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An Examination of Social Phobias Among Undergraduate College Students in Ireland

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Abstract

The current study titled “An examination of social phobias among undergraduate college students in Ireland”, aimed to examine if there were any group differences in social phobia levels in regards to variables such as age, gender, and academic year, the study was also interested in discovering if there was a perceived stigma amongst undergraduate college students in Ireland, in regards to seeking treatment or support for a social phobia. The main hypotheses for this were: (I) High levels of social phobia would be reported among undergraduate college students in Ireland. (II) There will be group differences in levels of social phobia based on variables such as age, gender, and academic year. (III) A majority of students will not have sought out help for their social phobia and there will be a perceived stigma associated with seeking help for a social phobia. The study was carried out using a quantitative approach, using a questionnaire to collect data, participants were required to answer questions based on the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS). The study featured 122 participants, all aged 18 and over. The results showed that social phobia levels were high among undergraduate students in Ireland, however, there was no three-way interaction between age, gender, and academic year present in regards to social phobia. The results also showed that a majority of participants have not sought out help for a social phobia since the beginning of the pandemic and there was no perceived stigma towards seeking help for a social phobia.

Introduction

What is a Social Phobia?

This current research study aims to explore the topic of social phobias and how social phobias currently impact the lives of undergraduate college students in Ireland. To begin, it is important to address just how prominent mental health disorders, such as social anxiety disorder have become in recent years, according to an article on Our World in Data, as of 2017, 792 million people worldwide have lived with a mental health disorder, that is 10.7% of the world's population, 284 million of these people suffer from anxiety disorders (Dattani et al., 2018). Social Anxiety Ireland also reports that 13.7% of the Irish population suffers from social anxiety disorder (SAD), which is nearly one out of eight adults ("How Common Is It?", n.d.).

What is a social phobia? In a book titled, "International Handbook of Phobic and Anxiety Disorders in Children and Adolescents" (Ollendick et al., 1994), there is a chapter that discusses social phobias and some of the early research that was carried out on this topic. According to this book, before 1985, social phobias were known as "neglected anxiety disorders". In 1980, the third edition of the "Diagnostic and Statistical Manual of Mental Disorders" was published, it was due to the publication of the DSM-III that the term social phobia became more widespread, this also led to more research being carried out in the field of social phobias (Beidel et al., 1994). In the social phobia chapter of the International Handbook of Phobic and Anxiety Disorders in Children and Adolescents, written by Beidel and Randall (1994), they refer to the definition of a social phobia that is used by the American Psychiatric Association in the "Diagnostic and Statistical Manual of Mental Disorders, third edition". Within the DSM-III, social phobia is defined as a constant fear of social situations and also the fear that the person may act in a way that humiliates or embarrasses them in front of others (DSM-III, 1980). However, a more current journal article from 2008, focusing on social anxiety disorder

states that the study of social phobias has moved on from just being about shyness and a fear of talking in front of others to becoming something more chronic and severe with potentially long-lasting impacts (Stein & Stein, 2008).

The rest of this introduction will discuss some of the older research on social phobias, while also comparing them to more modern studies and discussing how the topic of social phobias has evolved throughout the years. Studies relating to the impact of social phobias on college students will also be discussed. The topic of stigma will also be addressed in detail and how it could relate to college students seeking help for social phobias. Finally, the aims and research questions for this current study will also be addressed.

History of Social Phobia Research (1985 – 1999)

As it was mentioned in the last section of this introduction, before 1985, social phobias were referred to as “neglected anxiety disorders” and there was very little research done in this field of study. Following the publication of the DSM-III, the term “social phobia” became more popularised (DSM-III, 1980). The DSM-III led to more research into the area of anxiety disorders, however social phobias, in particular, remained a field of study in which very little research had been carried out. According to one article published in 1985, interest was growing in the field of research for anxiety disorders, however, only behavioural therapists were focusing on the study of social phobias. This led to a lot of uncertainty surrounding the topic of social phobias, very little was known about the severity of social phobias or how common they might be. This also led to there being no way to assess or treat a social phobia as of 1985 (Liebowitz et al, 1985).

Moving on to the 1990s, research on the topic of social phobias evolved. The DSM-IV was published in 1994, which led to the introduction of the term “social anxiety disorder” (SAD), as an alternative name to a social phobia (DSM-IV, 1994). Throughout the 1990s, psychiatrist Michael

Liebowitz would become one of the leading researchers in the field of social anxiety disorder.

Liebowitz would publish an article in the *Journal of Clinical Psychiatry* in 1999, the article provided an update on some of the new methods of diagnosis and treatment in the field of social anxiety disorder (Liebowitz, 1999). The article by Liebowitz begins by addressing some of the common symptoms of SAD, which can include, blushing, trembling, and sweating, these symptoms are especially present when in a public situation, the subject is also usually afraid that people will notice them experiencing these symptoms (Liebowitz, 1999). In this article Liebowitz will also go on to discuss how SAD is more common in females than in males and that SAD is more likely to appear in adolescents as young as eleven years of age than it is in adults over the age of twenty-five (Liebowitz, 1999), Liebowitz believed that showing shyness at a young age was a potential indicator of the development of SAD later on in adolescence. In his paper, Liebowitz also addresses some of the impacts SAD can have on a person's life, it is likely that someone with SAD will struggle with education and maintaining employment, which can also lead to financial issues. It is also likely that someone with SAD will struggle with building personal relationships. Liebowitz also presented evidence that 50% of those with SAD, are likely to turn to alcohol to try and help with their disorder (Liebowitz, 1999). Liebowitz also goes on to discuss how most SAD patients will struggle to seek help for their condition due to embarrassment and the fear of interaction. Liebowitz also establishes that there are two subtypes of SAD, the nongeneralized subtype is usually associated with performance anxiety, which could involve public speaking, the generalised subtype is more so related to anxiety surrounding social situations in general (Liebowitz, 1999). In terms of treatment for SAD, Liebowitz believes that patients should be educated about their condition, but also have a strong network of social support, so the patient does not feel isolated. Liebowitz also states that both pharmacological and cognitive-behavioural methods of treatment have proven to be effective against SAD (Liebowitz, 1999).

Throughout the 1990s, Michael Liebowitz was not the only prominent researcher in the field of social anxiety disorder. Richard Heimberg, a clinical psychologist, also had a sizeable role in the

research development of social anxiety disorder. Much like Liebowitz, Heimberg focused on the diagnosis and treatment for SAD. One particular study carried out by Heimberg focused on the generalised and non-generalised subtypes of SAD that were established earlier in the paper by Liebowitz. The study by Heimberg involved comparing thirty-five generalised SAD patients with twenty-two non-generalised SAD patients. The participants were required to carry out a variety of behavioural-related assessments. The results showed that those with generalised SAD were more likely to be younger, less educated, and were also unlikely to be employed. Those with generalised SAD also appeared to be more anxious and depressed when compared to those with non-generalised SAD. Those with generalised SAD also performed poorly on the behavioural tests in the study (Heimberg et al., 1990). Heimberg would also carry out a study to examine the treatment methods for SAD. He would compare cognitive behavioural group therapy (CBGT) and phenelzine therapy, to determine which is the most effective treatment method for SAD, both of these methods of therapy were previously mentioned in the paper by Liebowitz. There were one hundred and thirty-three participants involved in this study. The study took place over the course of twelve weeks, across two different sites. One set of participants took part in CBGT and the other group took part in phenelzine therapy. The results of this study showed that after twelve weeks, both forms of therapy received a positive response from the participants. However, the results did also show that phenelzine therapy did perform better on certain measures. The study proves that both of these methods of therapy would be effective in treating social anxiety disorder (Heimberg et al., 1998).

Modern Social Phobia Research (2000 – Present)

Research on the topic of social phobias (social anxiety disorder) continued throughout the 2000s, expanding on the work that was put forward by Michael Liebowitz and Richard Heimberg. A study from the year 2000 by Hackmann, Clark, and McManus, used the previously established work by Liebowitz and Heimberg on the diagnosis and treatment of social phobias, to further develop this research. The study focused on recurrent images and how early memories can have an impact on the

development of a social phobia. The researchers believed that when someone with a social phobia is put into a social situation, they are likely to have negative images in their head from past experiences with social interaction. The study involved twenty-two participants with social phobias, in an interview setting, the interview involved discussing negative images associated with social interaction. The results of the study show that negative social interactions from a young age are likely to play on the mind of an individual with a social phobia, even years later when in a social situation (Hackmann et al., 2000).

It was during the early 2000's that the field of social anxiety disorder began to be taken more seriously, as potential long-term effects associated with the disorder began to become present. Another study carried out in 2000 by Jean-Pierre Lépine and Antoine Péliissolo, discusses why social anxiety disorder should be taken seriously. Once again, in this article, they state that SAD is likely to present itself in early adolescence, they also state that it is unlikely that a SAD patient will get better without some sort of therapeutic intervention. It is also possible that comorbid conditions such as depression and alcoholism may also develop due to neglecting treatment for SAD. It is also likely that those with SAD are going to struggle in both their professional and personal lives (Lépine & Péliissolo, 2000). The study by Lépine and Péliissolo present similar long-term consequences that were presented in the article by Liebowitz that was mentioned earlier on, however, it was during the 2000's that a lot of the symptoms and consequences of social anxiety disorder were taken more seriously.

A more recent study from 2017, focuses on some of the potential gender differences in social anxiety disorder. The study was carried out by Asher, Asnaani, and Aderka, they believe that although there has been a significant amount of research done in the field of SAD over the years, there hasn't been as much research done on the potential gender differences associated with SAD. To address this gap in the research, the researchers extensively studied the existing research on gender differences in SAD in several different categories. The findings showed that women were more likely to have SAD, but it is also likely to be more severe in women. The findings showed that there was no significant

difference in the course of the disorder between men and women. However, the findings also stated that men are more likely to seek out treatment for SAD. They conclude by stating that more research needs to be carried out to gain more awareness about gender differences in SAD (Asher et al., 2017). This study is pretty significant as gender differences will be examined in this current study involving undergraduate college students and this study by Asher, Asnaani, and Aderka will help to analyse the results of the current study.

Social Anxiety Disorder and Stigma in College Students

In recent years it has become apparent that social anxiety disorder is becoming prominent amongst college students and this section of the introduction will discuss reasons why college students may be suffering from SAD. One particular study focuses on some of the potential risk factors associated with SAD in college students. The study believes that a college student with SAD may struggle with adapting to a new and unfamiliar environment, especially if the student is living on their own for the first time in their life, some of these factors could potentially cause the student to become uncomfortable and they may even drop out. There were 165 participants that took part in this study. The study required participants to complete four different scales relating to social phobia and college. The results showed that SAD can have a negative impact on the quality of life of a college student and it is likely that a college student with SAD will have a general negative outlook on life (Wallace, 2014).

Another study was carried out in 2014 to examine the severity of SAD among university students. The study featured a large sample size of 717 participants, each participant was required to complete the Social Anxiety Spectrum Self-Report questionnaire. The results of the study showed that 61.4% of participants showed low levels of anxiety, 10% of participants scored medium levels of anxiety and 28.6% of participants scored high levels of anxiety. The results also showed that males were more likely to score high for social anxiety (Pini et al., 2014).

Several studies relating to SAD have found a common relationship between students with SAD and alcohol usage. One particular study from 2010 focused on the gender differences present in alcohol usage with college students that suffer from SAD. Interviews were conducted with 118 college students based on their anxiety levels and their drinking habits. The results of the study showed that women are more likely to drink more to cope with their social anxiety disorder than men, the researchers for this study believe that women are more likely to be at risk of developing an alcohol addiction if they suffer from SAD (Norberg et al., 2010). However, another study from 2014 would argue that heavy drinking with SAD is only problematic depending on the situation the person is in while they are drinking. This study featured a larger sample size of 532 participants, all of the participants were undergraduate college students, all of the participants were once again required to complete questionnaires based on their social anxiety levels and their drinking habits. The results found that students who drink to improve their mood or to become more positive, are more likely to develop problematic drinking habits when compared to students who reported that they do not suffer from social anxiety (Villarosa et al., 2014). It is important to highlight the consequences of not seeking treatment for a social phobia, as is evident from the previously mentioned studies, an untreated social phobia could likely lead to the development of alcohol addiction or depression.

In the book titled “The Dilemma of Difference” by Lerita M. Coleman, stigma is described as follows “stigma is equivalent to an undesired differentness” (Ainlay et al., 1986). In an article published in the year 2000, Dudley states that stigma refers to “negative social meanings or stereotypes that are assigned to them on the basis of others’ awareness of their cognitive challenges” (Dudley, 2000). To summarise this, stigma is a negative view that one person has of another based on differences beyond the other person’s control. This section will discuss how stigma can be applied to social anxiety disorder, and also how it connects to how students seek treatment for their social anxiety disorder.

One particular study focused on some of the predictors that stigma can have towards anxiety and depression. The study states that there is generally stigma towards people with a mental illness because those with mental illnesses tend to have psychological issues, problems with socialising and they also tend to struggle financially, all of these factors could cause someone to associate a negative stigma towards those with mental illness. This study involved 350 college students and members of the public, completing an online survey, that questioned them about their knowledge of depression, anxiety, depression and anxiety symptoms, and personal, perceived, and self-stigma. The results of the study showed that those with a higher knowledge related to those topics were likely to have a lower level of stigma associated with depression and social anxiety, however, those with a lower level of knowledge related to those topics were likely to show higher amounts of stigma towards those with anxiety and depression (Busby Grant et al., 2015).

A recent study carried out in the United States aims to examine how stress, anxiety, and depression impacted undergraduate college students in the early stages of the COVID-19 pandemic, the study also aimed to examine how students use the mental health services provided to them and if there is a stigma associated with using these services (Lee et al., 2021). In the paper by Lee, they cite an article that states that before the COVID-19 pandemic, more than one-third of undergraduate college students in the United States were diagnosed by a professional, due to them having one or more symptoms associated with their mental health (American College Health Association, 2020). Lee also refers to a study conducted by Healthy Minds in 2019, the study collected data from 62,171 college students across the United States, the data showed that 57% of students with anxiety or depression have not used the counselling or therapy services available to them, the study also showed that 64% of students have not used medication for their disorder (Healthy Minds, 2019). Furthermore, an article published by Cage in 2018, suggests that self-stigma is the main barrier in place that is preventing students from seeking mental health support, students are perhaps worried about what their friends and family may think of them if they seek out mental health treatment (Cage et al., 2018). Lee conducted the study by collecting data through an online survey. The survey was open to all students

from the university in Kentucky. The study involved using multiple scales relating to stress, anxiety, and depression. The final sample for the study included 1,412 participants. The results of the study showed that overall, a majority of college students had experienced some sort of distress throughout the early stages of the COVID-19 pandemic. 24.61% of students in the study reportedly had severe levels of stress. 63% of participants in the study had moderate levels of stress and only 12% of the participants in this study showed low-stress levels (Lee et al., 2021). To conclude the study, Lee states that the results of their study were accurate when compared to the findings of a report by Horn, which showed that 91% of students stated that they had felt stress and anxiety since the beginning of the pandemic (Horn, 2020).

The Current Study

The current study is titled, “An examination of social phobias among undergraduate college students in Ireland”. The main aim of this study is to examine the experiences that undergraduate college students have had with social phobias in recent times and to determine if the severity of a social phobia can be impacted by factors such as age, gender, and current year of study. The study also aims to see if students have received help for their social phobia in the past or if they would ever consider seeking help, to continue from the previous point, another aim of the current study is to determine if there is any stigma attached to seeking help for social phobias. The study also aims to address whether or not students have been seeking treatment or support for their social phobia since the beginning of the COVID-19 pandemic.

From reading existing articles on the topic of social phobias, it is important to carry out this current study to address some of the gaps present in the literature. The current study was influenced by the study carried out by Lee, Jeong, and Kim in 2021 (Lee et al., 2021). The study by Lee set out to examine how stress, anxiety, and depression impacted college students in the early stages of the COVID-19 pandemic and how the students used mental health services, this study took place in the

United States. However, this current study aims to address the severity of social phobias in

undergraduate college students in Ireland, almost two years on from the beginning of the COVID-19 pandemic, the results of this current study should show if social phobias have become more severe with the presence of COVID-19. Much like the paper by Lee, this current study also aims to examine if Irish undergraduate students have sought out treatment for their social phobia since the beginning of 2020 or if they believe that there is a stigma associated with seeking help for their social phobia, undergraduate students may be afraid of how their friends or family would perceive them for seeking out treatment for their social phobia.

This current study will be carried out using the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS), both of these scales were developed by Mattick and Clarke (Mattick & Clarke, 1998). The SPS is used to examine how anxious people feel when they are being observed by others, however, the SIAS is used to examine how anxious people are in social situations with other people (Mattick & Clarke, 1998). Both of these scales were chosen due to them examining a large variety of fears associated with social phobia and a lot of the questions involve everyday situations, which should give an insight into how severe the social phobias of the participants are, which should provide more accurate results. Furthermore, a study from 2001 in Spain, aimed to examine the reliability of both the SPS and SIAS, the results showed that these scales are reliable measures to use with different languages and cultures, but that they also have high levels of internal consistency. Overall the study supports the psychometric properties of the SPS and the SIAS (Olivares et al., 2001).

Research Question 1: Will there be a severe level of social phobia among undergraduate college students in Ireland?

Hypothesis 1: High levels of social phobia will be reported among undergraduate college students in Ireland.

Research Question 2: Are there group differences in levels of social phobia based on variables such as age, gender, and current year of study?

Hypothesis 2: There will be group differences in levels of social phobia based on different variables. From reading the existing research, it is likely to assume that females will show higher levels of anxiety than males, but it is also likely that first-year students will show higher levels of social anxiety than fourth-year students.

Research Question 3: Have undergraduate college students in Ireland been seeking support for their social phobia since 2020 and do these college students believe that there is a perceived stigma related to seeking help for a social phobia?

Hypothesis 3: A majority of students will not have sought out help for their social phobia and there will be a perceived stigma associated with seeking help for a social phobia.

Methodology

Participants:

The sample size for this study consisted of 123 participants. Through using G*Power, it was determined that the minimum sample size required for this study would be 76 participants, however, the target sample size was rounded up to 80 at the beginning of this study (Faul et al., 2007). The questionnaire was made and participants were recruited using both convenience sampling and snowball sampling techniques. Convenience sampling was used due to the questionnaire taking place online, which means that participants are selected based on their availability and their willingness to take part in the study. However, snowball sampling was also used, as the participants were also asked to share the questionnaire with others, who would fit the criteria to take part. The study involved examining levels of social phobia amongst undergraduate college students in Ireland. It was required that all participants in this study must be over the age of 18 and also be an undergraduate college student, currently in Ireland. The survey was shared on social media platforms, such as Twitter, Instagram, and Reddit. All participants were also encouraged to share the survey with anyone they know who fit the required criteria and would be willing to participate. Demographic information was collected for this study. The participants were required to select their age from the provided age ranges. 53 (43.4%) participants were between the ages of 18 and 21. 47 (38.5%) participants were between the ages of 21 and 25. 10 (8.2%) participants were between the ages of 26 and 29. 7 (5.7%) participants were over the age of 40. 5 (4.1%) participants were between the ages of 30 and 39. Participants were then required to select their gender from the options that were provided. 69 (56.6%) participants were Female. 43 (35.2%) participants were Male. 4 (3.3%) participants were Transgender. 4 (3.3%) participants were Non-Binary. 2 (1.6%) participants selected to not state their gender. Lastly, participants were then required to select what year of college they are currently in. 38 (31.1%) participants were in Year 2. 29 (23.8%) participants were in Year 1. 28 (23%) participants

were in Year 3. 27 (22.1%) participants were in year 4. From reading through the results of the questionnaires, it became apparent that one blank questionnaire was submitted, the blank questionnaire was removed, meaning that the total sample size was now 122 participants.

Materials:

This study was developed using two scales associated with social phobias, demographic information such as age, gender, and current year of undergraduate study was also collected at the beginning of the questionnaire. The two social phobia scales that were used for this study are the Social Phobia Scale (SPS) (Mattick & Clarke, 1998) and the Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998). However, two questions were added to the end of the questionnaire to examine if any of the participants had sought out any sort of treatment or support for social phobias, since the beginning of 2020, a follow-up question was also asked to determine if the participants believe there is any stigma associated with seeking treatment or support. These questions were added to this study because of a similar study from the United States, examining stress, anxiety, and depression in undergraduate students and if there is any stigma associated with seeking treatment or support (Lee et al., 2021). This current study was influenced by the previously mentioned study by Lee, Jeong, and Kim.

Social Phobias Scale (SPS):

The Social Phobia Scale (SPS) was developed by Mattick and Clarke in 1998. The SPS was designed to examine how people are affected by anxiety when being observed by others (Mattick & Clarke, 1998). The SPS contains 20 questions, related to the anxiety associated with being observed. An example of the questions in this scale would be, “I become anxious if I have to write in front of other people” and “I feel self-conscious if I have to enter a room where others

are already seated” (See Appendix D). All questions in this scale are rated on a 5-point Likert scale, ranging from 0 to 4, with 0 meaning “not at all” and 4 meaning “Extremely”. The score for this scale is calculated by adding up the sum of all the answers, the highest score possible is 80. Receiving a higher score on this questionnaire indicates high levels of social anxiety, whereas a lower score indicates low levels of anxiety (Mattick & Clarke, 1998). According to a Dutch study published in 2014, also using both the Social Phobia Scale and the Social Interaction Phobia Scale, the SPS has satisfactory reliability, as it has a Cronbach’s Alpha of 0.89 to 0.94, which means that it is above the recommended Cronbach’s Alpha of 0.70. The test-retest reliability also ranged from 0.91 to 0.93 for the SPS (de Beurs et al., 2014). For the current study, a reliability analysis was run for the SPS, the analysis showed that the SPS in the current study has a Cronbach’s Alpha of 0.93, suggesting that the scale has a very good internal consistency reliability. The same Dutch study supports the validity of both the SPS and the SIAS. The study showed that participants associated anxiety with the SPS over other scales they were presented with. The results also showed that the SPS was better at distinguishing between different types of anxiety disorders, such as social phobia and agoraphobia (de Beurs et al., 2014).

Social Interaction Anxiety Scale (SIAS):

The Social Interaction Anxiety Scale was also developed by Mattick and Clarke in 1998. The SIAS was developed to examine how people react to certain social situations. Whereas the SPS focused on the anxiety associated with being observed by others, the SIAS focuses on the anxiety associated with interacting with others, for example, starting and maintaining a conversation with someone else (Mattick & Clark, 1998). The SIAS also contains 20 questions. An example of some of the questions present in the SIAS would be, “I become tense if I have to talk about myself or my feelings” and “I am nervous mixing with people I don’t know well” (See Appendix E). The questions in this scale are rated on a 5-point Likert scale, ranging from 0 to 4, with 0 meaning “Not at all characteristic or true of me” and 4 meaning “Extremely characteristic

or true of me". When scoring the SIAS, once again the highest score obtainable is 80, this is calculated by adding up the sum of the answers given. However, on the SIAS, questions 5, 9, & 11 are reversed scored, meaning that an answer of 0 is worth 4 points and an answer of 4 is worth 0 points. A higher score will indicate high levels of anxiety, whereas a low score will indicate low levels of anxiety (Mattick & Clarke, 1998). As mentioned above in the Dutch study involving both the Social Phobia Scale and the Social Interaction Anxiety Scale, this study has a Cronbach's Alpha ranging between 0.88 and 0.93 for the SIAS. In this same study, the test-retest reliability for the SIAS is 0.92, this means that the SIAS is higher than the recommended Cronbach's Alpha of 0.70 (de Beurs et al., 2014) For the current study, a reliability analysis was run for the SIAS, the analysis showed that the SIAS in the current study has a Cronbach's Alpha of 0.93, suggesting that the scale has a very good internal consistency reliability. In terms of validity with this Dutch study, research shows that higher levels of anxiety were associated with the SPS, than with the SIAS, however, the SIAS was able to establish social phobias more reliably over other scales related to social phobias (de Beurs et al., 2014).

Design:

This study was carried out using a quantitative approach, with a cross-sectional design. Also, as previously mentioned, this study uses sampling techniques, such as convenience sampling and snowball sampling to collect data. The independent variables in this study are age, gender, current year of college the student is in, and the stigma associated with seeking help for a social phobia. The dependent variable in this study is social phobia levels. Once all data was collected, the data was compiled into an Excel spreadsheet and was analysed using SPSS. Descriptive statistics and inferential statistics were then run using SPSS. Lastly, three-way between groups ANOVAs were used in this study as there were more than three groups analysed in this study. The ANOVA was used to assess differences in social phobias between age and gender groups, as well as groups based on the year of college the student is in. Regressions were also conducted to determine whether these factors

Procedure:

This study was made by creating a questionnaire based on the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS), both developed by Mattick and Clarke (1998). Each scale involved 20 questions, that participants would be required to answer on a 5-point Likert scale, ranging from 0 to 4. Participants would also be required to answer demographic-based questions, such as age, gender, and their current year of study. At the end of the questionnaire, to examine if there was any stigma associated with seeking help for a social phobia, participants were required to answer 2 questions based on social phobia stigma. The first question asks if the participants have sought out help for a social phobia in the last 2 years and the other question is another 5-point Likert scale, that asks if participants would be afraid of what their family or friends would think of them if they sought out treatment for a social phobia. Once the questionnaire was developed using Google Forms, a link to the questionnaire was then posted on a variety of social media platforms, such as Instagram, Twitter, and Reddit. When a participant clicked the link, they were brought to the questionnaire. The participant was first presented with the information sheet (See Appendix A), which provided them with all the information they needed for the study, such as the title of the study, what was involved in the study, how long the questionnaire will take to complete, the rights that the participant had by taking part in the study and contact information was provided if the participant wished to ask any further questions about the study. Participants were also informed that they have the right to withdraw from participation at any time if they wish to do so without facing any consequences. At the bottom of the information sheet, there was a question asking participants if they consent to participate in the study (See Appendix B), participants would have to answer yes to this question to gain access to the questionnaire, if a participant selected no, they were redirected to a participation declined page, where they will be thanked for their time and asked to close the questionnaire tab when they wish to do so.

Once this question was answered, participants were required to answer another yes or no question, to confirm that they are currently an undergraduate student, to proceed to the questionnaire, participants were required to answer yes to this question, if a participant answered no, they would once again be redirected to the participation declined page.

Once the information sheet has been read and the consent questions had been answered, participants were then free to complete the questionnaire, as previously mentioned participants were required to answer some demographic questions first, and then they would be required to complete the SPS and SIAS questions, before lastly answering the questions related to stigma.

Once the participants have completed the questionnaire, they were brought to the debriefing sheet (See Appendix C). The debriefing sheet once again provided some brief information relating to the study and its purpose. All participants were thanked for taking part in the study and the researcher's contact information was also provided if any of the participants had any further questions relating to the study. Links to support services were also provided just in case any of the participants became overwhelmed or uncomfortable while taking part in the survey. Lastly, all participants were then asked to submit their responses once they were happy with their answers.

In terms of ethical consideration, due to this study involving the topic of social phobias, which is likely to be a sensitive topic to some of the participants and could lead to them becoming uncomfortable or overwhelmed, it is important to take some ethical considerations into account. As previously mentioned, to take part in this study all participants must first give consent to participation by answering yes to the consent question at the bottom of the information sheet, if a participant selects no they will not be able to participate in the study. The information sheet also informs participants that the questionnaire will be completely anonymous and the only personal information that was required for the study is the participant's age, gender, and current year of study. Participants were also informed that they can stop participation at any time during the study without any repercussions.

Participants were also informed that if they become overwhelmed or uncomfortable by any of the subject matter involved, they can take a break from the survey and come back to it at a later time, and as previously mentioned, links to support services were provided in the debriefing sheet if a participant becomes distressed. Lastly, participants were reminded that any data collected during this study, will be safely-stored on the researcher's password-protected laptop and that per the NCI code of conduct for researchers, all data collected during this study must be retained for at least five years for the protection of the researcher and the college before being destroyed.

Results

Descriptive Statistics:

The current data was collected from a sample of 122 participants ($n = 122$). From the data in the gathered sample, the sample contained 43 males and 69 females. 4 participants in this study were non-binary, another 4 participants were transgender and 2 of the participants preferred not to state their gender. In terms of age, the category with the largest sample was the Below 21 years old (18-21) age group, 53 (43.4%) participants selected this option. However, in terms of academic year, the highest number comes from the year 2 category with 38 (31.1%) participants, the other year group categories are almost equal in terms of participants, year 1 has 29 (23.8%) participants, year 3 has 28 (23%) participants and year 4 has 27 (22.1%) participants. Table 1 will show descriptive statistics for demographic information such as age, gender, and academic year.

Table 1*Descriptive statistics for Age, Gender and Academic Year (n = 122)*

Variable	Frequency	Valid %
Age		
Below 21 years old	53	43.4
21 – 25 years	47	38.5
26 – 29 years	10	8.2
30 – 39 years	5	4.1
40 years old and above	7	5.7
Gender		
Man	43	35.2
Woman	69	56.6
Non-Binary	4	3.3
Transgender	4	3.3
Prefer not say	2	1.6
Academic Year		
Year 1	29	23.8
Year 2	38	31.1
Year 3	28	23
Year 4	27	22.1

Descriptive statistics were once again used for the total Social Phobia Scale variable and the total Social Interaction Anxiety Scale variable. Descriptive statistics were also used to assess the normality of the total SPS and the total SIAS scores. Although the total SPS and total SIAS had a sig. value of less than .05 ($p < .05$) on the Kolmogorov-Smirnov test, the Histogram, Normal Q-Q Plot, and Boxplot for total SPS showed that the scores were normally distributed. The Histogram, Normal Q-Q Plot, and Boxplot for total SIAS also showed that the scores were relatively normally distributed. The mean for total SPS scores was 37.07 with a standard deviation of 18.30 ($SD=18.30$). The mean for total SIAS scores was 47.81 with a standard deviation of 17.40 ($SD=17.40$). Table 2 shows the mean (M), 95% confidence interval, standard deviation, and range for both total SPS and total SIAS scores.

Table 2

Table for descriptive statistics – Total SPS & Total SIAS Scores

Variable	<i>M</i> [95% CI]	<i>SD</i>	Range
SPS Total Score	37.07 [33.79, 40.35]	18.30	2 – 80
SIAS Total Score	47.81 [44.70, 50.93]	17.40	8 – 78

Lastly, descriptive statistics were once again used to show the frequencies for the question in the survey relating to the participant's experiences with mental health treatment or support and the question that asks the participants if they believe there is a stigma associated with seeking treatment for mental health or a social phobia. The frequencies showed that 47 (38.5%) participants have sought out mental health treatment or support since the beginning of 2020, 75 (61.5%) participants stated that they have not sought out mental health treatment or support since the beginning of 2020. The question in the survey assessing stigma is as follows: "I am afraid of what my family or friends will say or think of me if I seek counselling/therapy". 32 (26.2%) participants strongly disagree with this statement. 24 (19.7%) participants disagree with this

statement. 15 (12.3%) participants have a neutral opinion about this statement. 32 (26.2%)

participants agree with this statement. 19 (15.6%) participants strongly agree with this statement.

The frequencies for these variables are shown in Table 3.

Table 3

Table for frequencies – descriptive statistics for Mental Health Treatment & Mental Health Stigma

Variable	Frequency	Valid %
Mental Health Treatment		
Yes	47	38.5
No	75	61.5
Mental Health Stigma		
Strongly Disagree	32	26.2
Disagree	24	19.7
Neutral	15	12.3
Agree	32	26.2
Strongly Agree	19	15.6

There were no outliers in the total SPS data, as assessed by inspection of a boxplot. SPS scores were normally distributed ($p > .05$), however a low sig. value was found in two different groups. Women between the ages of 21 – 25 in year 2 of college had a sig. value of $p = .028$ and women between the ages of 26 – 29 in year 4 of college had a sig. value of $p = .060$, as assessed by Shapiro – Wilk’s test of normality. A three-way ANOVA was run examining the group differences between SPS scores and independent variables such as age, gender, and current year of study. There was homogeneity of variances for total SPS scores for all group combinations of age, gender, and current year of study, as assessed by Levene’s test for equality of variances, $p = .437$. There was no statistically significant three-way interaction between age, gender and academic year, $F(4, 86) = .374, p = .827$. (Laerd Statistics, 2017).

Another three-way ANOVA was run to examine the group differences between SIAS scores and independent variables such as age, gender, and academic year. First, tests were carried out using boxplots to assess for any potential outliers in the total SIAS scores. There were no outliers in the data, as assessed by inspection of a boxplot. Total SIAS scores were normally distributed ($p > .05$) except for in two groups, women aged below 21 in their third year of college had a sig. value of $p = .026$ and the other group was women aged between 21 – 25 years in their second year of college with a sig. value of $p = .008$. There was homogeneity of variances for total SIAS scores for all group combinations of age, gender, and academic year, as assessed by Levene’s test for equality of variances, $p = .651$. From running the three-way ANOVA it can be seen that there was no statistically significant three-way interaction between age, gender, and academic year, $F(4, 86) = .394, p = .813$. There was a slightly statistically significant interaction between age and academic year, $F(4, 86) = 1.867, p = .068$. (Laerd Statistics, 2017).

An ordinal logistic regression was used to examine perceived stigma among undergraduate college students in Ireland. The deviance goodness-of-fit test indicated that the model was a good fit to the observed data, $\chi^2(129) = 114.901, p = .808$. The Pearson goodness-of-fit test indicated that the model was a good fit to the observed data, $\chi^2(129) = 128.571, p = .494$. The odds of college students in the age category of below 21 considering there to be a perceived stigma towards seeking treatment or support for a social phobia was 5.029, 95% CI [1.009, 25.052] times that of people over the age of 40, a statistically significant effect, $\chi^2(1) = 3.886, p = .049$. Gender does not have a statistically significant effect on the prediction of perceived stigma relating to social phobia treatment or support, Wald $\chi^2(4) = 6.390, p = .172$. (Laerd Statistics, 2015). In table 4 below, the results of the binary logistic regression are shown.

Table 4*Binary logistic regression table for perceived stigma*

Variable	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>OR [95% CI]</i>
Age						
Below 21 Years Old	1.615	.8193	3.886	1	.049	CI [1.009, 25.052]
21 – 25 Years Old	1.114	.8193	1.871	1	.171	CI [.617, 15.028]
26 – 29 Years Old	.727	.9510	.584	1	.445	CI [.321, 13.340]
30 – 39 Years Old	.931	1.1202	.690	1	.406	CI [.282, 22.789]
Gender						
Man	-2.234	1.4265	2.452	1	.117	CI [.007, 1.754]
Woman	-2.220	1.4199	2.444	1	.118	CI [.007, 1.756]
Non-Binary	-4.228	1.7778	5.656	1	.017	CI [.000, .475]
Transgender	-2.799	1.6869	2.753	1	.097	CI [.002, 1.661]
Academic Year						
Year 1	-.639	.6127	1.089	1	.297	CI [.159, 1.754]
Year 2	-.390	.5254	.550	1	.458	CI [.242, 1.897]
Year 3	-.355	.5086	.486	1	.486	CI [.526, 3.863]

Discussion

The current study aimed to investigate the experiences that undergraduate college students in Ireland have had with social phobias, with a particular interest in the group differences between factors such as age, gender, and academic year. The study also aimed to examine if there was any perceived stigma amongst college students, in regards to seeking treatment or support for a social phobia. Studies conducted in the last five years have shown that stress, anxiety, and depression are some of the most prominent mental health conditions amongst college students (Leviness et al., 2017). Based on the prominence of mental health conditions among college students, this study decided to focus on the prominence of social phobias (social anxiety disorder) in college students. The study used the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS) to examine social phobia in college students, while there were also added questions relating to the perceived stigma associated with seeking treatment or support for a social phobia. The findings from this study will be analysed and discussed in detail in the following section.

The first hypothesis for this study was that “High levels of social phobia will be reported among undergraduate college students in Ireland”. This hypothesis was examined using descriptive statistics and through analysing the total scores for both the SPS and the SIAS. An article that was published in 2009 set out to assess some of the issues present in a variety of different scales relating to the measurement of social phobia (Letamendi et al., 2009). For both the SPS and SIAS, 80 is the highest score attainable on both scales. This article also suggests cut-off scores for both of these scales. The recommended cut-off score for the SIAS is 34 and the recommended cut-off score for the SPS is 24, the article suggests that any scores higher than the cut-off, could indicate the presence of a social anxiety disorder, however, a high score on both of these scales will indicate severe social anxiety disorder (Heimberg et al., 1992). In the current study, the mean was generated from the total scores of both the SPS and SIAS. The average total score for the SPS was 37.07, which is higher than the recommended cut-off point of 24 for the SPS. The average total score for the SIAS was 47.81, which

is higher than the recommended cut-off point 34. As the mean total scores for both the SPS and SIAS are higher than the recommended cut-off score, it can be determined that high levels of social phobia were reported amongst undergraduate college students in Ireland, and so this means that the initial hypothesis was correct.

The second hypothesis for this study was that “There will be group differences in levels of social phobia based on different variables. From reading the existing research, it is likely to assume that females will show higher levels of anxiety than males, but it is also likely that first-year students will show higher levels of social anxiety than fourth-year students”. Three-way between-groups ANOVAs were used to examine the group differences between age, gender, and academic year on social phobias. Two, three-way between-groups ANOVAs were used, one examined the total SPS scores to find the group differences in age, gender, and academic year and the other examined the total SIAS scores to find the group differences in age, gender, and academic year. After running the first ANOVA on total SPS scores, it was found that there was no statistically significant three-way interaction between age, gender, and academic year as, $F(4, 86) = .374, p = .827$. After running the second ANOVA on total SIAS scores, it was found that there was once again, no statistically significant three-way interaction found between age, gender, and academic year as, $F(4, 86) = .394, p = .813$. However, there was a slight two-way interaction found between age and academic year as, $F(4, 86) = 1.867, p = .068$. However, after examining the mean scores for the SPS, it was found that men had a mean score of 28.89 across all age groups and women had a mean score of 38.24 across all age- groups. After examining the mean scores for the SIAS, it was found that men had a mean score of 42.53 across all age groups and women had a mean score of 48.3 across all age groups. These mean scores show that women showed higher levels of social phobia than men in this study, which is in line with the evidence presented in some of the earlier studies by Liebowitz (1999), as was mentioned in the introduction section of this current study. Women scoring higher than men in this study also proves the hypothesis that was presented in this current study to be correct. Also, from examining the mean score in regards to academic year, the results showed that students in Year 1 had a mean score

of 40.8 on the SPS and a mean score of 57.02 on the SIAS, but students in Year 4 had a mean score of 26.38 on the SPS and a mean score of 36.48 on the SIAS, this once again proves the hypothesis that students in Year 1 of college would show higher levels of social phobia than students in Year 4 of college, this is in line with the evidence presented by Wallace (2014) as he believes that first-year college students are likely to show higher levels of social phobia because they are in a new and unfamiliar environment that is potentially outside of their comfort zone.

The final hypothesis for this study was that “A majority of students will not have sought out help for their social phobia and there will be a perceived stigma associated with seeking help for a social phobia”. From examining the descriptive statistics in this study, the frequencies show that 47 participants have sought out treatment or support for a social phobia since the beginning of 2020, whereas, 75 of the participants stated that they have not sought out treatment or support for a social phobia since the beginning of 2020. These results show that a majority of the participants in this study have not sought out treatment or support for a social phobia since 2020, which proves the proposed hypothesis to be correct. An ordinal logistic regression was then used to examine if there was a perceived stigma about seeking treatment or support for a social phobia amongst undergraduate college students. The results of the ordinal logistic regression showed that there was no statistically significant relationship between perceived stigma and independent variables such as age, gender, and academic year as, Wald $\chi^2(4) = 6.390, p = .172$. However, from examining the frequencies table for the perceived stigma question in the survey, it can be seen that most of the participants selected either the strongly disagree or the agree option, as both of these had 32 responses each. This result shows that there is no clear answer in regards to there being a perceived stigma about seeking treatment or support for a social phobia, which means that the hypothesis of there being a perceived stigma towards seeking help for a social phobia can be rejected. However, this differs from the results presented in the paper by Lee, Jeong, and Kim (2021), in this paper they found that there was a perceived stigma found about seeking help for a social anxiety disorder, among undergraduate college students in the United States.

Limitations

There were several limitations present within this study. The first major limitation of this study was the sample size, this study featured 122 participants, all of whom are currently undergraduate college students in Ireland, 122 participants are only a small number of the overall Irish undergraduate student population, With a bigger sample size, the results of the study could have been more accurate and diverse, especially when compared to the study by Lee, Jeong and Kim (2021) in the United States, which had a total of 2,059 participants, which is a much larger sample size, which gave their study satisfactory results. Also in regards to sample size, the study could have benefited from the gender variable being more balanced. The study featured 69 women, 43 men, 4 non-binary, 4 transgender, and 2 selected that they would prefer not to say. Women had the largest sample size, however, the results of the study could have benefitted from both men and women having a more equal sample size.

This study used a questionnaire to collect data, a questionnaire has both advantages and disadvantages, however, some of the disadvantages could be applied to this study. Due to the nature of the questionnaire being online and completely anonymous, it is likely that some people did not take the questionnaire seriously and so did not give real answers to the questions which could skew the results. When examining the total scores for the questionnaire, there was one questionnaire in particular where the participant scored a total of 80 out of 80 on one of the scales. Although it is technically possible that someone could score this high on the questionnaire, it is also likely that someone just went through the questionnaire selecting the highest answers possible, it is impossible to know about the legitimacy of some of the questionnaires that have been submitted.

Another limitation for this study would be that the link for this study was posted on social media platforms such as Twitter, Instagram, and Reddit. If someone didn't use these social media platforms,

they would not be able to access the questionnaire. However, another limitation related to social media would be that the researcher has a relatively small social media following, which meant that a lot of the participants were gathered using snowball sampling methods, such as asking other participants to share the survey with others if they fit the criteria required to participate in the study. Posting a link to a questionnaire online would be more beneficial to those with larger social media followings. Alternatively, due to the current nature of the world regarding COVID-19, it is not recommended to do in-person questionnaires at the moment due to the current social distancing requirements, this study may have benefited from carrying out in-person questionnaires.

Finally, it is also likely the results of this study could have been influenced by the growing COVID-19 cases numbers, as the questionnaire was open from December 2021 to January 2022, in which Ireland saw its highest daily case numbers since the beginning of the pandemic, these high case numbers could have caused some anxiety amongst undergraduate college students throughout the country.

Conclusion

Overall, the results of this study have shown that there are high levels of social phobia present amongst undergraduate college students throughout Ireland. Although there was no three-way interaction found when examining variables such as age, gender, and academic year with social phobia. However, the results of the study showed that women are much more likely to show higher levels of social phobia than men and that first-year undergraduate college students are likely to show higher levels of social phobia than final-year undergraduate college students. The results of this study have also shown that although there seems to be no perceived stigma associated with seeking treatment or support for a social phobia, a majority of participants have not sought out treatment or support for a social phobia since the beginning of the pandemic in 2020. The results have also shown

that future studies on the topic of social phobias may benefit from having a larger and more diverse sample size for the study.

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Appendices

Appendix A: Information Sheet

Research Title: An examination of social phobias among undergraduate college students in Ireland.

My name is Jason Tully and I am a final year psychology student at the National College of Ireland, as a part of my final year, I am carrying out a research project looking at social phobias or social anxiety among undergraduate students in Ireland.

The topic of this study is phobias, with a particular interest in social phobias or social anxiety. Someone with a social phobia is likely to have a negative reaction when put in a situation that involves interacting with other people or requires them to do something in front of others in public. This particular research study is going to focus on the experiences college students have had with social phobias and look at any differences between age, gender, and stage of study (e.g., current programme year) groups.

What does this research study involve?

A participant in this study will be required to complete a brief questionnaire. Demographic information such as your age, gender, and what year of college you are currently in will be collected. The remainder of the questions will focus on assessing social phobias and two brief questions will ask whether you have previously sought mental health support for your phobias.

If you decide to proceed with participation in this study, once you have completed reading this participant information sheet, you will be asked to give your consent to participate in this study. If you

wish to take part in this study, please select yes. However, if you do not want to participate in this study, please select no. If you choose to participate in the study, you will then be asked to confirm that you are a college student. If you are a college student, you may select the yes option, if you select no, you will be excluded from participating in this study given the focus is on college students.

As a participant in this study, you have the right to withdraw from participation at any time without any explanation required. Due to the nature of this study being about phobias, it is possible that some participants may feel uncomfortable with some of the subject matter involved, if this is the case, feel free to take a break from the questionnaire and come back to it at a later time or if you feel very uncomfortable, it is also perfectly acceptable to cease participation at any time, there will be no consequences for withdrawing from the study. Just close your browser window or tab and don't submit your responses to withdraw from the study. If you would find these topics to be unduly distressing, you do not have to participate in this study. There will also be some links provided to support services that may be able to help if any distress arises from your participation in this study. These links will be provided on the debriefing sheet after the questionnaire is completed.

The answers you provide in this questionnaire will be totally anonymous as you will not be asked for your name at any point in the study, so your privacy will be protected. If there is a particular question that you cannot answer it is acceptable to skip that question. If you have any further questions about your rights during this study, you may email me at any time (My email address will be provided at the end of this form).

There will be no direct benefits for you by participating in this research study, although the answers you provided may be useful in future research on the topic of social phobias. By participating in this study, you will also be helping a student complete his final-year project.

As previously mentioned, this questionnaire is completely anonymous and no information you provide will be identifiable to anyone else. Furthermore, any data collected in this study will be stored

safely on my password-protected laptop, which only I have access to. In accordance with the NCI code of conduct for researchers, all data collected during this study must be retained for at least five years for the protection of the researcher and the college before being destroyed.

Thank you for reading this form, if you have any further questions relating to your participation in the study or the study in general, please feel free to e-mail me at x18508976@student.ncirl.ie

Appendix B: Consent to Participation

To continue on to the questionnaire, you must be over the age of eighteen. By advancing to the questionnaire, you are stating that you have read and understood the participant information sheet and that you are aware that there are some minor risks to taking part in this study – the subject matter may arise some discomfort or distress but support services will be provided in the debriefing form. Lastly, it is important to understand that as a participant, you are volunteering to take part in this study, you can withdraw from this study at any time, without any consequences. All data that is collected during this study will be strictly anonymous and stored on a password-protected laptop.

By selecting yes below you are confirming that you are over the age of eighteen and wish to participate in this study.

Yes

No

Before proceeding to the next section of the questionnaire, you must first confirm that you are currently an undergraduate college student. Anyone who is not currently a college student will not be able to participate in this study.

Yes

No

Appendix C: Debriefing Sheet

Research Title: An examination of social phobias among undergraduate college students in Ireland.

Name of Researcher: Jason Tully

The purpose of this study was to examine social phobias among undergraduate college students.

Social phobias (also known as, social anxiety disorder) have become quite a prominent topic in recent years. In light of the COVID-19 pandemic, it is possible that the number of people who experience social phobias has gone up, with college students being one group in particular who could be affected by this.

This study was carried out to examine just how prominent social phobias are amongst college students and to examine if there are any factors in particular that may impact the severity of social phobias, such as age, gender and what year of college the student is currently in. The study also aims to examine if many college students have sought help for their social phobias and if there is stigmas associated with seeking help.

Thank you for taking your time to participate in this research study. Once again if you have any further questions relating to the study please contact me at 18508976@student.ncirl.ie

As mentioned above, if the questionnaire caused you any discomfort or distress please consult some of the links below:

- <https://www2.hse.ie/services/mental-health-supports-and-services-during-coronavirus/>
- <https://www2.hse.ie/conditions/mental-health/phobias/phobias-treatment.html>

- <https://socialanxietyireland.com>

- <https://www.stpatricks.ie/mental-health/anxiety>

- <https://mentalhealth.ie/phobias>

- <https://lgbt.ie/get-information/mental-health/>

- <https://www.samaritans.org/ireland/branches/dublin/>

If you are happy to do so, please submit your responses by clicking on the Submit button below.

Appendix D: Social Phobia Scale



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Social Phobia Scale (SPS)

Instructions:

For each item, please indicate the degree to which you feel the statement is characteristic or true for you.

		Not at all	Slightly	Moderately	Very	Extremely
1	I become anxious if I have to write in front of other people	0	1	2	3	4
2	I become self-conscious when using public toilets	0	1	2	3	4
3	I can suddenly become aware of my own voice and of others listening to me	0	1	2	3	4
4	I get nervous that people are staring at me as I walk down the street	0	1	2	3	4
5	I fear I may blush when I am with others	0	1	2	3	4
6	I feel self-conscious if I have to enter a room where others are already seated	0	1	2	3	4
7	I worry about shaking or trembling when I'm watched by other people	0	1	2	3	4
8	I would get tense if I had to sit facing other people on a bus or a train	0	1	2	3	4
9	I get panicky that others might see me to be faint, sick or ill	0	1	2	3	4
10	I would find it difficult to drink something if in a group of people	0	1	2	3	4
11	It would make me feel self-conscious to eat in front of a stranger at a restaurant	0	1	2	3	4
12	I am worried people will think my behaviour is odd	0	1	2	3	4
13	I would get tense if I had to carry a tray across a crowded cafeteria	0	1	2	3	4
14	I worry I'll lose control of myself in front of other people	0	1	2	3	4
15	I worry I might do something to attract the attention of others	0	1	2	3	4
16	When in an elevator I am tense if people look at me	0	1	2	3	4



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		Not at all	Slightly	Moderately	Very	Extremely
17	I can feel conspicuous standing in a queue	0	1	2	3	4
18	I get tense when I speak in front of other people	0	1	2	3	4
19	I worry my head will shake or nod in front of others	0	1	2	3	4
20	I feel awkward and tense if I know people are watching me	0	1	2	3	4

Developer Reference:

Mattick, Richard P., & Clarke, J. Christopher. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36(4), 455-470. doi: 10.1016/S0005-7967(97)10031-6

Appendix E: Social Anxiety Interaction Scale



NovoPsych

Social Interaction Anxiety Scale (SIAS)

Instructions:

For each item, please tap the box to indicate the degree to which you feel the statement is characteristic or true for you.

1	I get nervous if I have to speak with someone in authority (teacher, boss, etc.).
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
2	I have difficulty making eye contact with others.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
3	I become tense if I have to talk about myself or my feelings.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
4	I find it difficult to mix comfortably with the people I work with.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
5	I find it easy to make friends my own age.
	4 Not at all characteristic or true of me
	3 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	1 Very characteristic or true of me
	0 Extremely characteristic or true of me



6	I tense up if I meet an acquaintance in the street.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
7	When mixing socially, I am uncomfortable.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
8	I feel tense if I am alone with just one other person.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
9	I am at ease meeting people at parties, etc.
4	Not at all characteristic or true of me
3	Slightly characteristic or true of me
2	Moderately characteristic or true of me
1	Very characteristic or true of me
0	Extremely characteristic or true of me
10	I have difficulty talking with other people.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
11	I find it easy to think of things to talk about.
4	Not at all characteristic or true of me
3	Slightly characteristic or true of me
2	Moderately characteristic or true of me
1	Very characteristic or true of me
0	Extremely characteristic or true of me



12	I worry about expressing myself in case I appear awkward.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
13	I find it difficult to disagree with another's point of view.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
14	I have difficulty talking to attractive persons of the opposite sex.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
15	I find myself worrying that I won't know what to say in social situations.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
16	I am nervous mixing with people I don't know well.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me
17	I feel I'll say something embarrassing when talking.
0	Not at all characteristic or true of me
1	Slightly characteristic or true of me
2	Moderately characteristic or true of me
3	Very characteristic or true of me
4	Extremely characteristic or true of me



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18	When mixing in a group, I find myself worrying I will be ignored.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
19	I am tense mixing in a group.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me
20	I am unsure whether to greet someone I know only slightly.
	0 Not at all characteristic or true of me
	1 Slightly characteristic or true of me
	2 Moderately characteristic or true of me
	3 Very characteristic or true of me
	4 Extremely characteristic or true of me

Developer Reference:

Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety1. *Behaviour Research and Therapy*, 36(4), 455-470.

Appendix F: Evidence of SPSS and Data File

Visible: 71 of 71 Variables

	Age	Gender	Academic_Year	SPS1	SPS2	SPS3	SPS4	SPS5	SPS6	SPS7	SPS8	SPS9
1	Below 21 years old	Man	Year 1	0	2	2	1	0	3	0	1	0
2	Below 21 years old	Man	Year 1	3	4	4	4	2	4	4	4	4
3	Below 21 years old	Man	Year 1	2	0	1	1	3	1	0	1	0
4	Below 21 years old	Man	Year 1	3	2	3	3	3	4	2	3	2
5	Below 21 years old	Man	Year 1	3	1	4	0	1	2	3	1	1
6	Below 21 years old	Man	Year 1	0	0	4	0	0	2	1	0	0
7	Below 21 years old	Man	Year 1	2	2	3	3	1	3	2	2	1
8	Below 21 years old	Man	Year 1	1	1	2	0	0	2	0	1	0
9	Below 21 years old	Man	Year 1	1	2	2	1	0	1	0	1	0
10	Below 21 years old	Man	Year 1	4	2	4	3	0	3	4	4	0
11	Below 21 years old	Man	Year 1	4	1	3	0	0	0	0	1	0
12	Below 21 years old	Man	Year 2	0	4	4	3	1	2	3	2	1
13	Below 21 years old	Man	Year 2	2	2	2	1	1	2	1	0	0
14	Below 21 years old	Man	Year 2	0	2	3	4	2	4	3	0	0
15	Below 21 years old	Man	Year 2	0	0	1	0	1	0	0	0	0
16	Below 21 years old	Man	Year 2	1	2	3	3	1	4	2	1	0
17	Below 21 years old	Man	Year 2	2	1	1	2	0	2	0	1	0
18	Below 21 years old	Man	Year 2	3	1	3	3	3	4	2	1	1
19	Below 21 years old	Man	Year 3	1	3	3	3	3	4	3	0	1
20	Below 21 years old	Woman	Year 1	3	0	3	1	2	3	1	1	3
21	Below 21 years old	Woman	Year 1	3	1	4	4	3	4	4	3	1
22	Below 21 years old	Woman	Year 1	4	4	4	4	4	4	2	4	4
23	Below 21 years old	Woman	Year 1	2	4	2	4	3	4	2	4	2
24	Below 21 years old	Woman	Year 1	3	2	4	3	0	2	0	3	4
25	Below 21 years old	Woman	Year 1	2	2	4	4	3	4	3	2	1

Data View Variable View

IBM SPSS Statistics Processor is ready Unicode:ON

Codebook

[DataSet1] /Users/jasontully/FYP_SPSS1.sav

Age

Standard Attributes	Label	Value	Count	Percent
Valid Values	1	Below 21 years old	53	43.4%
	2	21 - 25 years	47	38.5%
	3	26 - 29 years	10	8.2%
	4	30 - 39 years	5	4.1%
	5	40 years old and above	7	5.7%

Gender

Standard Attributes	Label	Value	Count	Percent
Valid Values	1	Man	43	35.2%
	2	Woman	69	56.6%
	3	Non-Binary	4	3.3%
	4	Transgender	4	3.3%
	5	Prefer not to say	2	1.6%

Academic_Year

Standard Attributes	Label	Value	Count	Percent
Valid Values	1	Year 1	53	43.4%
	2	Year 2	47	38.5%
	3	Year 3	10	8.2%
	4	Year 4	5	4.1%
	5	Year 5	7	5.7%

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