SOCIAL ANXIETY, DEPRESSION, COPING SELF-EFFICACY, AND COPING STRATEGIES AMONG COLLEGE STUDENTS

Abstract: The transition to college and its associated social challenges could trigger social anxiety and depression among young college students. There is a paucity of literature relating coping self-efficacy, coping strategies, social anxiety and depression. The current study aims to fill this gap by finding the contributions of gender, coping self-efficacy (CSE), and coping strategies onto the levels of social anxiety and depression among college students. It also aims to find race-ethnicity differences, considering students' level of social anxiety and depression. One hundred and fifty-eight students were recruited from the undergraduate psychology subject pool at a northeastern university. The Liebowitz Social Anxiety Scale, Diagnostic Inventory for Depression, Coping Self-Efficacy Scale and Brief COPE were used to measure the study variables. A one-way ANOVA and simultaneous multiple linear regression analyses were conducted to examine data. There were no significant race-ethnicity differences in social anxiety, depressive symptom severity, psychosocial impairment, and quality of life. However, gender and self-blame significantly predicted social anxiety; substance use, behavioral disengagement, and self-blame significantly predicted depressive symptom severity; and social support CSE significantly predicted psychosocial impairment. Gender, dysfunctional coping strategies and social-support CSE were significantly associated with social anxiety and depression among college students. The results have important implications for treatment intervention and outreach by college counseling personnel.

Keywords: college students, social anxiety, depression, coping self-efficacy, coping strategies

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INTRODUCTION

The transition from high school to college to pursue undergraduate studies is often a socially challenging circumstance for young adults. While some move to a different city, others move across states or even countries to attend college. This presents students with a significant change in social setting that could trigger or precipitate social anxiety disorder. Unfortunately, social anxiety disorder often goes unrecognized. As recent research suggests, the college population needs greater awareness of the symptoms and consequences of social anxiety disorder (Coles et al., 2015). Due to the enervating nature of social anxiety, it is not surprising that research illustrates that depression is often comorbid with social anxiety disorder (Garcia-Lopez et al., 2016; Ohayon & Schatzberg, 2010). Such comorbidity is likely to exacerbate the symptoms of social anxiety, especially if the student does not seek professional help. The present study explores social anxiety disorder and depression in undergraduate students and how they cope as measured by Coping Self-Efficacy (CSE) and coping strategies.

SOCIAL ANXIETY

Social anxiety disorder is characterized by a heightened anxiety of social situations (American Psychiatric Association (APA), 2013). Social anxiety disorder has a wide age of onset (ages 11 to 80) and is a risk factor for developing depressive and substance abuse disorders (Stein & Stein, 2008). Researchers have found that comorbidity between social anxiety disorder and depressive disorders is substantial (Garcia-Lopez et al., 2016), and that social anxiety disorder is characterized by clinically significant psychosocial impairment (Belzer & Schneier, 2004; Dalrymple & Zimmerman, 2007).

In terms of gender differences, Xu et al. (2012) stated that the lifetime prevalence of social anxiety disorder was higher in women (5.67%) when compared to men (4.20%). Furthermore, women with social anxiety disorder experience greater distress and have a more clinically severe presentation of their symptoms than their male counterparts (Asher & Aderka, 2018; MacKenzie & Fowler, 2013). Male college students who reported similar rates of use of alcohol as women, appear to drink in positive situations to enhance positive emotions, whereas women drink in negative situations to cope with negative emotions (Norberg et al., 2010). Hence, social anxiety could be a risk factor for alcohol use in college women, but it may serve as a protective factor for college men. Among undergraduate students with social anxiety, heavy situational drinking could be caused by both the desire to cope with negative affect as well as to avoid social scrutiny (Terlecki & Buckner, 2015). Literature also revealed that social anxiety does not predict social support seeking, and that coping strategies do not predict social anxiety (Wright et al., 2010).

Regarding racial differences, social anxiety was reported to be lower in White American college students and higher amongst Hispanic American and Asian American college students (Lesure-Lester & King, 2004). Being Native American was found to have increased risk for developing social anxiety (Grant et al., 2005). Compared to non-Hispanic Whites, social anxiety disorder was found to be directly related to suicidal ideation and attempts in Latino population (Rapp et al., 2017).

A review of literature revealed that multiple researchers examined how social anxiety relates to quality of life. Research suggested that social phobia was associated with significant impairments in the mental health, social functioning, and home and family domains related to quality of life (Olatunji et al., 2007) and fears of negative and positive evaluation were linked to lower levels of quality of life (Dryman et al., 2016).

Although mental health awareness has steadily been on the rise, studies prove that there is still room for significant improvement. Coles et al. (2015) conducted a study in college students to study their recommendations for anxiety disorders and their results revealed that the lowest rates of help-seeking recommendations were made for generalized anxiety disorder and social

anxiety disorder. This indicates a significant necessity for increasing mental health awareness among college student populations. Finally, research indicates that individuals with social anxiety disorder have an unemployment rate that is greater than the rate of patients with other anxiety disorders and that undergraduate students with social anxiety disorder experience significant disabilities in work, social, and family aspects of life which in turn lower their quality of life (Hakami et al., 2018; Moitra et al., 2010). Such findings imply that awareness, prevention, and treatment of social anxiety disorder is paramount, as individuals with social anxiety disorder are expected to work despite the debilitating nature of their symptoms.

DEPRESSION

Depression, usually known in its most common form as Major Depressive Disorder, is characterized by a pronounced dulled mood, sadness, hopelessness and inactivity for more than two weeks at a time (5th ed.; DSM-5; APA, 2013). Ibrahim et al. (2013) found that the mean prevalence rate of depression among university students was 30.6% - a markedly higher rate when compared to the general population. Literature revealed contrary findings in terms of racial differences and depression among college students. While some state that there is a marked difference between race-ethnicities (Sümer et al., 2008), others do not (Herman et al., 2011; Lund et al., 2014).

Several empirical studies have concluded that depressive symptoms occur more commonly in females when compared to their male counterparts. Boggiano and Barrett (1991) suggested that higher depression levels in female college students may be attributed to failing to achieve goals of positive, intimate relationships that they idealized, being worried about attractiveness and having body image concerns. Additionally, Dixon and Kurpius (2008) concluded that women reported greater depression, stress and mattering. Other research (Villatte et al., 2013) demonstrated that within first-year college students, the second most important variable contributing uniquely to depressive symptoms was a high level of anxiety and the fifth most important was being a female.

In addition, studies explored how psychosocial impairment and quality of life are related to depression levels. There appears to be an inverse association between college students' quality of life and depression (Abdel-Khalek, 2010) and women are more inclined to have higher levels of depression and a lower quality of life (Bonsaksen, 2012). Aalto-Setälä et al. (2002), reported in their study that 10% of the young adults that they examined reported depression with associated psychosocial impairment. Female students reported significantly higher levels of psychosocial impairment compared to male students (Luna & MacMillan, 2015).

A large body of literature is available on the relation between coping strategies and depression. Depression seems to predict social support-seeking and coping strategies do not predict depression (Wright et al., 2010). Furthermore, the three most prominent coping domains reported by men for depression were "promote traditional masculinity", "promote flexible masculinity" and "social concealment and minimization" (Spendelow, 2015). When compared to controls, individuals with major depressive disorders employed maladaptive strategies (especially avoidant behaviors) or dysfunctional coping strategies (Gore-Felton et al., 2006; Hu et al., 2013; Ziarko et al., 2014).

In Hispanic immigrants, it was found that problem-focused and active-coping were positively related to depression, and that problem-focused coping accounted for more variance in depression when compared to active-coping (Cobb et al., 2016). In a Turkish study, female students used more approach-oriented coping whereas male students used more avoidant-oriented coping and those who used low levels of both these coping strategies were reported to have higher levels of depression symptoms (Ongen, 2006). The gender differences were attributed to women endorsing affiliative, help-seeking behaviors as compared to men. Additionally, the author explained that men may interpret help-seeking behaviors as failing and

that minimization of problems gives them a false sense of control over their lives, thus leading them to resort to avoidant coping strategies.

COPING SELF-EFFICACY

Coping self-efficacy (CSE) is the belief in one's ability to appropriately manage stressful situations (Chesney et al., 2006). Literature shows that there have been numerous studies conducted with college students aimed at studying their CSE.) Research illustrated that Chinese nursing undergraduate students had CSE that helped them cope with stressful research projects (Zhang et al., 2016) and that CSE significantly predicts academic stress in Hispanic college students (Watson & Watson, 2016). Finally, MacNeil et al. (2012) found that students entering college with an avoidance coping style and a low coping self-efficacy are more prone to developing disordered eating habits, especially if they are experiencing associated stress.

Literature suggests that coping self-efficacy is related to depression and social anxiety. Kwasky and Groh (2014) revealed that in young college women, higher levels of depression was associated with lower levels of CSE. As per Thomasson and Psouni (2010), severity of social anxiety and associated impairment were related to low self-efficacy and this relation was partially mediated by dysfunctional coping strategies. Finally, they suggested that low self-efficacy may lead to greater levels of dysfunctional coping strategies in social anxiety and that employing dysfunctional coping strategies may in turn increase the levels of impairment associated with social anxiety. In a sample of people with low vision, it was found that lower acceptance levels and higher helplessness levels were both associated with lower problem-focused CSE, which subsequently increased levels in depressive symptom severity (Sturrock et al., 2016).

COPING STRATEGIES

Coping is the ability to manage the perceived discrepancy between situational demands and individual resources, which evolves with a person's maturity, are dynamic, and are subject to change (Sarafino & Smith, 2011). An adaptive coping style aims at tolerating or adjusting to the stress by maintaining a positive self-image and a healthy relationship with the surrounding environment (Morrison & Bennett, 2006). A multicultural European study revealed that, among university students, stress levels were negatively correlated with positive coping styles, social support, self-esteem, and university satisfaction (Lyrakos, 2012). Additionally, problem-focused coping strategies appear to be the most commonly used coping strategies by university students to efficiently combat stress (Amiri et al., 2015).

Conversely, negative coping styles refer to strategies used by individuals that may momentarily relieve them from their stress in an unhealthy manner (Sarafino & Smith, 2011). Thamby Sam et al. (2016) found that, in a group of pharmacy students, an increase in stressors was associated with an increase in negative coping strategies such as self-blame, substance use, and denial. found that university students endorsing more perfectionism also endorsed higher levels of immature coping styles, especially men (Zhang & Zhao, 2010; Park et al., 2010).

In terms of gender differences in coping strategies, there appears to be no significant differences between men and women in the use and efficacy of coping strategies (Cronqvist et al., 1997). However, male students, across all age groups, reported using significantly higher than average use of avoidance coping strategies than female students (Cabras & Mondo, 2018; Hung-Bin Sheu & Sedlacek, 2004).

Regarding race-ethnicity differences, African American adolescents used more diversions, self-reliance, spiritual support, close friends, demanding activities, solving family problems, and relaxation more frequently than Caucasian adolescents (Chapman & Mullis, 2000). Furthermore, African Americans were more open to seeking help whereas Asian Americans tended to use avoidant coping strategies (Hung-Bin Sheu & Sedlacek, 2004).

Cooper et al. (2008) explained the results of a study exploring coping strategies, anxiety, and depression, by classifying the 14 subscales in Brief COPE into three groups – dysfunctional

coping strategies, problem-focused coping strategies, and emotion-focused coping strategies. The authors found that employing emotion-focused strategies prevented caregivers from developing anxiety in the long run. The classification system used in this study will be further utilized in the discussion section of this study.

PURPOSE OF THE STUDY

As illustrated above, there is a body of literature demonstrating the relation between depression and CSE, and numerous studies have examined the relation between coping strategies and social anxiety disorder and depression. However, there is a dearth of research concerning the relation among these four variables. The current research study aims to fill this gap so that higher education institutions can design psychological outreach and intervention programming more effectively.

The purpose of this study was to determine associations between social anxiety, depression, coping self-efficacy, and coping strategies among a group of college students. An additional purpose was to identify how race-ethnicity might be associated with these study variables. Based on the literature review, the following research questions were formulated: 1) How do the variables of gender, coping self-efficacy and coping strategies predict social anxiety and depression among college students? 2) What are the race-ethnicity differences among students considering the study variables?

METHOD

SAMPLE

One hundred and fifty-eight college students, 40.5% whom identified themselves as male and 59.5% as female, participated in this study. The ages of the students ranged from 18 years to 32 years, with 96.8% of the participants falling in the range of 18-25 years of age (M = 19.57, SD = 2.08). Freshmen constituted 57% of the sample, sophomores 22.8%, juniors 8.9%, and seniors 10.8%. In the matter of participants' race-ethnicity, 53.8% of the participants identified themselves as European Caucasian, 25.3% as Asian/Pacific Islander, 7% as Black African, 7% as Other, 4.4% as Latino/Latina, and 2.5% as Middle Eastern.

DATA COLLECTION

We emailed undergraduate students in the psychology subject pool enrolled at a northeastern U.S. college campus the link to our anonymous survey. We included two validation questions in the survey to ensure that the participants were not arbitrarily answering the survey questions. When the data collection closed for the current study, the total number of participants was 186. However, after cleaning the data and excluding participants who had missing data on all or most of the items and/or failed to answer both of validation questions as per the instructions, the final sample included 158 students.

MEASURES

SOCIAL ANXIETY

The Liebowitz Social Anxiety Scale (Liebowitz, 1987) was used to measure the presence and degree of social anxiety among students. The scale consists of 24 social situations. Fear and avoidance are both measured in these situations on a 0-3 Likert-type scale, ranging from "none" to "severe" for fear, and "never" to "usually" for avoidance. Sample items include "Going to a party", "Speaking up at a meeting" and "Resisting a high-pressure salesperson". A total score, including all the item scores, is calculated, and higher scores indicate higher levels of social anxiety. The internal consistency for this scale, as measured by Cronbach's alpha, was found to be .95. This is supported by internal consistencies established in earlier studies that ranged from .81 to .98 (Beard et al., 2011; Heimberg et al., 1999), thereby suggesting a high reliability

for this scale. Concurrent validity was well-established by Beard et al. (2011), and convergent and discriminant validity were well-established by Heimberg et al. (1999).

DEPRESSION

The Diagnostic Inventory for Depression (DID, Zimmerman et al., 2004) was used to assess the level of depression in the students. The DID has three subscales – symptoms (consisting of symptom severity), psychosocial impairment, and quality of life. Higher scores on these subscales indicate higher levels of depression. The first subscale of symptom severity assesses for symptom criteria of major depressive disorder. Each item has five statements arranged in the order of increasing severity. An item score of 0 in this subscale indicates no disturbance, 1 indicates subclinical severity, and scores of 2 or more represent presence of depression symptoms. The items on the psychosocial impairment subscale (e.g. "During the past week how much difficulty have symptoms of depression caused in your usual daily responsibilities") were rated on a 5-point Likert-type scale ranging from 0 indicating "no difficulty" to 4 indicating "extreme difficulty". Items on the quality-of-life subscale (e.g. "During the past week how satisfied have you been with your relationships with your friends") were rated on a Likert scale ranging from 0 representing "very satisfied" to 4 representing "very dissatisfied".

All three subscales demonstrated high levels of internal consistencies – symptoms (.91), psychosocial functioning (.89) and quality of life (.90). Similar Cronbach's alphas were found in the scales in the current study – symptom severity (.87), psychosocial impairment (.87), and quality of life (.91), suggesting high levels of internal consistencies. The validation study (Zimmerman et al., 2004) found that the test-retest reliability coefficients were 0.91 for symptoms, .82 for psychosocial functioning and .78 for quality of life demonstrating a high reliability. Convergent and discriminant validity were also well-established in the validation study for the symptom subscale.

COPING SELF-EFFICACY (CSE)

The Coping Self-Efficacy Scale (CSES; Chesney et al., 2006) was used to assess students' level of coping self-efficacy. The scale consists of 26 items and is rated on an 11-point Likert-type type scale, ranging from 0 (indicating "cannot do at all") to 10 (indicating "certain can do"). The possible scores resulting from this scale range from 0 to 286 with higher scores indicating greater levels of CSE. Sample items include "When things aren't going well for you, how confident are you that you can talk positively to yourself" and "When things aren't going well for you, how confident are you that you can make unpleasant thoughts go away". The three subscales recognized in the CSES are use problem-focused coping, stop unpleasant emotions and thoughts, and get support from family and friends. Reliability was well-established in the current study. Cronbach's alpha was found to be .93 for problem focused CSE, .91 for stopping unpleasant thoughts and emotions, .80 for social support CSE and .96 for the total score of CSE. These values suggest high levels of internal consistencies for the scale and are supported by previous research (Watson & Watson, 2016). Chesney et al. (2006) established validity of the CSES by finding that test-retest correlations ranged from .40 to .80 (significant at $p < .005$), providing evidence for the scale's test-retest reliability. Predictive and convergent validity were appropriately established by Colodro et al. (2010) and Chesney et al. (2006), respectively.

COPING STRATEGIES

We used the Brief COPE (Carver, 1997) to determine the type of coping strategies students employ. The scale is comprised of 28 items and 14 subscales. The items are measured on a 4-point Likert-type Scale, ranging from (1) "I haven't been doing this at all" to (4) "I've been doing this a lot". Sample items include "I've been giving up trying to deal with it" and "I've been getting help and advice from other people". In the validation study (Carver, 1997), Cronbach's alphas ranged from .50 to .90, for the various scales, with only three of them falling below .60, which indicated strong internal consistencies. These values are consistent with the

Cronbach's alphas for the current study wherein they ranged from .50 to .95. In this study, we excluded from analyses the two scales that fell below .60: self-distraction (.50) and acceptance (.54). Cooper et al. (2008) established strong test-retest reliability (across two time periods; after one year and after two years), convergent validity and concurrent validity in their study.

DATA ANALYSIS

The data were analyzed in three steps. First, a descriptive analysis was conducted to define the sample based on demographic characteristics. Then, an ANOVA was performed to explore race-ethnicity differences amongst students based on social anxiety and depression. Finally, separate multiple linear regression analyses were performed to determine the role of gender, coping self-efficacy and coping strategies in predicting social anxiety and depression. Gender was dummy coded so that it could be entered into the regression analyses.

FINDINGS

GROUP DIFFERENCES

A one-way ANOVA analysis was conducted to examine race-ethnicity differences considering students' level of social anxiety and depression. Results illustrated that there were no significant differences found between the various race-ethnicity identities and social anxiety, depressive symptom severity, psychosocial functioning, and quality of life.

REGRESSION ANALYSIS

To answer the first research question, the variables of gender, coping strategies and coping self-efficacy scales were entered together as predictors of the four criterion variables in four separate multiple linear regression analyses. The criterion variables included social anxiety, depressive symptom severity, psychosocial impairment, and quality of life. Analyses revealed that problem-focused CSE was excluded from all the regression models since it failed to meet the assumption of multicollinearity (tolerance levels were .000). This indicates that it independently predicted the same amount of variance as another variable in the regression model, hence its prediction was redundant.

The first model (Table 1) with predictor variables being gender, coping strategies, and CSE, accounted for 47% of the variance in social anxiety (F (18, 121) = 6.74, p < .001). The significant independent predictors of social anxiety were gender (β = .34) and self-blame (β = .21), when all other variables were controlled for. Gender was the stronger predictor of the two.

Table 1. Summary of simultaneous multiple linear regression analysis of gender, coping strategies, and coping self-efficacy predicting social anxiety

Variables	**Social Anxiety**		
	B	***SEB***	***β***
Gender	19.63	4.18	**.34****
Active Coping	-.77	1.45	-.05
Denial	3.39	1.93	1.34
Substance Use	-3.09	1.58	-.15
Emotional Support	-.49	1.80	-.03
Instrumental Support	.57	1.80	.32
Behavioural Disengagement	-.44	1.66	-.02
Venting	.04	1.53	.002
Positive Reframing	.37	1.41	.02
Planning	2.13	1.61	.14
Humour	-.18	1.00	-.01
Religion	-.56	1.06	-.04
Self-blame	3.08	1.37	**.21***
Stopping Emotions CSE	.25	.32	.17
Social Support CSE	-.13	.43	-.05
Total CSE	-.30	.16	-.50

R^2	.47		
C	62.10		
F	6.74, $p < .001$		

Note. *C*= Constant, *B*= Unstandardized Beta Coefficient, *SEB*= Standard Error of Beta, β= Standardized Beta Coefficient
*p<.05, **p<.01

Analyses related to depressive symptom severity (Table 2), revealed that a significant amount of variation (58%) can be explained by the regression model with gender, coping strategies, and CSE as the predictors (F (18, 124) = 11.16, $p < .001$). When all other variables were controlled for, substance use (β = .20), behavioural disengagement (β = .34), and self-blame (β = .23) coping strategies were found to be significant predictors of depressive symptom severity, with behavioural disengagement being the strongest predictor.

Table 2. Summary of simultaneous multiple linear regression analysis of gender, coping strategies, and coping self-efficacy predicting depressive symptom severity

Variables	**Symptom Severity**		
	B	***SEB***	***β***
Gender	1.79	1.22	.09
Active Coping	-.14	.43	-.03
Denial	.38	.58	.05
Substance Use	1.37	.47	**.20****
Emotional Support	.33	.54	.06
Instrumental Support	-.38	.55	-.08
Behavioural Disengagement	2.15	.48	**.34****
Venting	-.52	.45	-.09
Positive Reframing	.80	.41	.15
Planning	-.31	.49	-.06
Humour	.39	.29	.08
Religion	.25	.31	.06
Self-blame	1.16	.41	**.23****
Stopping Emotions CSE	-.07	.09	-.14
Social Support CSE	-.18	.13	-.19
Total CSE	.01	.05	.07
R^2	.58		
C	.22		
F	11.16, $p < .001$		

Note. *C*= Constant, *B*= Unstandardized Beta Coefficient, *SEB*= Standard Error of Beta, β= Standardized Beta Coefficient
*p<.05, **p<.01

In the third regression analysis (Table 3), scores on psychosocial impairment were entered as the dependent variable and gender, coping strategies, and CSE were entered as the predictor variables. This model was significant and accounted for 43% of the variance in psychosocial impairment scores (F (18, 62) = 2.97, p = .001). When the other variables were controlled for, only social-support CSE (β = -.57) was found to significantly predict psychosocial impairment.

Table 3. Summary of simultaneous multiple linear regression analysis of gender, coping strategies, and coping self-efficacy predicting psychosocial impairment

Variables	**Psychosocial Impairment**		
	B	***SEB***	***β***
Gender	2.11	1.11	.21
Active Coping	-.09	.44	-.03
Denial	-.20	.48	-.05
Substance Use	.28	.41	.08
Emotional Support	.08	.51	.03
Instrumental Support	.35	.47	.14
Behavioural Disengagement	.70	.41	.21
Venting	-.55	.40	-.18
Positive Reframing	.50	.39	.19
Planning	-.45	.44	-.17
Humour	-.32	.26	-.14
Religion	.38	.27	.17
Self-blame	.48	.39	.17
Stopping Emotions CSE	-.16	.09	-.64
Social Support CSE	-.26	.12	**-.57***
Total CSE	.08	.05	.76
R^2	.43		
C	3.64		
F	2.97, $p = .001$		

Note. *C*= Constant, *B*= Unstandardized Beta Coefficient, *SEB*= Standard Error of Beta, *β*= Standardized Beta Coefficient

*$p<.05$, **$p<.01$

In the final analyses (Table 4), scores on quality of life were entered as the dependent variable with gender, coping strategies, and CSE being entered as the predictor variables. This model was found to be significant (F (18, 60) = 6.18, $p < .001$) and accounted for the highest variance (61%) when compared to the other three regression models. No significant predictors were found in this model.

Table 4. Summary of simultaneous multiple linear regression analysis of gender, coping strategies, and coping self-efficacy predicting quality of life

Variables	**Quality of Life**		
	B	***SEB***	***β***
Gender	-2.49	1.42	-.16
Active Coping	-.73	.55	-.17
Denial	.57	.63	.10
Substance Use	-.93	.52	-.18
Emotional Support	.14	.64	.03
Instrumental Support	-.08	.59	-.02
Behavioural Disengagement	-1.00	.52	-.19
Venting	.52	.52	.11
Positive Reframing	-.39	.49	-.10
Planning	.47	.55	.11
Humour	.44	.34	.13
Religion	-.51	.34	-.15
Self-blame	-.92	.53	-.21
Stopping Emotions CSE	.04	.12	.10
Social Support CSE	.11	.16	.16
Total CSE	.04	.06	.25
R^2	.61		
C	21.86		
F	6.18, $p < .001$		

Note. C= Constant, *B*= Unstandardized Beta Coefficient, *SEB*= Standard Error of Beta, *β*= Standardized Beta Coefficient
*p<.05, **p<.01

DISCUSSION AND CONCLUSION

The primary aim of the current research study was to determine interactions between social anxiety, depression, coping self-efficacy, and coping strategies amongst college students. An additional purpose was to identify how race-ethnicity might be associated with these study variables.

Results demonstrated that gender, coping strategies and CSE, together as a model significantly predicted social anxiety. More specifically, results revealed that gender and the use of self-blame as a coping strategy significantly predicted higher social anxiety levels in college students, when all other variables were controlled. Compared to self-blame, gender was the stronger predictor of social anxiety levels. Female students reported higher social anxiety levels when compared to male students, which is in line with previous literature (Asher & Aderka, 2018; MacKenzie & Fowler, 2013; Xu et al., 2012). This holds important clinical implications for college campuses. College counseling personnel and related mental health professionals could work toward educating college students on how being a female and using self-blame as a coping strategy are significant risk factors as they could lead to higher levels of social anxiety. Mental health interventions especially designed to increase acceptance, self-compassion and mindfulness could be adopted while working with female college students, who tend to experience more chronic stressors during the school year, to overcome social anxiety and using self-blame as a coping strategy (Kroshus et al., 2021; Smeets et al., 2014; Stefan et al., 2018).

In addition, multiple studies state that social anxiety predicts the onset of depressive disorders either by itself or via mediating variables (Grant et al., 2014; Kessler et al., 1999; Stein & Stein, 2008). This calls for an increased focus in preventing and treating social anxiety, by college counseling personnel, which could also prevent the development of mood disorders (Kessler et al., 1999). Interventions aimed at improving self-compassion levels and utilizing mindfulness-based stress reduction (MBSR) programs could help with successful transitions into college life and lower social anxiety (Kroshus et al., 2021; Stefan et al., 2018).

Results in this study also demonstrated that gender, coping strategies and CSE, together as a model significantly predicted depressive symptom severity. Higher levels of substance use, behavioral disengagement, and self-blame coping strategies predicted higher levels of depressive symptom severity in college students. Although there is limited research that states that coping strategies are not associated with depression (Wright et al., 2010), most of the existing literature suggests that results of the current study are in line with previous studies (Gore-Felton et al., 2006; Hu et al., 2013; Ziarko et al., 2014).

Hence, based on the current study it could be suggested that college counseling personnel could promote awareness in college students about how dysfunctional coping (e.g., behavioral disengagement and substance use) could relate to depressive symptoms. In addition, clinicians who work with college students with depressive symptoms should steer them towards healthier coping strategies such as self-compassion and mindfulness since this could in turn reduce self-judgment and isolation which have been found to increase depression (Smeets et al., 2014; Sosya & Wilcomb, 2015). Thus, these results inform prevention efforts as well as therapeutic interventions for college campuses.

In relation to the variable of psychological impairment, higher levels of psychosocial impairment were predicted by lower levels of social support CSE. In terms of outreach programs that college counseling personnel may conduct, students could be made aware that they might experience higher levels psychosocial impairment, if they do not believe in their ability to cope with the help of their social supports. In addition, college counseling personnel

could inform college students regarding the role of getting help from friends and family (social support CSE) in the prevention of psychosocial impairment. Such information might motivate college students to be more socially engaged on and off-campus, improve psychosocial functioning levels and increase quality of life. College counseling personnel could also design or implement interventions related to teaching self-compassion and time-management skills since they have been found to increase life-satisfaction and connectedness (Smeets et al., 2014). Finally, additional results demonstrated that there were no significant racial differences in social anxiety, depressive symptom severity, psychosocial impairment, and quality of life despite earlier research stating the contrary (Grant et al., 2005; Lesure-Lester & King, 2004; Rapp et al., 2017; Sümer et al., 2008). This may have been a function of the comparatively smaller sample size in the current study and because distribution of race-ethnicity identities was skewed in that European Caucasians constituted 53.8% of the sample.

LIMITATIONS AND FUTURE DIRECTIONS

The current study has a number of strengths, including its contribution to the limited literature exploring coping and coping self-efficacy among college students and how they relate to social anxiety and depression. Other significant strengths include the prevention and treatment implications based on the results. Despite the aforementioned strengths, it is important to address limitations in the current study that warrant future research. First, in terms of methodological limitations, the current study was correlational and cross-sectional. Although such a design has scientific benefits, future research could be designed in a way to assess the variables longitudinally or to draw causal relations.

Additionally, self-report measures were exclusively used in the current study. Therefore, future research could attempt to explore the relations among the current study variables through alternate methods of data collection such as structured interviews. Furthermore, since a non-clinical sample was used in the current study, results could potentially vary if studies exclusively used clinical samples of social anxiety disorder and major depressive disorder. The lack of significant racial differences in social anxiety, depressive symptom severity, psychosocial impairment, and quality of life, in the present study, could be addressed by intentionally including a larger and more diverse sample of college students in replication studies. Regarding gender diversity, since the current study only included male and female participants, future studies may target a larger sample where they will have a large enough group of participants who may identify themselves as non-binary, as these individuals may have a different set of experiences as compared to people who identify their gender as a binary concept.

A final point we want to indicate is that the data in the current study were collected before COVID-19. As we know from recent publications (Active Minds, 2020; Ezarik, 2021), students went through a different set of challenges with 20% of college students stating that their mental health significantly deteriorated during the course of the pandemic. Considering the increasingly stressful college campus circumstances since the pandemic, emerging/increasing mental health issues, and COVID-19 possibly changing people profoundly in terms of their worldview all support our recommendation to examine these variables post-covid, and emphasize the study's importance to guide more proactive, gender-specific, and culturally relevant mental health services.

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