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Social Anxiety Among First-Generation and Non-First-Generation College Students

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Abstract

Literature on social anxiety among college students, in particular, first-generation college students is limited. The purpose of this research study was to fill the gap in the literature, study how social anxiety variables are related, distinguish any differences in social anxiety variables that may exist among first-generation and non-first-generation college students, and indicate any gender differences in social anxiety among first-generation and non-first generation college students. The present research study focused on social anxiety in social situations, social anxiety in performance situations, and social anxiety based on cognition. Analyses indicated that a significant difference (F (3, 119) = 6.27, p < .001) exists among first-generation and non-first-generation college students in terms of social anxiety in social situations, social anxiety based on performance situations and social anxiety based on cognition; first-generation college students reported an increased level of social anxiety. Findings also indicated that social anxiety variables are related to one another. No significant finding was found in terms of gender differences in social anxiety for first-generation (F (3, 62) = .74, p > .005) or non-first-generation college students (F (3, 53) = .87, p > .005). This finding contradicts previous literature that states significant differences exist among genders.

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INTRODUCTION

Social anxiety, also known as social phobia, has become one of the most common mental health disorders with an age onset of early childhood (Kessler et al., 2012). Research has shown that gender differences exist among socially anxious individuals with females being diagnosed more often (Asher & Aderka, 2018; Zetner et al., 2022). Socially anxious individuals can experience physical anxiety symptoms such as blushing or stuttering as well as a distortion of cognition (American Psychiatric Association, 2013; Makkar & Grisham, 2011). According to the American College Health Association, 63% of college students experience a form of excessive anxiety, this includes social anxiety. Evidence suggests that college students with social phobia have a decreased quality of life compared to college students without social phobia, including reduced physical health, mental health, socio-emotional functioning, and communication with instructors (Archbell & Coplan, 2022; Ghaedi et al., 2010). Another factor that can affect college student life is being a first-generation student, defined as an individual who has a parent that did not complete a baccalaureate degree (Janke et al., 2017). Evidence suggests that first-generation college students may have difficulty adjusting to the social environment once arriving to college (Janke et al., 2017; Ricks & Warren, 2021). The focus of the present study was to document whether there is a difference in social anxiety in terms of social situations, social anxiety based on performance situations, and social anxiety based on cognition among first-generation and non-first-generation college students as well as how these variables are related to one another. Gender differences were also studied in terms of first-generation and non-first generation college students considering the social anxiety-related variables. This research study provides a novel prospective by contradicting existing research findings.

FIRST-GENERATION COLLEGE STUDENTS

According to Redford and Hoyer (2017), a first-generation student is an individual whose parents did not complete a baccalaureate degree. These researchers also indicate that if the individual is living in a single parent household and that parent did not complete a baccalaureate degree, they are still considered first generation even if the absentee parent has a completed degree. First-generation college students make up one-third of college students in the United States (Whitley et al., 2018).

Although there has been an increase in first-generation college students, research has found that they still fall behind in comparison to their non-first-generation counterparts (U.S. Department of Education, 2018). Researchers have stated that the reason behind the high drop-out rate or decrease in overall attendance among first-generation college students is the lack of parental education. A lack of parental education influences the experience of college students in terms of finances or resources provided through their parents (Radunzel, 2021; Saenz et al., 2007). Research has found that first-generation college students have difficulties adapting to the social environment once arriving to college (Pratt et al., 2019; Ricks & Warren, 2021) which leads to an "impaired social identification" and anticipation of academic failure because their parents do not have an educational background (Janke et al., 2017, p. 1).

Research has shown that first-generation college students appear to be at risk for dropping out. Data have shown that first-generation college students are more likely to leave college without returning in comparison to students whose parents attended some college or obtained a degree (Cataldi, Bennett, & Chen, 2018; House et al., 2019). Only about 50% of first-generation college students complete their degree within 6 years of beginning (Cataldi et al., 2018; DeAngelo et al., 2011).

Research that exists on first-generation college students and social anxiety is limited in the field. The literature focuses on first- generation students and matters such as generalized anxiety, test anxiety, trait-anxiety and the ability of appraisal support to decrease anxiety (Gaudier-Diaz et al., 2019; Janke et al., 2017; Keefe et al., 2022). The research on social anxiety has found that there is no

significant difference between non-first-generation college students and first-generation college students (Hood et al., 2020; House et al., 2020; Keefe et al., 2022).

SOCIAL ANXIETY

Social anxiety is a mental health disorder in which an individual perceives that they will be ridiculed on social situations, invoking extreme distress such as fear or anxiety (American Psychiatric Association, 2013, p. 202). According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), individuals diagnosed with social anxiety are afraid to show anxiety symptoms such as blushing, trembling and sweating. Individuals are afraid because they fear being judged, rejected, offending others or being labeled as crazy, stupid, or anxious (American Psychiatric Association, 2013). For a socially anxious individual, the idea of fear or anxiety can outweigh the possibility of completing a social activity. Individuals may experience symptoms prior to the activity in anticipation of the fear or anxiety that will be experiencing. People who have social anxiety lack the ability to function successfully on a personal, social, or occupational level (American Psychiatric Association, 2013, p. 202). Features of those diagnosed with social anxiety consist of being highly submissive which leads to poor body posture, making little to no eye contact, or speaking in a very low voice (American Psychiatric Association, 2013).

Individuals with social anxiety do not only experience physical symptoms as those previously stated but also have difficulty with cognition. For example, those diagnosed with social anxiety have been shown to have negative mental imagery of oneself that is provoked by the fear of being judged by others (Makkar & Grisham, 2011). It is suggested that the negative mental imagery of oneself is what maintains the disorder in those diagnosed (Marczak, 2022; Norton & Abbott, 2016). Socially anxious individuals begin to paint a negative self-image of themselves in which their fears of stuttering or tripping on stage will become true. When a social threat arises, research has shown that individuals diagnosed with social anxiety begin to experience negative cognitions about themselves (Marczak, 2022; Schulz et al., 2008). The literature showed that when socially anxious individuals begin to experience these negative cognitions their social anxiety increases and they begin to avoid social activities (Chiu et al., 2022; Schulz et al., 2008).

When comparing socially anxious individuals and non-socially anxious individuals, those diagnosed with social anxiety have been shown to experience greater negative cognitions in social environments (Kuru et al., 2017; Schulz et al., 2008). Socially anxious individuals also have difficulty understanding others' emotions, beliefs, or intentions (Chen et al., 2020; Hezel & Mcnally, 2014; Tsuji & Shumada, 2018). Results have shown that socially anxious individuals associate greater intense emotions and overthink what others were thinking and feeling (Hezel & Mcnally, 2014; Norhizan et al., 2019).

Social anxiety has become one of the most common anxiety disorder among mental health disorders (Gharraee et al., 2018; Kessler et al., 2012; Stein & Stein 2008). The prevalence is 7.1% among U.S. adults (Anxiety and Depression Association of America, 2022) and it is higher among adults between the ages of 18-29 (9.1%). Data show that 38.8% of adults reported being moderately impaired by their social anxiety while 29.9% reported having a serious impairment (National Institute of Mental Health, 2017). Onset has been shown to start very young in childhood into adolescence (Solmi et al., 2022). According to Stein and Stein (2008), among those who will be diagnosed with social anxiety in their lifetime, 50% will be diagnosed by age 11, and 80% will be diagnosed by age 20.

Onset of social anxiety may result from being extremely shy or experiencing social inhibition at a young age, but it may also result from a traumatic event such as being bullied or falling in front of everyone (American Psychiatric Association, 2013). Typically, the traumatic event places extreme distress or humiliation on the individual. However, some individuals may experience that the social anxiety is not induced by a particular event but instead develops slowly over time (American Psychiatric Association, 2013). In adulthood, it is less common for the onset to occur unless it is induced by a

particular event such as life changes due to age or as said earlier due to a stressful/humiliating event. In adults, life changes can include getting divorced or chronic illnesses due to older age.

Experiencing social anxiety can negatively impact an individual's life. As discussed earlier, it impedes their functioning in many areas. Social anxiety is also associated with an increase in school dropouts and a decrease in social activities. Results have shown that students with social anxiety have greater difficulty adjusting to college (Arjanggi & Kusumaningsih, 2016; Luan et al., 2022; Nordstrom et al., 2014). A study conducted by Nordstrom et al. (2014) indicated that this is due to social, personal, emotional, and academic problems caused by the social anxiety that individuals are experiencing. The study showed that social anxiety, self-esteem, and college adjustment accounted for 57% of the variance in regard to retention. Luan et al. (2022) found that as a result of their social anxiety, students' studies, work and lives were impacted due to fear and pain. Socially anxious students are not only at risk for drop out but also experience difficulty adjusting to college and mental health illnesses such as depression and anxiety (Nordstrom et al., 2014; Schry et al., 2012; Zaboski et al., 2019).

In the largest study of college student health known to these authors (N = 54,497), the American College Health Association (2019) reported that 29.5% of college students stated that anxiety affected their academic performance and 24% reported being diagnosed or receiving treatment by a professional within the past 12 months. Anxiety was a more common problem than other disorders such as depression, panic attacks, or anorexia (American Health Association, 2019). Although this study did not differentiate which type of anxiety, it is important to note the wide prevalence of anxiety in college students, particularly social anxiety, has been shown to be detrimental to students' daily lives (Bayram & Bilgel, 2008; Filho et al., 2010; Luan et al., 2022; Schry et al., 2012). In one particular study, Liang (2018) showed that socially anxious undergraduate students had greater difficulty in processing information compared to non-socially anxious students when the task was of high difficulty. In another study, Ghaedi et al. (2010) found that socially anxious students were more likely to report a reduction in quality of life as well as lower role functioning in terms of emotion, health, vitality, social functioning, and mental health scores.

GENDER DIFFERENCES AND SOCIAL ANXIETY

Evidence suggests that there are gender differences in social anxiety. Women are more likely to be diagnosed with a social anxiety disorder than men (Asher & Aderka, 2018). Women are also more likely to have greater prevalence rates of a social anxiety disorder at 12 months and within their lifetime after being diagnosed with the disorder compared to men (Mclean et al., 2011). Statistics show that women have a 5.67% lifetime prevalence rate in comparison to men who have a 4.2% (Xu et al., 2012). Xu et al. (2012) conducted a study in which they compared fear in social situations for socially anxious men and women. Results showed that women have greater fear in all of the social situations except for dating. It was shown that socially anxious women tend to have greater panic attacks than socially anxious men. These researchers also compared physical, mental, social and role emotional functioning among participants in which it was shown that socially anxious men had better scores than women. Although socially anxious men are shown to have greater scores in terms of the physical, mental, social and role functioning scales, it was shown that they use alcohol and drugs to relieve the symptoms of their social anxiety.

In terms of seeking treatment, socially anxious women are more likely to go to the emergency room/urgent care or seek a physician than socially anxious men (Mclean et al., 2011). Both socially anxious men and women missed a similar amount of days from work due to their mental illness (Mclean et al., 2011). Nonetheless, with respect to social anxiety disorder, although women are more prone to developing the disease, its course seems to be similar for men and women (Mclean et al., 2011).

THE PRESENT STUDY

In the present study we focused on how social anxiety variables are related to one another and the differences among first generation and non-first-generation college students in terms of social anxiety based on cognition, social anxiety based on social situations and social anxiety based on performance situations. Gender differences in social anxiety among first-generation and non-first-generation college students were also studied. Evidence from this research can be useful in determining whether non-first-generation college students need more support for social anxiety symptoms, as evidence suggests social anxiety can have deleterious consequences (Ghaedi et al., 2010). To the best of the authors' knowledge this is the first study comparing first-generation and non-first-generation college students social anxiety based on cognition and in different situations.

Based on the aforementioned evidence, the research questions were:

1. How are gender, first-generation versus non-first-generation status, general social anxiety, social anxiety based on performance situations, social anxiety based on social situations, and social anxiety based on cognition related?

2. What are the differences between first-generation and non-first-generation college students in terms of social anxiety based on social situations, social anxiety based on performance situations and social anxiety based on cognition?

3. What are the differences between first-generation female college students and first-generation male college student's social anxiety based on social situations, social anxiety based on performance situations, general social anxiety, and social anxiety based on cognition?

4. What are the differences between non-first-generation female college students and non-first-generation male college student's social anxiety based on social situations, social anxiety based on performance situations, general social anxiety, and social anxiety based on cognition?

METHOD

PARTICIPANTS

The study consisted of 134 participants who were recruited from a college campus' psychology subject pool and Mturk. Of the 134 participants, 53% were men and 47% were women. Seventy-four of the individuals identified as being a first-generation college student and the remainder were non-first-generation college students. Participants between the ages of 18-23 made up 50.8% of the population, 24-29 made up 34.2%, and participants older than 30 made up 14.5% of the population. Mean age of participants was 24.7 years old (SD = 6.42). Participants who identified as freshmen made up 20.1% of the population, sophomores were 22.4%, juniors were 14.9%, and seniors were 42.5%. Thirty-five point eight of the participants identified as an international student and the rest of the population were non-international students. Participants who identified as White made up 51.5% of the participant pool, Black/African American participants were 4.5%, American Indian/Alaska Native participants were 1.5%, Asian participants were 39.9%, Hispanic participants were 7.5%, and participants who identified as other were 5.2%. Participants between household incomes of $0- 29,999 were 43.2% of the participant pool, $30,000- 59,999 were 28.4%, $60,000- 89,999 were 14.2%, and $90,000 and over were 14.1%.

PROCEDURES

An online survey platform will be used to collect data from participants. Prior to publishing the online questionnaire on Qualtrics and Mturk, the research study was approved by the Institutional Review Board of the university where the data were collected. Participants were recruited from a

psychology subject pool and Mturk. If participants were from the subject pool, they received course credit for taking part in the study, with alternate means of earning credits specified in course syllabus. If participants took the survey through Mturk they received a monetary amount to complete the survey after it had been published to the website.

MEASURES

A demographics questionnaire was used to gather information about students' age, gender, year in college, status regarding being first-generation versus non-first generation college student, status as international student, socioeconomic status, and ethnicity/race. Two questions were used to check for validity purposes: picking a number and favorite color. To measure for social anxiety, the following scales were used: Social Phobia Scale (Liebowitz, 1987) and the Brief Fear of Negative Evaluation Scale (Leary, 1983). Both test measures remain relevant and applicable in present day to measure for the construct.

SOCIAL PHOBIA SCALE

The Liebowitz Social Phobia Scale-Self Report which is a measure of social anxiety (Liebowitz, 1987), consists of 24 items with two subscales; social situations (11 items) and performance situations (13 items). Participants are measured for anxiety/fear or avoidance in regard to performing everyday actions. The scale is rated on a 0-3 for both anxiety/fear and avoidance. However, for fear/anxiety the responses are; 0 being "none," 1 being "mild," 2 being "moderate," and 3 being "severe." For avoidance, the responses are; 0 "being never," 1 being "occasionally," 2 being "often," and 3 being "usually." Participants are asked questions such as how they feel about "telephoning in public," "returning goods to a store," or "expressing a disagreement or disapproval to people you don't know very well." The Liebowitz Social Phobia Scale –Self Report has been shown to have a high internal consistency across all scales; alpha = .79 or higher (Baker et al., 2002). According to Fresco et al. (2001), the internal consistency for patients was all above an alpha of .82 for total score as well as subscales. Convergent validity for the Liebowitz Social Phobia Scale has also showed good moderation; total scores when compared to the Social Interaction Anxiety Scale and Social Phobia Scale were above a .61. Test-retest reliability was also shown to be high in terms of total score as well as subscales; all were above a .75 except for performance subscale which had a .53 (Baker et al., 2002). Analysis for the present study showed a high internal consistency for both the total score (α = .97) and subscales (α =.95).

THE BRIEF FEAR OF NEGATIVE EVALUATION SCALE

The Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983) is a revised measure of the Fear of Negative Evaluation scale. The Brief Fear of Negative Evaluation Scale consists of 12 items that focuses on the cognitive aspects of social anxiety such as thoughts of being ridiculed. The scale is rated on a 1-5, 1 being "not at all characteristic of me," 2 is "slightly characteristic of me," 3 is "moderately characteristic of me," 4 is "very characteristic of me," and 5 is "extremely characteristic of me." The scale asks questions such as "I am frequently afraid of other people noticing my shortcomings," "I rarely worry about what kind of impression I am making on someone," or "I am afraid that people will find fault with me." The Brief Fear of Negative Evaluation Scale has been shown to have high internal consistency of .90 and .81 (Rodebaugh et al., 2011; Weeks et al., 2008). The test-retest reliability was shown to be high as well; r =.94, p < .001 (Collins et al., 2005). The present study showed a high internal consistency for total score (α = .85).

DATA ANALYSIS

Descriptive statistics were first conducted to find information regarding age, gender, race/ethnicity, year of college, household income, international student status and status regarding first-generation versus non-first generation (see Table 1 for descriptive statistics). A Cronbach's alpha was calculated to find the internal consistency of the Social Phobia Scale, The Social Phobia's Scale two

subscales; Performance Situations and Social Situations, and The Brief Fear of Negative Evaluation Scale for the current sample. A Point- Biserial Correlation was conducted to find the correlations among the variables in terms of gender, first-generation versus non-first-generation status, general social anxiety, social anxiety based on performance situations, social anxiety based on social situations, and social anxiety based on cognition. Finally, a series of MANOVAs were conducted to answer three of the research questions in this study. A Tukey's test for post-hoc analysis was conducted for each MANOVA to explore significant differences among the variables.

Table 1. *Descriptive Statistics*

	Percentage of population (N= 134)
First-Generation Status	
First-Generation	55%
Non-First-Generation	45%
Gender	
Female	47%
Male	53%
Age	
18-23	50.8%
24-29	34.2%
30 and older	14.5%
College Year	
Freshmen	20.1%
Sophomore	22.4%
Junior	14.9%
Senior	42.5%
Race/Ethnicity	
White	51.5%
Black/African American	4.5%
American Indian/Alaska Native	1.5%
Asian	39.9%
Hispanic	7.5%
Other	5.2%
Household Income	
$0-29,999	43.2%
$30,000-59,999	28.4%
$60,000-89,999	14.2%
$90,000 and over	14.1%

RESULTS

In order to answer the first research question, a point-biserial correlation analysis was conducted which showed no significant correlation between gender and first-generation versus non-first-generation status, general social anxiety, social anxiety based on social situations, social anxiety based on performance situations, and social anxiety based on cognition. There was a significant negative correlation between first-generation versus non-first-generation status and social anxiety (r (132) = -.36, p < .001), social anxiety based on social situations (r (132) = -.33, p < .001), social anxiety based on performance situations (r (132) = -.36, p < .001) and social anxiety based on cognition (r (132) = -.27, p < .005). In other words, students who were not first-generation reported experiencing lower social anxiety whereas first-generation students reported an increased level of social anxiety.

General social anxiety showed a significant correlation among social anxiety based on cognition (*r* (132) = .70, *p* <. 001), social anxiety based on performance situations (*r* (132) = .98, *p* < .001) and social anxiety based on social situations (*r* (132) = .98, *p* <.001). Social anxiety based on cognition showed a significant correlation among social anxiety based on performance situations (*r* (132) = .69, *p* < .001) and social anxiety based on social situations (*r* (132) = .69, *p* < .001). Lastly, social anxiety based on social situations and social anxiety based on performance situations were significantly correlated as well (*r* (132) = .92, *p* < .001). A significant correlation among these variables shows that individuals who are reporting levels of social anxiety will also report levels of social anxiety based on cognition, social anxiety based on performance situations, and social anxiety based on social situations (see Table 2 for data on correlations among the study variables).

Table 2. *Correlations Among Gender, General Social Anxiety, Social Anxiety Based on Social Situations, Social Anxiety Based on Performance Situations, Social Anxiety Based on Cognition and First-Generation versus Non-First-Generation Status*

	1	*2*	*3*	*4*	*5*	*6*
1-Gender	--	-.03	-.01	-.03	-.07	.11
2-General Social Anxiety		--	.98*	.98*	.70*	-.36*
3-Social Anxiety Based on Social Situations			--	.93*	.69*	-.37*
4-Social Anxiety Based on Performance Situations				--	.69*	-.36*
5-Social Anxiety Based on Cognition					--	-.27*
6-First-Generation Status Versus Non-First-Generation Status						--

In order to answer the last three research questions a series of MANOVA's were conducted. The first MANOVA indicated that there was a statistically significant difference with first-generation college students versus non-first-generation college students as the independent variable and social anxiety based on social situations, social anxiety based on performance situations, and social anxiety based on cognition as the dependent variable (*F* (3, 119) = 6.27, *p* < .001; see Table 3).

Table 3. *MANOVA Results for First-Generation (FG) versus Non-First-Generation (NFG) College Students and Social Anxiety Based on Social Situations, Social Anxiety Based on Performance Situations and Social Anxiety Based on Cognition*

	Wilks Lambda	*df*	*F*	*P*	*Partial η2*
FG versus NFG Status Across Social Anxiety Based on Social Situations, Social Anxiety Based on Performance Situations, and Social Anxiety Based on Cognition	.863	3, 119	6.27	.001*	.14
FG versus NFG Status and Social Anxiety Based on Social Situations		1, 55	14.68	.000*	.11
FG versus NFG Status and Social Anxiety Based on Performance Situations		1, 55	18.77	.000*	.13
FG versus NFG Status and Social Anxiety Based on Cognition		1, 55	9.97	.002**	.08

Note. [a] *p < .001 **p < .005

First-generation versus non-first-generation college student status had a significant effect on social anxiety based on social situations (*F* (1,121) = 14.68, *p* < .001), social anxiety based on performance situations (*F* (1, 121) = 18.77, *p* < .001), and social anxiety based on cognition (*F* (1,121) = 9.97, *p* < .005). These results indicate that the status of first-generation versus non-first-generation is related to the level of social anxiety based on social situations, social anxiety based on performance situations and social anxiety based on cognition. Identifying as a first-generation college student can increase the levels of social anxiety in social anxiety based on social situations, social anxiety based on performance situations, and social anxiety based on cognition. Mean statistics showed that first-

generation college students reported higher scores for social anxiety based on social situations, social anxiety based on performance situations, and social anxiety based on cognition.

A second MANOVA was conducted for first-generation college students with gender as an independent variable and social anxiety based on social situations, social anxiety based on performance situations, general social anxiety and social anxiety based on cognition as the dependent variables; there was no statistical significance (F (3, 62) = .74, p > .005). A third MANOVA was conducted for non-first-generation college students with gender as an independent variable and social anxiety based on social situations, social anxiety based on performance situations, general social anxiety and social anxiety based on cognition as the dependent variables; there was no statistical significance (F (3, 53) = .87, p > .005). A non-statistical significance for gender and the dependent variables suggests that there is no difference among males/females in their social anxiety based on performance situations, social anxiety based on social situations, general social anxiety, and social anxiety based on cognition for either first-generation and non-first-generation college students.

DISCUSSION

The purpose of this research study was to distinguish whether a difference exists in certain social anxiety variables (i.e., social anxiety based on social situations, social anxiety based on performance situations, and social anxiety based on cognition) among first-generation college students and non-first-generation college students. Current literature has focused on social anxiety in general without taking into consideration cognitions or different situations that can invoke social anxiety among first-generation college students. The present study also focused on how social anxiety variables are related to one another and gender differences that may exist in first-generation college students and non-first-generation college students in terms of the social anxiety variables.

The findings in this study indicated that a significant difference exists among first-generation college students and non-first-generation college students when looking at the following social anxiety variables: social anxiety based on social situations, social anxiety based on performance situations and social anxiety based on cognition. Students who reported being a non-first-generation college student reported lower anxiety scores whereas reporting as a first-generation college student increased anxiety scores. This finding contradicts previous literature stating there is no difference in social anxiety among first-generation college students and non-first-generation college students (House et al., 2020; Hood et al., 2020). First-generation college students reported higher averages when answering questions that related to experiencing social anxiety in social situations (i.e. talking to people in authority, going to a party, and talking with people you don't know very well, etc.), and social anxiety in performance situations (i.e. telephoning in public, participating in small groups, and eating in public places, etc.).

The findings from the present study also indicated that social anxiety is related to other social anxiety variables. If an individual is experiencing an increase in any one of the social anxiety variables then there will be an increase in the other variables (general social anxiety, social anxiety based cognition, social anxiety based on performance situations, and social anxiety based on social situations) which can be a reason as to why first-generation college students produced higher averages across all the social anxiety variables.

The implications of these research findings are essential to first-generation college students and their experience when attending college as it provides a new understanding to their mental health. The contradictory results of the present study can add value to the current literature on retention rates among college students. It has shown that a majority of first-generation college students are more likely to drop out of college or take longer to complete their degree when compared to non-first-generation college students (Cataldi et al., 2018; DeAngelo et al., 2011). According to the present study, first-generation college students are experiencing high rates of social anxiety in activities that

are at the core of what the college experience is (i.e. social anxiety based on performance situations and social anxiety based on social situations); this can be an explanation as to why they are dropping out or taking longer to complete college degrees. Identifying as a first-generation college student predisposes an individual to negative expectations of the college life (Janke et al., 2017, p. 1), but when adding in social anxiety, individuals who identified as socially anxious regardless of first-generation status were found to have difficulty adjusting to the college environment and had high drop-out rates as well (Pratt et al., 2019; Ricks & Warren, 2021). The results from this present study can give insight to new variables (social anxiety based on cognition or performance/social situations) that could be a contributing factor to the low retention rates among first-generation college students as well as the social impairment they experience on campus. The findings from this research study can extend the field of research on socially anxious individuals, in particular, first-generation college students who are experiencing a double negative effect on their experience by identifying as socially anxious and a first-generation college student. The present study supported a positive correlation between social anxiety and social anxiety based on cognition, social anxiety based on performance situations, and social anxiety based on social situations, which can lead researchers to explore more research on why they are related or whether any differences exist.

Findings also indicated that first-generation college students experience greater negative cognitions associated with social anxiety (i.e., I am frequently afraid of other people noticing my shortcomings; I rarely worry about what kind of impression I am making on someone; or I am afraid that people will find fault with me). Research is limited in terms of looking specifically at first-generation college students and social anxiety based cognition variables; however, some studies have found that individuals who are socially anxious tend to experience greater negative cognitions than non-socially anxious individuals (Kuru et al., 2017; Schulz et al., 2008). These results can be linked to the present study in supporting a similar result while solely focusing on first-generation college students only. As a result of these negative cognitions, socially anxious individuals are more likely to avoid participating in social situations which can explain the high averages on the social anxiety based on cognition, social anxiety based on social situations, and social anxiety based on performance situations. Given the limited amount of information on first-generation college students and social anxiety based on cognition, these results allow researchers to understand a contributing variable for how these negative cognitions affect the target population. These results also bridge a gap that exists in literature in particular to social anxiety based cognitions and first-generation college students. These results can also help those diagnosed with social anxiety because it provides an image of what symptoms a health professional should check. The results indicate that social anxiety symptoms do not only increase in social and performance situations but also in social anxiety based on cognition. Therefore, these results can assist in educating health professionals on what other symptoms are related to an increase in social anxiety.

In this study, there was no significant difference when looking at gender in relation to the other social anxiety variables or first-generation versus non-first-generation status. These results contradict previous research findings in which gender differences are related to social anxiety (Asher & Aderka, 2018; Mclean et al., 2011; Thompson et al., 2019). Research suggests that women are more likely to be diagnosed and have higher life-time prevalence (Asher & Aderka, 2018; Mclean et al., 2011). A non-significant result in this study could be due to having a small sample size (N = 134).

Although rates of lifetime prevalence are statistically different between men and women (Xu et al., 2012), they both tend to show similar symptoms such as experiencing social anxiety when speaking in class, performing in-front of other people, speaking in-front of other people, experiencing comorbid disorders, and missing days from work due to mental illness when being diagnosed with social anxiety (Mclean et al., 2011; Xu et al. 2012). The manifestation of similar symptoms among both genders is consistent with the findings of the present study. Average means of responses were similar when looking at total scores for the scales which can be interpreted that males and females are experiencing

the same social anxiety symptoms in social anxiety based social situations, social anxiety based performance situations, and social anxiety based on cognition.

CONCLUSION

The results of the study provide a new point of view when looking at social anxiety differences among first-generation and non-first-generation college students. More specifically an advanced understanding on social anxiety based cognitions and social anxiety based on different situations (performance and social situations). Given that first-generation college students are an under-represented population in social anxiety research, the implications of these findings are essential in helping clinicians and counselors. These findings allow health care professionals to gain awareness around a marginalized population. More information on first-generation students can allow counseling services to cater certain treatments or interventions to the needs of first-generation college students. Based on the results of the present study, it is evident that first-generation college students are experiencing a greater social anxiety based on cognition and in different situations. Not only is this information essential for creating interventions and/or treatments but also for outreach programs. Given the limited research on social anxiety and first-generation college students, clinicians/counselors might not be aware that this target population is struggling with social anxiety since recent literature has shown no differences. The results from this study can create a stepping stone for expanding research in first-generation college students to gain a better understanding while also looking at other variables in conjunction with social anxiety such as coping mechanisms, alcohol consumption, protective barriers, and/or comorbidity.

LIMITATIONS

The present study had limitations which should be addressed in future research. The first limitation is the use of self-report measures which can result in purposeful distortion. There was no collection of identifiable information from participants, however, participants may have changed their answers due to embarrassment of experiencing social anxiety. Self-report measures via online technology can also result in error when reading the questionnaires due to self-interpretation and no guidance of the researcher. For example, an estimated average of 100 participants were removed from the data due to incorrectly answering of the questionnaires and failing validity checks. Another limitation of this study was that using MTurk as a recruitment process can provide a limitation toward these data. Those on Mturk who have chosen to partake in the survey may falsely indicate their demographics which can lead to inaccurate data for participants. Results for the questionnaires may also be influenced since participants are receiving compensation for their responses. Participants taking the survey to receive compensation in return may go through the survey more quickly and without much attention so that they receive the money. In terms of demographics, half of the participants identified as Caucasian and 40% as Asian which can affect the generalizability of the study to other racial/ethnic groups.

authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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English Language Teachers' Occupational Stress Level and its Effects on their Self-efficacy in Teaching and Learning Environment

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Abstract

The aim of this study is to investigate the relationship between foreign language teachers' occupatioal stress and its effects on their self-efficacy teaching and learning environment. This study includes 48 participants including English language teachers who have different characteristics such as age, gender, marital status, and year of experiences, working at different foundation universities in a city of Turkey. The data of this study was collected via Teachers' Sense of Efficacy Scale and the self-reported questionnaire. The findings of data were analyzed by SPSS statistics program and descriptive survey study. It was found that teachers' occupational stress affect their self-efficacy in teaching and learning environment. Understanding the relations between teachers' self-efficacy and occupational stress is essential to view the challenges as opportunities for development. The findings emphasize the need of taking proactive measures to lower stress and provide a positive and qualified teaching and learning environment at the individual and organizational levels. A high level of self-efficacy may be developed and maintained by instructors who effectively navigate these challenges, which will ultimately enhance the training they give students as well as the instructors themselves.

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INTRODUCTION

The noble job of teaching is extremely important in determining how societies will develop in the future. However, the demands of the job frequently lead to high levels of occupational stress among educators, which can negatively affect their sense of self-efficacy. This article investigates the complexity between the occupational stress experienced by English language instructors and how it affects their sense of self-efficacy in the classroom. Within the realm of education, occupational stress pertains to the mental, bodily, and emotional exhaustion resulting from the numerous demands and issues associated with being a teacher. The phenomenon in question is complex and multifaceted, encompassing a range of stressors such as overwhelming workloads, administrative obligations, student behavior problems, and societal expectations.

OCCUPATIONAL STRESS

In today's modern world people have uploaded works because of the life conditions. They try to do all of them in a limited time and they have difficulty in dealing with all of the problems they encounter. Especially teachers are affected so much from this situation. It makes stress for them in their job. Teachers' experience of unpleasant negative emotions stemming from components of their work as teachers that are caused by a perception of threat in handling the demands imposed upon them is defined as occupational stress by Kyriacou (2011).

Teachers who are displeased with their work tend to have reluctant attitude to their job and reflect it negatively to their students' motivation via emotional contagion (Hatfield, Cacioppo, and Rapson,1993). By doing these unfortunately, they can not supply their students' needs about their autonomy and competences in their learning process (Ryan and Deci, 2000; Klusmann, Kunter, Trautwein, Lüdtke, and Baumert, 2008). Occupational stress among teachers is a multifaceted phenomenon influenced by a myriad of factors. The study of Richard Lazarus and Susan Folkman (1984) on stress and coping theory provides a foundational framework for comprehending how teachers perceive and respond to stressors. According to Lazarus and Folkman, stress arises from the appraisal of a situation as exceeding one's resources to cope effectively. In the context of teaching, stressors may include heavy workload, student misbehavior, administrative pressures, and the ever-evolving educational landscape.

Teachers in language learning and teaching classess have big tensions during teaching process which requires patience, positive attitude, repeating again and again, guiding, observing, doing tests, checking answers, evaluating the students, and like these. Considering all these, it is understood that teaching can be stressfull. Cedoline (1982) says that high level of stress can lead to distress and physical pain. Today, teaching at schools is considered as one of the 'high stress' occupations. Teachers are regarded as the people who bear the very high-level stress caused by their daily activities and today's schooling system (Hepburn and Brown, 2001). There are many harmful effects of stress on English as a Foreign Language (EFL) teachers such as not feeling the job satisfaction in a good way and negative effect on teachers' performance and effectiveness (Jepson & Forrest, 2006). When instructors are not under professional stress, they will be more at ease in the classroom, which will favorably impact the learning and teaching process for parents, students, and teachers alike. Teachers that are less stressed not only have the ability to educate more effectively in the classroom, but they also foster a more qualified and engaging learning environment. (Arora, 2013).

SELF-EFFICACY

The notion of self-efficacy, which was first presented by psychologist Albert Bandura, is essential to understand human psychology and teaching profession (Bandura, 1977). Bandura's social cognitive theory points that self-efficacy, defined as one's belief in their ability to perform specific tasks, plays a crucial role in determining behavior and psychological well-being (Bandura, 1977). It speaks to a person's confidence in their capacity to carry out duties, reach objectives, and get over obstacles in

particular fields. Within the educational context, teacher self-efficacy refers to the assurance and conviction that educators possess regarding their ability to positively impact student learning outcomes. Essential elements of teacher self-efficacy are classroom management, instructional tactics, student engagement, and problem-solving skills. In the context of teaching, self-efficacy reflects a teacher's confidence in their instructional capabilities and their belief in the potential positive impact on students.

Even though teaching is stressful, educators employ a range of coping mechanisms to get through trying times. Lazarus and Folkman (1984) distinguished between two primary coping strategies: emotion-focused coping, which entails managing emotional reactions to stress, and problem-focused coping, which is confronting the stressor head-on. Scholars such as Masten (2001) have underlined the importance of resilience in reducing the negative impact of work-related stress on self-efficacy. Teachers that are resilient exhibit flexibility and tenacity in the face of difficulties, which supports the preservation or even growth of their self-efficacy.

AIM OF THE STUDY

The aim of this study is to investigate the relationship between foreign language teachers' occupatioal stress and its effects on their self-efficacy in teaching and learning environment. In this study, there are two research questions as below:

The first research question is related to self-efficacy of EFL teachers.

1. Are there any significant relationships between self efficacy of EFL teachers and teacher characteristics?

The second research question is related to stress of EFL teachers.

2. To what extent do the stress factors affect EFL teachers in teaching and learning environment?

In the light of the research questions the findings were examined and evaluated by paying attention to the related studies and research.

IMPORTANCE OF THE STUDY

The importance of the study lies in its exploration of the intricate interplay between foreign language teachers' occupational stress and their self-efficacy within the teaching and learning environment. There are some reasons why this research is significant such as giving information on educational practices, enhancing teacher development, improving student outcomes, promoting organizational well-being, guiding policy and practice and contributing to research in the field of education. In summary, this study holds significance for various stakeholders in education, from teachers and students to policymakers and researchers. By understanding and addressing the complex interplay between occupational stress and self-efficacy, educators can work towards creating supportive environments that foster both teacher and student success.

LITERATURE REVİEW

EFL teachers have some difficulites in psychological resilience while experiencing their teaching life due to the occupational stress. The influences can change according to teachers' characters, personal views, psychological attitutes and also contextual factors. The level of stress of teachers can change according to their characters, ages, marital status, gender, physical atmosphere of their working places, tenancy, teaching experiences, curriculum, administration, economical problems, and salaries. Travers (2001) mentions that undesirable and unpredictable conditions may influence the performance of the teachers to do their job properly. Unpleasant work and social environment of the schools and their physical conditions such as class size, fresh air of the classes, noise levels, are also effective in teachers' teaching performances. When they like the conditions and feel good, they

perform better in teaching process. Travers (2001) emphasizes that incorrect basal elements have a direct impact on education, impose restrictions, and produce tension by citing the works of other experts working on a related topic. These fundamental elements comprise "poor physical working conditions, class sizes, noise levels, unpleasant work environment, and inadequate school buildings and equipment" (p. 138).

RELATED STUDIES

The significance of the problem becomes clear when the studies on teachers' occupational stress are examined (Boyle, Borg, Falzon, & Baglioni 1995; Pithers & Soden, 1998; Kyriacou, 2000, 2011; Forlin, 2001; Travers, 2001; Putter, 2003). Because teachers who are happy in their work are better instructors. However, as stress levels rise and instructors experience negative emotions, they may develop physical or mental health issues that lead to discontent and inefficiency in their profession.

In the research of Borg and Riding (1991), almost 34% of Maltese teachers had high level of occupational stress in their work life which causes feeling bad. Kyriacou (2000) states that teaching stress can affect the teachers and they can feel as stressful as working at the police station, prison office, traffic control places, hospitals like doctors and nurses. In the process, stress can affect badly the masses day by day. Coates and Thoresan (1976) state that many years ago Kaplan estimated that stress can affect about 200,000 teachers in the US and then five million students.

Teachers may experience burnout due to work-related stress. In 2016, Sadeghi and Khezrlou conducted a study involving forty English as a foreign language (EFL) instructors in Iran. The results demonstrated that organizational concerns such teaching expectations, lesson goals, course hours, and school evaluation problems, in addition to the curriculum, are the main sources of occupational stress for English instructors.

Sadeghi and Khezrlou (2016) conducted a study involving 40 instructors working in Iran to determine the level of burnout among Iranian EFL teachers and the correlation between burnout and environmental and personal variables. Their results showed that elements connected to the curriculum and organizational structure exacerbate the occupational stress experienced by English language instructors. They argue that the disparities and imbalances between course objectives and educational requirements, as well as between course resources, class schedules, and assessment procedures, cause stress for instructors at work.

The study conducted by Tschannen-Moran and Woolfolk Hoy (2001) revealed a high correlation between poor self-efficacy and occupational stress among teachers. Ongoing stress can be detrimental to teachers' self-confidence in their ability to manage challenges in the classroom, which can affect their instructional strategies and overall effectiveness.

Teachers' work stress and low self-efficacy are strongly correlated, according to research by Tschannen-Moran and Woolfolk Hoy (2001). Teachers' confidence in their capacity to handle difficulties in the classroom can be undermined by ongoing stress, which can have an influence on their teaching methods and general efficacy.

Forlin (2001), upon analyzing the results of seventy-two research published between 1980 and 1993, found twenty-four common possible sources of stress for teachers. The results showed that stressors were categorized into three main groups: administrative, classroom-based, and personal.

Teachers' heightened stress levels are a result of both situational and dispositional elements, as Kyriacou (2001) has shown. Situational elements involve external pressures within the educational system, whereas dispositional factors are tied to individual qualities and coping mechanisms. These components form the complex structure of the instructor concurrently.

METHOD

PARTICIPANTS

This study includes 48 participants including English language teachers who have different characteristics such as age, gender, marital status, and year of experiences, working at different foundation universities in a city of Turkey. The mean age of people aged between 22 and 54 is 37.67 and the standard deviation is ± 6.49.

DATA COLLECTION TOOLS

In this study, two types of data collection tools were used. One of them is Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). There are short and long forms of self efficacy questionnaire and the short one was used. It includes some dimensions such as *efficacy in student engagement* (items 2, 3, 4, 11)*, efficacy in instructional strategies* (items 5, 9, 10, 12)*, efficacy in classroom management* (items 1, 6, 7, 8). The short form results for the scale's reliability were as follows: mean 7.1, SD .98, and alpha .90. In the study conducted by Tschannen-Moran, M., and Woolfolk Hoy, A. (2001), the reliabilities for the subscale scores of the scale were as follows: Engagement 7.3, 1.1, .87, 7.2, 1.2, .81; Instruction 7.3, 1.1, .91, 7.3, 1.2, .86; Management 6.7, 1.1, .90, 6.7, 1.2, .86. In the study done by Erdoğan (2003) for Turkish translation of the Teachers' Sense of Efficacy Scale short form, the variables' computed construct reliability values were 0.78 for classroom management, 0.78 for student involvement, and 0.83 for the effectiveness of instructional practices. There was convergent validity for the scale.

The other tool is the self-reported questionnaire adapted from Ferguson, Frost, and Hall (2012). In the original form, it consists of 15 survey items that measure stress symptoms and 46 indicators that measure stress causes. Cronbach's alpha for the questionnaire was calculated and found to be .951 and the value was found as $p < .05$ (Ferguson, Frost, and Hall, 2012). For this study, the questionnaire was adapted according to the aim of the study in order to understand the EFL teachers' occupational stress level and its effects on their self-efficacy in teaching and learning environment. A specially designed questionnaire was employed as the data elicitation tool to look into the existence of work satisfaction, stress linked to teaching, and its associations with age, gender, and marital status. Moreover, a stress questionnaire was used and its sub dimensions such as workload, student behaviour, employment conditions, administration, depression and anxiety were examined in the study.

FINDINGS

In the light of research questions the findings are examined. The first research question is asking if there are any significant relationships between self efficacy of EFL teachers and teacher characteristics. Self efficacy of EFL teachers includes the dimensions such as student engagement, instructional strategies, classroom management. Moreover, teacher characteristics includes age, gender and marital status.

In Table 1 frequency distributions for gender, marital status and age are given.

Table 1. *Frequency Distributions for Teachers' Characteristics*

		n	*%*
Gender	Male	15	31.2
	Female	33	68.8
Marital status	Single	26	54.2
	Married	22	45.8

In Table 2, descriptive statistics for subdimensions are given. Mean values are out of 9 and the sense is getting higher while the mean is closing to 9.

Table 2. *Descriptive Statistics for the Subdimensions of Sense of Self-Efficacy Scale*

	Mean	Standard Deviation
Student engagement	6.69	1.50
Instructional strategies	7.24	1.57
Class management	7.00	1.79

The mean of student engagement is 6,7 and it's closer to 7 which represents "quite a bit". The mean of instructional strategies is 7,2 and it exceeds 7. So the mean is between "quite a bit and "a great deal". The mean of class management is 7 and it represents "quite a bit".

Table 3. *Relationships Between Subdimensions of Self-Efficacy Scale*

	Student engagement	Instructional strategies
Student engagement	1	
Instructional strategies	.757	1
Class management	.679	.827

In Table 3, Pearson Correlation analysis was used. According to findings, there is a high positive and significant relationship between student engagement and instructional strategies (0.76; p <0,05). Student engagement and instructional strategies scores are increasing or decreasing together.

There is a positive and significant relationship (0.68; P <0.05) between student engagement and classroom management. Student engagement and classroom management scores are increasing or decreasing together. Moreover, there is a high positive and significant relationship between instructional strategies and classroom management (0.83; p <0.05). Instructional strategies and classroom management scores are increasing or decreasing together.

Findings related to second research question

The second research question is related to stress of EFL teachers and asks to what extent the stress factors affect EFL teachers in teaching and learning environment. The stress factors include workload, student behaviour, employment conditions, administration, depression and anxiety. In Table 4 frequency distributions for experience, grade level, position and current assignment are given.

Table 4. *Frequency Distributions For Teachers' Characteristics*

		n	%
Experience (years)	0-4	3	6.3
	5-9	6	12.5
	10-14	18	37.5
	15-19	16	33.3
	20-24	5	10.4
Grade level	JK/SK	1	7.1
	Grades 7 to 8	1	7.1
	Grades 6 to 12	12	85.7
Employment Position	Full time	47	95.9
	Part time	1	2.0
	Long term occasional	1	2.0
Assignment	Special education	1	2.4
	Occasional teaching	1	2.4
	University	40	95.2

In Table 5, descriptive statistics for subdimensions of teachers stress scale are given. Mean values are out of 5 and the stress is getting higher while the mean is closing to 5.

Table 5. *Descriptive Statistics of Stress Factors*

	N	Minimum	Maximum	Mean	Std. Deviation
Workload	48	1.00	4.00	2.9739	65919
Student behaviour	48	1.00	4.44	2.9669	.77353
Employment Conditions	48	1.00	4.13	2.9782	.70413
Administration	48	1.00	4.00	3.1000	.75255
Depression	48	1.00	4.22	2.7333	.78503
Anxiety	48	1.00	4.75	2.6250	.79580

The mean workload score is 2.97 and it represents moderate stress level. The mean student behaviour score is also 2.97 and student behaviour is a moderate stress factor. The mean condition score is 2.98 and it's thought that conditions' effect was moderate on stress. The highest score is for administration with a mean of 3.1 but it's also moderate.

When depression and anxiety mean scores were evaluated, they are respectively 2.7 and 2.6 as the least scores and techers' depression and anxiety levels are moderate since the mean values are approximately 3.

Before testing whether there were significant differences between groups according to teachers'stress scores, continuous variables were tested for normality. To test variables whether they were normally distributed or not, one sample Kolmogorov-Smirnov Test is used and it was seen that distributions were not normal. Then, Mann Whitney U Test and Kruskal Wallis Test are used for looking at the differences among subdimensions.

To test whether there was a significant difference between the mean ranks of males and females according to their stress levels, a Mann Whitney U Test is used.

Table 6. *Descriptive Statistics of Gender and Subdimensions*

	Gender	N	Mean Rank	Sum of Ranks	U	P
Workload	Male	15	28.21	536.00	243	0.302
	Female	33	23.84	739.00		
Student behaviour	Male	15	29.84	567.00	212	0.098
	Female	33	22.84	708.00		
Employment Conditions	Male	15	27.58	524.00	255	0.428
	Female	33	24.23	751.00		
Administration	Male	15	24.11	458.00	268	0.592
	Female	33	26.35	817.00		
Depression	Male	15	29.24	555.50	223	0.155
	Female	33	23.21	719.50		
Anxiety	Male	15	26.89	511.00	268	0.593
	Female	33	24.65	764.00		

There is not a significant diference between males and females for any dimensions since all p values are greater than 0,05.

Table 8. *Relationships Between Subdimensions of Stress Questionnaire Spearman Correlation*

	Workload	Student behaviour	Conditions	Administration	Depression
Workload	1				
Student behaviour	.769**	1			
Employment	.873**	.714**	1		
Administra-tion	.770**	.539**	.673**	1	
Depression	.625**	.462**	.557**	.416**	1
Anxiety	.700**	.595**	.615**	.403**	.762**

Student behavior and workload have a strong, positive correlation (0.77; P<0.05). There is a correlation between the increase or decrease in workload and student behavior scores. Workload and employment conditions have a strong positive and significant connection (0.87; p<0,05). Scores for employment conditions and workload are either rising or falling simultaneously.

Workload and administrative are positively and significantly correlated (0.77; P<0.05). Similtaneous increases or decreases in workload and administration scores are visible. Workload and depression have a substantial and positive connection (0.63; p<0.05). Depression and workload are either rising or falling together. Workload and anxiety have a strong positive and significant connection (0.70; p<0.05). Anxiety and workload are either rising or falling concurrently.

Student behavior and conditions have a strong positive and significant association (0.71; p <0.05). Conditions scores and student behavior are either rising or falling concurrently. Student behavior and administration have a favorable and substantial association (0.54; p<0,05). Administration ratings and student behavior are either rising or falling together. Student behavior and depression have a positive and substantial connection (0.46; p<0.05). Depression scores and student behavior are either rising or falling simultaneously.

Anxiety and student behavior have a substantial and favorable connection (0.60; p <0.05). Anxiety levels and student behavior are either rising or falling concurrently. Employment conditions and administration have a substantial and favorable connection (0.67; p<0.05). Together, conditions and administration scores are rising or falling.

Conditions and depression have a substantial and positive connection (0.56; p<0,05). Depression scores and conditions are either rising or falling concurrently.

Conditions and anxiety have a substantial and positive connection (0.62; p<0.05). Concurrently, conditions and anxiety ratings are rising or falling. Depression and administration have a substantial and positive association (0.42; p<0.05). Depression and administration scores are either rising or falling concurrently. Anxiety and administration have a substantial and positive association (0,40) (p=0,004<0,05). Concurrently, the administration and anxiety scores are rising or falling. Depression and anxiety have a strong positive and significant connection (0.76; p<0.05). Scores for anxiety and depression are either rising or falling concurrently.

DISCUSSION, CONCLUSION AND IMPLICATIONS

In terms of the educational setting, this study explores the complex link between teachers' occupational stress and self-efficacy, providing insight into the complex processes that affect educators' prosperity and professional efficacy. Drawing upon a comprehensive analysis of existing literature and empirical findings, this discussion addresses key themes that emerge from the research. According to recent studies, teachers experience occupational stress in their workplaces. Within the institution, they deal with a variety of difficulties. The findings are in line with those of Ali et al. (2013), who discovered occupational stress in Pakistani private instructors. Their exposure, approach, and duration in the school are linked to the stress. Furthermore, a strong association was discovered between instructors' self-efficacy and occupational stress. The findings support the findings of İpek et al. (2018), Khan et al. (2012), Morris and Usher (2011), and other researchers that found a substantial correlation between teachers' self-efficacy and occupational stress. The results demonstrated that teachers' levels of self-efficacy are significantly impacted negatively by occupational stress.

The teaching profession sometimes necessitates a delicate balance between emotional fortitude and educational competence. The foundation of the educational system, teachers face a wide range of stresses, from demanding workloads and administrative demands to behavioral issues with students and social expectations. Burnout, which negatively impacts educators' general health, may result from the cumulative weight of these pressures. The impact of work-related stress on educators' self-efficacy

is readily apparent. Reduced confidence in teaching strategies, classroom management, and student participation can all increase the vicious cycle of stress causing a decline in self-efficacy and vice versa.

Understanding this complex link, we looked at methods to lower stress and raise self-efficacy, focusing on work management, productivity, mentoring, professional development, and wellness programs. The complex relationship that exists between self-efficacy and occupational stress in foreign language teachers highlights the need of having a comprehensive grasp of the variables that affect their professional prosperity and wellbeing. This essay makes sense of the complexities inherent in the teaching profession by drawing on the theories and observations of scholars such as Masten, Bandura, Lazarus, Folkman, Kyriacou, Tschannen-Moran, and Woolfolk Hoy (Bandura, 1978; Kyriacou, 2001; Lazarus & Folkman, 1984; Masten, 2001; Tschannen-Moran & Woolfolk Hoy, 2001).

It is essential to acknowledge the influence of occupational stress on self-efficacy in teaching and learning in order to cultivate a loving and supportive learning environment. The prosperity and well-being of educators must be given top priority in schools and other educational settings. To this end, resources and interventions that enable educators to manage stresses successfully must be made available. This will increase teachers' self-efficacy and, in turn, the quality of education they are able to impart. Schools may establish settings where teachers feel acknowledged, empowered, and prepared to face the difficulties of their career by promoting a good school culture that emphasizes individual support, teamwork, and a development mentality. To put these plans into action, administrators, lawmakers, and educators must work together, demonstrating a commitment to the general well-being and professional development of educators. One notable contribution of this study lies in its longitudinal approach, tracking changes in teacher self-efficacy over an extended period. This methodological decision deepens our comprehension of the dynamic nature of the link between stress and self-efficacy.

Stressors' effects on self-efficacy are dynamic and change over time due to the interaction of various stress factors and contextual variables. The implications of these findings extend beyond the academic realm, resonating with broader educational policy considerations. Moreover, strategies to alleviate workload, enhance organizational support, and foster positive interpersonal relationships can contribute to a more supportive teaching environment (Chen & Wang, 2019).

The results of this study show a strong inverse relationship between rising occupational stress levels and falling teacher self-efficacy. Over time, instructors who are dealing with these stressors become less confident in their ability to carry out their tasks in an efficient manner. In the face of occupational stress, cultivating teacher resilience emerges as a critical factor. Additionally, developing a supportive school climate and effective leadership techniques can work as a buffer against the negative impacts of stress, encouraging greater degrees of self-efficacy and professional dedication. Seeing these challenges as opportunities for growth is critical as we endeavor to expand our understanding of the connections between occupational stress in the teaching and learning environment and teachers' self-efficacy. By putting effort into their mental and emotional toughness, educators may raise the quality and effectiveness of education generally while also improving their own well-being. The goal of creating an educational system that is both supportive and powerful is to make sure that teachers can thrive and, in turn, motivate students of tomorrow.

In conclusion, this research offers significant perspectives on the intricate relationship between foreign language teachers's self-efficacy and occupational stress. The results highlight how important it is to take preventative action to reduce stress and foster a healthy learning environment at the individual and organizational levels. Instructors who successfully handle these obstacles can develop and maintain a high degree of self-efficacy, which will eventually improve both the quality of instruction they provide to students and the instructors themselves.

LIMITATIONS

It is essential to acknowledge the limitations of this study. The sample size, though diverse, may not fully capture the myriad contexts in which teachers operate. Future research could explore the influence of individual differences, such as teaching experience and subject matter expertise, on the stress-self-efficacy relationship. Additionally, investigations into the effectiveness of specific interventions and their long-term impact on teacher prosperity and well-being warrant further attention. Thus, the journey towards creating a supportive and empowering educational ecosystem is ongoing, with the goal of ensuring that teachers can thrive and, in turn, inspire the next generation of learners.

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The Prevalence of Cyber Harassment among Pre-university Students of Obafemi Awolowo University, Nigeria

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Abstract

This study identified the forms of Cyber Harassment experienced by pre-university students of Obafemi Awolowo University, Nigeria. Also, this study investigated the common perpetrators of cyber harassment against the students. This study also determined the coping strategies employed in dealing with cyber harassment. Finally, this study investigated the predictive ability of demographic variables on cyber harassment. The survey research method was adopted for this study. The population consisted of 2157 pre-university students of Obafemi Awolowo University, Nigeria. A total of 912 students were selected as samples for this study. A questionnaire was used in collecting data for this study. The data collected were analyzed using Cluster Analysis, Frequency and Percentages, Relative Significance Index (RSI) and Regression. The results showed that the prevalent form of cyber harassment experienced by the students include social exclusion harassment, while visual/sexual and verbal/written harassments were also experienced by significant percentage of the respondents. Also, male and female co-students and friends are the most perpetrators of cyber harassment against the students. The result further showed that active ignoring, helplessness/self-blame were the most adopted strategies. While assertiveness, close support, technical coping and retaliation were moderately adopted. The result finally showed that students age, religion and family types predict students' experiences of cyber harassment, while students' sex did not. The study concluded that social isolation is the most experienced form of cyber harassment, while co-students and friends appeared to be the most perpetrators of cyber harassment against the students.

INTRODUCTION

Harassment has been a prevailing issue in the world for a very long period of time now (Olweus, 2013). Harassment is the persistence attack and criticism on an individual causing worry and distress to that person (Oksanen, Celuch, Latikka, Oksa & Savela, 2022). It could come in the form of sexual harassment, verbal harassment, physical harassment and so on (Quinones, 2020; Raver & Nishii, 2010). Previously, harassment involved face to face activities with the victim and the perpetrators, however, in recent times, harassment has been taken to the internet as a result of the development in technology and this is commonly referred to as cyber harassment (Freeman, Zamanifard, Maloney & Acena, 2022).

Cyber harassment involved the use of internet to harass, and it does not require whether the victim is known to the perpetrators or not. The perpetrators can operate under anonymity and so their identity is unknown to the victim(s) (Hafeez, 2014). Cyber harassment is the use of Information and Communications Technology (ICT) to harass, control, manipulate or habitually disparage a child, adult, business or group without a direct or implied threat of physical harm. Its forms include verbal, sexual, emotional or social abuse among many others (Mendonca & D'Cruz, 2021). Cyber harassment can be further categorized into cyberstalking or internet troll. This can also be in form of direct harassment, invasion of privacy and denial of access.

Furthermore, people in different parts of the world now communicate together on a variety of devices such as cell phones, tablets, or computers. A picture/photo, video, text message, or email may be viewed by an individual, shared with another or "go viral" and spread to hundreds of thousands of users in a matter of minutes (Bloom, Garicano, Sadun & Van Reenen, 2014). Technology keeps improving, which in turn influences the way people interact by promoting global communication and allowing individuals to connect with others more readily.

Whereas, due to advancement in technology and educational technology, online communications is now part of teaching and learning process in almost every tertiary institution campuses. For instance, a study in Washington DC among college seniors' students showed that virtually 100% of college seniors had access to the Internet (Harris Interactive, 2001). This is because it is required today that students take their own computer to campus, and some schools even require all students to have one. Schools now run online programmes that require students to be connected to the internet. Almost all universities and colleges now make high-speed Internet access available in the halls of residence and provide computer labs and library computer access for students who do not have their own computer. Students at times connect with their lecturers, friends and family through different online means such as e-mail among others (Franklin, 2015). Also, many students make use of Instant Messenger (I-M), which allows real-time communications through typing of messages back and forth across the Internet (Bouhnik & Deshen, 2014).

Without doubt, the use of the Internet has many benefits that enrich students' scholarly and social experiences through access to a multitude of information and entertainment Web sites, libraries, online databases of scholarly journals, newsgroups, just to mention a few. However, evidence also exist about the variety of difficulties that the use of the Internet has caused, most especially uncontrolled access to the internet by young students and adolescents (Shatri, 2020; Sowmya & Roja, 2017). Some of these include cyber addiction, identity theft, exposure to unwanted violent and/or pornographic content or messages, e-mail harassment, cyberstalking and "cyber harassment" (Rapisarda & Kras, 2023; Opesade & Adetona, 2021; Attrill-Smith & Wesson, 2020). The extent to which college students experience these problems and know what to do if they occur is largely unknown.

More specifically, cyber harassment as one of these difficulties is seen as an act used by one or more online users attempting to psychologically devastate another online user(s). This behaviour has led to the death of so many teenagers and young adults in the western world (Erdur-Baker & Kavşut,

2007). Several studies have been conducted on cyber harrasment among students in Nigeria, however, many of these studies largely focused on prevalence of cyber harasment (Mustapha, Muhammad & Olowoniyi, 2021; Olasanmi, Agbaje & Adeyemi, 2020), awareness and context (Olumide, Adams & Amodu, 2015). However, studies which explored the types/forms of cyber harassment, with focus on investigating the perpetrators from the victims' perspectives, are still largely unavailable, hence this study.

PURPOSE OF THE STUDY

The main objective of this study is to investigate the forms and predictive factors and perpetrators of cyber-harassment among pre-university students of Obafemi Awolowo University, Nigeria. This is with a view to understanding the prevalent form(s) of cyber harrassment students are exposed to and factors which may predispose students to cyber harrasment. This study will help in identifying common perpetrators of cyber harassment against the students

SPECIFIC OBJECTIVES

The specific objectives of this study are to:

i.   identify the prevalent forms of Cyber Harassment experienced by pre-university students of Obafemi Awolowo University, Nigeria
ii.   investigate the common perpetrators of cyber harassment against the pre-university students of Obafemi Awolowo University, Nigeria
iii.   determine the coping strategies used by the students in dealing with cyber harassment
iv.   investigate the predictive ability of demographic variables on cyber harassment of pre-university students of the institution

RESEARCH QUESTIONS

Based on the stated objectives above the following research questions will be generated

i.   What forms of Cyber Harassment is mostly experienced by pre-university students of Obafemi Awolowo University, Nigeria?
ii.   Who are the common perpetrators of cyber harassment against the pre-university students of Obafemi Awolowo University, Nigeria?
iii.   What are the coping strategies used by the students in dealing with cyber harassment?

RESEARCH HYPOTHESES

The following hypothesis was raised

i.   There is no significant predictive ability of demographic variables on cyber harassment of pre-university students of the institution

METHOD

The study adopted descriptive survey research design. This research design was adopted in order to help the researcher gained insight into the phenomenon being studies, while providing basis to appropriately describe the population, as well as the distribution of the variables, most especialy without regard to any causal or other hypothesis (Aggarwal & Ranganathan, 2019). The descriptive survey research design accurately captures this study as data collected from the respondents, who could also be described as the representative sample, will be generalizable on the whole population (Aggarwal & Ranganathan, 2019).

POPULATION

The population for this study consisted of pre-university students of Obafemi Awolowo University, Nigeria. The preuniversity students of this institution consisted of students offering two different programmes, which include Pre-degree programme and Joint Universities Preliminary Examination Board (JUPEB) programme. According to statistics provided by the Pre-University programme management, there were 692 JUPEB students in the University for the 2021/2022 academic session, while there were 1465 Pre-degree students for this same academic session, making a total of 2157 students for the two programmes. This population was considered more appropriate for this study as they constitute young individuals, many of which are just gaining independence from their parents, and becoming more exposed to using the internet. This will help in understanding the forms of cyber harassment young people are exposed to and those who perpetrate this against them.

SAMPLE AND SAMPLING TECHNIQUE

A sample of 912 students, representing 42% of the population was selected from the pre-university students of Obafemi Awolowo University. However, after the collection and cleaning of the data, about 11 responses were discarded as they were not completely filled, leaving total of 901 respondents which were finally selected for this study. This number can be said to represent adequate sample, from which the result could be generalized on the whole population. Moreover, the sample comprised 564 females and 333 males between the age range of 15 and 30, selected using multistage sampling technique (which involved three stages of selection). İn the first stage, two programmes were selected from the pre-university programmes being offered by the university using simple random technique. İn the second stage, students were selected from each of the programmes using convenience sampling technique. Thus, a total of 467 students were selected from those in JUPEB programme, while a total of 434 students were selected from those in pre-degree programme. The choice of these sampling procedures were to minimize bias in sample selection and ensure that selected samples adequately represent the whole population. The demographic information of the respondents was presented in Table 1.

Table 1. *Demographic Information of the Respondents*

Variables	Categories	Frequency	Percent
Sex	Female	564	62.6
	Male	333	37.0
	No Response	4	.4
	Total	901	100.0
Age	15-20	713	79.1
	21-25	166	18.4
	26-30	14	1.6
	Above 30	4	.4
	No response	4	.4
	Total	901	100.0
Programme	JUPEB	467	51.8
	Pre-degree	434	48.2
	Total	901	100.0
Religion	Christianity	644	71.5
	Islam	211	23.4
	Traditional	30	3.3
	Others	15	1.7
	No Response	1	.1
	Total	901	100.0
Family type	Monogamy	594	65.9
	Polygamy	151	16.8
	Single parent	67	7.4
	Divorced	25	2.8
	Widow/Widower	28	3.1
	No Response	36	4.0
	Total	901	100.0

Table 1 presents the demographic information of the respondents. On the Table, 62.6% of the respondents were females, while 37.0% were males, implying that more males were represented in the study than females. Also, 79.1% of the respondents were between the age of 15 and 20, 18.4% were between the age of 21 and 25, 1.6% were between the age of 26 and 30, while 0.4% were above the age of 30. From this, it can be concluded that majority of the respondents were between age 26 and 20 years. Also, 71.5% of the respondents were Christians, 23.4% were Muslims, 3.3% were Traditional worshipers, while 1.7% belonged to other religions, implying that majority of the respondents were Christians. Also, 65.9% of the respondents came from Monogamous family, 16.8% were from Polygamous family, 7.4% were from Single Parenting, 2.8% were from Divorced home and 3.1% had one or both of their parents already dead. From this, it can be concluded that majority of the respondents were from Monogamous family.

INSTRUMENT

A questionnaire titled "Cyber Harassment Questionnaire" was used to collect data for this study. The questionnaire contained four Sections. Section A contained items on the demographic variables of the respondents. These cover the sex, age, religion and family types of the respondents. This section was used to gather information on the personal information of the respondents. Section B contained 26 items on Cyber Harassment, adapted from Lee, Abell and Holmes, (2017). These items measured three forms of cyber harassment which include Verbal/Written harassment (items 1 to 10), Visual/Sexual harassment (items 11 to 20) and Social Exclusion Harassment (items 21 to 26). The response type ranged from Always, Sometimes, Rarely and Never. The validity and reliability of the questionnaire were carried out by the original author, among 378 respondents. As presented by the author, the reliability value was 0.95, while the validity results showed a Comparative Fit Index (CFI) of 0.97, Tucker-Lewis Index (TLI) of 0.95, root mean square error of approximation (RMSEA) of 0.08 and standardized root mean square residual (SRMR) of 0.07. These were considered appropriate for conducting the research (Kline, 2011). Based on this, the researchers did not consider the need to revalidate the instrument.

Section C of the questionnaire contained items on the perpetrators of Cyber Harassment towards the students. The response type ranged from Always, Sometimes, Rarely and Never. This section was used in knowing the common and other perpetrators of cyber harassment. Section D of the questionnaire contained 23 items developed by the researchers through literature on the coping strategies adopted by the students in dealing with cases of cyber harassments. These items were divided into seven sections to address different coping strategies adopted by the students. These include Distal advice (items 1 to 3), Assertiveness (items 4 to 7), Helplessness/self-blame (items 8 to 10), Active ignoring (items 11 to 12), Retaliation (items 13 to 16), Close supports (items 17 to 20) and Technical coping (items 21 to 23). The response type also ranged from Always, Sometimes, Rarely and Never.

RESULTS

RESEARCH QUESTION 1

What forms of Cyber Harassment is mostly experienced by pre-university students of Obafemi Awolowo University, Nigeria?

To answer this question, the Section B of the questionnaire which addressed Cyber Harassment was adopted. The responses of the respondents to this Section were scored in such a way that a score of 4 was allotted to Always, a score of 3 was allotted to Sometimes, a score of 2 was allotted to Rarely and a score of 1 was allotted to Never. After this, the items were categorized into the types of cyber harassment identified in the questionnaire. In the categorization, items 1 to 10 were added together to represent Verbal/Written Harassment, items 11 to 20 were added together to represent

Visual/Sexual Harassment, and items 21 to 26 were added together to represent Social Exclusion Harassment. These different categorizations were subjected to Cluster analysis and the results are presented in Tables 2 to 4.

Table 2. *Final Cluster Centers of Forms of Cyber Harassment Experienced by Pre-university Students of Obafemi Awolowo University, Nigeria*

	Cluster		
	1	2	3
Verbal/Written	13.01	27.15	37.20
Visual/Sexual	11.83	24.42	33.66
Social Exclusion	7.52	14.56	18.61

Table 2 presents the final cluster centers of the categorizations of forms of cyber harassment experienced by the respondents. Judging from the nearest of the mean, social exclusion harassment could be said to belong to cluster 1, visual/sexual harassment could be said to belong to cluster 2, while verbal/written harassment could be said to belong to cluster 3. The number in each cluster is displayed in table 3.

Table 3. *Number of Cases in each Cluster of Forms of Cyber Harassment Experienced by Pre-university Students of Obafemi Awolowo University, Nigeria*

Cluster	1	537.000
	2	252.000
	3	112.000
Valid		901.000
Missing		.000

Table 3 presents the number of cases in each of the clusters of cyber harassment indicated. As seen on the Table, cluster 1 have a total of 537 cases, cluster 2 has a total of 252 cases and cluster 3 has a total of 112 cases. These were subjected to descriptive analysis, in line with the identification presented in Table 2, and the result is presented in Table 4.

Table 4. *Descriptive Statistics of the Prevalent Forms of Cyber Harassment Experienced by Pre-university Students of Obafemi Awolowo University, Nigeria*

Cyber Harassment	Frequency	Percent
Social Exclusion	537	59.6
Visual/sexual	252	28.0
Verbal/Written	112	12.4
Total	901	100.0

Table 4 presents the results of the prevalent forms of Cyber Harassment experienced by pre-university students of Obafemi Awolowo University, Nigeria. On the table, 537 students, representing 59.6% of the respondents experienced social exclusion harassment, 252 students, representing 28.0% of the respondents were victims of visual/sexual cyber harassment, while 112 students, representing 12.4% of the respondents experienced verbal/written harassment. From this, it could be concluded that the prevalent forms of harassment experienced by the students include social exclusion harassment, while others, such as visual/sexual and verbal/written harassments are also experienced by significant amount of the respondents.

RESEARCH QUESTION 2

Who are the common perpetrators of cyber harassment against the pre-university students of Obafemi Awolowo University, Nigeria?

To answer this question, Section C of the questionnaire on Perpetrators of Cyber Harassment towards the students were adopted. This Section was in such a way that a score of 4 was allotted to Always response, a score of 3 was allotted to Sometimes response, a score of 2 was allotted to Rarely

response and a score of 1 was allotted to Never response. These were initially subjected to analysis of frequency and percentages, after which Relative Significance Index (RSI) were performed on the responses in order to analyze the relative importance of each item in comparison to others. The result is presented in Table 5.

Table 5. *Common Perpetrators of Cyber Harassment against the Pre-university Students of Obafemi Awolowo University, Nigeria*

S/N	Perpetrators	Always	Sometimes	Rarely	Never	RSI	Rank
1.	Lecturers	190 (21.1)	66 (7.3)	69 (7.7)	573 (63.6)	0.465	4
2.	Co-students (males)	155 (17.2)	158 (17.5)	132 (14.7)	454 (50.4)	0.504	1
3.	Co-students (females)	155 (17.2)	120 (13.3)	137 (15.2)	487 (54.1)	0.484	3
4.	Siblings	146 (16.2)	87 (9.7)	84 (9.3)	582 (64.6)	0.444	6
5.	Other Family Relations	130 (14.4)	112 (12.4)	91 (10.1)	565 (62.7)	0.446	5
6.	Friends	137 (15.2)	172 (19.1)	146 (16.2)	444 (49.3)	0.501	2
7.	Distance relations	91 (10.1)	140 (15.5)	108 (12.0)	561 (62.3)	0.434	8
8.	Community dwellers	72 (8.0)	166 (18.4)	116 (12.9)	545 (60.5)	0.435	7
9.	Religious Leaders	67 (7.4)	139 (15.4)	102 (11.3)	591 (65.6)	0.412	9
10.	Father	71 (7.9)	126 (14.0)	101 (11.2)	603 (66.9)	0.407	10
11.	Mother	60 (6.7)	126 (14.0)	107 (11.9)	608 (67.5)	0.400	12
12.	Guardian	78 (8.7)	101 (11.2)	112 (12.4)	605 (67.1)	0.403	11

Table 5 presents the result of the perpetrators of cyber harassment against pre-university students of Obafemi Awolowo University, Nigeria. Judging from the RSI, co-students who are male happen to ranked as 1st perpetrators of cyber harassment, followed by friends, which ranked as second, female co-students ranked as 3rd perpetrator, lecturers ranked as 4th perpetrator, other family relations ranked as 5th perpetrator, respondents' siblings ranked as 6th perpetrator. The least perpetrators include mothers which ranked as 12th, guardians which ranked as 11th, fathers which ranked as 10th and religious leaders which ranked as 10th. From the above results, it can be concluded that the greatest perpetrators of cyber harassment against the students include their co-students and friends.

RESEARCH QUESTION 3

What are the coping strategies used by the students in dealing with cyber harassment?

To answer this question, Section D of the questionnaire which addressed the Strategies used in Coping with Cyber Harassment was adopted. The responses of the respondents to this Section were scored in such a way that a score of 4 was allotted to Always, a score of 3 was allotted to Sometimes, a score of 2 was allotted to Rarely and a score of 1 was allotted to Never. After this, the items were categorized into the different types of coping strategies identified in the questionnaire. In the categorization, items 1 to 3 were added together to represent Distal advice strategy, items 4 to 7 were added together to represent Assertiveness strategy, items 8 to 10 were added to represent Helplessness/Self-blame strategy, items 11 to 12 were added to represent Active ignoring strategy, items 13 to 16 were added together to represent Retaliation strategy, items 17 to 20 were added to represent Close support strategy, while items 21 to 23 were added together to represent Technical coping. These different categorizations were subjected to Cluster analysis and the results are presented in Tables 6 and 8.

Table 6. *Final Cluster Centers of the Coping Strategies used by the Students in Dealing with Cyber Harassment*

	Cluster						
	1	*2*	*3*	*4*	*5*	*6*	*7*
Distal advice	6.42	8.24	4.77	3.87	3.26	10.94	10.97
Assertiveness	13.43	10.22	12.15	6.21	4.64	14.75	14.42
Helplessness/self-blame	6.54	7.28	5.47	5.62	3.33	10.56	9.68
Active ignoring	4.72	4.76	4.01	4.05	2.26	7.05	5.82
Retaliation	6.71	10.67	5.81	7.13	4.31	14.16	9.99
Close Support	12.97	10.69	6.54	9.68	4.39	14.41	7.32
Technical Coping	11.03	7.79	6.79	8.95	3.55	10.61	5.05

Table 6 presents the final cluster centers of the categorizations of the strategies adopted by the respondents in coping with cyber harassment. Judging from the nearest of the mean, Retaliation could be said to belong to cluster 1, Assertiveness belonged to cluster 2, Helplessness/self-blame could be said to belong to cluster 3, Distal advice could be said to belong to cluster 4, Active ignoring could be said to belong to cluster 5, Close Support belonged to cluster 6, while Technical Coping could be said to belong to cluster 7. The number in each cluster is displayed in table 7.

Table 7. Number of Cases in each Cluster *of the Coping Strategies used by the Students in Dealing with Cyber Harassment*

Cluster	1	72.000	Retaliation
	2	114.000	Assertiveness
	3	124.000	Helplessness/self-blame
	4	63.000	Distal advice
	5	370.000	Active ignoring
	6	85.000	Close Support
	7	73.000	Technical Coping
Valid		901.000	
Missing		.000	

Table 7 presents the number of cases in each of the clusters of coping mechanisms adopted by the respondents in coping with cyber harassment indicated. As seen on the Table, cluster 1 has a total of 72 cases, cluster 2 has a total of 114 cases, cluster 3 has a total of 124 cases, cluster 5 has a total of 370 cases, cluster 6 has a total of 85 cases, while cluster 7 has a total of 73 cases. These were subjected to descriptive analysis, in line with the identification presented in Table 6, and the result is presented in Table 8.

Table 8. *Descriptive Statistics of the Coping Strategies used by the Students in Dealing with Cyber Harassment*

Coping Strategies	*Frequency*	*Percent*
Retaliation	72	8.0
Assertiveness	114	12.7
Helplessness/self-blame	124	13.8
Distal advice	63	7.0
Active ignoring	370	41.1
Close Support	85	9.4
Technical Coping	73	8.1
Total	901	100.0

Table 8 presents the results of the coping strategies adopted by the students in dealing with Cyber Harassment. On the table, 370 (41.1%) of the students adopts active ignoring, 124 (13.8%) of the students adopt helplessness and/or self-blame, 114 (12.7%) of the students adopt assertiveness strategy, 85 (9.4%) of the students adopt close support, 73 (8.1%) of the students adopt technical coping, 72 (8.0%) of the students adopt retaliation, while 63 (7.0%) of the students adopt distal advice coping strategy. From the table, it can be concluded that the most adopted coping strategies against cyber harassment include active ignoring, helplessness and/or self-blame and assertiveness.

HYPOTHESIS 1

There is no significant predictive ability of demographic variables on cyber harassment of pre-university students of the institution.

To test this hypothesis, the respondents' demographic variables and their scores on sexual harassment were subjected to Multiple Regression analysis. This was done using the demographic variables as the independent variables, while the cyber harassment scores served as the dependent variable. The results are presented in Tables 9 and 10.

Table 9. *Model Summary of the Predictive Ability of Demographic Variables on Cyber Harassment of Pre-university Students of the Institution*

		Model Summary				*ANOVA*	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	df	F	Sig.
1	.307[a]	.094	.090	21.62613	4	22.085	.000[b]

a. Dependent Variable: Cyber Harassment
b. Predictors: (Constant), Family type, Sex, Age, Religion

Table 9 presents the model summary of the predictive ability of demographic variables of sex, age, religion and family types on cyber harassment of pre-university students of the institution. On the table, the R square was 0.094, while the adjusted R square was 0.090. This can be interpreted to mean that the demographic variables of sex, age, religion and family types accounts for a maximum of 9.4% and a minimum of 9.0% of the variance explained in cyber harassment. Also, on the table, the p value (0.000) was found to be less than 0.05 threshold for social sciences. Thus, it can be concluded that respondents' demographic variables of sex, age, religion and family types significant predict their experience of sexual harassment. In order to understand the predictive ability of each of the demographic variables and their contributions, the coefficient table is presented below:

Table 10. *Coefficients of the Predictive Ability of each of the Demographic Variables on Cyber Harassment of Pre-university Students of the Institution*

Model		*Unstandardized Coefficients*		*Standardized Coefficients*		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	32.260	2.964		10.883	.000
	Sex	-2.753	1.549	-.059	-1.778	.076
	Age	8.203	1.627	.174	5.042	.000
	Religion	5.509	1.296	.152	4.250	.000
	Family type	2.245	.825	.097	2.723	.007

a. Dependent Variable: Harassment

Table 10 presents the significant results of the predictive ability of demographic variables of sex, age, religion and family type on cyber harassment of pre-university students of the institution. On the table, the age of the respondents (B = 8.203, p < 0.05), religion of the respondents (B = 5.509, p < 0.05) and family type (B = 2.245, p < 0.05) significantly predict students' experience of cyber harassment. However, students' sex (B = -2.753, p > 0.05) did not predict students' experience of cyber harassment. Also, on the table, respondents' age, religion and family types were found to positively predict students' experience of cyber harassment. To interpret this, for the age, it could be said that the younger the students, the more they experience cyber harassment; also, the more their religion tilt towards Christianity, the more their experience of cyber harassment; and the more students from monogamy family, the more their experience of cyber harassment.

DISCUSSION

The results of this study found that social exclusion harassment is the most prevalent types of cyber harassment experienced by pre-university students of Obafemi Awolowo University, Nigeria.

Also, result found that significant number of the students experienced visual/sexual cyber harassment, as well as verbal/written cyber harassment. This result of this study partially correlates with that of Thorvaldsen et al. (2016) where verbal and visual cyber harassment were found to be prevalent among their respondents however, unlike this present study, social exclusion was found to be very limited among the students sampled. However, the findings of Chi, Lan, Ngan and Linh (2020) were in line with this present study as they found verbal, visual and social isolation cyber harassment are some of the most experienced cyber harassments by their respondents. In the same vein, the result of the study conducted by Mustapha, Muhammad and Olowoniyi (2021) among students found that all forms of cyber harassment, including the ones mentioned in this current study, were being perpetrated and experienced by their respondents (both perpetrators and victims). Also, the study of Agustiningsih and Yusuf (2023) supported the findings of this study, as they found that social exclusion and verbal/written cyber harassment are some of the most experienced cyber harassment by students. Reasons for this present result may be due to the "controlled environment" most of the respondents live in, seeing that they are pre-university students. The other forms of cyber harassment may be considered as dangerous ones, which may attract severe punishment from the school authority, hence, the higher likelihood to engage in social isolation harassment, as compared to other forms of cyber harassment. Also, considering that these respondents were pre-university students, the autonomy to act in certain ways may not be fully guaranteed (Ismail & Yin, 2020) compared to the autonomy at the disposal of university students (Ozer, 2013). Thus, any disobedient acts may bring grave consequences and punishment to the students. Hence the domiannce of social isolation form of cyber harassment, which may have little or no consequences.

Furthermore, results found that most perpetrator of cyber harassment against the students are male and female co-students, friends and lecturers, while parents, such as fathers, mothers and guardians were least perpetrators of cyber harassment against the students. Most of the research available on cyber harassment perpetrators focused on students being either victims or perpetrators (Rice et al., 2015; Kopecký, 2014). Studies which examined the contributions of significant others could not be found as at when this study is being conducted. Even though, this finding revealed that co-students and friends were the highest perpetrators of cyber harassment against the students, the contributions of others such as lecturers, family relations, siblings, religious leaders cannot be underestimated, as this finding have shown that these individuals contribute significantly to cyber harassment experienced by the respondents of this study.

In addition, the results of this study showed the strategies adopted by students in coping with cyber harassment. The results showed that active ignoring, helplessness/self-blame were the most adopted strategies. While assertiveness, close support, technical coping and retaliation were moderately adopted. This result of this study was found to be consistent with the findings of Chi et al. (2020) where ignoring was found to be one of the major ways through which students cope with cyber harassment as bullying, as most of their respondents chose not to share the information with their teachers and parents. Also, Chi et al. (2020) found that students' preference to discuss the issue of cyber harassment with their friends and retaliation were considered as the other alternatives of coping with the incident. As seen in this study, seeking close support and retaliation were found to be moderately employed in coping with cyber harassment. The findings of Gupta, Soohinda, Sampath and Dutta (2023); Espino, Guarini and Del Rey (2023), Machackova, Cerna, Sevcikova, Dedkova and Daneback (2013) among others were in support of this study as they found that ignoring, seeking supports, technical coping as well as retaliation as some of the coping strategies being adopted in delaing with cyber harassment.

Reasons for these coping strategies may be due to the nature of the prevalent form of cyber harassment experienced by the students. For instance, social isolation was found to be the most experienced. This may not warrant taking any other steps than just ignoring the perpetrators to concentrate on their studies or move with other friends (Machackova et al., 2013). Also, consequences

for this may not be as severe as consequences for other form of cyber harassment which may not have grave effects on the victims (Tokunaga, 2010). Also, it is believed that ignoring and inaction is a potent way through which perpetrators of cyber harassment could be stopped in carrying out such act in some other circumstances (Parris, Varjas, Meyers & Cutts, 2011), hence, the adoption of this strategy.

Results finally showed that students age, religion and family types were predictive factors in students' experiences and predispositions to cyber harassment, while students' sex were found to not predict experience of cyber harassment of the respondents. For age, the younger students were found to experience high level of cyber harassment; for religion, those practicing Christianity were found to experience more of cyber harassment; and students from monogamy family were found to experience high level of cyber harassment. The study of Mustapha et al. (2021) both agreed and disagreed with the findings of this current study. For instance, the sex of the students was found to predispose them to cyber harassment, however, unlike this present study, factors such as religion and age were not found to predispose students into cyber harassment. However, the study of Agustiningsih and Yusuf (2023) found that the sex of students does not predispose them to cyber harassment, thereby, agreeing with this present study. The findings of Machackova et al. (2013) also disagreed with the results of this study, as sex was found to significantly predict students' experience of cyber harassment, while age was found to have no predictive ability. From this, it can be concluded that previous research shared diverse perspective on this. However, probable reasons for this present research could be due to the fact that both male and female respondents have equal access to the internet and both genders can perpetrate and also fall victim of cyber harassment (Rice et al., 2015). Even though, it is often expected that female students may be prone to sexual harassment from their male counterparts, it is however important to note that the male students may not be willing to say provocative, sexually demeanor words against their female counterparts due to fear of punishment and other consequences, seeing the pre-university students live in a controlled environment. While for age, there is high probability that those of younger age experience cyber harassment, due to certain fact such as being new in the environment and the probability of being at the lower classes and grades (Campbell, 2005). For religion, this can be justifiable as results for this study showed that religious leaders were parts of perpetrators of cyber harassment against the students, while family members were also found to be among the perpetrators of cyber harassment against the respondents for this study. This may be the probable reasons why religion and family types were predictors of cyber harassment among the students.

CONCLUSION

From the above result, it can be concluded that social exclusion cyber harassment is the most prevalent among pre-university students of Obafemi Awolowo University, Nigeria. In addition, visual/sexual cyber harassment, as well as verbal/written harassment were found to be experienced by the students. Also, the study concluded that the most common perpetrators of cyber harassment include co-students and friends. Also, the most adopted strategies in coping with cyber harassment was active ignoring. Whereas factors such as age, religion and family types significantly predict students' predisposition to sexual harassment, while sex did not.

SUGGESTIONS FOR FURTHER STUDIES AND RECOMMENDATION

Future research could invetigate the long-term effects of cyber harassment on the academic and social performances of the students through the adoption of longitudinal research. This will not only provide information on the prevalence and forms of cyber harassment but also it effects. This will also help in devising means through which cyber harassment could be addressed among students.

Seeing that this study is limited to providing information on the forms of cyber harassment and perpetrators, it is recommended that future research look into appropriate interventions which could help in addressing the prevalence of and reducing the effects of cyber harassment among students.

This will be useful in discouraging the perteptrators of cyber harassment, and helping the victims in overcoming the mental and social challenges associated with the occurences of cyber harassment.

AUTHOR CONTRIBUTIONS

Omowunmi Busola Adenaike contributed to the background of the study and research objectives. She was also responsible for the data collection and data coding. Oluwaseun Solomon Omotehinse was responsible for research methodology, the cleaning of the data, analysis of the data, interpretation of the results and the discussion of the findings. Both authors reviewed and approved the final manuscript.

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Analysis of Self-Compassion and Contribution in Post-Traumatic Growth using Multiple Regression Analysis

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Keywords	Abstract
	The aim of this study was to examine the relationship between self-compassion and contribution in post-traumatic growth. The study group consisted of 718 students studying at a university in the Central Black Sea Region in Türkiye, recruited with convenient sampling method. 61.8% (444) of the students were female and 38.2% (274) were male. The age range of the participants varied between 18 and 47, but the majority consisted of individuals between the ages of 20-29 (90.7%). Three-dimensional Contribution Scale, Self-Compassion Scale, Post-Traumatic Growth Inventory and personal information form were used as data collection tools. According to the results, a positive and significant relationship was found between self-compassion and contribution, and between contribution and PTG. It was also found that contribution predicted Post Traumatic Growth. Suggestions were made to the researchers based on these results.

INTRODUCTION

Humans face many difficulties, problems, natural disasters and crises throughout their lives. Traumatic experiences, which are also considered as difficult life events, can affect individuals' mental health negatively (Forneris, Gartlehner, Brownley, Gaynes, and Lohr, 2013). These difficult life events do not have the same negative effect on the mental structure of each individual (Özgen and Aydın, 1999). Being affected or less affected by difficult events and to feeling mentally better afterwards is possible through factors such as individual (personality traits, coping mechanisms, etc.) and environmental (social support, contribution, etc.) factors (Calhoun and Tedeschi, 2014). For this reason, each individual reacts differently to a difficult event. Depending on these reactions, individuals can either receive psychological support to get rid of the effect of the event or continue their life by detaching positively from the event. This situation, which is expressed as post-traumatic growth (PTG), is the occurrence of changes that can be beneficial for the individual after a challenging event (Tedeschi and Calhoun, 2004).

Post-traumatic growth is a positive change in the individual, the individual's relationships with other people, and the meaning of life after a challenging life event (Tedeschi and Calhoun, 2004). With PTG, an awareness occurs in the individual, the individual then sees his strengths, rearranges the order of priorities in his life and becomes happy with little things (Tominaga, Goto, Shelby, Oshio, Nishi, and Takahashi, 2020).

SELF-COMPASSION IN POST-TRAUMATIC GROWTH

Negative life events such as natural disasters, exposure to sexual harassment or rape, being diagnosed with a terminal illness, terrorist attacks, accidents, forced detention, loss of a loved one cause traumatic stress for many people (Altan, 2013; Bellur, 2015). A series of   , emotional, cognitive and physical negative reactions may occur in individuals as a result of challenging life events (Haselden, 2014). However, traumatic events have positive effects on human life as well as negative effects. While psychopathologies are negative effects, changes in lifestyle are positive effects. Post-traumatic growth is individuals' making positive results from the effects of stress by giving new meanings to their perspective. Trauma survivors increase their awareness of their self-efficacy and, in parallel, their self-esteem (Arıkan, 2007).

Post-traumatic growth is experiencing not only recovery from trauma and returning to the pre-traumatic period, but also using trauma as an opportunity for personal growth (Bellur, 2015). For this reason, it is referred to as "a positive and significant experience of change caused by the fight against a major life crisis". These individuals overcome trauma with improved psychological functioning in certain areas (Calhoun, et al., 2000). Posttraumatic growth is both a cognitive process that starts after traumatic events and a result. In the process of rebuilding oneself after traumatic events, social support received from the environment and the strengths and weaknesses learned or noticed in this process are at the forefront. Individuals who grow after trauma do not consider traumas as a destruction, but as an opportunity to establish a new life. They establish new psychological structures with coping mechanisms that will help them cope with possible traumas. Demographic characteristics, severity of traumatic events, social support, expression of emotions and positive personality traits of the individual are among the factors that affect post-traumatic growth (Ezerbolat and Yılmaz Özpolat, 2016). Growth experienced after trauma causes changes in the individual's self-perception, relationships and life philosophy (Tedeschi, et. al., 1998). Benight and Bandura (2004) stated that perceived social support increases self-efficacy levels of individuals, and they can fight more easily against negative thoughts that emerge.

Self-compassion is defined as being loving and kind to oneself during difficult life events, being aware of negative emotions and accepting them, and knowing that all kinds of challenging experiences that can be experienced are related to being human (Neff, 2003a). It is also stated to be one of the

healthy ways to cope with difficult life events. After traumas, individuals can develop accusatory attitudes towards themselves. Being compassionate and understanding instead of being judgmental towards oneself allows individuals to evaluate events as a human experience and to develop their self-perceptions (Neff, 2003a). In other words, the individual becomes a resource for other individuals to find the strength to recover from a traumatic event or a sense of failure. In this way, self-compassion does not make the individual superior to other individuals, it is only a feature that supports and strengthens them.

Individuals who have an active attitude towards experiences with self-compassion have good self-regulation and increase their awareness (Neff, Kirkpatrick and Rude, 2007). This feature, which enables individuals to develop in a positive way, also prevents them from being alone and on their own. It even enables establishing bonds with other individuals and the realization that both the individual and other individuals are not alone in a negative situation. This way, self-compassion allows individuals to interact in a mutually positive way (Neff, 2011).

When the literature is examined, studies on self-compassion and post-traumatic stress (PTS) can be seen. Raiche (2017) reported that soldiers with high levels of self-compassion who had intense traumatic experiences showed high levels of post-traumatic stress (PTG) symptoms. Çolakoğlu (2013), on the other hand, showed in a study with individuals who had a heart attack that the sub-dimensions of self-compassion had a positive correlation with some sub-dimensions of PTG. When these sub-dimensions are examined in detail, it can be seen that the sub-dimensions of self-compassion, awareness of sharing and consciousness (self-compassion) affect positive changes in individuals and positive interpersonal changes (PTG) positively. Aslantürk (2022) also found that self-compassion predicts PTG. Similarly, Wong and Yeung (2017) reported that self-compassion had a high correlation with PTG.

In a study they conducted with individuals who lost a relative they loved, Vara and Thimm (2019) studied the relationship between complex grief reactions and self-compassion. In this study, it was concluded that there is a negative significant relationship between complex grief and self-compassion. In a study by Játiva and Cerezo (2014), it was concluded that self-compassion reduced the inconsistencies that occurred after challenging life events in adolescents who experienced such events.

CONTRIBUTION IN POST TRAUMATIC GROWTH

Positive development is a dynamic integration of the individual and the context through mutually beneficial interactions (Lerner, 2002). Positive development does not depend only on genetic inheritance or social experience. The individual and the context are in a dynamic structure and flexibility in development occurs in this way (Brandtstädter, 1998; Lerner, 1998). The mutual interaction between the individual and the context enables the individual to use the characteristics of competence, trust, relationship/bond, character and caring/helpfulness/compassion more effectively (Lerner, 2005). Individuals who develop in a positive way contribute to themselves, their families and the society, and these contribute back to individuals.

Developmental systems theory (DST) is based on the context and individuals' mutually beneficial activities in the positive development of individuals. In this theory, individuals and the context enter into an active life process and changes that allow for growth occur (Lerner, 2006). Based on this, the contribution ensures the development and growth of individuals in life. It also helps individuals to play a role in the positive development of the society and their family (Theokas, Almerigi, Lerner, Dowling, Benson, Scales and von Eye, 2005). Through self-contribution, individuals can avoid risky behaviours such as alcohol and drug use, unwanted pregnancy and violence during adolescence (Perkins and Borden, 2003). Individuals who can establish a better bond with other individuals in this way can also use the areas in which they can be competent in the best way. Individuals who are in a good position in terms of self-confidence and contribution, are active in establishing bonds and have a constructive

attitude towards other individuals. In addition, individuals care about other individuals or things and shape their relationships in this context (Lerner, 1998, 2005).

Individuals can make the best use of the opportunities around them (library, sports facility, hobby courses and training centres etc.) to contribute to themselves (Lerner, 2005). Contribution helps individuals with positive development of their families and the environment in line with the interaction of the individual with the context. Collective structure emerges in this way and all contribute to each other. In this context, while a structure (family, individual, social organizations) contributes to the society, individuals in that structure contribute to the society and their family as they do to themselves (Theokas, Almerigi, Lerner, Dowling, Benson, Scales, and von Eye, 2005). A dynamic process occurs with the collective bond. With the strong bond formed between the individual and the context, difficult life events can be overcome more easily. Abraido-Lanza, Guier, and Colon (1998) stated that personal characteristics such as coping and social resources play an important role for post-traumatic growth (PTG) to occur after a difficult event. In their study on individuals infected with COVID-19, Aydın and Kaya (2022) reported that individuals realized PTG by contributing to themselves and other people.

After a difficult life event, individuals strengthen themselves both by using their resources and through other individuals. As a matter of fact, individuals who are faced with a difficult event tend to get support from other individuals (Van Slyke, 2013). Contribution takes place voluntarily and individuals begin to develop in a positive way. In a study conducted by Xu, Jiang, Zhou, Zhou, and Fu (2019) with adolescent individuals who survived the hurricane one year after the hurricane, PTG was observed in the adolescents and it was found that social support had an effect on this; Yan, Yang, Ye, Chen, Xie et al., (2021) concluded that social support was highly correlated with PTG in individuals who became ill as a result of COVID-19. Individuals who have a tendency to strengthen themselves at heart (Engel, 2011) support both themselves and other individuals in a positive way (Lerner, 2005). Individuals who help their positive development through contribution care about the needs, attitudes, behaviours and thoughts of other individuals. Individuals who have increased awareness of the environment they are in feel that other individuals help them and feel their support. Likewise, they show a similar approach to other individuals (Eisenberg, Spinrad and Knafo-Noam, 2015). With contribution, individuals have increased opportunities to find social and emotional support in a situation (Fuligni, 2019). It can be thought that contribution in terms of both prevention and intervention will help individuals to use their power resources in the face of a negative event because contribution helps individuals to realize self-regulation (Zimmerman, Phelps and Lerner, 2007). Contribution, which also provides mental, social and health-related positive outcomes (Eisenberger, 2013; Raposa, Laws and Ansell, 2016), increases the hope of individuals about the future (Schmid, Phelps and Lerner, 2011).

No study was found in Turkey or abroad on the relationship between post-traumatic growth, self-compassion, and contribution. The aim of the present study was to examine the relationship between self-compassion and contribution in post-traumatic growth and to contribute to the field with the results found.

METHOD

RESEARCH DESIGN

This study is a quantitative research that aims to examine the contribution of self-compassion to post-traumatic growth using Multiple Regression Analysis (Creswell, 2014). Therefore, the relational research design was used in the current research. Relational research aims to reveal how certain characteristics of an individual affect other variables (Franken, Huyn, & Wallen, 2012).

SAMPLE

The study group was formed from students who were studying at a university in the Central Black Sea Region, by using convenient sampling method. The study was conducted with 718 individuals by obtaining information from the participants whether they had experienced a challenging life event in the last six months. Convenient sampling method is a sampling method that is preferred because it saves time and is economical due to preventing the loss that may occur in the workforce (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz and Demirel, 2012). Demographic information of the study group is shown in Table 1.

Table 1. *Demographic Information of the Study Group*

Gender	n	%
Female	444	61.8
Male	274	38.2
Age	n	%
18-19	32	4.5
20-29	652	90.7
30-39	20	2.8
40-47	12	1.7
Unspecified	2	0.3

Table 1 includes information about the gender of the participants. It can be seen that 61.8% of the participants were female, while 38.2% were male. It can also be seen that the ages of the participants are between 18 and 47, while most of them are between 20 and 29 (90.7%).

DATA COLLECTION TOOLS

Three different measurement tools were used to collect data in the study. Three-Dimensional Contribution Scale, Self-Compassion Scale and Post-Traumatic Growth Inventory were used together with the personal information form which was shaped based on the literature review.

THREE-DIMENSIONAL CONTRIBUTION SCALE (TDCS)

The Three-Dimensional Contribution Scale was developed by Truskauskaitė-Kunevičienė and Kaniušonytė (2018), and its Turkish adaptation was carried out with 637 adult individuals by Aldemir and Balcı-Çelik (2021). The original structure of the scale consists of three sub-dimensions (family, individual, social) and a total of 15 items (Truskauskaitė-Kunevičienė and Kaniušonytė, 2018). The measurement tool is in five-point Likert type and there are no reverse items (Aldemir and Balcı-Çelik, 2021). The minimum possible score that can be obtained from the measurement tool is 15 and the maximum possible score is 75.

Factor structure of the measurement tool was tested by confirmatory factor analysis, and after the analysis, it was understood that the three-dimensional structure of the scale showed an acceptable fit (RMSEA= .07, AGFI= .86, CFI= .92, IFI= .92). In the reliability analysis studies conducted for the scale, Cronbach alpha internal consistency coefficient was calculated as .88. With Psychological Resilience Scale, a significant relationship of .22 was found in terms of convergent validity (Aldemir and Balcı-Çelik, 2021). These results show that the Three-Dimensional Contribution Scale is a valid and reliable measurement tool. In this study, the Cronbach alpha internal consistency of the Three-Dimensional Contribution Scale was calculated as .88.

SELF-COMPASSION SCALE (SCS)

Self-Compassion scale was developed by Neff (2003b), and the adaptation process to Turkish was carried out by Deniz, Kesici and Sümer, (2008). The original version of the scale consists of 26 items and six sub-dimensions. The measurement tool is responded in a five-point Likert type. In the Turkish reliability and validity study of the Self-Compassion scale, unlike its original version, the scale consisted of 24 items and one dimension. However, internal consistency coefficient of the measurement tool

was found to be .89 and test-retest reliability was .83. In this study, Cronbach alpha internal consistency of Self-Compassion Scale was calculated as .88.

POST-TRAUMATIC GROWTH INVENTORY (PTGI)

Post Traumatic Growth Inventory, which was developed by Tedeschi and Calhoun (1996), was adapted into Turkish by Kağan, Güleç, Boysan, and Çavuş (2012). Item discrimination of PTGI varies between .28 and .72. It was found that PTGI, which had a three-dimensional structure in its original form, also preserved this structure in its Turkish version. These sub-dimensions are change in self-perception, change in philosophy of life, and change in relationships. Internal consistency of the PTGI was .92 for the overall scale, .88 for change in self-perception, .78 for change in life philosophy, and .77 for change in relationships. Cronbach Alpha reliability coefficient of the PTGI was calculated as .99 and test-retest reliability was .83. In this study, Cronbach alpha internal consistency of PTGI was calculated as .91.

DATA COLLECTION PROCESS

Necessary permissions were obtained from the Social and Human Sciences Research Ethics Committee of a university in the Black Sea Region (22.10.2021 date and 2021-855 numbered decision). Data of the study were collected face to face. Three-dimensional Contribution Scale, Self-Compassion Scale, Post Traumatic Growth Inventory and personal information form were given to adults who volunteered to participate in the research.

DATA ANALYSIS

IBM SPSS 21 program was used to process and interpret the quantitative data obtained from the study group. Raw quantitative data were first transferred to these programs and made ready for analysis. Frequency analysis and percentage for descriptive statistics were used in data analysis, while Pearson correlation analysis and multiple regression analysis (Karagöz, 2016, 2019; Meydan and Şeşen, 2015; Tabachnick and Fidell, 2015) were used for the relationships and predictors between contribution, self-compassion and post-traumatic growth level. In addition to all these, analyses regarding the normality of the data were carried out before the related analyses.

Table 2. *Descriptive Statistics*

	n	Minimum	Maximum	X	SD	Skewness	SH	Kurtosis	SH
TDCS	718	15	75	58.46	9.189	-.961	.091	1.825	.182
SCS	718	24	150	76.50	16.034	.042	.091	.929	.182
PTGI	718	0	105	61.91	17.503	-.663	.091	1.063	.182

Table 2. includes the mean and standard deviations, minimum-maximum values, Skewness and Kurtosis coefficients and standard errors of the scores obtained from the Three-dimensional Contribution, Self-compassion and Post-traumatic Growth measurement tools. In order for the data to be considered to be normally distributed, the skewness coefficient should take a value between -3, +3 (or -2, +2) (Karaalioğlu, 2015). Based on the results, it was understood that the scale scores met the normal distribution criteria.

RESULTS

The results of the Pearson correlation analysis performed to test whether there is a correlation between self-compassion, contribution and post-traumatic growth are shown in Table 2.

Table 3. *Correlations Between Self-Compassion, Contribution, and Post Traumatic Growth*

	SC	*C*	*PTG*
SC	1		
C	.38**	1	
PTG	.34**	.45**	1

** p< .01

SC= Self-compassion, C= Contribution, PTG= Post-traumatic growth

Table 3 shows a low level of positive significant correlation between self-compassion and contribution (r= .38, p<.01), a moderate level of positive significant correlation between contribution and post-traumatic growth (r= .45, p<.01), and low level of positive significant correlation between self-compassion and post-traumatic growth (r= .34, p<.01).

Table 4. *Multiple Regression Analysis Results*

Variable	B	Standard Error	β	t	p	Paired r	Partial r
Constant	1.985	3.997		.497			
Self-compassion	.235	.038	.215	6.222	.000	.342	.227
Contribution	.718	.066	.377	10.906	.000	.449	.378
R = .493	R^2 = .241	VIF (self-compassion) = 1.128					
F (2-715) = 114.683	P = 0.000	VIF (contribution) = 1.128					

Table 4 shows self-compassion and contribution predict PTG. Self-compassion and contribution explain 24% of PTG. In addition, the relative order of importance of the predictor variables on PTG is contribution (β = .377) and self-compassion (β = .215). When the significance of the regression coefficients in Table 4 is examined, it can be seen that both predictor variables are a significant predictor of PTG.

DISCUSSION, CONCLUSION AND IMPLICATIONS

The present study examines the relationship between post-traumatic growth (PTG), self-compassion and contribution. This study also discusses whether self-compassion and contribution predict PTG.

In this study, a positive and significant correlation was found between self-compassion and contribution. When the literature is examined, it can be seen that there are studies consistent with these findings. In this context, Aldemir (2022) reported in a study conducted with adult individuals that voluntarily allocating time to someone on any subject would positively affect that person's self-compassion. Neff and McGehee (2010) found that maternal support and family functioning predicted self-compassion. In a study conducted by Yarnel and Neff (2013), it was reported that self-compassionate individuals can come to terms with their friends, spouses, parents more easily. In terms of the other results found in this study, a positive and significant correlation was found between contribution and PTG. It was also found that contribution predicted PTG. These results obtained from the study can be explained by the fact that individuals use their internal and external resources well after a difficult life. Some of the characteristics that make PTG possible in the individual are strengths and relationships with others (Calhoun and Tedeschi, 2014: p. 5).

Increasing social resources such as new social support networks and better family or friend relationships are important environmental factors (Schaefer and Moos, 1992, Zoellner and Maercker, 2006). Abraido-Lanza, Guier, and Colon (1998) stated that personal characteristics such as coping and factors such as social resources play an important role in the realization of post-traumatic growth (PTG) after a difficult event. Ezerbolat and Yılmaz Özpolat (2016) also stated that the presence of social support is one of the demographic variables that affect PTG. In their study on individuals infected with

COVID-19, Aydın and Kaya (2022) reported that individuals realized PTG by contributing to themselves and other people. In a study conducted by Xu, Jiang, Zhou, Zhou, and Fu (2019) with adolescent individuals who survived the hurricane one year after the hurricane, PTG was observed in the participants, and it was found that social support had an effect on this; Yan, Yang, Ye, Chen, Xie et al. (2021) concluded that social support was highly correlated with TSD in individuals who became ill as a result of COVID-19. Etişken Ayaltı and Bayraktar (2017) reported that the family plays an important role in the realization of PTG in a study they conducted on the positive changes that may occur after a traumatic experience. Post-traumatic social support is considered as an important element in individuals' post-traumatic development (Linley and Joseph, 2004; Joseph and Linley, 2005; Tedeschi, et al., 1998; Thornton and Perez, 2006). Benight and Bandura (2004) stated that perceived social support increases the self-efficacy levels of individuals, and they can fight against emerging negative thoughts more easily.

Yılmaz (2014) reported that factors such as coping and social support predicted PTG in individuals WHO experienced loss trauma. Yurtsever (2018), in a study with cancer patients, found a positive and significant relationship between PTG and perceived social support. According to the research results of Durak and Durak (2019), it was shown that problem-focused coping strategy and seeking social support were highly effective on PTG. Arıcı Özcan and Arslan (2020), in their study with participants who were exposed to terrorist incidents, concluded that perceived social support and post-traumatic development levels were positively correlated.

The findings can also be based on the individuals' contribution to themselves and the community they are in after a difficult life. Dursun and Söylemez (2020) reported that after a difficult event, individuals' benevolent activities and contribution to the common good are effective in the realization of PTG. In a different study conducted with individuals who contracted COVID-19, it was shown that those who have grown in a positive way have a change in their perspective on human relations and their attitudes/behaviours in human relations (Aldemir, Yanar, Aydoğmuş, Şenel, 2021). Calhoun and Tedeschi (2006) reported that individuals who have been exposed to a difficult life have experiences by adding new things to themselves depending on their experiences and that they tend to interact with other people who have been exposed to a difficult life. Weiss (2002) stated that after a difficult experience, an individual may tend to provide support to other people, which in turn results in PTGI. Similar results were found in different studies (Anderson, Prioleau, Taku, Naruse et al., 2016; Tel, 2018). Individuals who have experienced trauma show improvement in expressing their emotions. The social support they see in their relationships provides them with new opportunities and development (Weiss,2004). Strengthening sensitivity, empathy and compassion in interpersonal relationships can enable individuals to be more compassionate towards both themselves and others. It also provides individuals with motivation to share their experiences and help others in their situation (Tedeschi, et al., 1998).

Based on the results found, psycho-educational programs can be organized to help individuals with post-traumatic growth, and individuals can participate in these programs. In addition, since increasing social resources such as social support networks and good family or friend relations are important environmental factors, group guidance activities, psycho-educational programs and seminars can be organized for individuals to improve their friendship relations. Seminars can be held for families. In terms of increasing the self-compassion levels of individuals, group guidance studies should be planned by school psychological counsellors at other educational levels starting from primary education.

AUTHOR CONTRIBUTION

- First author have made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data.

-The second author have been involved in drafting the manuscript or revising it critically for important intellectual content.

-The third author have given final approval of the version to be published.

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