Article QR

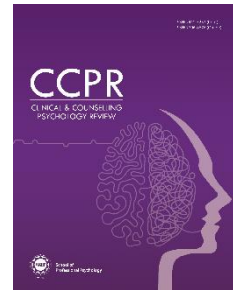|	
Title:	**Perfectionism, Academic Procrastination and Psychological Distress in University Students**
Author (s):	Tania Anwar, and Aisha Sitwat
Affiliation (s):	University of the Punjab, Lahore, Pakistan
DOI:	https://doi.org/10.32350/ccpr.61.01
History	Received: March 27, 2024, Revised: May 11, 2024, Accepted: May 23, 2024, Published: June 28, 2024
Citation:	Anwar, T., & Sitwat, A. (2024). Perfectionism, academic procrastination and psychological distress in university students. *Clinical and Counselling Psychology Review*, *6*(1), 1–24. https://doi.org/10.32350/ccpr.61.01
Copyright:	© The Authors
Licensing:	This article is open access and is distributed under the terms of Creative Commons Attribution 4.0 International License
Conflict of Interest:	Author(s) declared no conflict of interest

Perfectionism, Academic Procrastination and Psychological Distress in University Students

Tania Anwar[*], and Aisha Sitwat

Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan

Abstract

The present study aimed to investigate the relationship between perfectionism and academic procrastination and psychological distress in undergraduate university students. It was hypothesized that maladaptive perfectionism and academic procrastination are likely to predict psychological distress. Further aim of the study was to determine the mediating role of academic procrastination in the relationship between maladaptive perfectionism and psychological distress in undergraduate university students. A correlational research design was employed, using a purposive sampling technique to collect online data. The sample comprised of 244 male and female undergraduate students from both public and private sector universities. Assessment tools included the Almost Perfect Scale-Revised (APS-R), Procrastination Assessment Scale-Students (PASS) and Depression, Anxiety and Stress Scale (DASS-21) were used to measure perfectionism, academic procrastination and psychological distress respectively. The data were analyzed by applying descriptive statistics, reliability analysis, Pearson product correlation, multiple hierarchal regression and mediation analysis. The results showed that maladaptive perfectionism and academic procrastination were positively correlated with psychological distress, whereas adaptive perfectionism had no significant relationship with psychological distress. Moreover, maladaptive perfectionism and academic procrastination emerged as significant positive predictors of psychological distress among undergraduate university students. The main findings of mediation analysis revealed that academic procrastination partially mediated the relationship between maladaptive perfectionism and psychological distress. The result was discussed in the light of previous literature, theoretical and cultural background.

Keywords: academic procrastination, perfectionism, psychological distress.

[*]Corresponding Author: tania.anwar.02@gmail.com

Introduction

The desire to accomplish is a core feature of human life; for its fulfillment, individuals set goals and strive to achieve those ambitions. But when the set goals are unrealistic in nature, individuals may face difficulties in accomplishment of their ambitions. In a collective society where parents expect their children to achieve the best in every domain of life, (Wang et al., 2012) there is a tendency to pursue perfection (Walton et al., 2020). While pursuing perfection and unrealistic goals, one becomes excessively concerned about mistakes and highly self-critical. Consequently, individuals may develop a constant fear of failure and engage in avoidance of tasks which places him in situation of evaluation by others. It eventually paves path towards different maladaptive coping strategies such as procrastination for avoiding such circumstances and tasks which can cause him embarrassment and guilt (Sagar & Stoeber, 2009).

Perfectionism is characterized as phenomenon of struggling for flawlessness and to maintain high standards and excessive scrutiny of one's performance (Hewitt & Flett, 1991). Initially, perfectionism has been mostly conceived as a unidimensional and negative construct related to the negative outcomes, neurotic personality and psychopathology (Missildine, 1963). However, in 1990's, perfectionism was considered as multidimensional construct (Hewitt & Flett, 1991). There are two major approaches to perfectionism. The first one is the group approach of perfectionism based on its facets distributed the perfectionists according to their characteristics into three groups i.e. healthy, non-healthy and non-perfectionists (Stoeber & Otto, 2006).

While the other dimensional approach of perfectionism divides the perfectionism into two domains of adaptive perfectionism and maladaptive perfectionism. Adaptive perfectionism is viewed as a positive and robust form of perfectionism. It involves setting high but achievable goals through hard work and constant efforts, accompanied by deriving satisfaction from efforts in achieving those goals. Another core element of this type of perfectionism is the ability to tolerate imperfections in one's performance without harsh self-criticism (Stoltz & Ashby, 2007). This form of perfectionism is linked to a variety of positive and desired psychological outcomes (Stoeber & Otto, 2006).

Rice and Ashby ([2007](#)) defined maladaptive perfectionism as setting high standards for performance which are accompanied by elevated self-criticism and self-blame in the face of failure. Maladaptive perfectionism is conceptualized as imposition and continuous fear of mistakes, doubt about self-potentials, notion of disgrace and regret (Fedewa et al., [2005](#)). It is associated with negative outcomes which include irrational fears, depression, anxiety, low adjustment, aggression, reduced self-esteem, distress, shame proneness, maladaptive coping and thinking patterns, low academic achievement, procrastination and negative affect (Stoeber & Otto, [2006](#)).

Academic procrastination is characterized as the delay of educational objectives to the degree where ideal execution seems difficult to occur (Ellis & Knaus, [1979](#)). Solomon and Rothblum ([1984](#)) define academic procrastination as the delay in the predominant academic activities which involve exams preparation, completion of semester assignments, weekly reading homework, meeting with the supervisor, attendance and general activities related to the school. Procrastination is a widespread phenomenon influencing a significant portion of both adolescence and adults studying in colleges (almost 95% of college students) and universities (60 % undergraduate students) (Onwuegbuzie & Jiao, [2000](#)).

Psychological distress is described as a constant experience of misery, anxiety, irritability and disturbed relationship with others (Chalfant et al., [1990](#)). Any situation that induces in an individual contrary ruminations and feelings, such as, disappointment, unpleasant, grumpy, distressing, and restlessness is viewed as psychological distress (Kawa & Shafi, [2015](#)).

Considering the existing literature, numerous researches has been conducted on each study variables. A study conducted by Butt ([2010](#)) examined the effect of perfectionism on psychological health of university students in Pakistan. The sample of 323 university students including 144 males and 179 females were surveyed. Results indicated that maladaptive perfectionism had significant positive relationship with psychological distress.

Doyle and Catling ([2022](#)) examined the influence of perfectionism, self-esteem and resilience on young peoples' mental health. The sample of 434 undergraduate university students was surveyed. The regression

analysis revealed that maladaptive perfectionism predisposes the individual to anxiety and depression.

In a similar research Sheppard and Hicks (2017) investigated the relationship between maladaptive perfectionism, trait emotional intelligence and resilience with psychological distress in Australian university students. The study sample comprised of 171 (29 males and 138 females). The correlational analysis revealed a significant positive correlation between maladaptive perfectionism and psychological distress.

Naz et al. (2021) explored the influence of perfectionism and academic motivation on academic procrastination in university students. The sample comprised of 250 students from high ranked universities through random sampling. The result indicated a positive correlation of perfectionism with academic procrastination.

Similarly, Athulya et al. (2016) conducted a study to explore the relationship of perfectionism, coping and academic procrastination with self-esteem, in Indian college students. A sample of 192 college students was selected through convenient sampling. The analyses indicated adaptive perfectionism correlated negatively with academic procrastination. While maladaptive perfectionism was found to be a positive predictor of academic procrastination.

Riaz and Saif (2017) explored the relationship between academic procrastination and stress using mindfulness as mediator. The sample consisted of 385 graduate and undergraduate students aged between 18-26 years. The analysis of study variables revealed highly significant positive correlation of academic procrastination with stress in students.

Maria-Ioanna and Patra (2022) explored the relationship between procrastination and psychological distress. The sample consisted of (N= 138) university students. Results revealed that those who have tendency to procrastinate in general and also in academic obligations reported high depressive symptoms, less life satisfaction and high psychological distress.

According to a study of Blankstein and Dunkley (2002) the relationship between perfectionism and psychological distress is complex in nature. Perfectionist on encountering perceived distressing events involves in poor coping strategies which could explain the mediating relationship between perfectionism and psychological distress.

Sagar and Stoeber (2009) conducted a study on (N= 388) athletes and revealed that perfectionism is a dispositional trait which establishes the stage for characteristics adaption i.e. procrastination which may ultimately lead to psychological distress. Perfectionists often find dissatisfaction in their performance and indulge in negative coping strategies like procrastination to protect them from embracement and guilt. Perfectionists their performance and resort to negative coping strategies like procrastination to shield themselves from embarrassment and guilt.

Maladaptive perfectionists tend to engage in withdrawal, avoidance and procrastination when faced with situations that could lead to loss of status, significance, and disappointment (Bieling et al., 2004). The resultant procrastination destructively influences emotional prosperity of a person and the person becomes more prone to the psychological distress.

This could be validated by relating to longitudinal procrastination study conducted by Tice and Baumeister (1997) which investigated the cost of procrastination on the performance and health of (N=44) health psychology undergraduate students. The results of the study revealed that procrastinators who experienced low stress and great wellbeing toward the start of a semester later reported more nervousness, negative instances, and more ailments toward the finish of the semester.

The literature review indicates that a number of researches have linked perfectionism and procrastination separately to psychological distress. Several researches have evaluated the relationship between perfectionism and academic procrastination; perfectionism and psychological distress; academic procrastination and psychological distress. But there is no currently available research which has studied them together and studied the mediating role of academic procrastination between maladaptive perfectionism and psychological distress. Hence, this study aims to enhance understanding of researchers about direct and indirect paths in these variables.

Objectives of the Study

- To investigate the relationship between perfectionism, academic procrastination and psychological distress in undergraduate university students.

- To find out the predictive relationship of perfectionism and academic procrastination with psychological distress in undergraduate university students.

- To investigate the mediating role of academic procrastination between maladaptive perfectionism and psychological distress.

Hypotheses

H1: There is likely to be positive relationship between maladaptive perfectionism and academic procrastination, and a negative relationship between adaptive perfectionism and psychological distress.

H2: Maladaptive perfectionism and academic procrastination are likely to predict psychological distress in undergraduate university students.

H3: Academic procrastination is likely to mediate the relationship between maladaptive perfectionism and psychological distress.

Method

Research Design

A correlational research design was employed to investigate the relationship among perfectionism, academic procrastination and psychological distress in undergraduate university students.

Sampling Strategy

A purposive sampling strategy was used for participant recruitment based on inclusion and exclusion criteria.

Inclusion Criteria

Undergraduate university students from both public and private sector universities were surveyed in this research. Students who had completed at least their first semester, with their results declared Only students currently enrolled in semesters 2 to 8 were eligible. Additionally, participants needed to have a strong understanding of the English language to engage effectively in the research.

Exclusion Criteria

Students currently enrolled in first semester were not included in the research. Participants suffering from any physical disability or severe diagnosed mental illness were excluded.

Sample

A sample of 244 undergraduate university students was recruited from public and private universities. Participants included students enrolled in semesters 2 to semester 8 across both arts and sciences disciplines. The age of majority of participants ranged between 18-21 years, comprised 52% of sample. While females comprised the majority of the sample (75.4%), demographic characteristics of sample are shown in Table 1:

Demographic Characteristics of the Sample

Table 1

Frequency, Percentages, Mean and Standard Deviation of Demographic Characteristics of Sample (N=244)

Variables	M(SD)	f (%)
Gender		
Male		60 (25)
Female		184 (75)
Age	21.67 (2.33)	
18-21		127 (52)
22-25		97 (40)
26-29		20 (8)
Employment		
Employed		31(13)
Unemployed		213 (87)
Type of employment		
Full Time		16 (6)
Part Time		14 (7)
Unemployed		214 (87)
Type of University		
Private		30 (12)
Government		214 (88)
Area of Subject		
Science		93 (38)
Arts		151(62)
CGPA	3.25 (0.49)	

Variables	M(SD)	f (%)
Family Income		
<30000		63 (26)
30001-60000		68 (28)
60001-100000		81(33)
100001-300000		26 (11)
>300000		6 (2)

Operational Definition

Perfectionism

It is defined as the phenomenon of struggling for flawlessness and maintaining high standards and excessive scrutiny of one's performance (Flett & Hewitt, 2002).

Academic Procrastination

It is defined as the act of needlessly delaying academic tasks to the point of personal discomfort (Solomon & Rothblum, 1984).

Psychological Distress

Psychological distress is anxiousness, loose temper, persistent sad mood, and lack of ability to manage and maintain healthy relations (Belay et al., 2021).

Measures

Demographic Information Sheet

To collect demographic information of the participants, a self-developed demographic information sheet was employed. Information related to age, gender, education, semester, CGPA, family system and family income etc. were taken.

Almost Perfect Scale-Revised

The Almost Perfect Scale was developed by Johnson and Slaney (1996) which was later modified to APSR by Slaney et al. (2001). APSR is a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), consisting of 23 items. APSR consists of three subscales, 'standard' (7 items) which assesses adaptive perfectionism, 'discrepancy' (12 items) which assesses maladaptive perfectionism and 'order'(4 items). Alpha coefficient for APSR total scale ranges from .85 to .92. While for standard

is .82 and for discrepancy .87. In the present study, cronbach alpha of APS-R is .86 with .71 and .81 for standard and discrepancy subscales respectively (Nounopoulos et al., 2006; Slaney et al., 2001).

Procrastination Assessment Scale- Students

To measure frequency of academic procrastination in undergraduate university students PASS 'Frequency of Procrastination' subscale was administered. It consists of 18 items and uses a 5-point Likert scale, ranging from 1 (*never*) to 5 (*always*). The tendency to procrastinate in students relative to following six academic areas of writing term paper, studying for exams, reading assignments, academic administrative tasks, attendance and university general activities were assessed. Higher score on the test reflects higher frequency of procrastination. Alpha coefficient for "Frequency of Procrastination" subscale is .74 and in present study it was .92 (Solomon & Rothblum, 1984).

Depression Anxiety Stress Scale (DASS-21)

DASS is a self-report measure which consists of three subscales depression, anxiety and stress. It measures the depression, anxiety and stress in a person over the course of last week. It has 21 items with 7 items for each subscale. It is 4-point Likert scale with severity level ranging from 0 to 3, where 0 means *did not apply to me at all* and 3 means *applied to me most of the time*. The Cronbach Alpha value for depression, stress and anxiety subscale is .81, .89, and .78 respectively. In the present study the total scale reliability is .93 and for subscale of depression .85, anxiety .80 and for stress .83 are reported (Lovibond & Lovibond, 1995).

Procedure

After approval of the topic from the Departmental Research Committee, permission from the copyrighted authors was taken for the online use of tools in research. Online data was collected through google forms. The questionnaire consisted of demographics sheet which was followed by the study variable scales. The online questionnaire was shared with students from different universities who then helped in data collection by uploading the respective questionnaire on their university sites and groups. The participants were informed about the nature and the purpose of the study and were also asked to provide consent after which they could fill the questionnaires.

The sample comprised of participants from both public and private sector universities. Total sample of 273 participants was approached online but after data scrutiny it was reduced to 244. The forms were discarded on the basis of outliers, inclusion, exclusion criteria and those in which participants had consistently marked the same response to every item.

Result

Correlational Analysis

Pearson product moment correlational analysis was carried out to assess the relationship of demographics and study variables (adaptive perfectionism, maladaptive perfectionism, academic procrastination and psychological distress).

Table 2

Correlation of Demographic Variables, Adaptive Perfectionism, Maladaptive Perfectionism, Academic Procrastination and Psychological Distress (N=244)

Variables	*M*	*SD*	2	3	4	5	6	7	8
1.Age	21.67	2.33	.20**	.038	.12*	-.15	-.07	.04	.05
2.CGPA	3.25	0.49	-	.29**	-.09	-.01	-.12*	.08	-.03
3.Family income low to middle	0.34	0.47		-	-.17**	.07	-.01	.19**	.08
4.Family income low to high	0.05	0.24			-	-.08	-.01	.08	.10
5.Adaptive Perfectionism	39.02	6.03				-	.39**	-.04	.08
6. Maladaptive Perfectionism	56.45	14.15					-	.30**	.52**
7. Academic Procrastination	31.93	9.53						-	.31**
8. Psychological Distress	64.83	29.64							-

Note. $*p<.05; **p<.01$.

The above table indicates that adaptive perfectionism is positively related to maladaptive perfectionism but showed no significant relationship with other two study variables, academic procrastination and psychological distress. Moreover, maladaptive perfectionism showed significant positive correlation with all study variables such as, adaptive perfectionism, academic procrastination and psychological distress. Also, academic procrastination is found to be significantly positively correlated with psychological distress, which shows that an increase in academic

procrastination results in increased psychological distress. The CGPA was found to be only significantly negative correlated with maladaptive perfectionism, which means increase in maladaptive perfectionism would result in lower CGPA (academic achievement).

Regression Analysis

The hierarchal regression analysis using forward method was conducted out to find out the possible predictors of psychological distress in undergraduate university students.

Table 3

Hierarchal Regression Analysis Predicting Psychological Distress from Semester, Family Income, Maladaptive Perfectionism and Academic Procrastination (N=244)

Variables	Psychological Distress	
	Model 1	Model 2
	B	B
Semester 2 and 3	0.17*	0.08
Semester2 and 4	-0.04	-0.02
Semester 2 and 5	0.14	0.06
Semester 2 and 6	0.13	0.11
Semester 2 and 7	0.09	0.52
Semester 2 and 8	0.14	0.11
Family income low to middle	0.09	0.08
Family income low to high	0.11	0.10
Maladaptive Perfectionism		0.46***
Academic Procrastination		0.12*
ΔR^2	.08	.25
R^2	.07	.30

Note. *$p<.05$. ***$p<.001$.

There was no multicollinearity reported among variables as the VIF value was below 3 and was far away from 10. The tolerance values for all the variables were reported nearly close to 1, which indicates the absence of multi collinearity and also the Durbin-Watson value was 1.91. In the first

model, dummy variables of semester and family income were added. Only the dummy variable semester 2 and 3 was found to be a significant positive predictor of psychological distress. The overall first model of covariates is found to be significant $F(8,235)= 2.54$, $p< .01$ explaining 8% variance in psychological distress. In the second model, maladaptive perfectionism and academic procrastination were added as predictors and both were found to be significant positive predictors of psychological distress. The second model after controlling covariates was also found to be significant $F(10,233)= 11.34$, $p< .001$ explaining 25% variance in psychological distress.

Mediation Analysis

Mediation analysis was carried to test the mediation hypothesis of the present study. It was hypothesized that maladaptive perfectionism and academic procrastination are likely to predict psychological distress in undergraduate university students. Secondly, it was hypothesized that academic procrastination is likely to mediate the relationship between maladaptive perfectionism and psychological distress. The statistical procedure of Baron and Kenny (1986) was used for mediation analysis in the present study.

Table 4

Series of Regression Analyses for Mediation Analysis (Academic Procrastination as Mediator between Maladaptive Perfectionism and Psychological Distress)

Predictors	Constant	R	R^2	ΔR^2	B	β	t	p
Taking psychological distress as outcome variable								
Maladaptive Perfectionism	3.56	.51	.27	.27	1.08	.51	9.434	.001
Taking academic procrastination as outcome variable								
Maladaptive Perfectionism	20.35	.30	.09	.09	0.20	.30	4.935	.001
Taking psychological distress as outcome variable								
Step 1 Academic Procrastination	31.62	.38	.14	.14	0.82	.26	4.125	.001

Predictors	Constant	R	R^2	ΔR^2	B	β	t	p
Step 2								
Academic Procrastination	-8.93	.54	.29	.19	0.37	.12	2.023	.044
Maladaptive Perfectionism	-8.93				0.97	.46	7.991	.001

The analysis showed that maladaptive perfectionism significantly positively predicts [F (1,242) =88.95, $p<.001$] psychological distress explaining 27% of variance ($\Delta R^2=.27$) in it. The second analysis showed that maladaptive perfectionism also significantly positively predicts [$F(1,242)= 24.35$, $p<.001$] academic procrastination explaining 9% variance ($\Delta R^2 =.09$) in psychological distress.

In the third analysis multiple hierarchal regression was performed. In step one covariates and academic procrastination were added. Only semester 2 and 3 and academic procrastination were found to be significant predictors of psychological distress. Overall, model 1 was significant [$F(9,234)= 4.31$,$p<.001$]. Model 1 explained 14% ($\Delta R^2 =.14$) of variance in psychological distress. In the second step of multiple hierarchal regression, after controlling covariates and academic procrastination, maladaptive perfectionism significantly positively predicted psychological distress [$F(10,233)= 11.33$, $p<.001$] explaining 19% ($\Delta R^2=.19$) variance in it. Slight decrease in standardized beta values (from .51 to .46) indicated that academic procrastination partially mediated the relationship between maladaptive perfectionism and psychological distress.

Discussion

The present study aimed to investigate the relationship of perfectionism (adaptive and maladaptive), and academic procrastination with psychological distress in undergraduate university students. Additionally, the study sought to find out the mediating role of academic procrastination between maladaptive perfectionism and psychological distress. In this chapter major findings of the present study will be discussed in the light of previous literature, theories and cultural context.

A sample of 244 undergraduate students of different universities participated in the study with a mean age of $M = 21.7$, $SD= 2.33$ years. The sample included both male and female students from 2nd to 8th semesters of

BS (Hons) programs from both arts and science departments of both public and private sector universities. Students of first semester were excluded from the study due to the transition challenges they face when moving from college to university, which can impact their psychological health and academic performance (March-Amengual, 2022).

Majority of the respondents were females and were from the public sector universities. Most participants came from nuclear family system. Of the total study sample, only 31 participants were employed whereas the majority of the sample was unemployed and financially dependent on their parents or guardians. In Pakistani society, majority of children do not take financial responsibility of their studies till graduation and rely on their parents for their expenditures. The data also included students from varied financial background from low income to high income group. This diversity is advantageous, as previous research indicates that collecting data from high-fee-paying universities can be challenging due to institutional restrictions. The online data collection method allowed for the inclusion of participants from higher economic groups. As in literature it is reported that socio-economic status of parents in collectivistic societies plays a crucial role in academic performance and achievement of students (Abid et al., 2021).

The reliability of tools used in this research are good to excellent as all reported cronbach alpha values were above .71. This indicates confidence in the interpretation of results (Ursachi et al., 2015).

The first hypothesis of this study proposed a positive relationship between maladaptive perfectionism and academic procrastination, and negative relationship between adaptive perfectionism and psychological distress in undergraduate university students. Findings reflect that this hypothesis is partially supported as maladaptive perfectionism and academic procrastination were significantly positively related with psychological distress however, the relationship of adaptive perfectionism with psychological distress was not significant.

A significant positive relationship between maladaptive perfectionism and psychological distress aligns with findings reported by Sagar and Stober (2009) in their study. They explained that maladaptive perfectionists, who set high standards and often unrealistic goals, engage in self-criticism while striving for goals and try their best to avoid evaluation. Such individuals do

not get satisfied from their work and eventually involve in unhealthy and negative coping strategies i.e. procrastination to protect themselves from embarrassment and guilt which eventually results in distress. There are also number of other studies (Butt, 2010; Kawamura & Frost, 2004; Sheppard & Hicks, 2017) which are in accordance with present study finding of positive relation of maladaptive perfectionism with psychological distress. The positive relationship between maladaptive perfectionism and psychological distress can also explained be through collectivist society reference. As Hofstede (2001) suggested, in collectivist societies like Pakistan, emphasis is put on group perspectives, needs, objectives, rather than on the individual. Consequently, individuals may set high standards and difficult goals in pursuit of group acceptance and approval. When they face challenges in achieving these goals, they tend to become highly self-critical, which can lead to psychological distress. Similarly, the collectivistic values such as advice and harmony also put individual at a greater risk of maladaptive perfectionism (Truong, 2022).

The academic procrastination also showed positive correlation with psychological distress in the present study. This finding is in line with literature as Beutel et al. (2016) reported that individuals with procrastination tendency usually keep on procrastinating their academic tasks but when such individuals cannot meet deadlines, they experience elevated level of stress and anxiety. A few other studies (Constantin, et al., 2018; Farran, 2004) also reported similar findings.

In the present study maladaptive perfectionism and academic procrastination both are found to be significant positive predictors of psychological distress. This finding is aligned with the previous researches in which maladaptive perfectionism is found to be significant positive predictor of psychological distress (James et al., 2015; Sheppard & Hicks, 2017; Smith et al., 2015). An indigenous study conducted by Butt (2010) also reported similar findings among university students. Furthermore, the present study suggests that individuals who consistently procrastinate on academic tasks are likely to experience increased psychological distress as deadlines for various assignments approach. A number of researches (Beutel et al., 2016; Constantin et al., 2018; Farran, 2004; Maria-Ioanna & Patra, 2022; Riaz & Saif, 2017) have reported the same result.

The third hypothesis posited that academic procrastination is likely to mediate the relationship between maladaptive perfectionism and

psychological distress. This hypothesis was partially supported as academic procrastination was found to partially mediate the relationship between maladaptive perfectionism and psychological distress. It indicates that academic procrastination explains the association between maladaptive perfectionism and psychological distress. It is aligned with the Bieling et al. (2004) proposal of association among maladaptive perfectionism, academic procrastination and psychological distress. They suggested that maladaptive perfectionists, when faced with situations that threaten their sense of significance or status, may resort to negative coping strategies such as procrastination, avoidance, and withdrawal. As in academic context, the feelings of significance and status, happiness and disappointment are linked with various academic activities such as exams, assignments and projects. To protect themselves, maladaptive perfectionists may engage in coping strategies which can cause distress in them.

It is also important to consider that the online data collection method may have influenced the findings. Individuals with higher tendencies to procrastinate might have also delayed completing the questionnaires or opted not to participate in the study, potentially limiting the data and contributing to the lower mediation effect observed. Collecting data in person might yield a stronger mediation effect of academic procrastination in the relationship between maladaptive perfectionism and psychological distress.

In the present study, academic achievement was conceptualized as a covariate and measured through CGPA but academic achievement showed no significant relationship with psychological distress. CGPA did not correlate with any other demographic or study variables except for maladaptive perfectionism. The correlation analysis revealed a negative relationship between CGPA and maladaptive perfectionism, indicating that an increase in maladaptive perfectionism is associated with lower academic achievement (CGPA). As Madigan (2019) suggested that a person with maladaptive perfectionism is likely to spend more time in planning and executing attempts for his goal achievement and is more self-critical. These characteristics may hinder his struggle and result in low achievement. This finding is well supported in the literature (Eum & Rice, 2011; Park, 2020).

Conclusion

The present study contributes to the empirical evidence that maladaptive perfectionism and academic procrastination are significant positive predictors of psychological distress in undergraduate university students. It means that setting high standards, unrealistic goals and procrastinating in academic tasks may lead to increased psychological distress in students. Additionally, the study found that academic procrastination partially mediates the relationship between maladaptive perfectionism and academic procrastination adding new empirical evidence to the existing body of knowledge. The elevated level of anxiety, stress and depression in undergraduate university students were also reported. These findings suggest for educational and training program in universities to help students in setting achievable goals and overcoming procrastination problem. The reported levels of psychological distress among students also calls for intervention programs to help them manage stress and anxiety effectively.

Implications

The findings of the study suggest that maladaptive perfectionism and academic procrastination both predict psychological distress; however, academic procrastination only partially mediates the relationship between maladaptive perfectionism and psychological distress. Hence, the present study is significant in theoretical term as it indicated an indirect pathway between maladaptive perfectionism and psychological distress through academic procrastination and added empirical evidence to existing body of knowledge.

Keeping in mind the significant prediction of psychological distress, university-based education and training program should be developed to encourage and enable the students in setting realistic standards and goals. Furthermore, it would also help in lowering the decimals of their academic procrastination and eventually overcoming it.

Moreover, the present study provides empirical evidence that university students are at risk of psychological distress so intervention programs should be arranged at educational institutes to create awareness regarding negative impact of maladaptive perfectionism and procrastination.

Limitations and Suggestions

The online data collection may have limited the findings of current research. Future research could be replicated with onsite data collection to gain a more comprehensive understanding. Moreover, the majority of the present study participants were females and only a small number of male participants participated in research which lowers the generalizability of present study findings in context to gender. Hence, the further researches can be conducted with equal gender participation.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

References

Abid, A., Jan, A., Khan, I. U., Zeb, A., & Ahmad, M. (2021). Role of parental socioeconomic status on their children's education at district Mardan of Khyber Pakhtunkhwa, Pakistan. *Geografia*, *17*(2), 93–101. https://doi.org/10.17576/geo-2021-1702-08

Athulya, J., Sudhir, P. M., & Philip, M. (2016). Procrastination, perfectionism, coping and their relation to distress and self-esteem in college students. *Journal of the Indian Academy of Applied Psychology*, *42*(1), 82–91.

Belay, A. S., Guangul, M. M., Asmare, W. N., & Mesafint, G. (2021). Prevalence and associated factors of psychological distress among nurses in public hospitals, Southwest, Ethiopia: A cross-sectional study. *Ethiopian Journal of Health Sciences*, *31*(6), 1247–1256. https://doi.org/10.4314/ejhs.v31i6.21

Beutel, M. E., Klein, E. M., Aufenanger, S., Brähler, E., Dreier, M., Müller, K. W., Quiring, O., Reinecke, L., Schmutzer, G., Stark, B., & Wölfling, K. (2016). Procrastination, distress and life satisfaction across the age range–a German representative community study. *PLOS ONE*, *11*(2), Article e0148054. https://doi.org/10.1371/journal.pone.0148054

Bieling, P. J., Summerfeldt, L. J., Israeli, A. L., & Antony, M. M. (2004). Perfectionism as an explanatory construct in comorbidity of axis I disorders. *Journal of Psychopathology and Behavioral Assessment*, *26*, 193–201. https://doi.org/10.1023/B:JOBA.0000022112.27186.98

Blankstein, K. R., & Dunkley, D. M. (2002). Evaluative concerns, self-critical, and personal standards perfectionism: A structural equation modeling strategy. In G. L. Flett, & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 285–315). American Psychological Association.

Butt, F. M. (2010). The role of perfectionism in psychological health: A study of adolescents in Pakistan. *Europe's Journal of Psychology*, *6*(4), 125–147. https://doi.org/10.5964/ejop.v6i4.227

Chalfant, P. H., Heller, P. L., Roberts A., Briones, D., Aguirre-Hochbaum, S., & Farr, W. (1990). The clergy as a resource for those encountering psychological distress. *Review of Religious Research*, *31*(1), 305–313. https://doi.org/10.2307/3511620

Constantin, K., English, M. M., & Mazmanian, D. (2018). Anxiety, depression, and procrastination among students: Rumination plays a larger mediating role than worry. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *36*(1), 15–27. https://doi.10.1007/s10942-017-0271-5

Doyle, I., & Catling, J. C. (2022). The influence of perfectionism, self-esteem and resilience on young people's mental health. *The Journal of Psychology*, *156*(3), 224–240. https://doi.org/10.1080/00223980.2022.2027854

Ellis, A., & Knaus, W. J. (1979). *Overcoming procrastination*. Signet.

Eum, K., & Rice, K. G. (2011). Test anxiety, perfectionism, goal orientation, and academic performance. *Anxiety, Stress, & Coping*, *24*(2), 167–178. https://doi.org/10.1080/10615806.2010.488723

Farran, B. (2004). Predictors of academic procrastination in college students. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 65*(3-B), Article e1545.

Fedewa, B. A., Burns, L. R., & Gomez, A. A. (2005). Positive and negative perfectionism and the shame/guilt distinction: Adaptive and maladaptive characteristics. *Personality and Individual Differences*, *38*(7), 1609–1619. https://doi.10.1016/j.paid.2004.09.026

Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett, & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5–31). American Psychological Association. https://doi.10.1037/10458-001

Hewitt, P. L., & Flett, G. L. (1991). Dimensions of perfectionism in unipolar depression. *Journal of Abnormal Psychology*, *100*(1), 98–101. https://doi.10.1037/0021-843X.100.1.98

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.

James, K., Verplanken, B., & Rimes, K. A. (2015). Self-criticism as a mediator in the relationship between unhealthy perfectionism and distress. *Personality and Individual Differences*, *79(1)*, 123–128. https://doi.10.1016/j.paid.2015.01.030

Johnson, D. P., & Slaney, R. B. (1996). Perfectionism: Scale development and a study of perfectionistic clients in counseling. *Journal of College Student Development*, *37*(1), 29–41.

Kawa, M. H., & Shafi, H. (2015). Evaluation of internet addiction and psychological distress among university students. *International Journal of Modern Social Sciences*, *4*(1), 29–41.

Kawamura, K. Y., & Frost, R. O. (2004). Self-concealment as a mediator in the relationship between perfectionism and psychological distress. *Cognitive Therapy and Research*, *28*(2), 183–191. https://doi.10.1023/B:COTR.0000021539.48926.c1

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck depression and anxiety inventories. *Behavior Research and Therapy*, *33*(3), 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

Madigan, D. J. (2019). A meta-analysis of perfectionism and academic achievement. *Educational Psychology Review*, *31*(1), 967–989. https://doi.10.1007/s10648-019-09484-2

March-Amengual, J., Badii, I. C., Casas-Baroy, J., Altarriba, C., Company, A. C., Pujol-Farriols, R., Baños, J., Galbany-Estragués, P., & Cayuela, A. C. (2022). Psychological distress, burnout, and academic performance in first year college students. *International Journal of Environmental Research and Public Health*, *19*(6), Article e3356. https://doi.org/10.3390%2Fijerph19063356

Maria-Ioanna, A., & Patra, V. (2022). The role of psychological distress as a potential route through which procrastination may confer risk for reduced life satisfaction. *Current Psychology*, *41*(5), 2860–2867. https://doi.org/10.1007/s12144-020-00739-8

Missildine, W. H. (1963). *Your inner child of the past*. Simon & Schuster.

Naz, S., Hassan, G., & Luqman, M. (2021). Influence of perfectionism and academic motivation on academic procrastination among students. *Journal of Educational Sciences & Research*, *8*(1), 13–20.

Nounopoulos, A., Ashby, J. S., & Gilman, R. (2006). Coping resources, perfectionism, and academic performance among adolescents. *Psychology in the Schools*, *43*(5), 613–622. https://doi.10.1002/pits.20167

Onwuegbuzie, A. J., & Jiao, Q. G. (2000). I'll go to the library later: The relationship between academic procrastination and library anxiety. *College & Research Libraries*, *61*(1), 45–54. https://doi.10.5860/crl.61.1.45

Park, Y., Heo, C., Kim, J. S., Rice, K. G., & Kim, Y. H. (2020). How does perfectionism affect academic achievement? Examining the mediating role of accurate self-assessment. *International Journal of Psychology*, *55*(6), 936–940. https://doi.org/10.1002/ijop.12659

Riaz, S., & Saif, A. (2017). Relationship between academic procrastination and stress: Mediating role of mindfulness among university students. *Pakistan Journal of Languages and Translation Studies*, *74*(1), 74–86.

Rice, K. G., & Ashby, J. S. (2007). An efficient method for classifying perfectionists. *Journal of Counseling Psychology*, *54*(1), 72–85. https://doi.org/10.1037/0022-0167.54.1.72

Sagar, S. S., & Stoeber, J. (2009). Perfectionism, fear of failure, and affective responses to success and failure: The central role of fear of experiencing shame and embarrassment. *Journal of Sport and Exercise Psychology*, *31*(5), 602–627. https://doi.10.1123/jsep.31.5.602

Sheppard, L., & Hicks, R. E. (2017). Maladaptive perfectionism and psychological distress: The mediating role of resilience and trait emotional intelligence. *International Journal of Psychological Studies*, *9*(4), 65–75. https://doi.10.5539/ijps.v9n4p65

Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The revised almost perfect scale. *Measurement and Evaluation in Counseling and Development*, *34*(3), 130–145. https://doi.10.1080/07481756.2002.12069030

Smith, M. M., Saklofske, D. H., & Yan, G. (2015). Perfectionism, trait emotional intelligence, and psychological outcomes. *Personality and Individual Differences*, *85*(1), 155–158. https://doi.10.1016/j.paid.2015.05.010

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, *31*(4), 503–509. https://doi.10.1037/0022-0167.31.4.503

Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality & Social Psychology Review*, *10*(4), 295–319. https://doi.10.1207/s15327957pspr1004_2

Stoltz, K., & Ashby, J. S. (2007). Perfectionism and Lifestyle: Personality differences among adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. *Journal of Individual Psychology*, *63*(4), 414–423.

Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science*, *8*(6), 454–458. https://doi.10.1111/j.1467-9280.1997.tb00460.x

Truong, L. (2022). *How culture affects perfectionism* (Publication No. 28418795) [Doctoral dissertation, The Chicago School of Professional Psychology]. ProQuest Dissertations & Theses.

Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance*, *20*(1*)*, 679–686. https://doi.10.1016/S2212-5671(15)00123-9

Walton, G. E., Hibbard, D. R., Coughlin, C., & Coyl-Shepherd, D. D. (2020). Parenting, personality, and culture as predictors of perfectionism. *Current Psychology*, *39*, 681–693. https://doi.org/10.1007/s12144-018-9793-y

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a knowledge base for school learning. *Review of Educational Research*, *63*(3), Article e249. https://doi.org/10.3102/00346543063003249