez-Díaz, 2021; Lopes Dos Santos et al., 2020; van Paridon et al., 2017). The ability to manage stress is vital for reducing the negative impacts of stress and can be improved over time through experiences that promote resilience (Dagnino-Subiabre, 2022). Recent studies have shown that negative impacts from mental health problems can be prevented or reduced by encouraging interpersonal and intrapersonal sources of resilience (Cui & Xie, 2022; Okwori, 2022).

Resilience

Resilience has been defined by Fletcher & Sarker (2016) as the ability to use personal qualities to deal with pressure. It is the adaptation to adversity or a perceived threat which has been successful and healthy (Martinez-Torteya et al., 2009). Numerous studies including cross-sectional studies, systematic reviews and longitudinal studies have shown that sports performances and competitions are effective ways to build resilience (Blanco-García et al., 2021; Gupta & McCarthy, 2022; Norris & Norris, 2021; Ueno & Suzuki, 2016). Research conducted on resilience in sport has suggested that the extent of commitment from the athlete/coach or parent may have an impact on the effectiveness of developing resilience (Sarkar & Page, 2020). Elite athletes have previously shown positive psychological factors they have developed through sport that can act as barriers against the negative impacts of stressors while competing (Fletcher & Sarkar, 2012). These

psychological factors include correlating motivation, confidence, perceived social support, and focus with positivity. Further research has shown that competitive sport provides a meaningful purpose, and its highly skilled tasks enhance the development of resilience (Masten, 2014; Southwick & Charney, 2012). The most prominent form of physical activity that has been studied in relation to building resilience is exercise and it has been shown to be effective in multiple study designs including experimental designs, clinical trials, cross-sectional studies, systematic reviews and meta-analysis studies (Childs & de Wit, 2014; Elrick, 1996; Goodwin, 2003; Samitz et al., 2011).

Previous literature on exercise

There has been an abundance of research supporting the benefits of exercise/ physical activity (Wu et al., 2013). These studies have proven exercise to be a successful intervention for improving mental health associated with depression, anxiety, and overall cognitive functioning (Bielak et al., 2014; Greenwood et al., 2012; Mura et al., 2014; Ruegsegger & Booth, 2018). The therapeutic effects of engaging in exercise have been suggested as equally successful as psychotherapy (Kvam et al., 2016). The more frequent and longer the duration of the exercise means the better the psychological effects and the better the mental health (Ahmad, 2022). Physiological responses such as the release of endorphins, serotonin, noradrenaline and dopamine in the brain and the decrease of proinflammatory cytokines related to anxiety are all triggered by physical activity (Ahmad, 2022; Hu et al., 2020; Grasdalsmoen et al., 2020).

Like exercise, competitive sport shares similar physical aspects such as training and physical endurance (Malm et al., 2019). Sport, defined by Biddle & Mutrie (2008), as a sub-component of exercise, may have very similar positive outcomes from physical activity as exercise. However, there may be other benefits of competitive sport that exercise does not possess

as competitive sport contains a social aspect to it that exercise may not (Le Bouc & Pessiglione, 2013). Competitive sport is much more success-oriented than exercise as the focus for the individual is on achievements, winning, breaking personal records, and/or scoring better than your rival (Listra, 2015; Murayama & Elliot, 2012). The most common reason for engaging in exercise is to improve physical and psychological health and appearance (Ríos et al., 2013). High-performance competitors train hard at their sport with a focus on success and can be under immense pressure and stress to perform well (Angelova et al., 2022; Buser et al., 2016). This difference between competitive sport and exercise on both psychological and physical outcomes has limited research surrounding it.

Previous literature surrounding competitive sport

Despite several previous research studies about competitive sport testing the negative psychological outcomes, such as eating disorders (Glazer, 2008; Godoy-Izquierdo et al., 2021; Sundgot-Borgen, 1994), there has been some recent research to support that sports, when following ethics rules and done appropriately, has the potential to positively influence mental health (Appelqvist-Schmidlechner et al., 2017). Competitive sports have provided mental health benefits because of the psychological, physiological, and social aspects of it, and they can act as protective barriers to block mental health problems from developing (Bean et al., 2019). Sports can have many positive psychological effects such as increased self-esteem, increased leadership abilities, better abilities to cope with anxiety, and increased moral development (Holland & Andre, 1987; Weiss & Glenn, 1992). Sports pressures can provide youth with a tool to manage stressful situations and it encourages the development of resilience when failure or defeat is experienced (Kuntz, 2022). The level of sport competition has been suggested to significantly affect mental health benefits, specifically the developmental variables such as personality and social factors

(Holland & Andre, 1987; McFadden et al., 2016). Research on elite athletes found that they had significantly higher social self-esteem and global self-esteem compared to the general population (Marsh et al., 1995). Both in current studies and longitudinal studies, people who participated in sports seemed to have better well-being state, significantly lower anxiety scores, fewer dietary issues, a lower score for total risks, and more positive affect than those who did not (Kirkcaldy et al., 2002; McDonald & Hodgdon, 1991; Pyle et al., 2003). A study done on male basketball players had participants split into three groups; stars, starters, or substitutes, and findings revealed that the stars were most likely to go to college (95%), then the starters (91%) and then the substitutes were least likely to attend college (80%) (Snyder, 1975). This further confirms the view that the level of sport participation determines how beneficial the outcomes of competitive sport will be. A recent study conducted in 2022, showed that while sports participation increased, the chance of experiencing depression decreased by 25% and suicidal thoughts decreased by 12% (Kuntz, 2022).

However, although positive outcomes have been found from engaging in competitive sport, as mentioned above, there are also contrasting findings with negative outcomes. A compilation of studies, specifically review studies, has suggested that injuries, eating disorders, burnout, substance abuse, risk of failure, and the worsening of existing health problems are among the negative outcomes resulting from competitive sports participation (Bean et al., 2014; Malm et al., 2019; Pipe, 2001). Injuries especially among competitive athletes can trigger psychological disorders, e.g., depression, and for older athletes an injury which would cease training can reduce blood flow to the brain, causing a serious negative impact on the individual (Malm et al., 2019). Studies have revealed that sporting injuries can produce a grief response in the individual which is comparable to the grief experienced from death, illness, or disability (Evans & Hardy, 1995; Walker et al., 2007). Eating disorders have emerged as a significant negative impact for some

individuals in competitive sports among systematic review studies, literature reviews, research studies, and meta-analyses (Ricciardelli & McCabe, 2004; Smolak et al., 2000; Sundgot-Borgen, 1994; Werner et al., 2013). These eating disorders can stem from the pressure to succeed, perfectionism, aesthetic purposes based on judging criteria, and pressure from coaches, parents, society, or the athletes themselves (Bean et al., 2014; Overdorf & Gill, 1994; Turocy et al., 2011). Burnout is a term used to describe an athlete's response to chronic emotional and interpersonal stressors and is associated with a lack of interest in a sport they once enjoyed, loss of motivation and over-training (Bean et al., 2014; Maslach & Jackson, 1981). Another interesting finding on the negative outcomes is that individuals at risk for engaging in substance abuse can be influenced by certain sports to engage in these behaviours (de Grace et al., 2017). Findings from a meta-analysis and a randomized within-subject design show that if a person's performance is scored or compared with others, it will elicit a stress response therefore, a person competing in a skill-based task among others e.g., a dance competition, would elicit stress for the average person (Dickerson & Kemeny, 2004; von Dawans et al., 2011). Further research needs to be done to investigate the positive and negative aspects of competitive sports and their impacts on individuals.

Generally, both positive and negative outcomes have emerged throughout the research on competitive sport. This forms inconsistencies from the literature findings on the effects of competitive sports and this contrasting view needs to be investigated. The potential factors that can influence a positive or a negative impact on an athlete have been suggested (Nelson et al., 2019). Mediating factors have been proposed to protect the athlete against negative outcomes of competitive sport, for example, the type of sport an individual is involved in, whether it be an individual or a team sport (Terry-McElrath & O'Malley, 2011).

Comparing individual and team sports

A qualitative, a quantitative, and a mixed methods study compared individual sports benefits with team sports benefits and overall, the three studies suggested that team sports are more beneficial to psychological health and more effective at acting as a barrier to block negative mental health problems from developing (Gerber et al., 2014; Ottesen et al., 2010; Thorpe et al., 2014). These studies investigated a range of different individual and team sports such as, football, running, dance, aerobic exercise, and other ball sports. The quantitative study by Gerber et al. (2012), suggested that ball sports and dance were found to be effective in decreasing depression with participants that had high perceived stress, whereas aerobic exercise (an individual sport), was not found to be successful in producing any stress managing effects. The qualitative study revealed that male football players found it easier to engage in a team sport to improve psychological health rather than individual physical activity because of the peer support (Thorpe et al., 2014). The presence of peer support, social bonding, and the formation of greater social connections in team sports increased the psychological benefits for the athletes and gave them greater psychological benefits in comparison to the benefits received by those in individual sports (Andersen et al., 2019). This suggests that team sports might be more effective in producing positive psychological outcomes for individuals and that team sports are more efficient protective barriers against negative psychological outcomes than individual sports. Research suggests that having each other's back, trust, resilience, sacrifice, and closeness are among aspects of team sports that promote direct and indirect health benefits for the athlete (Parnell & Krustrup, 2017; Senecal, 2017).

The type of sport an athlete competes in has been revealed to be an important factor in the benefits gained by the athlete (Gerber et al., 2014; Pluhar et al., 2019). It is suggested that team sports may be more effective in producing positive mental health effects because of their sense of

community and camaraderie (Anderson et al., 2019; Parnell & Krustrup, 2017). However, there are some sports that allow you to compete as an individual and also as part of a team, for example, Irish dancing.

Irish dance culture and previous literature

Irish dancing is the native dance form of Ireland, and emerged in the 18th century (Noon et al., 2010). Since Riverdance was broadcast globally on the Eurovision song contest in the mid-1990s, Irish dancing has grown massively in popularity and it is now practised and performed competitively worldwide (Cahalan et al., 2018). Irish dancing differs from other sports in its nature, technique, judging, complex movements, and overall culture (Foley, 2020; Wulff, 2005). The competitive sport of Irish dance is designed so that dancers start at a beginner level known as 'Bun grad', and through success at dance competitions, they can advance up to the top level known as 'championship' (Cahalan et al., 2018). The technique and movements of Irish dance involve rapid and repetitive lower body movement, high-impact lower extremity movements which require strength and stability, and jumps that demand core strength all while keeping the upper body completely upright and stiff with the arms tucked by the side of the body (Noon et al., 2010). Research using biomechanical modelling shows that certain Irish dance techniques can produce contact forces at just the ankle joint to be up to 14 times body weight (Shippen & May, 2010). Multiple cross-sectional studies and a semi-structured qualitative study investigated injury in competitive and professional Irish dancers (Cahalan et al., 2015; Cahalan et al., 2018; Cahalan & O'Sullivan, 2013; Pentith & Mcevilly, 2018). The primary reasons for injury were found to be overuse, repetitive movements, accidents, fatigue, and unsafe flooring, with injury rates for participants in the various studies ranging from 76.6% to 84% (Cahalan et al., 2015; Cahalan et al., 2018). Along with the intense physical demands of Irish dance, there is certain aesthetics to

competing that are unique to its culture. Diamantes, sequins, and striking patterns are among the common themes seen in Irish dance costumes alongside the use of wigs, stage makeup and dark false tan on the legs (Mollenhauer, 2019; Varade, 2015). An Irish dance costume for a 'championship' dancer can cost around €2000 (Harris, 2018). Appearance has proven to be an important part of competing as if an adjudicator is contemplating between two dancers as to who will get the first place, the adjudicator will often look at the costume and overall appearance to help them decide (Hall, 2008). This is similar to ballet, gymnastics, and other forms of dance where aesthetics can be involved in the scoring (Davison et al., 2002), but contrasts with other competitive sports like rugby, basketball, hockey, and cricket (Arnold, 1978; Toner & Montero, 2020).

Irish dance is a highly competitive sport that is popular, especially in Ireland but there is research lacking on the psychological outcomes on individuals of such a unique sport (Pentith & Mcevilly, 2018). With 25,000 spectators and over 3,500 competitors attending the biggest event of the Irish dance season each year, the 'world championships', the scientific and psychological research on potential positive or negative outcomes of such a popular competitive sport is lacking (Armstrong, 2017; McGonagle, 2022). As per the previous literature surrounding competitive sport, there have been differences shown in psychological outcomes between team sports and individual sports. Irish dance is unique in the fact that you can compete at championship level as a solo dancer, a team dancer, or even both (Roddy, 2022).

Rationale for the current study

From the findings of previous research, exercise and sport have proven to have the potential to have significant positive impacts on mental health (Hajkowicz et al., 2013; Ruegsegger & Booth, 2018). Competitive sports may have the potential to help individuals manage personal

psychological problems like depression and anxiety which are incredibly influential on an individual's quality of life, prevention of disease, and overall well-being (Cho et al., 2019; Hidaka, 2012; Sheridan et al., 2015). This explains the importance of researching the positive effects of less researched areas of competitive sport like Irish dance so that the benefits are understood and hence, the youth can be encouraged to get involved.

Furthermore, there are also inconsistencies observed from the literature findings on the effects of competitive sports and this contrasting view needs to be investigated. There are many studies that have found negative psychological effects of competitive sports (Bean et al., 2014; Merkel, 2013; Myer et al., 2015). The conflicting literature findings regarding the impacts of competitive sport need to be investigated further so that the factors which influence a positive or negative outcome can be identified. A possible determining factor could be whether it is a team or an individual sport or moreover, if the athlete is involved in both team and individual competition. The opposing findings preclude researchers from stating firm conclusions on the effects of competitive sport.

The current study

From the minimal previous research surrounding competitive sport and the various gaps in the literature, the current study is necessary and important to individuals and can improve their mental health. The current study aims to investigate psychological differences in outcomes for solo vs team Irish dancers with a focus on anxiety levels and stress management abilities. To do this, the research aims to explore the relationship between Irish dancing as a solo competitor, team competitor, or both, and test if there is a difference in outcomes on anxiety level and stress management ability as an adult. The current study aims to investigate the correlation, if any, between the type of Irish dancing and the level of competitive Irish dance with anxiety level and

stress management ability and expand on the current body of literature surrounding the sport of Irish dance.

The research questions include, 1. Is there a difference in psychological outcomes of anxiety and stress management ability between solo dancers, team dancers, and those who did both solo and teams? 2. Does the type and level of competitive Irish dance affect the benefits obtained by the individual in relation to anxiety and stress management? 3. Is there a difference between those Irish dancing at a high level vs those dancing at a low level on the outcome of stress and anxiety?

The hypothesis for the current study is that people who did competitive Irish dance at a high level as an individual/ team dancer/ or both, will have different psychological outcomes regarding anxiety and stress management than Irish dancers who competed at a lower level and/or in a different category.

Methods

Participants

The participants were recruited through convenience sampling using the researcher's personal social media account on Instagram. This ensured that many current and past Irish dancers had the opportunity to participate in the study as the researcher's following on Instagram contains many Irish dancers. A brief description of the study and a link to the survey was published for 24 hours and shared by two popular Irish dancing Instagram accounts the researcher had contacted due to their demographic audience. A total of 179 responses were recorded of which 149 were eligible to be used as 30 participants were excluded from the analyses as they were under the age of 18. No incentives were used for recruitment.

Measures

Demographics and Irish dance. The questionnaire was created using Google Forms and following the information sheet and consent process, a range of demographic questions were asked in relation to age, gender, and current status e.g., secondary school student, college student, employment or other. Several Irish dancing questions were then recorded, and they included information relating to whether they danced as a team competitor, individual or both, the level at which they competed and their current situation or plans that involve the continuation/or not of Irish dance in their lives, e.g., 'do you aim to/have you become a qualified Irish dance teacher?'.

Anxiety. The Liebowitz Social Anxiety Self-Report scale (LSAS-SR) was then used to test fear and avoidance of 24 social situations in which the participant self-reported their response on two four-point Likert-type scales (Liebowitz, 1987). The fear Likert-type scale ranged from 1 (*no fear*) to 4 (*severe fear*). The avoidance Likert-type scale ranged from 1 (*never avoid, 0%)* to 4 (*usually avoid, 66-100%*). "*Talking to people of authority*", is an example of a social situation in which they recorded their fear and avoidance. The LSAS-SR is the self-report version of the scale and is indistinguishable from the reliable Liebowitz Social Anxiety scale (LSAS) only it doesn't need a clinician and participants record their own responses (Rytwinski et al., 2009). Research has tested the psychometric properties and found good internal consistency and discriminant validity, hence the LSAS-SR was deemed an applicable version of the clinician-administered LSAS (Fresco et al., 2001; Kobak et al., 1998; Oakman et al., 2002).

Stress management. The Perceived Stress scale (PSS-10) was used to measure the degree of stress experienced by participants in situations in their life during the last month (Cohen et al., 1983). It is a 10-item scale with questions asking about how overloaded, uncontrollable, and

unpredictable participants find their own lives and answers vary from 0 (*never*) to 4 (*very often*) (Cohen et al., 1983). An example of an item would be "*In the last month, how often have you felt nervous and stressed?*". The PSS-10 has shown ample reliability and validity throughout the research with Cronbach's alpha ranging from 0.75 to 0.91 (Siqueira Reis et al., 2010).

Design

The research adopted a cross-sectional research design and used a quantitative approach. A Cronbach's alpha was used to investigate the internal consistency of the Continuation of Irish dance questions. Independent samples t-test analyses were used to investigate the first research question regarding differences in solo Irish dancers and Irish dancers who did both solos and teams (IVs) on the outcomes of anxiety and stress (DVs). Multiple regression analyses were performed to examine if the type or level of Irish dance (IVs) affected the benefits obtained by the individual in relation to anxiety and stress (DVs). A Mann-Whitney U-test was then used to see if there was a difference between those whom Irish danced at a high intensity and those whom Irish danced at a low intensity (IVs) on the outcomes of anxiety and stress (DVs).

Procedures

Data was collected through an online survey which was posted on the researcher's personal Instagram account for 24 hours and was accessible via a link. Two popular Irish dance Instagram accounts reposted this to reach the specialised demographic and gather suitable participants. Once into the questionnaire, participants would be presented with an information sheet stating a description of the study, eligibility requirements, what was involved and any risks/benefits (See appendix A). A consent sheet was then provided with which they had to give consent to proceed with the questionnaire (See appendix B). The consent sheet states that they

can exit the study at any time without consequences and the questionnaire takes roughly 10 minutes to complete.

After consent was obtained the participants answered basic demographic questions, followed by some Irish dance-related questions, and then onto the Liebowitz Social Anxiety Scale Self-Report (See appendix D) and finally, the Perceived Stress Scale (See appendix E). Proceeding this, the debriefing sheet was provided in which a thank you from the researcher was written, support services were provided should the participants have suffered any stress and the appropriate contact details of the researcher and supervisor were given (See Appendix C).

The study was conducted per the ethical guidelines of NCI and following the Psychological Society of Ireland Code of Professional Ethics (2019). The research study was approved by the ethics committee at NCI. As stated previously, risks/benefits were explained in the information sheet and details for support services were provided in the debriefing sheet should the participants have suffered any stress from the questionnaire.

Results

Descriptive Statistics

Descriptive statistics were conducted on the current sample of 149 participants (n =149) which consisted of 95.3% females (n =142) and 4.0% males (n = 6), and 0.7% chose the option 'prefer not to say' (n = 1). Additionally, 51.7% were college students (n = 77), 16.8% were secondary school students (n = 25), 29.5% were in employment (n = 44) and 2.0% selected the option other/prefer not to say (n = 3). Among the participants, 50.3% competed as a solo Irish dancer (n = 75), 2.0% competed as part of a (céilí) team (n = 3), and 47.7% competed as both a solo and team Irish dance competitor (n = 71). Of which, 87.9% competed at championship level

(*n* = 131), 8.1% competed at prelim level (*n* = 12), 2.0% at mean grad level (*n* = 3), 1.3% at Tus grad level (*n* = 2), and 0.7% at Bun grad level (*n* = 1). The frequencies for all categorical variables are presented in Table 1 below.

Table 1

Frequencies for all categorical variables (n= 149)

Variable	Frequency	Valid %
Gender		
Male	6	4.0%
Female	142	95.3%
Prefer not to say	1	0.7%
Current status		
College students	77	51.7%
Secondary school student	25	16.8%
Employment	44	29.5%
Other/prefer not to say	3	2.0%
Competed in Irish dance as		
A solo/individual dancer	75	50.3%
Part of a (céilí) team	3	2.0%
Or both	71	47.7%
Competed at		
Bun grad level	1	0.7%
Tus grad level	2	1.3%
Mean grad level	3	2.0%

Prelim level	12	8.1%
Open championship level	131	87.9%

Inferential Statistics

Reliability Analysis

Reliability analysis was assessed on 4 items on the 'Continuation of Irish dance' using Cronbach's alpha. The value of Cronbach's alpha was $\alpha = .7$ meaning the results of the reliability analysis revealed acceptable reliability for each of the 4 constructs.

Preliminary analysis of the data indicated that the variables of interest were normally distributed (Shapiro-Wilk, $p > 0.05$). It was therefore acceptable to run the parametric test, the independent samples t-test. An independent samples t-test was conducted to analyse the differences between solo Irish dancers and Irish dancers that competed as solo and team competitors (IV) on the outcome of anxiety (DV). Originally there was another independent variable the Irish dancers who competed as just team dancers but there were only 2 participants that selected this option, therefore, this variable was excluded from the analysis. There was no significant difference found in anxiety scores for solo Irish dancers ($M = 101.03$, $SD = 28.65$) and Irish dancers that did both solo and teams ($M = 105.75$, $SD = 27.49$; $t(144) = -1.02$, $p = .787$, two-tailed). The magnitude of differences in the means (mean difference = -4.72, 95% CI [-13.91, 4.48]) was small (Cohen's $d = .168$).

An additional independent samples t-test was conducted following preliminary analyses which stated it was acceptable to run the parametric test. This analysed the difference between solo Irish dancers and Irish dancers that competed as solo and team competitors (IV) on the outcome of stress (DV). Originally there was another independent variable the Irish dancers who

competed as just team dancers but there were only 2 participants that selected this option, therefore, this variable was excluded from the analysis. There was no significant difference found in stress scores for solo Irish dancers (M =31.13, SD = 7.37) and Irish dancers that did both solo and teams (M = 32.55, SD = 6.87; $t(144) = -1.2$, $p = .232$, two-tailed). The magnitude of differences in the means (mean difference = -1.42, 95% CI [-3.75, .92]) was small (Cohen's d = .2).

Multiple regression model was performed to determine if the type or level of Irish dance affected the benefits obtained by the individual in relation to anxiety and stress. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlation between the predictor variables included in the study were examined. The correlation was weak $r = .05$. Tests for multicollinearity indicated that all Tolerance and VIF values were in an acceptable range and indicated that there was no violation of the assumption of multicollinearity and that the data was suitable for examination through multiple linear regression analysis.

Since no a *priori* hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the multiple linear regression analysis. The independent variables explained 1.2% of the variance in anxiety levels ($F(2, 146) = .92$, $p = .402$). Furthermore, the independent variables explained 1.2% of the variance in stress levels ($F(2, 146) = .86$, $p = .424$). In the final model, none of the variables were found to be significant predictors of stress or anxiety (see Table 2).

Table 2

Standard multiple regression model predicting anxiety and stress

Variable	R^2	B	SE	β	t	p

Anxiety						
Model	.012					
Type of Irish dance		2.24	2.33	.08	.96	.338
Level of Irish dance		3.51	3.88	.08	.91	.367
Stress						
Model	.012					
Type of Irish dance		.688	.593	.096	1.16	.248
Level of Irish dance		.551	.986	.046	.559	.577

Preliminary analysis of the data indicated that the variable of interest regarding the final research question was not normally distributed (Shapiro-Wilk, $p < .001$). It was therefore necessary to use the Mann-Whitney U-test as the non-parametric alternative of the independent samples t-test. This was used to investigate if there is a difference between those whom Irish danced at a high intensity and those whom Irish danced at a low intensity (IV) on the outcome of anxiety (DV). A Mann-Whitney U-Test revealed no significant difference in anxiety scores of high-intensity Irish dancers ($Md = 101$, $n = 131$) and low-intensity Irish dancers ($Md = 102$, $n = 18$), $U = 1127$, $z = -.30$, $p = .762$, $r = .02$.

An additional Mann-Whitney U-Test was conducted to investigate if there is a difference between those whom Irish danced at a high intensity and those whom Irish danced at a low intensity (IV) on the outcome of stress (DV). It revealed no significant difference in stress scores of high-intensity Irish dancers ($Md = 32$, $n = 131$) and low-intensity Irish dancers ($Md = 29$, $n = 18$), $U = 1359$, $z = 1.05$, $p = .294$, $r = .09$.

Discussion

In the current study, the aim was to investigate psychological differences between solo vs team Irish dancers vs those that did both solo and teams, with a focus on anxiety levels and stress management abilities. To do this, the research aimed to explore the relationship between Irish dancing as a solo competitor, team competitor, or both, and test if a significant difference existed in outcomes of anxiety level and stress among the participants. The study sought to provide a greater understanding of the psychological outcomes of a less researched competitive sport but still popular, especially in an Irish context. Furthermore, it aimed to discover which factors can affect such psychological outcomes e.g., the type or level of Irish dance. Three key research questions were designed to be answered and they were as follows; is there a difference in psychological outcomes of anxiety and stress management ability between solo dancers, team dancers, and those who did both solo and teams? Does the type and level of competitive Irish dance affect the benefits obtained by the individual in relation to anxiety and stress management? And finally, is there a difference between those Irish dancing at a high level vs those dancing at a low level on the outcome of stress and anxiety? It was hypothesized, from prior literature, that people who did competitive Irish dance at a high level as an individual/ team dancer/ or both, would have different psychological outcomes regarding anxiety and stress management than Irish dancers who competed at a lower level and/or in a different category.

For the first research question regarding any differences in psychological outcomes on anxiety and stress between solo Irish dancers, team Irish dancers, and those that did both, the research question was altered slightly after the collection of data from the google form was analyzed. The variable of competing as just a team Irish dancer was excluded from the inferential analysis as the google form showed that there were only 2 participants out of the whole sample

who selected this option and therefore it would not be meaningful to be compared to the other two variables which took nearly even parts of the remaining sample. Independent samples t-test analyses were run which included two independent variables, solo Irish dancers and Irish dancers who did both solos and teams and there were no significant differences found between these two variables on the outcomes of stress and anxiety levels.

The second research question investigated if the type and level of competitive Irish dance have an effect on the benefits obtained by the individual in relation to anxiety and stress management. Multiple regression analyses concluded that the correlation was weak and that the type and level of Irish dance were not significant predictors of anxiety or stress outcomes. This contradicts previous literature which found that type of competitive sport had a significant influence on psychological outcomes (Gerber et al., 2014; Ottesen et al., 2010; Thorpe et al., 2014). The independent variables predicted 1.2% of the variance in anxiety and stress levels.

The third research question regarding if there is a difference between those Irish dancing at a high level vs those dancing at a low level on the outcomes of stress and anxiety found no significant difference from the results and this finding also contradicts the existing research which found the level of competition to be a significant predictor of psychological benefits attained by the individual (Holland & Andre, 1987; McFadden et al., 2016).

Overall, the findings do not support the hypothesis that people who did competitive Irish dance at a high level as an individual/ team dancer/ or both, have different psychological outcomes regarding anxiety and stress management than Irish dancers who competed at a lower level and/or in a different category. The current findings are inconsistent with the previous literature, and they challenge the conventional paradigm that those who engage in team sports as opposed to solo sports have better psychological outcomes (Anderson et al., 2019). As

mentioned formerly, the previous literature showed both positive and negative effects of competitive sport and the previously identified negative effects from other studies, may provide reasoning for why the current study did not find significant differences. The most prominent and common negative impacts of competitive sports which were identified include injuries and burnout. A possible explanation for this study's findings is that injuries and burnout were not taken into account. Injuries have been proven to be common among Irish dancers with studies investigating injuries in professional and competitive Irish dancers showing the lowest rate of injury among participants to be 76% (Cahalan et al., 2015; Cahalan et al., 2018). Importantly, previous studies on injury in sports show injury prevalence rates among Irish dancers to be higher than injury prevalence rates among other genres of dance (Gamboa et al., 2008; Noon et al., 2010; Steinberg et al., 2011). Previous studies also show that most Irish dancers have multiple injuries, a higher level of competitive Irish dance positively correlates with increased injury, and that 'dancing through the pain' is a common theme in the culture of Irish dance (Cahalan & O'Sullivan, 2013; Noon et al., 2010; Pentith & Mcevilly, 2018). The lack of consideration of injury in this study could provide a possible explanation for the findings as injury is one of the strongest predictors of negative impacts from sport and injuries are quite prevalent among Irish dancers.

Burnout is another strong predictor of negative outcomes from sports and previous research states that overuse and overwork are among possible predictors of burnout (DiFiori et al., 2014). Overuse and overwork are among common themes seen in Irish dance across the literature (Cahalan et al., 2018; Cahalan & O'Sullivan, 2013). Another predictor of burnout is increased awareness of the physical consequences of participation (Feigley, 1984) and as mentioned previously, in Irish dance, physical consequences e.g., injury, is common (Cahalan et

al., 2015). This could provide a possible reason for the current findings as burnout could be common among the participants of the study because of the overuse, overwork and injury that is seen in Irish dance from the previous studies.

Another important aspect of the current study and its findings is that it was based on the previous literature around competitive sport and that research states that when sports are done appropriately and when following ethical rules, it can positively influence mental health (Appelqvist-Schmidlechner et al., 2017). However, in the current climate, the recent scandal surrounding Irish dance exposed Irish dance teachers and adjudicators breaching ethical rules and cheating by 'fixing' Irish dance competitions and even providing sexual favours in return for higher scores at competitions (Carswell, 2022). The breaching of ethical rules by Irish dance teachers and adjudicators shows that important pillars of the Irish dance community i.e., qualified teachers and adjudicators, have not been following ethical rules as of recently and this may have an impact on the potential positive outcomes obtained by Irish dancers from their sport. Corruption in sport does have identified negative consequences such as significant social marginal damage, loss of image for the sporting organization and it distorts honesty, fair play, and trust in the game (Dimant & Deutscher, 2015; Maennig, 2005). A study conducted with adult athletes stated that in children's sports, the adults i.e., the parent/teacher initiates the cheating, and it is vital the children do not believe they can benefit from cheating, and they retain moral attitudes and values towards competitive sport (Šukys et al., 2019). The current study coincided with the Irish dance scandal released in the media, and this possibly had an impact on the results. Future studies also may produce different findings as the cheating scandal continues. Getting caught cheating damages the reputation of the dancer and dance teacher and it questions all their past achievements (Gaudreau & Schellenberg, 2022). This may have significant impacts on the

dancer's positive psychological outcomes from Irish dance and should be considered in future studies. A recent study conducted on cheating in sports also found that coaches may be more likely to use illicit tactics in social contexts where cheating is more morally indefensible, meaning children's sports may be more susceptible to cheating rather than professional sports (Gaudreau & Schellenberg, 2022). Future research should consider these influential components that are eminent in the culture of Irish dance to try and produce generalisable and accurate findings. All the components of competitive sport and the culture of Irish dance mentioned should be considered by researchers when conducting further studies on the topic.

Implications

As the findings from this study were not significant, future research is needed to provide sufficient information on why this research contrasts with previous findings and why the level and type of competition have been seen as influential components related to psychological benefits obtained but are not evident in the current study. As the type and level of Irish dance did not have a significant impact on the psychological benefits obtained by the participants, this may imply that these factors do not influence psychological outcomes of anxiety and stress and that competing in Irish dance alone, provides benefits for the participant regardless of type and level. The results may be similar to some forms of exercise, e.g., aerobic exercise. A meta-analytic review found that low-moderate intensity aerobic exercise had moderate effects on psychological health and deduced that even low-intensity exercise can produce significant positive effects on mental health due to the neurotrophic growth factors released when exercising and that high-intensity exercise was not necessary to seek the benefits (Rebar et al., 2015). The level of aerobic exercise did not have significant differences in mental health, but the overall effect of it provided positive outcomes. The findings indicate that dancers/parents should choose the type/level of

Irish dance based on their own goals and preferences as no type/level has been discovered at being better at producing psychological benefits for anxiety and stress levels. Dance teachers and dance associations should be aware of this, and they should encourage participation in Irish dance at all levels and all types. Conversely, the results may indicate that the factors related to competitive Irish dance e.g., performance pressure, aesthetic requirements, and fear of failure are more influential than the type/level of Irish dance on the psychological benefits. This would support similar research previously conducted on youth sports competition which showed how competitive factors can influence mental health (Bean et al., 2014; Turocy et al., 2011). Dance teachers and dance associations, providing further research on the area, could encourage their dancers to utilize tools that help minimize the pressures of competition e.g., diaphragmatic breathing and positive self-talk (Ma et al., 2017; Santos-Rosa et al., 2022).

Limitations and strengths

There are several limitations to the current study. The sample size was small, and the participants were found using convenience sampling. This method limits the generalisability of the study. There was also a significant difference in the male-to-female ratio of participants with 95.3% of participants being female, 4% being male and 0.7% selecting the option 'prefer not to say'. Future studies should aim to recruit a larger sample of participants, reduce sampling bias by using a different sampling method, and attempt to equalise the male-to-female ratio to make the results more generalisable. Another limitation would be that all scales used in the study to gather data were self-report measures. This exposes the data to self-selecting bias meaning it may not be entirely accurate of the participant's overall feelings and may have been influenced by feelings felt at the time of completing the online form. The cross-sectional nature of the study also poses a limitation as no causality can be inferred. Along with limitations, there are some strengths to

the study. It was inexpensive as all the data collection was done using google forms which allow the creation of online surveys for free. The study was fast and time efficient as the Instagram advertisement was only published for 24 hours and it recruited 179 participants, of which 30 had to be excluded as they were underage. Another strength is that when Cronbach's alpha was used, it concluded that the four Irish dance questions which were asked in relation to the continuation of Irish dance were all of the acceptable reliability standards. Finally, although there were no significant differences found, the study attempted to expand upon the research of competitive sport in a unique way by investigating a less researched sport in the existing literature, Irish dancing, and this is also among the strengths of the study.

Conclusion

The current study did not find any significant differences in psychological outcomes of anxiety and stress between Irish dancers who competed at different levels of competition or in different types of Irish dance e.g., solo Irish dance, team Irish dance, or both solo and team Irish dance. Although research has seen a difference in psychological outcomes of these items in other sports, no difference was found in Irish dance. This study attempted to provide further information on sporting components that affect psychological outcomes in a novel and less-researched sport which is popular, especially in an Irish context. Further research should consider the other possible influential factors that may make Irish dance different to the other sports found in the existing literature and this may help to identify if any, which components can positively impact psychological outcomes in the sport of Irish dance.

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Appendices

Appendix A

Participant Information Sheet

Does Team Vs Solo Irish Dancing Produce Different Psychological Outcomes on Anxiety Level and Stress Management Ability?

Who am I?

My name is Ellen Shaw, and I am a final-year psychology student at the National College of Ireland.

What is this study about?

I am inviting you to participate in my final year thesis which is a study examining the relationship of doing a competitive sport, on anxiousness and stress management. The study aims to see if young people who compete in sport are less anxious and better able to manage stress as adults than those who do not. This study is supervised by Dr Michelle Kelly.

What will participation involve?

Participation is voluntary. Participation will involve completing a questionnaire which will take ? minutes. The questionnaire will contain three parts. The first part will be about the level and intensity, if any, of competitive sport that you have engaged in. The second part will assess anxiety using the Liebowitz Social Anxiety Scale. The last part will assess stress management using the Perceived Stress Questionnaire. You have the right to quit the questionnaire at any time without any penalties. However, once your data is submitted you will not be able to withdraw it as it is anonymous and will be among other anonymous data.

Who can participate?

In line with ethical guidelines, you must be at least 18-years old to participate. You must give consent if you want to participate in the study.

Will participating be confidential?

All data received will be anonymous so therefore you cannot be identified. All data is strictly confidential, and the questionnaires will be kept in a password-protected file only accessible by myself. Anonymised data may be used for secondary data analysis. The results of the study will be used in my dissertation, which will be submitted to the National College of Ireland. The results will be used in a presentation done by myself as part of my dissertation grade.

Risks/ benefits of participating?

There is a minor risk of distress from answering questions about anxiety and stress, but should that happen, you are free to exit the questionnaire or avail of the support service details that will be provided in the debriefing sheet. Your participation in the study may help to understand positive factors of competitive sports that are useful in adulthood. There are no direct benefits.

Contact details for further information

If you have any questions, please contact Ellen Shaw through email, x20472166@student.ncirl.ie or the supervisor of this research, Dr Michelle Kelly at michelle.kelly@ncirl.ie

I have read and understand this information ☐

Appendix B

Consent sheet

- I understand the purpose of the study and had the chance to ask questions.

- I understand that I can exit the study at any time before submitting it without any consequences.
- I understand that I have to be at least 18-years old to complete the study.
- I understand that participation involves completing a ? minute questionnaire about competitive sport participation, anxiety and stress management.
- I understand that all the data is anonymous, and my data will be treated confidentially.
- I understand that I may not directly benefit from the study.
- I understand that my anonymised data may be archived on an online repository and may be used for secondary data analysis.
- I understand that my data will be used as part of this dissertation and will be submitted to the National College of Ireland.

By ticking the 'I agree' box, you are consenting that you have read the above information and wish to take part in this study.

I agree □

Ellen Shaw, x20472166@student.ncirl.ie

Appendix C

Debriefing sheet

Thank you for participating in the study on the relationship between competitive sport, anxiety, and stress management. The aim of the study was to see if those who did competitive sport were

less anxious and better able to manage stress as adults. The information received is completely confidential and will only be used for my thesis.

Thank you sincerely for your contribution to my thesis. If you have any family/friends who would be eligible to participate in the study, please send them on the link.

Should you have suffered any psychological distress while answering the questionnaire, below are relevant support service details that should be availed of.

Support services:

Samaritans: 116 123

NiteLine: 1800 793 793

YourMentalHealth: 1800 111 888

Aware: 1800 80 48 48

Contact Information:

If you have any questions or queries, please do not hesitate to contact myself, Ellen Shaw at x20472166@student.ncirl.ie or the supervisor of this research, Dr Michelle Kelly at michelle.kelly@ncirl.ie

Appendix D

Liebowitz Social Anxiety Self-Report scale

FEAR

Rate your fear in the following situations (1 = no fear, 2 = mild fear, 3 = moderate fear, 4 = severe fear)

1. Telephoning in public	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
2. Participating in small groups	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □

3. Eating in public places	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
4. Drinking with others in public places	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
5. Talking to people of authority	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
6. Acting, performing, or giving a talk in front of an audience	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
7. Going to a party	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
8. Working while being observed	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
9. Writing while being observed	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
10. Calling someone you don't know very well	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
11. Talking with people you don't know very well	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
12. Meeting strangers	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
13. Urinating in a public bathroom	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
14. Entering a room when others are already seated	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
15. Being the centre of attention	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
16. Speaking up at a meeting	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
17. Taking a test	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
18. Expressing a disagreement or disapproval to people you don't know very well	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
19. Looking at people you don't know very well in the eyes	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
20. Giving a report to a group	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
21. Trying to pick up someone	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □

22. Returning goods to a store	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
23. Giving a party	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □
24. Resisting a high pressure sales person	1 = None □	2 = Mild □	3 = Moderate □	4 = Severe □

AVOIDANCE

Rate your avoidance in the following situations (1 = Never 0%, 2 = Occasionally 1-33%, 3 = Often 33-66%, 4 = Usual 66-100%).

1. Telephoning in public	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
2. Participating in small groups	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
3. Eating in public places	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
4. Drinking with others in public places	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
5. Talking to people of authority	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
6. Acting, performing, or giving a talk in front of an audience	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
7. Going to a party	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
8. Working while being observed	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
9. Writing while being observed	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
10. Calling someone you don't know very well	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
11. Talking with people you	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □

don't know very well				
12. Meeting strangers	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
13. Urinating in a public bathroom	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
14. Entering a room when others are already seated	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
15. Being the centre of attention	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
16. Speaking up at a meeting	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
17. Taking a test	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
18. Expressing a disagreement or disapproval to people you don't know very well	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
19. Looking at people you don't know very well in the eyes	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
20. Giving a report to a group	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
21. Trying to pick up someone	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
22. Returning goods to a store	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
23. Giving a party	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □
24. Resisting a high pressure sales person	1 = Never □	2 = Occasionally □	3 = Often □	4 = Usual □

Appendix E

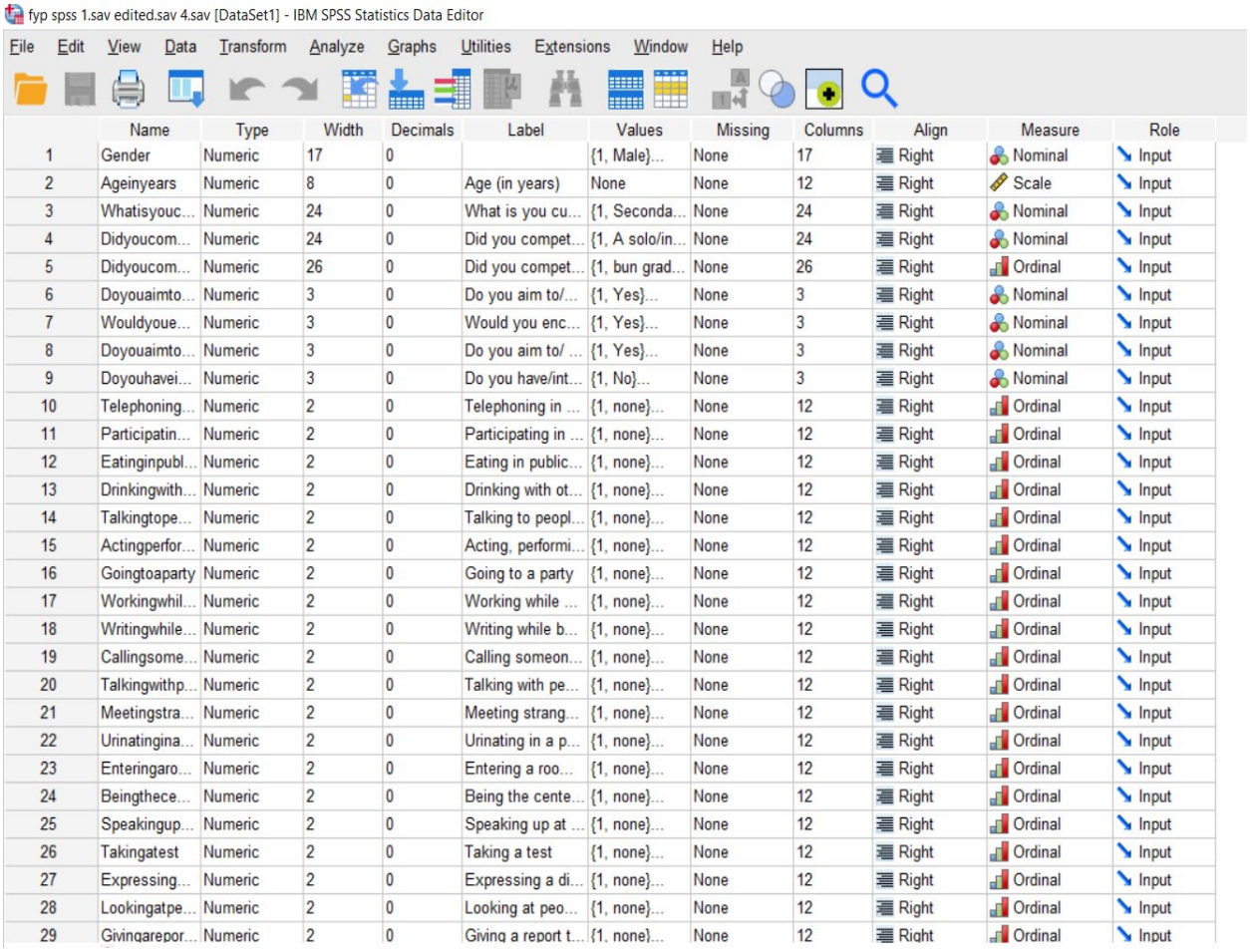
Perceived Stress Scale

1. In the last month, how often have you been upset because of something that happened unexpectedly?	Never	Almost never	Sometimes	Fairly often	Very often
2. In the last month, how often have you felt that you were unable to control the important things in your life?	Never	Almost never	Sometimes	Fairly often	Very often
3. In the last month, how often have you felt nervous or stressed?	Never	Almost never	Sometimes	Fairly often	Very often
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	Never	Almost never	Sometimes	Fairly often	Very often
5. In the last month, how often have you felt that things were going your way?	Never	Almost never	Sometimes	Fairly often	Very often
6. In the last month, how often have you felt you could not cope with all the things that you had to do?	Never	Almost never	Sometimes	Fairly often	Very often
7. In the last month, how often have you felt you were able to control the irritations in your life?	Never	Almost never	Sometimes	Fairly often	Very often
8. In the last month, how often have you felt that you were on top of things?	Never	Almost never	Sometimes	Fairly often	Very often
9. In the last month, how often have you felt angered about things that were out of your control?	Never	Almost never	Sometimes	Fairly often	Very often
10. In the last month, how often have you felt difficulties were piling up so high that you	Never	Almost never	Sometimes	Fairly often	Very often

could not overcome then?					

Appendix F

Evidence of data and SPSS output



fyp spss 1.sav edited.sav 4.sav [DataSet1] - IBM SPSS Statistics Data Editor

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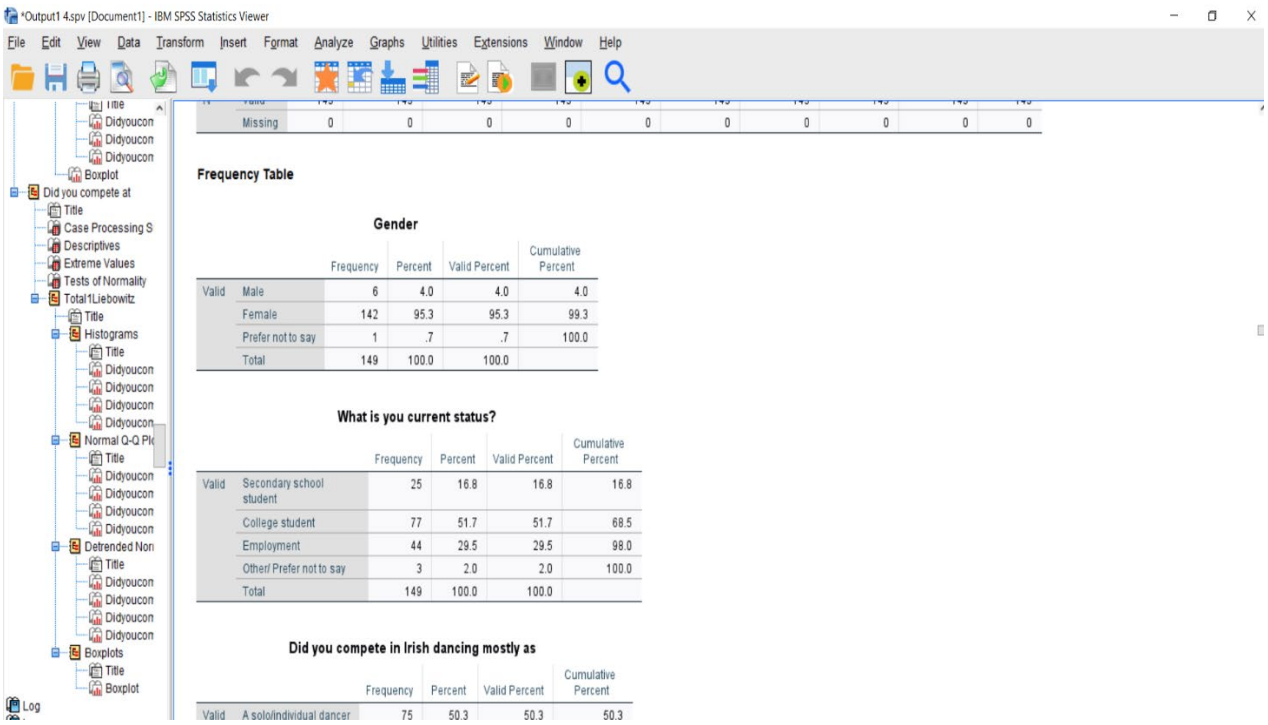
	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	Gender	Numeric	17	0		{1, Male}...	None	17	Right	Nominal	Input
2	Ageinyears	Numeric	8	0	Age (in years)	None	None	12	Right	Scale	Input
3	Whatisyouc...	Numeric	24	0	What is you cu...	{1, Seconda...	None	24	Right	Nominal	Input
4	Didyoucom...	Numeric	24	0	Did you compet...	{1, A solo/in...	None	24	Right	Nominal	Input
5	Didyoucom...	Numeric	26	0	Did you compet...	{1, bun grad...	None	26	Right	Ordinal	Input
6	Doyouaimto...	Numeric	3	0	Do you aim to/...	{1, Yes}...	None	3	Right	Nominal	Input
7	Wouldyoue...	Numeric	3	0	Would you enc...	{1, Yes}...	None	3	Right	Nominal	Input
8	Doyouaimto...	Numeric	3	0	Do you aim to/ ...	{1, Yes}...	None	3	Right	Nominal	Input
9	Doyouhavei...	Numeric	3	0	Do you have/int...	{1, No}...	None	3	Right	Nominal	Input
10	Telephoning...	Numeric	2	0	Telephoning in ...	{1, none}...	None	12	Right	Ordinal	Input
11	Participatin...	Numeric	2	0	Participating in ...	{1, none}...	None	12	Right	Ordinal	Input
12	Eatinginpubl...	Numeric	2	0	Eating in public...	{1, none}...	None	12	Right	Ordinal	Input
13	Drinkingwith...	Numeric	2	0	Drinking with ot...	{1, none}...	None	12	Right	Ordinal	Input
14	Talkingtope...	Numeric	2	0	Talking to peopl...	{1, none}...	None	12	Right	Ordinal	Input
15	Actingperfor...	Numeric	2	0	Acting, performi...	{1, none}...	None	12	Right	Ordinal	Input
16	Goingtoaparty	Numeric	2	0	Going to a party	{1, none}...	None	12	Right	Ordinal	Input
17	Workingwhil...	Numeric	2	0	Working while ...	{1, none}...	None	12	Right	Ordinal	Input
18	Writingwhile...	Numeric	2	0	Writing while b...	{1, none}...	None	12	Right	Ordinal	Input
19	Callingsome...	Numeric	2	0	Calling someon...	{1, none}...	None	12	Right	Ordinal	Input
20	Talkingwithp...	Numeric	2	0	Talking with pe...	{1, none}...	None	12	Right	Ordinal	Input
21	Meetingstra...	Numeric	2	0	Meeting strang...	{1, none}...	None	12	Right	Ordinal	Input
22	Urinatingina...	Numeric	2	0	Urinating in a p...	{1, none}...	None	12	Right	Ordinal	Input
23	Enteringaro...	Numeric	2	0	Entering a roo...	{1, none}...	None	12	Right	Ordinal	Input
24	Beingthece...	Numeric	2	0	Being the cente...	{1, none}...	None	12	Right	Ordinal	Input
25	Speakingup...	Numeric	2	0	Speaking up at ...	{1, none}...	None	12	Right	Ordinal	Input
26	Takingatest	Numeric	2	0	Taking a test	{1, none}...	None	12	Right	Ordinal	Input
27	Expressing...	Numeric	2	0	Expressing a di...	{1, none}...	None	12	Right	Ordinal	Input
28	Lookingatpe...	Numeric	2	0	Looking at peo...	{1, none}...	None	12	Right	Ordinal	Input
29	Givingarepor...	Numeric	2	0	Giving a report t...	{1, none}...	None	12	Right	Ordinal	Input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Boxplot
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Extreme Values
Tests of Normality
Total1Liebowitz
Title
Histograms
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Title
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Title
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Log
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Frequency Table
Gender
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Valid Male 6 4.0 4.0 4.0
Female 142 95.3 95.3 99.3
Prefer not to say 1 .7 .7 100.0
Total 149 100.0 100.0
What is you current status?
Frequency Percent Valid Percent Cumulative Percent
Valid Secondary school student 25 16.8 16.8 16.8
College student 77 51.7 51.7 68.5
Employment 44 29.5 29.5 98.0
Other/ Prefer not to say 3 2.0 2.0 100.0
Total 149 100.0 100.0
Did you compete in Irish dancing mostly as
Frequency Percent Valid Percent Cumulative Percent
Valid A solo/individual dancer 75 50.3 50.3 50.3