Relationship Between Demographic Variables and Attitudes Towards GAD in Ireland

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Abstract

Generalized Anxiety Disorder (GAD) is one of the most common anxiety disorders in Ireland. Although quality treatments are now available, many people do not seek help when they experience this illness. One of the biggest challenges these individuals face is the negative attitude held towards GAD in society. Based on available research, this study sought to investigate the relationship between demographic variables and attitudes towards GAD in Ireland. The hypotheses presented were that there is no significant difference in the attitudes of males and females towards GAD, and there is significant difference in attitudes towards GAD between different age and educational groups. Participants were recruited through social media platforms using convenience sampling (N = 70). Participants completed demographic questionnaires regarding their age, gender and educational level and a Generalized Anxiety Stigma scale. Results found no significant difference between any of these groups. This might indicate that there are no demographic differences in attitudes towards GAD and that intervention policies to reduce stigma should reflect the results of this research in planning future strategies. Interventions should focus on more general approaches to target stigma that could be applied to all age, gender and educational groups.

Keywords: *GAD, GASS, Stigma, Attitudes, Ireland, Adults, Anxiety*

Contents

Introduction

During our lives, the majority of us will experience symptoms of a mental health disorder – most commonly, depressive symptoms and anxiety (Rowa & Antony, 2008). Anxiety is a mental state described by a feeling of uneasiness, confusion and doubt. Moderate anxiety levels are normal and part of being human, and are a natural self-defence mechanism. However, increased levels of anxiety during situations where there is no visible threat can lead to long term adverse effects, for example, anxiety disorders, such as General Anxiety Disorder (GAD). These affect individuals physically and mentally; an affected person feels anxious most days, often for no apparent reason. This anxiety can interplay negatively with a person's wellbeing, work and family life. Symptoms of GAD vary, but a person can feel irritable and experience fear, trouble concentrating and interrupted sleep patterns. GAD's physical symptoms may include a rapid heartbeat, shaking, stomach-turning, tiredness, headaches and tension. All these symptoms interfere with everyday life, and people may withdraw from the activities they enjoy due to these symptoms (Aylett et al., 2018; Rowa & Antony, 2008). As for many disorders, there is no one cause; rather, it comes down to nature and nurture. It may be gene inherited, environment experienced, or the outcome of an interplay of both (Gottschalk & Domschke, 2017). When someone is experiencing symptoms of GAD or of other mental health issues, the most important thing to do is to seek help. Research has shown that treatments can be very effective in combating these disorders; however, only a small proportion of people seek help. Many of us are reluctant to do this due to the stigma still prevalent in society; if people hold negative attitudes towards mental health disorders, individuals might feel ashamed or misunderstood and will not seek help but suffer in silence (Ahmedani, 2011). It is not only the general population that might carry these negative attitudes; research has also revealed a stigma among health professionals (Scheerder et al., 2010; Wu et al., 2020). A number of studies across the world have looked at attitudes towards

mental health issues in different populations, while also assessing demographic factors such as age, gender and educational level (Gonzalez et al., 2009; McKeon & Carrick, 1991). As each society might have different results in stigma levels, research is needed to carefully evaluate these attitudes and the people that hold them so that stigma reduction programs can be effective. A better understanding in society of GAD and other mental illnesses will result in sick people seeking help when required (Calear et al., 2017; Farrer et al., 2008).

GAD in Ireland

Currently, in Ireland, anxiety disorders are as common as depression (St Patrick's Mental Health Services [SPMHS], 2022). They have been described as one of the country's leading mental health problems. Anxiety is almost as common as heart disease or cancer in society yet current research in Ireland has focused on depression or mental health issues in general (Black et al., 2013; Hennessy, 2016; SPMHS, 2022). A study from 2020, which looked at anxiety and depression in a sample of more than a thousand people in Ireland during the Covid-19 pandemic, found that GAD or depression was ever-present (Hyland et al., 2020). Anxiety is more common in women than men, and it is reported that 7.9% of women in Ireland experience anxiety, which is higher than the worldwide average (4.6%) (Hyland et al., 2020). We might not have exact data on how many people currently have GAD in Ireland, but it is anticipated that one out of nine people will experience these symptoms during their lifetime. Yet only a small proportion will receive needed treatment, largely due to the negative attitudes held in society. This is unfortunate, as it has been shown that treatment can significantly increase the quality of life for patients with GAD and other mental illnesses (SPMHS, 2021; Kessler et al., 2009).

Attitudes Towards Mental Health in Ireland

One of the main reasons that people do not seek help when experiencing symptoms of GAD is the attitudes held in society against GAD and other mental health issues in general. Studies worldwide have shown that there is still a need for informative projects to educate the general population on these issues so that people are more understanding towards individuals with these illnesses (Goetter et al., 2020). Health Service Executive (HSE) conducted research in Ireland that has revealed that negative attitudes towards mental health disorders still persist. The study looked at these attitudes in a sample of 1000 respondents across 62 rural and urban areas in Ireland. The research revealed that most people are aware of these issues and believe that patients should seek help. Approximately 85% of respondents reported that anyone could experience such issues, which is a positive finding, yet six out of ten adults responded 'no' when asked if they would like anyone to know about their mental health issues. The same number of people also believe that people with mental health issues should not do important jobs, such as those of a nurse or doctor. A similar number of respondents (11%) think that we should be better protected from people with mental health issues and believe that they would find it hard to talk to these people. This highlights the negative attitudes still held towards people with mental health issues, including GAD (Health Service Executive [HSE], 2007). More recent research conducted by St Patrick's Mental Health Services in 2020 reveals similar, yet better results: 11% of respondents reported that they would tell no one if they were experiencing mental illness, and 63% of participants reported that in Irish society mental illness is still seen as a personal failure with 25% from these respondents believing that the public should be better protected from people with mental health illnesses (St Patrick's Mental Health Services [SPMHS], 2020). Another study conducted in Ireland looked at the attitudes of Irish medical students towards patients with mental illness. The study found that students had positive attitudes towards mental health

patients, and these attitudes improved significantly as years of study increased. This might be explained by the information that medical students receive during their studies, leading to a better understanding of various medical issues, including mental health (O'Connor et al., 2013). Negative attitudes in society hold back people with GAD and other mental issues from seeking help, which is a critical issue considering that treatment can significantly improve the symptoms. It is essential to collect necessary details, such as demographic factors, as distinguishing these aspects of individuals who are more likely to hold on to negative attitudes allows the development of programs that focus on stigma reduction in targeted populations.

Demographics

There are a number of demographic factors that could possibly allow us to determine which groups of people are most likely to hold negative attitudes towards mental illnesses, and these should be considered in research. When looking at age differences in attitudes towards mental health illnesses, current research is not entirely consistent. Some studies reveal that tolerance towards people with mental health illness increases with age, so older age is associated with more positive attitudes (Gonzalez et al., 2005). Swedish research found that open-mindedness and pro-integration increased with age, but that community mental health ideology decreased (Ewalds-Kvist et al., 2012). Yet other research found that older age was associated with more prejudiced attitudes, highlighting the opposite pattern (Ewalds-Kvist et al., 2012; Farrer et al., 2008). Research worldwide has also found that younger age is associated with more negative attitudes towards mental illnesses (Gonzalez et al., 2005; Hartini et al., 2018). An Irish study that looked at 735 student participants found that individuals under 25 were more likely to have higher personal stigma levels (Lally et al., 2013). This might be explained by the absence of knowledge young people have of these

issues and a lack of life experience, as later in life attitudes might change when more has been experienced and learned. Higher levels of mental health literacy have been associated with reduced stigma levels (Farrer et al., 2008).

Several studies worldwide have looked at the gender effect on attitudes towards mental health. Findings in this field are inconsistent. One study found that adult females are more likely to be more open-minded and understanding on these issues than males; however, they are also more likely to be avoidant (Mackenzie et al., 2006). A study from 2012 looked at the impact of gender and age on attitudes towards mental illness in Sweden. Over 2000 respondents completed the following survey – CAMI-S. The relationships were evaluated by four elements: open-minded and pro-integration, fear and avoidance, intention to interact with the mentally ill individual and community mental health ideology. Results found that females were more open-minded and pro-integration, but they were also more avoidant and worried (Ewalds-Kvist et al., 2012). An Irish study that looked at medical students' attitudes towards mental health found that women had more positive and less stigmatised views (O'Connor, 2013). A study from 2013, however, concluded that there was no significant gender difference between adult females and males in terms of embarrassment-motivated attitudes towards mental health issues (Hampton & Sharp, 2013).

Research has shown that lower education levels are associated with higher levels of stigma towards mental health issues, including GAD. One study that looked at attitudes towards mental health issues found that people with higher education levels are more understanding of these issues and people with lower educational levels have negative attitudes towards mental disorders (Li et al., 2018). A study from 2013, which looked at attitudes towards the mentally ill in Ireland, randomly selected 155 participants for this research. Interviews were carried out using Likert-type scales. Results revealed four main elements of attitude towards the mentally ill: fear, absence of sympathy, personal rejection and perceived

rejection from the community. Generally, individuals reported high sympathy and low fear. However, older age, lower education and lower socio-economic levels were positively correlated with an absence of sympathy (Black et al., 2013).

The Present Study

Currently available research worldwide and in Ireland on attitudes towards mental health issues has been broadly focused on this concept, often aiming to assess the stigma associated with a wide range of disorders (Grant, 2015). Only colleagues in Australia have looked at attitudes towards GAD alone in both adolescent and adult populations (Calear et al., 2017; Batterham et al., 2013). In Ireland, the focus has been on attitudes towards depression or mental health issues in general. To the best of the author's knowledge, there has been no research in Ireland conducted on attitudes towards GAD. Establishing demographics of the attitudes held in Irish society will help to effectively determine which groups of people should be targeted in informative projects about GAD. By receiving and understanding information about GAD, people are expected to shift their attitudes towards more positive ones. It should reduce stigma in society, which in turn will encourage reluctant individuals to seek help when required. We know from current literature that high mental health literacy is associated with lower stigma levels (SPMHS, 2022).

Based on previous research, this study aims to establish what effect – if any, and of what magnitude – gender, age and educational level have on attitudes in adults towards GAD in Ireland. Hypothesis 1 states that there is no significant difference in attitudes towards GAD between males and females. Hypothesis 2 states that there is a significant difference in attitudes towards GAD between different educational levels – lower levels of education predict an increase in negative attitudes towards GAD. Hypothesis 3 states that younger age (up to 25 years) is associated with increased negative attitudes towards GAD.

Methodology

Participants

Participants for this study were recruited using the convenience sampling method. A link and a short description of the research and eligibility to participate information were uploaded on the social media platforms Facebook and Instagram. Participants were also encouraged to share the link and description of the study on their page or in their story. Only participants aged 18 and over and residing in Ireland could participate in this study. The study consisted of 70 participants of which 47 were females and 23 were males. The mean age for the participants was 35.2 years, ranging from 20 to 57 years of age. All participants were obliged to provide informed consent before proceeding with the survey. As above, three demographic measures were obtained – gender, age and educational level.

Measures

Demographic Measures

Participants in this study were asked to indicate their gender (female, male or other). This question was provided as three different tick box options for which participants could choose only one response and were asked to tick one box accordingly (see Appendix A). Participants were also asked to indicate their age; this was an open-ended question, and the answer was typed by the participant (see Appendix A). Participants were also asked to indicate the highest level of education (full-time or part-time) that they had completed to date. This questionnaire was obtained from the Central Statistics Office web portal under the same name (Central Statistics Office, 2021), (see Appendix B). Each answer was presented separately, and the participants could only choose one. Participants were asked to tick the box that best described their level of education obtained to date (highest level). Thirteen options

were offered. Possible responses included: No Formal Education, Primary Education, Second Level - Technical or Vocational qualification: Completed Apprenticeship, NCVA Level 2/3 Certificate, Teagasc Certificate/Diploma or equivalent, Third Level - Professional Qualification (of Degree status at least).

The Generalised Anxiety Stigma Scale (GASS)

The Generalised Anxiety Stigma Scale, also known as GASS, was used to measure participants perceived and personal stigmas towards GAD (Griffiths et al, 2011). This scale consisted of two subscales – perceived stigma and personal stigma (see Appendix C). Each subscale consisted of 10 statements (not questions) presented to participants, and participants were asked to indicate how strongly they agreed or disagreed with these statements. The measured level of agreeableness was based on a 0–4-point scale, where 4 indicates 'strongly agrees' and 0 indicates 'strongly disagrees'. Participants could only choose one answer for each statement. Before completing the scale, individuals were presented with a brief description of a fictional character named John, who was experiencing GAD. It described his worries and everyday challenges. This short description was meant to provide insight into the life of a person with an anxiety disorder. This measure has shown high levels of validity in sample of more than 600 respondents and Cronbach alpha coefficient varying from .86 to .91 (Griffiths et al, 2011). The Cronbach alpha coefficient for this study was .85.

Personal Stigma Scale.

The questionnaire started with a personal stigma scale in which participants had to rate 10 statements regarding anxiety disorder. Participants were asked to indicate their personal beliefs about individuals suffering from an anxiety disorder. Some of the statements presented were: People with an anxiety disorder are to blame for their problem. People with an anxiety disorder are just lazy. An anxiety disorder is not a real medical illness.

Perceived Stigma Scale.

The next part of the questionnaire presented the following 10 statements about anxiety disorder. Participants were asked to indicate what they believe other people believe/think about people who have an anxiety disorder. This part of the survey referred to a wider population and was meant to reflect the thoughts of individuals and how they see the belief system of this population. Some of the statements presented were: Most people think that an anxiety disorder is not a real medical illness; Most people think that people with an anxiety disorder could snap out of it if they wanted to; Most people think that people with an anxiety disorder should be ashamed of themselves.

Design and Analyses

This study comprised cross-sectional research, and it looked at data at one specific point in time. The data collected from the sample was combined into male and female gender groups. Age was grouped as follows: Group 1 (18–25 years), Group 2 (26–30 years), Group 3 (31–35 years), Group 4 (36–40 years), Group 5 (41+ years). The educational levels were grouped as follows: Secondary_Diploma (all answers from 1–7), Undergraduate (all answers from 8–10), Postgraduate (all answers from 11–13), (see Appendix B). Thus, this study employed a between-group design. Descriptive statistics were performed for the following variables: gender, age and educational level, Personal Stigma scale, Perceived Stigma Scale, Total Stigma score. To assess Hypothesis 1 and examine if there is any significant difference in attitudes towards GAD between gender, an independent sample T-test was used. Gender was presented as the independent variable (IV) and attitudes towards GAD (Total Stigma Score) as the dependent variable (DV). Post hoc tests were conducted using an independent sample T-test to investigate the differences between males and females in total scores on the Perceived and Personal Stigma Scale. The one-way between groups analysis of variance

(ANOVA) model examined Hypothesis 2 and Hypothesis 3. In both models, attitudes towards GAD (Total Stigma Score) were categorised as DV, and age and educational level presented as IV. This examined which levels could best predict higher levels of negative attitudes towards GAD. Post hoc tests were performed using a one-way between groups ANOVA to examine if there was any significant difference between different age and education groups in Total Personal and Perceived Stigma Scores.

Procedure

Research Ethics Proposal was submitted to ethics board of National College of Ireland, describing details of the proposed research. Once approved, data for this study were collected using an online Google Forms Survey. The questionnaire presented to the participants was self-reported and anonymous. Link, eligibility to participate and a brief description of the survey were uploaded on various Facebook and Instagram pages (using short stories or neutral image upload with description). Participants were encouraged to click on the link and share the link should they wish to do so. Once the participant had clicked on the link, they were first presented with the Participant Information Sheet (see Appendix D). This sheet included information regarding eligibility to participate in the study and a brief description of what would happen should they choose to participate; the individual was advised that the survey can take between 10 and 15 minutes to be completed, and no breaks would be offered. Individuals were then advised that participation in the study was voluntary and anonymous. They could withdraw from the survey at any time without penalty by closing the survey window. However, withdrawal was not possible once the participant had clicked to submit the data, as the author had no way of identifying the participant and therefore withdrawing the data. The participant was then advised of the risks and benefits of the study, what would happen to the data they provided, and how to contact the author and access help should they have any questions. Next, the individual was presented with a consent form (see

Appendix E), which included brief statements to the effect that the participant had understood the nature of the study and how it would be conducted, that participation in the study was voluntary, and they could withdraw the data at any given moment for any reason before the answers were submitted. Participants were also asked to verify that they understood that to participate, they must be over the age of 18 and reside in Ireland. Unless participants ticked the box indicating that they agreed to participate in this study, they could not proceed to the next page, as this field was mandatory.

The next page of the survey contained an invitation to take part in the GASS (see Appendix C). Participants were then presented with a short description of a fictional individual with an anxiety disorder. Once participants clicked 'next', they were presented with the 10-statement survey of the Personal Stigma Scale. The selection of an answer for each statement was mandatory, and the participant could not proceed to the next page unless all was complete. On the next page, the Perceived Stigma Scale was presented, outlined in the same manner as the previous scale.

Once finished, participants had to click on the next page. They were presented with the Demographic Questionnaire, which consisted of gender- and age-related questions (see Appendix A), followed by the Educational Level indicator (see Appendix B). When participants clicked 'next', they were presented with the Study Debriefing Sheet (see Appendix F), which included brief information on how the study was tested, what the research was investigating, and why it was essential research. This was followed by a declaration of anonymity and various helpline numbers, emails and web portals participants can use in case of distress. Lastly, the contact information of the author was presented.

Results

A total of 70 participants took part in the survey. The sample consisted of 23 males (32.9%) and 47 females (67.1%). A preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Descriptive statistics for participant age and education level are presented in Table 1.

Table 1: *Descriptive statistics for Age Groups and Education Level, N = 70*

Variable	Frequency	Valid %
Age Groups		
18–25	11	15.7
26–30	14	20.0
31–35	13	18.6
36–40	12	17.1
41+	20	28.6
Education		
Secondary_Diploma	24	34.4
Undergraduate	23	32.9
Postgraduate	23	32.9

This study had three continuous variables, including Total Perceived Personal Stigma Score, Total Perceived Stigma Score and Total Stigma Score. Descriptive statistics for all three variables are presented in Table 2.

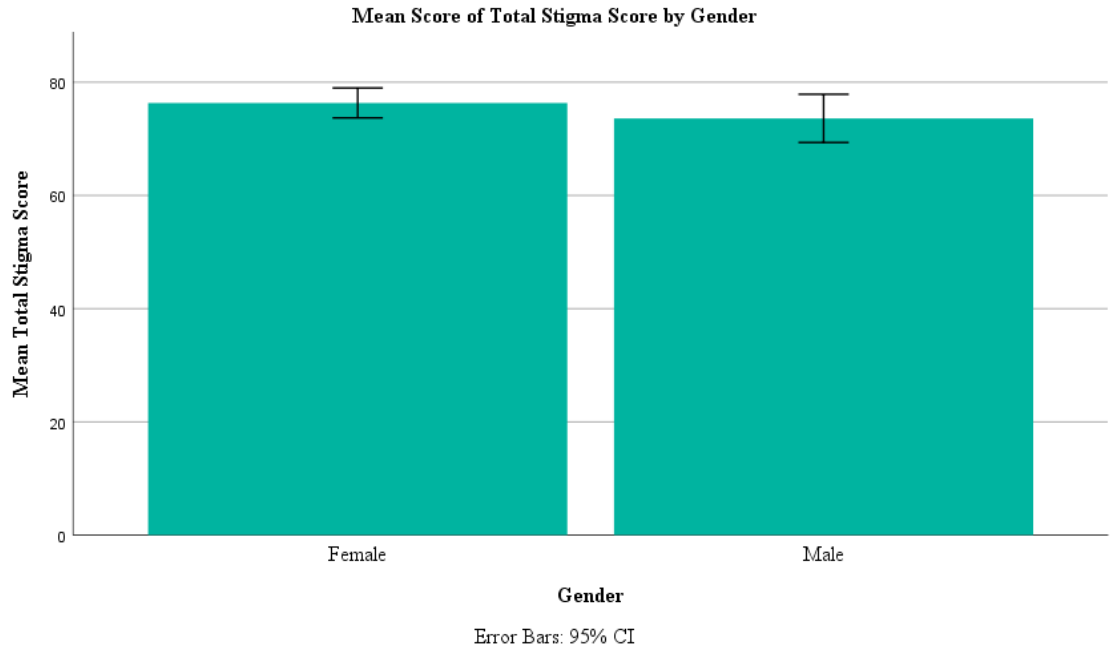
Table 2: *Descriptive statistics for Total Personal Stigma Score, Total Perceived Stigma Score and Total Stigma Score.*

Variable	*M* [95% CI]	*SD*	Range
Total Personal Stigma Score	44.70 [43.37–46.03]	5.58	29–50
Total Perceived Stigma Score	30.74 [28.99–32.50]	7.36	13–49
Total Stigma Score	75.44 [73.22–77.66]	9.30	55–98

Inferential Statistics

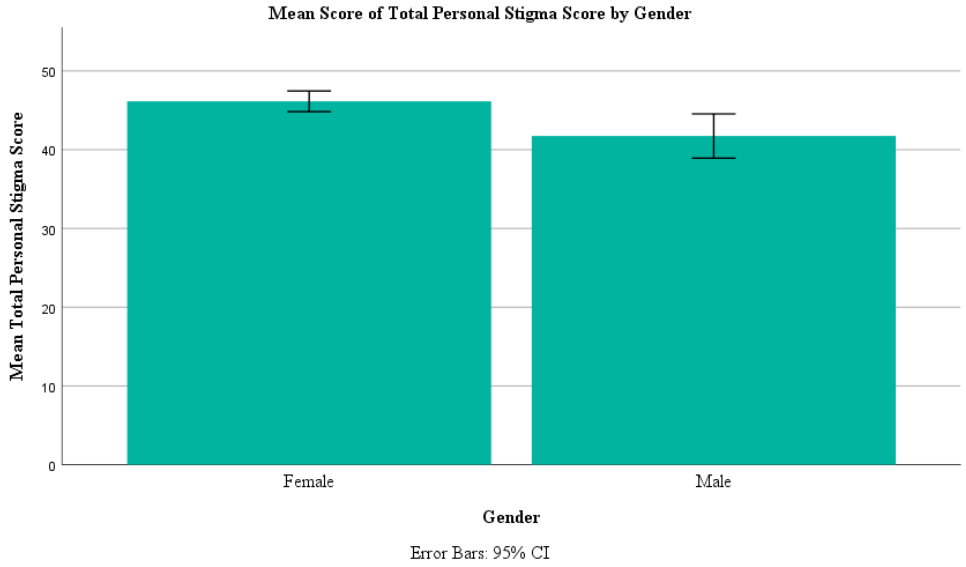
An Independent Sample T-test was conducted to compare Total Stigma Scores between males and females. Figure 1 shows that there was no significant difference found in these scores (T (68) = 1.15; p = 0.25) with females scoring (M-76.34; SD-9.00) and males scoring (M-73.61; SD-9.84).

Figure 1



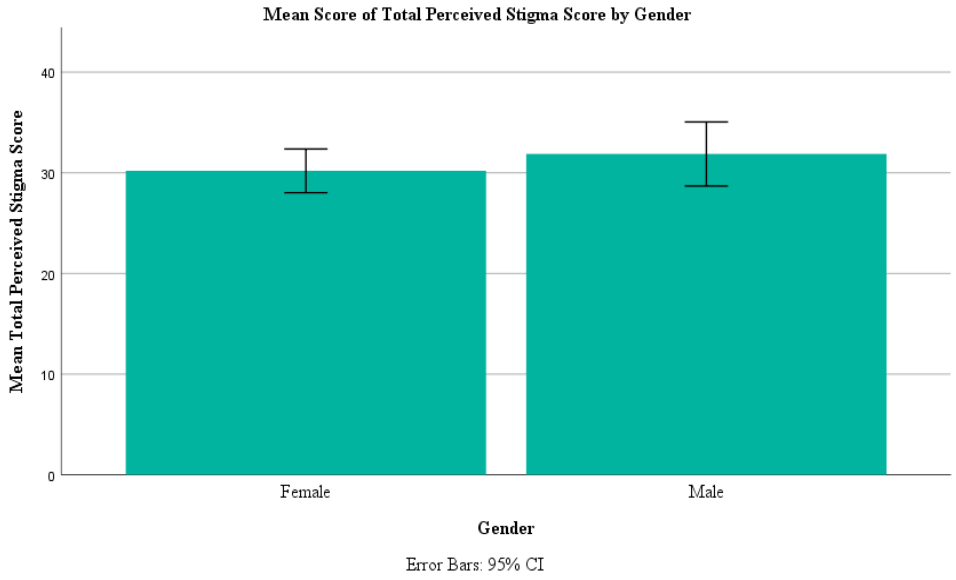
An independent sample T-test was conducted to compare the total scores of the Personal Stigma Score between males and females. Figure 2 shows that there was a significant difference found in these scores (T (32) = 2.93; p = 0.006) with females scoring (M-46.15; SD-4.46) and males scoring (M-41.74; SD-6.50). Cohen's d indicated a medium effect size for this difference (*Cohen's D* = 0.7). Results indicate that males hold significantly higher levels of personal stigma towards people who have GAD than females.

Figure 2



An independent sample T-test was conducted to compare the Total Perceived Stigma Score between males and females. Figure 3 indicates that there was no significant difference in these scores (T (68) = -0.89; p = 0.37) with females scoring (M-30.19; SD-7.38) and males scoring (M-31.87; SD-7.36).

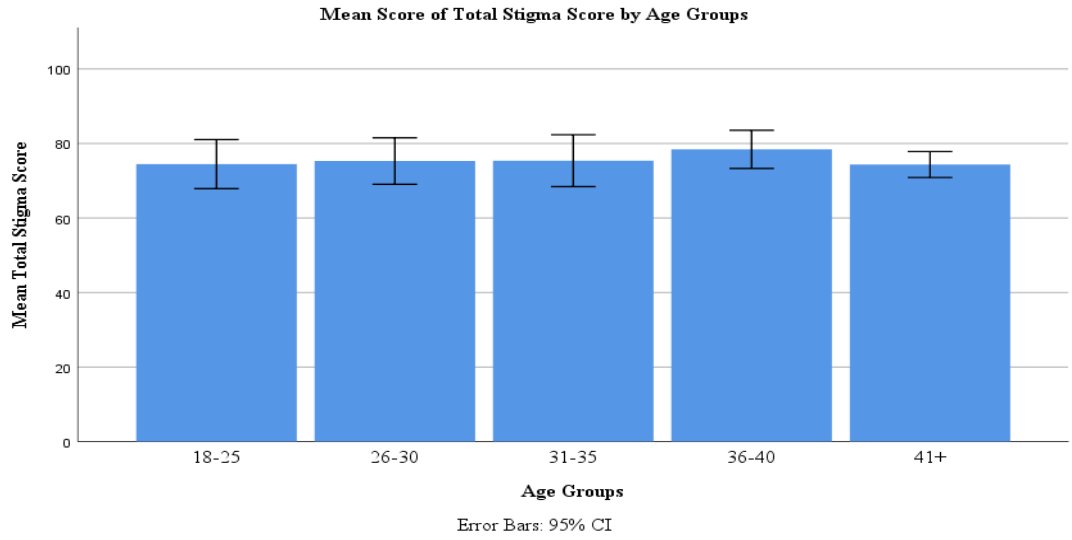
Figure 3



A one-way between-groups ANOVA was conducted to explore the impact of age on attitudes towards GAD (Total Stigma Score). Participants were divided into five groups

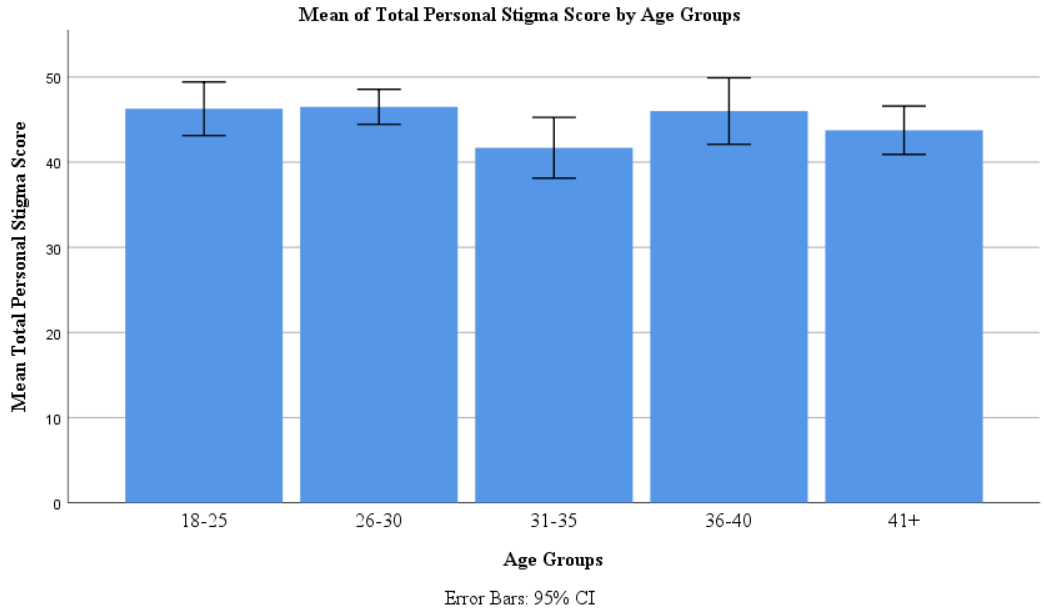
according to their age (Group 1: 18–25, Group 2: 26–30, Group 3: 31–35, Group 4: 36–40, Group 5: 41+). Figure 4 indicates that there was no statistical significance found in these scores, indicating that the difference between any of the groups was not significant F (4, 65) = .39, p = .81.

Figure 4



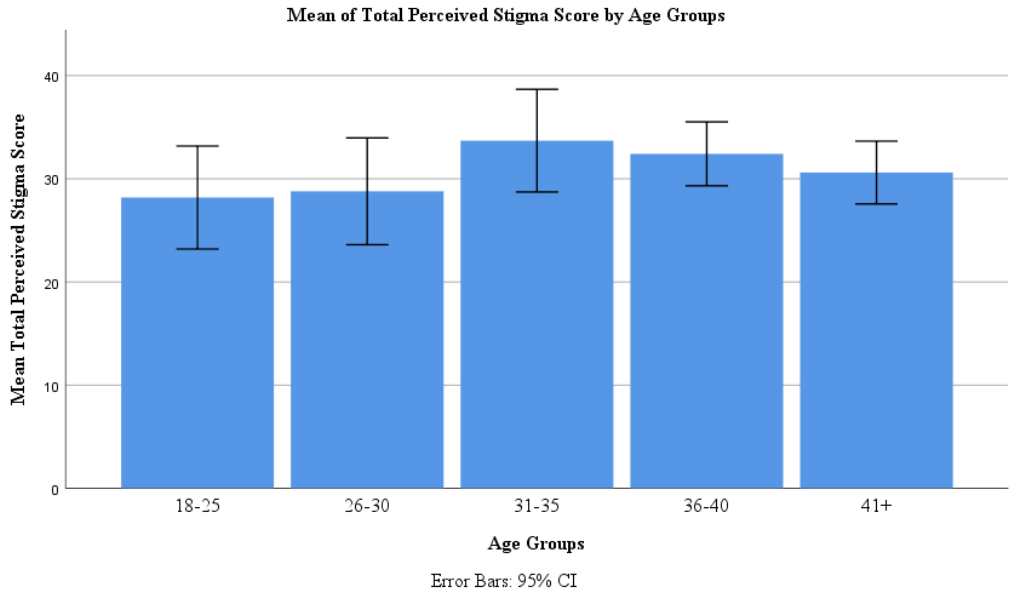
One-way between-groups analysis of variance was conducted to explore the impact of age on Total Personal Stigma score. Participants were divided into five groups according to their age (Group1: 18-25; Group 2: 26-30; Group 3: 31-35; Group 4: 36-40; Group 5: 41+). Figure 5 reveals that there was no statistical significance found in these scores F (4, 65) = 1.93, p = .11.

Figure 5



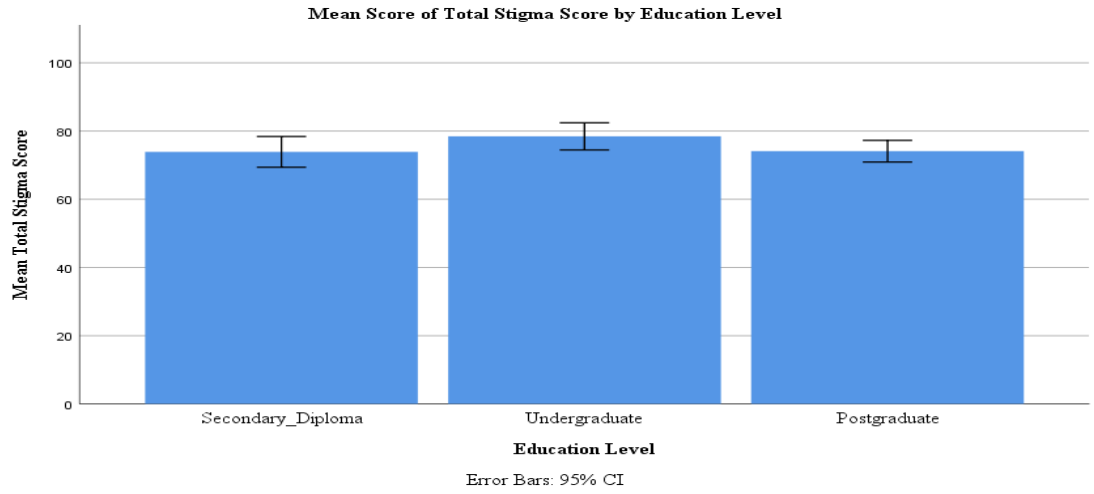
One-way between-groups analysis of variance was conducted to explore the impact of age on Total Perceived Stigma score. Participants were divided into five groups according to their age (Group1: 18-25; Group 2: 26-30; Group 3: 31-35; Group 4: 36-40; Group 5: 41+). Figure 6 reveals that there was no statistical significance found in these scores F (4, 65) = 1.27, p = .28.

Figure 6



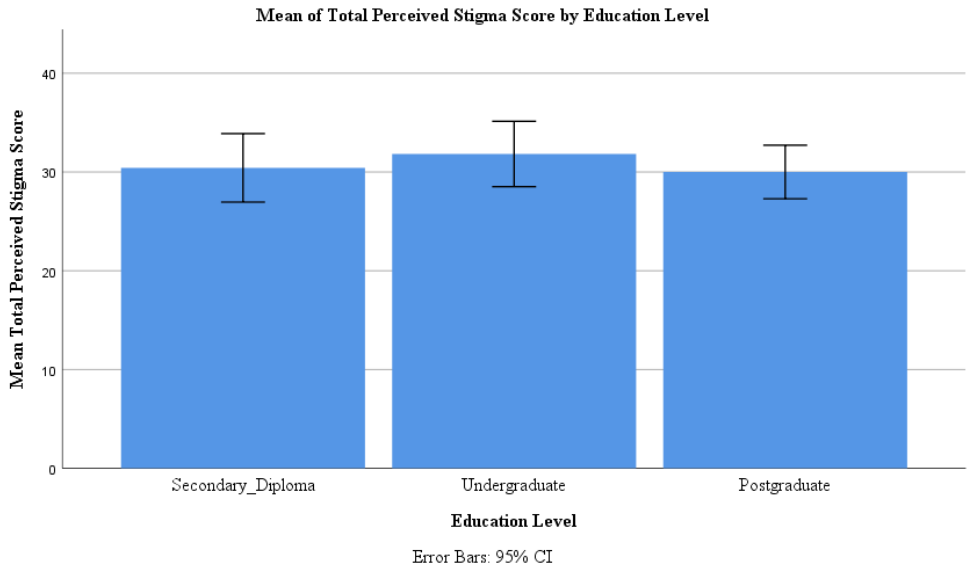
A one-way between-groups ANOVA was conducted to explore the impact of education level on attitudes towards GAD (Total Stigma Score). Participants were divided into three groups according to their education level (Group 1, Group 2, Group 3). Figure 7 indicates that there was no statistical significance found in these scores, indicating that the difference between any of the groups was not significant F (2, 67) = 1.81, p = .17.

Figure 7



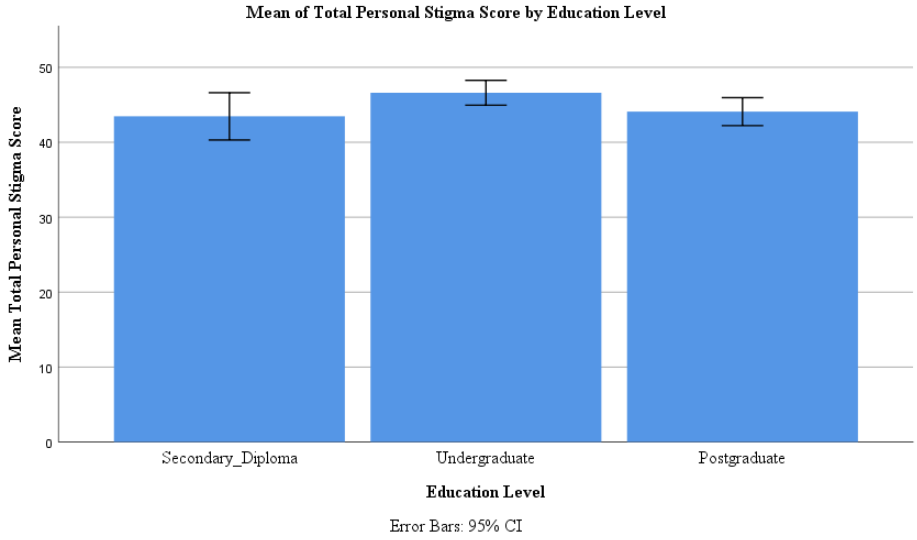
One-way between-groups analysis of variance was conducted to explore the impact of different educational levels on Total Perceived Stigma Score. Participants were divided into three groups according to their educational level (Secondary_Diploma; Undergraduate; Postgraduate). Figure 8 indicates that there was no statistical significance found in these scores, indicating that the difference between the groups was not significant F (2, 67) = 0.38, p = .68.

Figure 8



One-way between-groups analysis of variance was conducted to explore the impact of different educational levels on Total Personal Stigma Score. Participants were divided into three groups according to their educational level (Secondary_Diploma; Undergraduate; Postgraduate). Figure 9 indicates that there was no statistical significance found in these scores, indicating that the difference between the groups was not significant F^* (2, 49) = 2.1, p = .123.

Figure 9



Discussion

The current study sought to investigate attitudes towards GAD in the adult Irish population. This study explored the possible relationship between negative attitudes held in society towards GAD and a number of demographic factors (age, gender, educational level) that could predict these attitudes. Based on the inconsistent findings of current literature, it was hypothesised that there is no significant difference between males and females in attitudes towards GAD. The results of this study supported the hypothesis, as there was no significant difference found between these two variables when compared with the total scores on the GASS scale (Personal Stigma Scale plus Perceived Stigma Scale). However, post hoc analysis found a significant difference between genders on the Personal Stigma Scale, with males scoring higher. The second hypothesis this research proposed was that there is a significant difference in attitudes towards GAD in individuals of different educational levels. Lower levels of education predict an increase in negative attitudes towards GAD. However, no significant difference was found between the educational groups in this study. The third hypothesis sought to investigate the difference between different age groups in attitudes towards GAD. Based on current literature, we hypothesised that lower age is associated with higher levels of negative attitudes towards GAD. This was investigated, and the results found that there was no significant difference between the age groups in this study. No age group was a significant predictor of negative attitudes towards GAD.

In this study, no difference was found between males and females in total GASS scores. However, post hoc analyses found a significant gender difference in the Personal Stigma score. Males reported a significantly higher score on this scale than females, which indicates that males have higher levels of personal stigma towards GAD when compared to females. Some literature supports these findings, as studies have found that males tend to

score higher on the personal stigma scale (Curcio & Corboy, 2020). These findings could be explained by the same factors that come into play when discussing the significant difference in attitudes towards mental health between males and females. Although this research found no gender difference in the total GASS score, current literature in this field is not always consistent. Studies that have found a difference between gender report that females had significantly lower perceived and personal stigma than males. One Canadian study that looked at more than three thousand participants and investigated stigma towards depression found that males had significantly higher levels of stigmatised attitudes than females (Jones et al., 2011). Another study that examined attitudes towards mental health among medical nurses across five European countries, including Ireland, found that positive attitudes were associated with being female and having a more senior role (Chambers et al., 2010). These findings could be explained by other research in the field, which found that females have a higher rate of social empathy than men. Individuals with higher levels of empathy are expected to have lower levels of personal stigma about any group of people. Research also suggests that males have significantly higher levels of social dominance orientation than females (Foster, 2021; Sidanius et al., 2006). This could offer another explanation as to why females tend to have more positive attitudes towards mental health (Schmitt & Wirth, 2009). Research also suggests that men might have more negative attitudes towards mental health due to conventional male gender role perceptions in which they are ‘forbidden’ to talk about or to express their mental health issues. A study from 2014 found that men who supported largely controlled affectionate behaviour also had significantly higher levels of personal stigma towards mental health (Vogel et al., 2014). Conversely, there is research that has found no difference between males and females in attitudes towards mental health disorders. A study from Canada that looked at a sample comprising more than three thousand participants found no differences between males and females. In this case, the predictor

variable for lower levels of stigma was agreeableness with health professionals regarding treatments, irrespective of their sex (Wang et al., 2007). Research has also indicated that there are no differences between genders before and after knowledge interventions about mental illnesses. However, there was a significant difference in the improvement of stigma score in the same group of people with lower levels of stigma after the interventions (Martínez-Zambrano, 2013; Townsend et al., 2019). As for the current study, it is possible that no difference between genders in total GASS score was found because there was none. However, the findings could also be explained by the limitations of this study (see Strengths & Limitations). Another study that looked at perceived mental health -related stigma and assessed gender differences using a similar sample size as the current study (N = 70) also did not find a significant difference between males and females (Kulesza et al., 2014). All these findings highlight the importance of testing these variables in any stigma research, as each community is expected to have different results. Even studies that are conducted in the same country will have different results based on the cities/regions researched. Although this study found no overall difference between males and females, it is important to highlight the results found on the personal stigma scale between genders, as this might prove an important platform for future research.

While there is a vast amount of research available in current literature that found that reported educational level was one of the significant predictors of negative attitudes towards mental illnesses, these findings are not always consistent (Alexander & Link, 2003; Corrigan & Watson, 2007). Education enhances knowledge and reasoning skills, which in turn can improve tolerance towards vulnerable groups, including people with mental illnesses (Feeg et al., 2014; Scheerder et al., 2010). This might explain why research has found that a low education level is positively correlated with positive attitudes towards mental health issues (Curcio & Corboy, 2020). A study by Lopez et al. (2018) that looked at stigma towards

depression, found that participants with some higher education (college) had significantly higher levels of positive attitudes towards this mental disorder than participants who did not. These findings are consistent with a study by Potts & Henderson (2020). However, some research has shown a pattern that supports contradictory results: a higher education level is associated with a higher stigma. This might be explained by the way an individual with higher education views mental illness as controllable and therefore has a desire to control it. It has been established that society views mental illness as more controllable than physical illness (Corrigan, et al 2003; Martin et al., 2007). This leads to an individual's believing they have a certain degree of influence over mental illness and that this is under their control, which consequently can lead to more stigmatised views about other people with a mental illness (Foster & O'Mealey, 2021). A study by Muschetto (2019) found that a person's beliefs about controllability influenced willingness to provide support for a person with depression. In this study, more controllability predicted less desire to help. This was the case even when the individual had had previous contact with someone with this disorder (Muschetto & Siegle, 2019). Studies have suggested that individuals with higher levels of socioeconomic status, and therefore education, have reported higher levels of controllability (Foster & O'Mealey, 2021). In contrast, individuals with a lower socioeconomic status will more often report that mental illness is due to external factors that are outside of their control (environmental, biological), whereas individuals with higher education levels who purportedly have more control over their environment will attribute mental illness to internal factors that they have control over, for example, life experience (Martin et al., 2007). As there was no difference found between educational levels in this study, future policies targeting educational campaigns for GAD in Ireland to reduce stigma in society should consider that there is no difference in stigma levels between different educational levels, and a more general approach can be taken. For example, the goal of campaigns targeted to increase GAD

literacy in communities can be simply to inform and disseminate general facts about this disorder.

Many studies have found that younger age is a predictor variable for higher levels of mental health stigma; this is explained by the fact that young people are not familiar with these disorders and have less life experience (Naylor et al., 2009; Reavley & Jorm, 2011). Good mental health literacy has been established as one of the significant predictor variables of lower stigma levels towards mental disorders. Higher levels of literacy about certain mental health illnesses were good predictors of lower levels of stigma among individuals (Feeg et al., 2014). A study that looked at the stigma associated with mental health problems among young people discovered that participants who reported lower levels of knowledge also reported more stigmatised views about mental health issues. Individuals in the study reported that they perceive people with mental health issues as dangerous and assume that recovery is unlikely. Participants were also not able to recognise the symptoms and causes of certain mental illnesses (Gaiha et al., 2020). A study from Australia also found that young people were more likely to hold stigmatised views about mental health disorders, possibly due to a lack of knowledge of this field (Reavley & Jorm, 2011). A study that looked at college students found that younger students were more likely to hold stigmatised views when compared to older students. Another predictor of higher stigma was low literacy (Feeg et al., 2014). It is important to highlight that some research has also found the opposite results in which older individuals are associated with more negative views of mental health difficulties (Yamawaki et al., 2011). A German study that looked at attitudes towards depression in a sample over time in three different periods, found that social distance desirability increased with age (Schomerus et al., 2015). Another study found that older age was more closely associated with some mental health disorders being perceived as a personal weakness when compared to the attitudes of young adults (Farrer et al., 2008).

The current study, however, found that there was no significant difference between age groups in terms of negative attitudes towards GAD. One of the possible explanations could be the consequences that the Covid-19 pandemic has had on mental health stigma in Irish society, especially among young people. A survey conducted by St Patrick's Mental Health Services (2020) in Ireland during summer 2020, looked at attitudes towards mental health in Irish society. It surveyed more than 800 adults. Results found that although there was still a stigma in the society, this could have been lessened slightly because of the pandemic, as people were now more aware of mental health difficulties that anyone can experience. Almost 27% of respondents reported that during the pandemic was the first time in their life they or close family members had experienced mental health difficulties. A high number of respondents (35%), almost half of which (46%) were young adults aged 18–24, reported that they or someone close to them had been treated for a mental health difficulty during the pandemic. We know from previous research that if an individual reports that they have experienced mental health difficulties or they know someone who has, that individual will also have less stigmatised views about mental health (SPMHS, 2020). The global pandemic, which highlighted the importance of mental health in our society on an unprecedented level, might have improved our attitudes towards mental illness and therefore reduced stigma, especially among young people. The pandemic caused many people to experience mental health difficulties for the first time in their lives. The experience and knowledge gained, as well as the community support, might have improved attitudes towards mental health and, for this particular study, stigma towards GAD (Irish Association for Counselling and Psychotherapy [IACP], 2022). Young adults, now more than ever, might have more positive and tolerant views on mental health difficulties than the generations before them. A study conducted in the US found that Generation Z (born 1997-2012) reported higher levels of seeking treatment (37%) than all previous generations, when faced

with mental health difficulties (DiNapoli et al., 2015; Pew Research Centre, 2019). We know from current literature that if an individual has, or is seeking help for, a mental health problem, they will also be more likely to hold positive views towards mental health issues in general (DiNapoli et al., 2015). Although findings in this field are not entirely consistent, they highlight the importance of establishing different interventions for different age groups. This is necessary as each age group might have a different view about mental illness and, therefore, any intervention would require a tailored approach (Farrer et al., 2008). However, if no difference is found, this should also be considered for the implications of a more general campaign that can be tailored to target all ages.

This study is amongst the first to consider attitudes towards GAD in the Irish population. Previous research in this field looked at the issue from a more general perspective, often measuring the attitudes toward anxiety disorders or mental health in general, and current studies often examine attitudes towards depression in Irish society. Although many conclusions can be drawn by applying the findings of these studies to GAD, specific research is required to establish the differences between attitudes to these illnesses (HSE, 2007). Mental illness stigma held in any society has vast implications for the mental and physical health of the society and the individual. It has been established that it is one of the biggest obstacles for people seeking help when combating mental illness. It prevents individuals from seeking help, which in turn can develop into an array of issues (Ociskova et al., 2015). Mental health stigma deprives people of the opportunity to get well; weakens self-esteem; increases isolation, social exclusion and loneliness, and it can deny people employment and other life opportunities (Holder et al., 2018). It is in the interest of every member of society to further research and establish predictor variables for the negative attitudes held in society not only towards GAD but also other mental health disorders.

Implications

The current study has important theoretical and practical implications, which should be considered. This study further reveals the importance of assessing attitudes towards a number of different mental health disorders, including GAD in each society, as each illness might have different results in terms of these attitudes. Carefully considering all the relevant demographic variables, more research is required to examine how and if these attitudes change when compared between different demographic variables. As this study found no differences in age, education or gender groups in attitudes towards GAD, this finding should be considered in future interventions, tailoring a more general approach for public stigma reduction campaigns in regard to GAD. However, due to differences found between gender on the Personal Stigma Scale, future research could also focus on exploring this finding further and if this needs to be considered in policy making. Policies targeting educational campaigns to reduce stigma in society (specifically for GAD) could focus on the gender differences addressed in this questionnaire and how personal stigma, specifically, can be reduced in males. Studies have suggested that gender-based interventions to reduce stigma can be successful as well as focus on a particular gender, in this case male, in the context of mental illness (Chatmon, 2020). Future research should also consider introducing other measures, such as the Anxiety Literacy Questionnaire (A-Lit) to determine whether the results of this scale will predict GASS scores in the Irish population and if there is any significant difference between these results on demographic variable scales (Gulliver et al., 2012). Further demographic variables should also be introduced, such as determination of the impact of urban versus rural residence, as research shows that individuals in urban areas have more positive attitudes towards mental health (Kennedy, 2017). This will allow a fuller assessment of attitudes towards GAD, the knowledge respondents have about this disorder and any predictor demographic variables if such exist. As public money is spent on these

campaigns for stigma reduction, comprehensive research is required in each area to establish the optimal target audience for each project.

Strengths & Limitations

One of the strengths that the current research study has is that it is among the first to examine attitudes towards GAD in Irish society alone. Previous research has included other anxiety disorders or mental illnesses in general. This study is the first to examine these demographic variables in the context presented. Another strength of this research is its cost-effectiveness, due to the format in which it was conducted – an online survey. Future research should not require any undue expenses, and the study should be easily replicated.

Several limitations should be discussed regarding this study. First, the relatively small sample size collected may pose difficulties in terms of generalising the results back to the general population. As the current study accepted the null hypothesis, the possibility of a Type II error should be considered. Future research should focus on collecting a larger sample to increase validity and statistical power. Second, this study used self-report measures to establish attitudes towards GAD in the Irish population. Therefore, there is a probability of social desirability bias in the responses. Although current research was conducted online and was anonymous, which should reduce the possibility of bias, future researchers might consider introducing a social desirability bias scale such as the Marlowe-Crowne Social Desirability Scale or consider not disclosing the purpose of the study to the respondents. Lastly, this study used a cross-sectional design; therefore, no causation can be implied. Although no statistical significance was found in the current study, experimental research in the future might be more effective in addressing research questions. For example, using a video vignette depicting a person with symptoms of GAD. Then present participants with questionnaires mentioned above.

Conclusion

The present study sought to investigate if there is a difference in attitudes towards GAD in Ireland between males and females, different age groups and different educational levels. It was anticipated that males and females have no difference in stigma levels, younger age is associated with higher levels of negative attitudes towards GAD and lower education levels are linked with higher levels of stigma. This research found no significant difference in attitudes towards GAD in Ireland between any of these groups. As such, this research might indicate that although stigma in Irish society is still present, there are no demographic differences between groups in these attitudes, and intervention policies should reflect this in future strategies to reduce stigma, which might involve taking a more general approach. Future studies might benefit from introducing new variables and scales such as additional demographic variables (urban versus rural living) and additional scales, such as the A-Lit.

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Appendices

Appendix A

Demographic Questionnaire (Gender and Age)

Please indicate your gender:

1) Female
2) Male
3) Other

What is your age?

Please type in the answer ……

Appendix B

Demographic Questionnaire (Educational Level)

23 What is the highest level of education (full-time or part-time) which you have completed to date?
✔ *one box only.*

1 ☐ No formal education

2 ☐ Primary education

Second Level

3 ☐ Lower secondary:
Junior/Intermediate/Group Certificate, 'O' Levels/GCSEs, NCVA Foundation Certificate, Basic Skills Training Certificate or equivalent

4 ☐ Upper secondary:
Leaving Certificate (including Applied and Vocational Programmes), 'A' Levels, NCVA Level 1 Certificate or equivalent

5 ☐ Technical or Vocational qualification:
Completed Apprenticeship, NCVA Level 2/3 Certificate, Teagasc Certificate/Diploma or equivalent

6 ☐ Both Upper Secondary and Technical or Vocational qualification

Third Level

7 ☐ Non Degree:
National Certificate, Diploma NCEA/Institute of Technology or equivalent, Nursing Diploma

8 ☐ Primary Degree *(Third Level Bachelor Degree)*

9 ☐ Professional qualification (of Degree status at least)

10 ☐ Both a Degree and a Professional qualification

11 ☐ Postgraduate Certificate or Diploma

12 ☐ Postgraduate Degree (Masters)

13 ☐ Doctorate (Ph.D)

Appendix C

The Generalised Anxiety Stigma Scale (GASS)

Now, we would like you to please read through the following description.

Most days over the last six months, John has felt very anxious and worried about a lot of different things in his life. He finds it difficult to control how worried he gets. Most days John feels 'on edge' and has difficulty concentrating. He is irritable and his muscles feel tense. Although he feels tired all of the time, he has difficulty sleeping. These feelings are so bad that John has trouble doing 'normal' things. John is really upset about the way he has been feeling lately. John has an anxiety disorder.

The following statements are about anxiety disorders. Please indicate how strongly you personally agree or disagree with each statement.

1. An anxiety disorder is not a real medical illness.

 Strongly agree

 Agree

 Neither agree nor disagree

 Disagree

 Strongly disagree

2. An anxiety disorder is a sign of personal weakness.

 Strongly agree

 Agree

 Neither agree nor disagree

 Disagree

 Strongly disagree

3. People with an anxiety disorder could snap out of it if they wanted to.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

4. People with an anxiety disorder should be ashamed of themselves.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

5. People with an anxiety disorder do not make suitable employees.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

6. People with an anxiety disorder are unstable.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

7. People with an anxiety disorder are to blame for their problem.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

8. People with an anxiety disorder are just lazy.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

9. People with an anxiety disorder are a danger to others.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

10. People with an anxiety disorder are self-centred.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

Now we would like you to tell us what you think most other people believe. Please indicate how strongly you agree or disagree with the following statements.

11. Most people think that an anxiety disorder is not a real medical illness.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

12. Most people think that an anxiety disorder is a sign of personal weakness.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

13. Most people think that people with an anxiety disorder could snap out of it if they wanted to.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

14. Most people think that people with an anxiety disorder should be ashamed of themselves.

- Strongly agree
- Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

15. Most people think that people with an anxiety disorder do not make suitable employees.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

16. Most people think that people with an anxiety disorder are unstable.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

17. Most people think that people with an anxiety disorder are to blame for their problem.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

18. Most people think that people with an anxiety disorder are just lazy.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

19. Most people think that people with an anxiety disorder are a danger to others.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

20. Most people think that people with an anxiety disorder are self-centred.

□ Strongly agree

□ Agree

□ Neither agree nor disagree

□ Disagree

□ Strongly disagree

Appendix D

Participant Information Sheet

Invitation

Dear reader, you are being invited to participate in the research study. Before you decide whether or not you wish to participate in this research, please take the time to read the following information carefully. It is vital you understand the nature of the study; please feel free to ask any questions or request any additional information should you require so.

Please note that you can only participate in this study if you are over the age of 18 and reside in Ireland.

What will happen?

In this study, you will be asked to complete an online survey in which you will be presented with The Generalised Anxiety Stigma Scale (GASS) and some demographic questions after.

GASS will have two subscales - perceived and personal stigma. It will measure your attitudes towards people who suffer from General Anxiety Disorder (GAD) in Ireland. Each subscale will be measured on a scale from 0-4 in which 0 corresponds to disagree strongly, and 4 corresponds to agree strongly.

Time Commitment

The whole survey will take approximately 10-15 minutes to be complete.

Do I have to participate in this study?

Participation in this research is voluntary. You are not under any obligation to participate in this study. If you decide to participate in this study, you will be presented with this information sheet and consent form. This information sheet can be obtained at any time by

emailing the author (researchattitudesNCI2022@gmail.com). You have the right to have your questions about the procedures answered (unless answering these questions would interfere with the study's outcome). If you have any questions as a result of reading this information sheet, you should ask the researcher (via the above email) before the study begins. Before taking part in this study, you will also be provided with a consent form.

No signature will be required on the consent form, but you will be asked to tick the field that you have read and understand the information given. You will have a right to withdraw from the study at any time for any reason before submitting your answers. Please note that there will be no chance of removing the data after submitting the survey answers for the simple reason that your answer sheet will not be identifiable to the author nor any other individual. Data collected in this process will not consist of any personal information that could potentially identify a person. You have the right to omit or refuse to answer or respond to any question that is asked of you (as appropriate, "and without penalty").

Benefits and Risks

There are no known benefits or risks for you in this study.

Cost, Reimbursement and Compensation

Your participation in this study is voluntary.

Confidentiality/ Anonymity

The data we collect does not contain any personal information about you.

What happens to the information I will provide?

The information you will provide as part of this study will be unidentifiable therefore confidential. No one apart from the author will have access to the given data. The following data will be used only for this study, and it will be stored in a secure online system

(GoogleDrive), obedient to the laws of the European Union and compliant with GDPR. Data collected by this study will be deleted after six months period from the date of final study submission.

Who should you contact for further information?

Please contact Elvita Maksimovica at researchattitudesnci2022@gmail.com

Appendix E

Consent Form

Thank you for your interest in this study. Please note that this research will NOT collect any personal data that could potentially lead to your identification. To remind you, you have a right to withdraw your participation at any time and for any reason before your answers are submitted.

In agreeing to participate in this research, I understand the following:

* This research is conducted by Elvita Maksimovica, an undergraduate student at the School of Business, National College of Ireland.

* The method proposed for this research project has been approved in principle by the Departmental Ethics Committee, which means that the Committee does not have concerns about the procedure itself as detailed by the student. It is, however, the above-named student's responsibility to adhere to ethical guidelines in their dealings with participants and the collection and handling of data.

* If I have any concerns about participation, I understand that I may refuse to participate or withdraw at any stage before the data is submitted.

* I have been informed as to the general nature of the study and agree voluntarily to participate.

* There are no known expected discomforts or risks associated with participation.

* All data from the study will be treated confidentially. The data from all participants will be compiled, analysed, and submitted in a report to the Psychology Department in the School of Business. No participant's data will be identified by name at any stage of the data analysis or in the final report.

* I understand that my participation in this study is voluntary and that I hold the right to withdraw from the study at any time and for any reason before the submission of my answers.

* I have received sufficient information about this study.

* I have had chances to ask questions, and any of my questions have been fully answered.

Appendix F

Study Debriefing

This study is concerned with attitudes towards people with Generalized Anxiety Disorder in Ireland.

How was this tested?

You were asked to complete two questionnaires. One of which was the Generalized Anxiety Stigma Scale which has two subscales - perceived and personal stigma. This scale measured your attitudes towards people who suffer from General Anxiety Disorder (GAD) in Ireland. The second questionnaire consisted of demographic questions related to gender, age and education level.

What did this research expected to find?

This study expected to find that some levels of education, and some age groups, will predict stigma towards GAD. It was also expected that there would be no significant difference between males and females in the attitudes towards GAD.

Why is this important to study?

Investigating the attitudes held in the society towards GAD will help to effectively determine what groups of people should be targeted in informative projects about this disorder. By receiving and understanding the information about GAD, people can improve their attitudes towards this illness. It should reduce stigma in society, which will enable reluctant individuals to seek help when required.

Confidentiality/ Anonymity

The data collected do not contain any personal information about you and will not be identifiable to anyone. Data collected will be submitted to the National College of Ireland.

In Case of Any Distress or Feeling of Uneasiness

Please see contact details for the support below.

Samaritans

Emotional support to anyone in distress or struggling to cope.

Contact jo@samaritans.ie

Freephone 116 123 every day 24 hours a day

Visit Samaritans Ireland.

Text 50808

A free 24/7 text service, providing everything from a calming chat to immediate support for people going through mental health or emotional crisis.

Text HELLO to 50808, anytime day or night.

Visit www.text50808.ie for more information.

For any further support details, please visit hse.ie or use google search with the following keywords: distress; mental health; helplines; Ireland

For Any Further Information

Elvita will be glad to answer your questions about this study at any time. You may contact her by email - researchattitudesnci2022@gmail.com

If you want to find out about the final results of this study, please get in touch with the author by email – researchattitudesnci2022@gmail.com