

RESEARCH ARTICLE



OPEN ACCESS

Received: 18-05-2020

Accepted: 14-06-2020

Published: 29-06-2020

Editor: Dr. Natarajan Gajendran

Citation: Alshehri AS (2020) The impact of perfectionism trait on anxiety and academic procrastination among international Saudi Arabian students studying in United States Universities. Indian Journal of Science and Technology 13(23): 2282-2293. <https://doi.org/10.17485/IJST/v13i23.657>

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Funding: None

Competing Interests: None

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The impact of perfectionism trait on anxiety and academic procrastination among international Saudi Arabian students studying in United States Universities

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Abstract

Objectives: To investigate the relationship of perfectionist personality traits to anxiety traits and academic procrastination. Also to examine the possibility of predicting trait anxiety and academic procrastination by measuring perfectionist personality traits. **Methods/statistical analysis:** the study followed the survey methodology. The sample consisted of 521 Saudi students studying in United States universities during the 2017-2018 academic year. Students participants were invited to complete an electronic survey that incorporated the: 1) Multidimensional Perfectionism Scale; 2) State-Trait Anxiety Inventory - Form Y; and 3) Tuckman Procrastination Scale. Regression analysis was utilized for study findings. **Findings:** the results of the study showed a significant positive linear relationship among trait anxiety with the three perfectionism dimensions: socially-prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. The findings also revealed a significant positive correlation between self-oriented perfectionism and academic procrastination. **Novelty/applications:** this study is the first of its kind to investigate the perfectionist trait and its relationship to academic procrastination and anxiety among Saudi students studying in the US.

Keywords: perfectionism; anxiety trait; procrastination; Saudi students; Unites States universities

1 Introduction

Studying abroad can be an exciting and rewarding experience for international students and their family members. However, the literature shows that for some students, experiences encountered in the United States can be challenging and troublesome (1). Some students face different challenges and experiences that may inhibit their academic and social development while studying abroad. These challenges may include academic burnout, procrastination, negative life satisfaction, and low levels of academic performance (2). These adverse or challenging experiences may place the student in a vulnerable position for suffering from intermittent or ongoing psychological problems, and

in turn, these problems could make the student vulnerable to maladaptive psychological occurrences or manifestations.

More than 61,000 Saudi Arabian students are enrolled in universities and colleges across the United States in the years 2016 and 2017. In one of the reports conducted by the Institute of International Education (IIE) on numbers of international students in the US, Saudi students were in fourth place in numbers (3). International students' affairs require a deep understanding of the cultural and psychological aspects of such students (4). The concern with perfectionism in academic performance seems a common phenomenon among students studying abroad. Therefore, it is of vital importance to investigate the impact of seeking this perfectionism on students' experience and academic achievement.

The King Abdullah Scholarship Program (KASP) provided scholarships to Saudi students willing to pursue their education in the US. It was an agreement in 2005 between Saudi Arabia and the United States to increase the number of students enrolled in US universities (5). The selection criteria for the program is highly competitive and specific requirements are needed to be available in the accepted students. The main objectives of the KASP program are "sponsoring qualified Saudi citizens to study at the best universities around the world, establishing a high level of international academic and professional standards in Saudi Arabia, and exchanging scientific, educational and cultural experiences with various countries across the world" (6).

Counselors' reports from across the United States showed the top 10 areas of concern students sought help during the school 2014-2015 school year (7). These concerns ranged from the highest to the lowest:

1. Anxiety
2. Depression
3. Relationship problems
4. Stress
5. Academic performance
6. Family
7. Interpersonal functioning
8. Grief or loss
9. Mood instability
10. Adjustment to a new environment

It is of crucial importance to provide psychological stability support, intervention, and/or treatment, which may help in reducing negative impacts and improve positive health outcomes for students seeking counseling. In the case of Saudi Arabian students studying in the United States, this kind of support may result in elevated academic achievement in addition to improved mental and emotional health. Therefore, the findings from the current study may provide data and information that can alert and inform the Saudi Arabian Ministry of Education as well as university and college counseling and support centers of students' vulnerability to mental health challenges.

1.1 Statement of Problem

There is a lack of knowledge on the relationship between the predictor construct of perfectionism and the predictive (trait anxiety and academic procrastination) among Saudi Arabian students attending U.S. universities and colleges. One study (8) reported that in 2008, more than 500 Saudi Arabia students who enrolled in the King Abdullah Scholarship Program (KASP) were dismissed from universities or colleges because of their low academic performance and low attendance. This is the only available documented data currently available for public viewing to the best knowledge of the researcher. Such information implicates that some Saudi students are facing challenges in coping with foreign universities and colleges across the United States.

Therefore, this study aims at investigating the construct perfectionism, and to what extent it has a relationship with anxiety and academic procrastination among Saudi Arabian students studying in U.S. universities. The target population is the international Saudi Arabian student population of the King Abdullah Scholarship Program (KASP) recipients studying in universities and colleges in the United States.

1.2 Significance of the study

The significance of this study stems from its results that may contribute to the literature on perfectionism as well as to those studies investigating trait anxiety and academic procrastination at higher education levels. If relationships are found, this study could expand educators' understanding of the dynamics among specific perfectionist traits as they relate to trait anxiety and academic procrastination.

Although other studies investigated similar dimensions of perfectionism, academic procrastination, and trait anxiety among minority groups of international students, this study attempts to focus on investigating Saudi students in US universities and colleges. The Saudi authorities responsible for selecting students for scholarships may use the results of this study to design and develop plans prior to sending students to study abroad. This study focused on the Saudi students only as a minority that study in a foreign country, USA, and could be applied to students in other countries. The significance of this study might help to determine whether the perfectionist personality trait in Saudi Arabian students predicts their academic procrastination and anxiety. The results also pave the way to find methods and techniques on improving experiences of Saudi students before and after matriculating to colleges and universities.

1.3 Research Questions and Hypotheses

This study aims to test and validate the following research questions and hypotheses:

RQ₁ : What is the relationship between perfectionist personality traits (socially-prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism) and trait anxiety among Saudi students in U.S. universities?

H1a: A significant relationship will exist between the perfectionist traits and trait anxiety in Saudi Arabian college students as measured by the Multidimensional Perfectionism Scale and the State-Trait Anxiety Inventory.

RQ₂ : what is the relationship between perfectionist personality traits and academic procrastination?

H2a: A significant relationship will exist between the perfectionist traits and academic procrastination in these college students, as measured by the Multidimensional Perfectionism Scale and the Tuckman Procrastination Scales.

1.4 Definition of Key Terms

Academic Procrastination. Academic procrastination is “the act of needlessly delaying tasks to the point of experiencing subjective discomfort” (9), specifically in areas such as writing a term paper, preparing for exams, and maintaining weekly reading tasks. From a motivational standpoint, procrastination is defined as “the lack or absence of self-regulation” (10). Both definitions serve the purpose of the current study regarding delaying the submission of school assignments and not completing projects until the last minute of the deadline.

Adaptive Perfectionism. Adaptive perfectionism has been defined as “a normal, healthy type of perfectionism... defined by deriving satisfaction from achievements made from the intense effort but tolerating the imperfections without resorting to the harsh self-criticism that characterizes maladaptive perfectionism” (11). Adaptive perfectionism is considered a positive or beneficial form of perfectionism that includes personal qualities such as having higher standards of self, being organized, and a positive striving to accomplish a goal.

Anxiety. Anxiety is characterized as a feeling of stress, nervousness, or disquiet, ordinarily about a specific occasion or something with unclear results (12). In this study, anxiety is the feeling caused by striving to perfectionism among Saudi students studying in US universities and colleges.

Maladaptive Perfectionism. Maladaptive perfectionism appears when the individual has evaluative concerns and worry (13). It is also defined as the behavior of requiring higher quality performance either from oneself or from others, which is typically more than the expectations (14).

Other-Oriented Perfectionism. A personality characteristic that included setting uncommonly high expectations for others to accomplish and to assess others thoroughly based on these expectations (15)

Perfectionism. Perfectionism is a complex personality trait that appears in a person seeking perfection without mistakes. This trait is a characteristic of individuals who set high standards for performance, accompanied by excessive criticism, self-evaluations, and concerns about others’ evaluations (16). In this study, perfectionism is investigated according to its two types, adaptive perfectionism and maladaptive perfectionism.

Self-Oriented Perfectionism. A personality trait characterized by excessive personal standards, compulsive striving to attain perfection, and strict self-evaluation (15).

Socially-Prescribed Perfectionism. The perceived need to attain unrealistically high standards and expectations as required significant others that an individual feels an obligation to meet in order to avoid undesirable evaluation (15).

Trait Anxiety. Trait anxiety is a personal attribute or a general tendency to be anxious when facing different life situations. It is defined as “relatively stable individual differences in anxiety-proneness, that is, to differences between people in the tendency to perceive stressful situations as dangerous or threatening and to respond to such situations with elevations in the intensity of their state of anxiety reactions” (17).

1.5 Delimitations of the Study

The proposed study is delimited to international Saudi Arabian students who are enrolled in the KASP in school years 2017-2018 in the United States and are seeking undergraduate or graduate degrees in U.S. colleges or universities. The data set of students will be mined from the Saudi Cultural Mission of the KASP. The study will not be generalizable to other countries that participate in the KASP by hosting Saudi Arabian students in their colleges and universities. However, findings from this study may inform other colleges and universities on how to investigate similar challenges in the areas of perfectionism, trait anxiety, and academic procrastination and their relationship to student mental health.

1.6 Limitations of the Study

This study has several limitations. First, it is limited to the academic context. All participants were active Saudi KASP recipients enrolled as a degree-seeking undergraduate or graduate student in U.S. universities that may decrease the external validity of this study. Second, the results of this study are limited to the relationships among the variables of perfectionist traits, trait anxiety, and academic procrastination. In addition, this study is limited to Saudi students studying in US universities, and not other countries participating in KASP program. Despite its limitations, this study was useful for offering information about the study variables among Saudi students and productive in offering trends for future studies.

2 Literature Review

2.1 Perfectionism

Perfectionism is a complex personality construct. It appears with individuals who set extremely high personal standards for performance. There is disagreement on a universal final definition of the term perfectionism. Actually, (18) posited that “the multiplicity of names and conceptualizations is rather confusing and a clarification of the nomenclature would be warranted.” There is consensus among scholars to consider perfectionism as a multidimensional construct that entails positive and negative sides (19). Several researchers have observed that perfectionism may have underpinnings in anxiety disorders (20), (21), social and panic disorder (22), depression (23), (15), (24), and suicide (25). All of these multidimensional-related research shows the importance of investigating perfectionism using multivariate models to examine and assess variables that may have an intersection with it.

The literature shows that perfectionism can be adaptive and it is not necessary to indicate a maladaptive presentation (26). The state of setting high standards shows that the person has a positive perspective on life, where people strive toward the better in their lives. In contrast, when perfectionism is identified as a negative form, it can be damaging for the individual (13), (15) and (27). Persons who develop maladaptive perfectionism face a deep and continuous urge to excel to high standards that they have set for themselves. Once these persons become unable to achieve these high expectations, they develop cognitive dissonance as a result (28).

2.2 Dimensions of Perfectionism

In 1991, (15) found that perfectionism had three dimensions: socially-prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. The characteristics are briefly described as follows. First, Self-oriented perfectionist (SOP) dimension, which is characterized by an intrinsically motivated locus of negative evaluation and is associated with depression, anxiety, hostility, low self-esteem, somatoform disorders, hypomania, and alcoholism (15). Second, Other-oriented perfectionist (OOP), is characterized by the expectation that the performance of others should be perfect and is associated with interpersonal blame and punitive behavior. Third, Socially prescribed perfectionism (SPP), which is characterized by an extrinsically-motivated (i.e., by significant others) locus of negative evaluation and an external locus of control.

2.3 Anxiety

Anxiety is defined as “a personality trait that represented a propensity to observe objectively harmless situations as endangering and to react significantly more intensive than the particular situation requires” (29). Anxiety is connected to the specific behaviors of fight-or-flight responses, defensive behavior, or escape, which is totally different from fear. This status happens during situations only perceived as uncontrollable or unavoidable. In positive psychology, anxiety is described as the mental state that results from a difficult challenge for which the subject has insufficient coping skills (21). There are different forms of experiencing anxiety, which range from daily symptoms to the reduction of life quality. In addition, these symptoms can vary in number, intensity, and frequency, depending on the person. Anxiety may cause psychiatric and/or physiological health

challenges for college students, as they are a susceptible population for these types of mental health challenges.

2.4 Academic Procrastination

According to the literature, there are different definitions of procrastination. Some scholars stated that “the word itself comes from the Latin word *procrastinatus*: *pro* (forward) and *castings* (of tomorrow)” (30). Others described procrastination as a “dysfunctional, self-effacing behavior that ultimately results in undesirable outcomes” (31). The behavior of procrastination is very common among individuals in different situations of life. Academic procrastination is one kind of procrastination, where students postpone and delay their academic tasks to further time. There is consensus in the literature that student procrastination is present at all grade levels and is generally considered as a negative risk to positive academic achievement (32). Academic procrastination occurs with students at graduate and postgraduate levels as well. The effect of academic procrastination on students is very severe in many cases, where students either lose marks or fail courses. In relation to perfectionism, academic procrastination is a negative factor that should be avoided and dealt with.

2.5 Previous Studies

Several studies investigated the relationships between perfectionist trait and anxiety and academic procrastination. In a study conducted in Turkey, the extent that perfectionism personality (trait) would predict academic procrastination and life satisfaction in university students were evaluated. The study was applied to a sample of 164 female university students (71%) and 66 male university students (28%) attending Anadolu University School of Education in Turkey. The instruments used were the Multidimensional Perfectionism Scale and the Academic Procrastination Assessment Scale. The results showed that self-oriented perfectionism significantly predicted academic procrastination ($R = .212$, $R^2 = .045$, $p < .01$). However, other-oriented perfectionism and self-oriented perfectionism did not predict academic procrastination (33).

In another study on anxiety, (34) examined foreign students’ study anxiety by dividing the research components as exam anxiety, language anxiety, social anxiety, family anxiety, and presentation anxiety. The sample consisted of 85 foreign students. The results showed no significant relationship between gender and the construct of anxiety and that both genders reported stress while preparing and studying for tests. Significant differences were shown among freshmen, sophomores, and doctoral students in the area of test anxiety only.

One study conducted at the University of Bedfordshire to determine the relationship between anxiety and academic performance. The sample consisted of 66 male and 39 female post-graduate international students with a mean age of 26.18 years. A self-report questionnaire was used as a study instrument. Findings showed that anxiety was significantly correlated to academic performance. The results showed that workload, choice of coping with stress, future prospects, and change in the system of education are the major types of anxiety affecting participants, giving significant relationships when cross-tabulated with gender and ethnicity (35).

(36) investigated college students’ procrastination and suggested countermeasures that students or administrators could use as strategies to reduce delay. The sample of the study was 228 college and university students, who were administered the Academic Procrastination Scale for students. Key findings were that academic procrastination is more serious in males than females, overall, as students’ grades increased, the degree of academic procrastination gradually decreased, procrastination was highest at the academic level of college, and graduate student levels of procrastination were far lower than undergraduates.

(37) explored the time and how students procrastinate throughout the academic semester. Using a cross-panel design and data from two cohorts of college students ($N = 357$). The researchers measured the stability of maladaptive perfectionism, procrastination, and psychological distress three times in the semester; the findings revealed a strong relationship between psychological distress, procrastination, and perfectionism. The researchers also observed that students who procrastinated at the beginning of the semester were the most stressed at the end of the semester.

In a study conducted in India, the impact of multidimensional perfectionism on academic procrastination among university students was investigated. The sample of the study was 90 female and 60 male students, aged 18-23 years from a university in the National Capital Region of India. The results indicated that academic procrastination positively correlates with all the dimensions of perfectionism. Gender differences exist with regard to other-oriented perfectionism, socially prescribed perfectionism and academic procrastination (38).

In China, a study explored the relationship between university students’ academic procrastination and perfectionism and the role of causality orientations as a moderating factor. The sample of the study consisted of 660 undergraduates in three majors from two universities in Jinan, Shandong province, who participated in the questionnaire survey. The results indicated that positive perfectionism was not significantly related to academic procrastination while negative perfectionism was significantly positively related to procrastination (39).

In the US, a study conducted to investigate how universities can support students during the first year of university. The study used Spielberger and Vagg's (1995) transactional process model of test anxiety as a framework for examining whether multiple coping styles explain the relationships between adaptive/maladaptive perfectionism and test anxiety. The sample of the study consisted of (148) first-year students from south-east Queensland universities. The results revealed that adaptive/maladaptive perfectionism worked through avoidant emotion-focused coping to predict levels of test anxiety. Students with adaptive perfectionism may experience less test anxiety as they use less avoidant emotion-focused coping (40).

3 Methodology and Research Design

This study followed a cross-sectional, quantitative research methodology using close-ended survey questions in order to offer an objective analysis of the data collection. The reason for choosing this type of approach is its flexibility and availability, and it is useful for generalization, and produces concise measurements, despite limitations that could be related to the survey questions themselves. The study concluded with ethical considerations and enumerated potential limitations.

3.1 Population

The participants in this study were both male and female Saudi Arabian students enrolled in universities across the U. S. the sample was randomly selected from a population of 52,611 students from different programs during the 2016/17 school year, and the final sample was 400 students. The inclusion criteria were used to ensure the representation of the study sample to the population. To be eligible to participate, students had to first be recipients of the King Abdullah Scholarship Program (KASP), have been at least 18 years of age or older; have received their high school diploma from a Saudi Arabian high school; be fluent in the English language and be eligible or already enrolled in the 2017-2018 school year.

3.2 Procedure

This study used an internet survey because it is easy for students studying in different States to participate in the study. The researcher obtained all authorizations from the Institutional Review Board (IRB) and the Saudi Arabian Cultural Mission (SACM). All necessary documentation was submitted to SACM, inclusive of the researcher's identification, study description, and the timeline for data collection. An invitation letter was sent to 1000 prospective participants. SACM requested the students to voluntarily participate in this web-based survey to help the researcher in collecting data for the study. Specific exclusion criteria prevented ineligible members from participating: non-recipients of the King Abdullah Scholarship Program (KASP); not having reached 18 years of age; not a recipient of a high school diploma from a Saudi Arabian High School; not fluent in the English language; and, not enrolled in a qualifying U.S. university for the 2017-2018 school year. After passing the online screener, participants were directed to the survey page to contribute to the cross-sectional questionnaire using Survey Monkey software. The language of instructions and questions were in the English language and it was anticipated that answering the questions would take 20 to 30 minutes. Participants who submitted their consent forms in response to the introductory link were given two weeks to complete the survey. The survey consisted of several parts, one of which was a brief demographic questionnaire that did not reveal student identity. The participants were ensured that data will be only viewed and analyzed by the researcher and for academic purposes.

3.3 Instrumentation

The instrument of this study was a survey consisting of three parts as follows:

Demographic Questionnaire. The aim of using the demographic questionnaire, which consisted of (5) paragraphs, was to identify the sample characteristics, including age, gender, level of education, total completed credit hours, and total program credit hours.

Multidimensional Perfectionism Scale (MPS). The Multidimensional Perfectionism Scale (15) is a self-report questionnaire on perfectionism consists of three scales: socially-prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism. The Self-Oriented Perfectionism (MPS-Self) scale assesses excessive achievement expectations and attempts for perfectionism. The Socially-Prescribed Perfectionism (MPS-Soc) scale measures the perceived ability or concerns of meeting very high social standards and expectations for an individual. The Other-Oriented Perfectionism (MPS-Other) scale consists of items to assess the perfectionist expectations of others. The MPS contains 45 paragraphs and for each paragraph, a 7-point Likert scale was used.

Tuckman Procrastination Scale (TPS). The Tuckman's scale includes 16 paragraphs, which present a measure of "the tendency to waste time, delay, and intentionally put off something that should be done" (41). The reliability of this scale was shown

to be high with the Cronbach alpha score measuring .90. Examples of Tuckman Procrastination Scale items include “I always finish important jobs with time to spare”; “I postpone starting in on things I don’t like to do”; and “When I have a deadline, I wait till the last minute.”

The State-Trait Anxiety Inventory (STAI) Form Y. The State-Trait Anxiety Inventory, first published by Spielberger, Gorsuch, Lushene, Vagg, and Jacobs in 1983, uses two 20-item self-report sub-scales to measure general anxiety on a scale of one to four (17). This scale consists of two scales, the State Anxiety Scale (S-Anxiety), which evaluates the existence and degree of the current anxiety symptoms, and the Trait Anxiety Scale (T-Anxiety), which measures an individual’s overall tendency to identify situations as threatening. The reliability of this scale is high according to the internal consistency alpha coefficients of the T-Anxiety Scale of the STAI (version Y), ranging from 0.90 to 0.91. Test-retest values were reported to be .86 for the original Trait Subscale (17). In the case of Form Y used for the purposes of this study, test-retest correlations with 30-day intervals ranged from 0.71 to 0.75 for the Trait score (42).

3.4 Data Collection and Analysis

The researcher collected data from Saudi college students studying in United States universities in the 2017-18 school year. The Statistical Package for the Social Statistical software, version 24.0 (SPSS) was used for the statistical analysis. First, descriptive statistics were utilized to investigate the demographic data. Second, inferential statistics were used on collected data from a developed survey, which was answered by a representative sample to infer characteristics or traits to the larger population – in this case, all Saudi college students studying in United States universities.

The linear relationship was examined between perfectionist traits as a predictor, and academic procrastination and trait anxiety as criterion/predicted variables. Pearson correlation analyses between variables were computed to determine the strength and direction of the potential linear correlational relationship between the predictor variable and each predicted variable. The emphasis of multiple regression had to be calculated to determine the predictors of academic procrastination, anxiety, and satisfaction with life. In this study, the significance level was considered as .05.

4 Results

4.1 Demographics

Table 1 indicates Frequencies of Demographics: Gender, Age and Education that 53.9 % of females and 46.1 % of males (N=521) were among the Saudi students included in the study. Most of the participants (37.2%) were between 27-31 years of age, and the least numbers of participants (6.3%) were between 18-21 years. There were 41.5 % of students in Master and 29.9% in Bachelor programs.

Table 1. Frequencies of Demographics: Gender, Age and Education

Variables	N	Percent
Gender		
Male	240	46.1
Female	281	53.9
Age		
18 to 21 years	33	6.3
22 to 26 years	126	24.2
27 to 31 years	194	37.2
32 to 36 years	118	22.6
37 and above	50	9.6
Education		
Doctorate	33	6.3
Masters	216	41.5
Bachelor	156	29.9
Diploma	33	6.3
High School	83	15.9

Table 2 shows the students who completed 61 or more credit hours were 31.7%, whereas 24.2% of students completed 20

credits or less. Similarly, 45.7% of students required 61 or more credits to complete their programs, and only 5% of participants required 20 credits or less to fulfill the requirements of their programs.

Table 2. Frequencies of Credit Completed and Credit Required for Completing the Program

Variables	N	Percent
Credit Completed		
0-20	126	24.2
21-40	142	27.3
41-60	88	16.9
61 and more	165	31.7
Credit Required		
0-20	26	5.0
21-40	171	32.8
41-60	86	16.5
61 and more	238	45.7

4.2 Statistical analysis

Table 3 represents Reliability Analysis internal consistency Cronbach alpha reliability analysis for all measures used in the study, and high-reliability indices were found to be .905, .904, and .830 for procrastination (TPS), trait anxiety (STAI), and perfectionism. Three dimensions of the scale measuring perfectionism (MPS), self-oriented perfectionism, others-oriented perfectionism and socially prescribed perfectionism were .845, .529 and .586 respectively, which shows that two dimensions, others-oriented ($\alpha=.529$) and socially prescribed ($\alpha=.586$) perfectionism, have low reliabilities.

Table 3. Reliability Analysis

	Number of Items	Cronbach Alpha
Self-oriented perfectionism	15	.845
Other-oriented perfectionism	15	.529
Social-prescribed perfectionism	15	.586
Perfectionism (Total)	45	.830
Trait anxiety	20	.904
Procrastination	16	.905

4.3 Testing Hypotheses

The three hypotheses of this study were tested using Pearson correlation analyses to determine the strength and direction of the linear relationship of perfectionist traits with trait anxiety, academic procrastination, and satisfaction with life.

Table 4 indicates bivariate relationships between various variables in the study. Self-oriented perfectionism was significantly correlated with trait anxiety ($r=.091, p=.038$) and procrastination ($r=.224, p<0.001$). Others-oriented perfectionism was not significantly correlated with procrastination ($r=.073, p=.096$); however, it was significant with trait anxiety ($r=.116, p=.008$). The third dimension of perfectionism, socially prescribed perfectionism, was significantly but negatively correlated with life satisfaction ($r= -.133, p=.004$); however, the correlation with procrastination ($r= -.040, p=.358$) was not significant. The relationship of socially prescribed perfectionism with trait anxiety ($r=.310, p<.001$) was also found to be significant.

Table 4. Coefficients of Correlations for Variables in the Study

Variables	1	2	3	4	5	6
1. Self-orientated perfectionism		.488**	.479**	.091*	.224**	.127**
2. Other -oriented perfectionism	.488**		.301**	.116**	.073	.032
3. Socially prescribed Perfectionism	.479**	.301**		.310**	-.040	-.133**

Continued on next page

Table 4 continued

4. Trait anxiety	.091*	.116**	.310**		-.430**	-.587**
5. Academic procrastination	.224**	.073	-.040	-.430**		.349**

** Significant at the 0.01.
 * Significant at the 0.05.

Multiple linear regression was computed to examine the degree to which the perfectionist traits may predict trait anxiety and academic procrastination. The results as given in Table 5 indicated two predictors, self-oriented perfectionism, $\beta = -.103$, $t = 1.980$, $p = .048$, and socially prescribed perfectionism, $\beta = .340$, $t = 7.142$, $p < .001$, that emerged as significant predictors of trait anxiety, whereas other-oriented perfectionism, $\beta = .064$, $t = 1.326$, $p = .185$, emerged as a non-significant predictor of trait anxiety. Among three predictors, socially prescribed perfectionism emerged as a relatively stronger predictor of trait anxiety ($\beta = .340$); however, self-oriented perfectionism was marginally significant ($p = .048$). The regression model overall was significant, $F(3, 517) = 19.872$, $p < .001$, and explained 10.3% variance accounted for self-oriented, others oriented, and socially prescribed perfectionism in trait anxiety.

Table 5. Summary of Multiple Linear Regression for Perfectionism Traits Predicting Trait Anxiety

Predictors	Trait Anxiety		
	B	SE B	β
Intercept	1.118	.192	
Self-Orientation perfectionism	-.062	.032	-.103*
Other-Orientation perfectionism	.056	.042	.064
Socially Prescribed perfectionism	.283	.040	.340**
R ²	.103		
F (3, 517)	19.872		

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

The results of linear regression as given in Table 6 indicated that two predictors, self-oriented perfectionism, $\beta = .329$, $t = 6.247$, $p < .001$, and socially prescribed perfectionism, $\beta = -.189$, $t = -3.909$, $p < .001$, emerged as significant predictors of procrastination, whereas other-oriented perfectionism, $\beta = -.031$, $t = -.637$, $p = .525$ emerged as a non-significant predictor of procrastination. Self-oriented perfectionism emerged as a relatively stronger predictor of procrastination ($\beta = .329$). The regression model overall was significant, $F(3, 517) = 14.807$, $p < .001$, and explained 7.9% variance accounted for self-oriented, others oriented, and socially prescribed perfectionism in procrastination.

Table 6. Summary of Multiple Linear Regression for Perfectionism Traits Predicting Procrastination

Predictors	Procrastination		
	B	SE B	β
Intercept	2.306	.250	
Self- Orientated perfectionism	.257	.041	.329**
Other- Orientated perfectionism	-.035	.055	-.031
Socially Prescribed perfectionism	-.201	.052	-.189**
R ²	.079		
F (3, 517)	14.807		

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

The results of linear regression show that two of the predictors, self-oriented perfectionism, $\beta = .254$, $t = 4.785$, $p < .001$, and socially prescribed perfectionism, $\beta = -.249$, $t = -5.121$, $p < .001$, emerged as a significant predictor of life satisfaction. However, self-oriented perfectionism was a relatively stronger predictor than others oriented and socially prescribed perfectionism.

5 Discussion

Research Question 1. *What is the relationship between perfectionist personality trait (self-oriented, other-oriented, and socially-prescribed perfectionism) and trait anxiety?*

In order to answer the first research question, participant's scores on the MPS scale, and scores of the State-Trait Anxiety Inventory- Form Y (STAI) were calculated. A correlation analysis was implemented to determine the strength and direction of the linear relationship between perfectionist traits as measured on the MPS and anxiety trait using the STAI. A significant positive linear relationship was found among trait anxiety with the perfectionism dimensions.

The findings suggested that the three dimensions of perfectionism were significantly associated with trait anxiety in the Saudi student sample. Further, this study revealed that the socially prescribed perfectionism dimension was significantly related to trait anxiety in comparison to the other two perfectionist dimensions. These findings broadly and harmoniously replicate many empirical studies within student populations. The data tended to consistently demonstrate the assumption that socially-prescribed perfectionism and trait anxiety go hand-in-hand and are complicit with other psychological maladjustments (43), (44) and (45). In contrast to this, self-oriented perfectionism was found to have a weak relationship with trait anxiety. Previous studies have similarly concluded that self-oriented perfectionism was considered to be an adaptive form of perfectionism that tended either to relate to positive effects or not relate to adverse outcomes.

On the other hand, researchers have viewed self-oriented perfectionism as an adaptive trait because each person imposes high irrational standards for themselves and could control and adjust their standards. The findings suggested that within the Saudi college student sample, the socially-prescribed perfectionist that demands the approval of others tends to experience significantly higher levels of trait anxiety than the self-prescribed perfectionist. Like past studies derived from Western participants, this study extended these findings to the Saudi student population and showed evidence that a significant relation between socially prescribed perfectionism and trait anxiety is universal across diverse cultures.

Research Question 2. *What is the relationship between perfectionist personality traits and academic procrastination?*

The second research question was addressed using correlation analysis of scores from both the Multidimensional Perfectionism Scale (15) and the Tuckman Procrastination Scale (41). The aim of using correlation analysis was to determine the degree and direction of the linear relationship between perfectionist traits, as measured on the MPS, and academic procrastination using the TPS. The statistical analyses indicated a significant relation between self-oriented perfectionism and academic procrastination. The results of this finding proposed that the individuals who tended to score higher on self-oriented perfectionism, as measured on the MPS (self-oriented perfectionism subscale score), were more likely to procrastinate. This statistical finding implied that self-oriented perfectionism and academic procrastination had a statistically significant linear relationship, indicating that, for Saudi university students studying in U.S. universities, self-oriented perfectionism and academic procrastination may be characteristics that can exist together. In contrast, no significant relationship among other-oriented perfectionism, socially-prescribed perfectionism, and academic procrastination was found.

Based on the research literature, some studies that have examined the association between self-oriented perfectionist personality and academic procrastination in university students concluded dissimilar results. One study revealed that self-oriented perfectionism and academic procrastination were positively associated (9). However, many studies ascertained a negative association between the self-oriented perfectionism and procrastination (33), (37), and (38).

The finding that indicated a positive correlation was consistent with studies performed among college students identifying that self-oriented perfectionist personality traits and academic procrastination were positively correlated (9). As self-discrepancy theory pointed out, the mismatch between actual performance and the desirable attributes a person would like ideally to possess (actual-ideal discrepancies), from one's self-perspective. actual-ideal discrepancies are characterized by the risk of the absence of positive outcomes and predicted to associate with dejection-related emotions, such as dissatisfaction, disappointment, and frustration due to unfulfilled personal wishes. Based on that, college students with the high self-perfectionist trait (excessive standards for self) can start working on an academic task on time but struggle in moving forward toward completing academic tasks and projects due to their entirely personal judgments that they will not be able to give their best effort and will not be good enough.

Another finding revealed in this study was that other dimensions of perfectionist personality traits (socially prescribed perfectionism and other-oriented perfectionism) and academic procrastination were not significantly related. This finding was consistent with the study findings obtained by (33) among Turkish university students (non-Western culture). In other words, the finding from the present study proposed that students within the study sample who had the actual-ought discrepancy from the standpoint of significant others did not tend to procrastinate. One possible explanation for the none significant association between socially-prescribed perfectionism and academic procrastination may be due to the complexity of the variables and a possible indirect relationship between the variables.

6 Conclusion and Recommendations

This study investigated the relationships between perfectionism, procrastination, and anxiety. The study was designed exclusively for Saudi university students studying in U.S. universities, including students from a diversity of educational levels and

academic majors. Based on the results and limitations of this study, recommendations for future studies can be proposed.

Initially, this study could be replicated with the following considerations: First, longitudinal design. Unlike cross-sectional design, a longitudinal investigation provides insights to comprehend better how these constructs interact over time; second, sample size. Working with a large sample size is generally advantageous, and it could lead to a more accurate and reliable representation of the population it is drawn from; and, third, other multidimensional models of perfectionism.

It is worthwhile for future studies to extend the conceptualization of perfectionism to include a greater understanding of potential racial or ethnic similarities and differences in aspects of perfectionism. By studying a more diverse sample and comparing these variables across groups, different outcomes might shed further light on perfectionism and its relationship to anxiety and procrastination. Regarding procrastination research, a potential focus for future research could include children and adolescents in a longitudinal design that would be expected to provide valuable information regarding the developmental progress of procrastination and to determine any causality relationships. In addition, this research discovered the need for the development of a suitable assessment instrument to assess a person's procrastination tendency. This step would assist with the provision of mental health services that target procrastination as well as other correlated symptoms. Finally, additional research is necessitated in the procrastination assessment area to identify cut-off points or levels in order to judge one's level of dysfunction as well as to guide provided mental health services.

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