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Academic Procrastination in High School Students: An Exploratory Study

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Abstract

Academic procrastination is a common phenomenon among school students that affects their academic performance and mental health. This study explored correlations between academic procrastination, test anxiety, academic achievement and satisfaction with study among high school students. The sample consisted of 480 students (mean age was 17.02 years) selected from four high schools in Jordan. The variables of the study were measured using an academic procrastination scale, a test anxiety scale, a single-item question for assessment of satisfaction with study, and GPA as a measure of academic achievement. The results revealed that procrastination positively and significantly correlated with test anxiety. Additionally, there were negative and significant correlations between procrastination and each of academic achievement and satisfaction with study. Likewise, there were negative and significant correlations between test anxiety and each of academic achievement and satisfaction with study. On the other hand, academic achievement positively and significantly correlated with satisfaction with study. Based on the results of this study, school counselors should help procrastinating students manage their time effectively, so that they get better academic results and reduce their test anxiety.

Keywords: Academic Procrastination, Test Anxiety, Achievement, Satisfaction with Study, Academic Performance.

Introduction

Postponement of tasks could be sometimes necessary and unavoidable. Most individuals find themselves obliged, from time to time, to put off their tasks until later, and to make some changes in their work plans. However, some people frequently delay completing their tasks, which makes them feel guilty mainly due to wasting time and, as a consequence, missing opportunities. This frequent postponement is recognized as a widespread problem and termed as procrastination.

Procrastination has been defined as a tendency to delay assignments and tasks that should be completed (Lay, 1986). Some researchers described procrastination as a self-regulation failure (Rebetez et al., 2018). Ellis and Knaus (1977) viewed procrastination as a habit or trait, stemming largely from self-defeating thoughts. They labeled it as the act of delaying task completion to the point of experiencing subjective discomfort. This delay may be a tactic to protect a vulnerable self-esteem (Burka & Yuen, 1983). By avoiding task completion, procrastinators' actual inability at the task cannot be tested; doing so they may maintain an illusion concerning their task ability (Ferrari, 1994). That is, it is better for them to do nothing than risk failure and look foolish (Ferrari, 1992).

Ellis and Knaus (1977) presented some interpretations of procrastination behavior: First, it may

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be a reaction to fear of failure or rejection. Second, it may be viewed as resulting from one's unwillingness to act on unpleasant or difficult tasks. Third, it may be viewed as a response to unfair treatment by others toward oneself. Consequently, the causes of procrastination may be different from one individual to another.

Academic procrastination has received a lot of interest from researchers, because of its negative consequences for many students, and the availability of students for research and treatment (Milgram et al., 1992). Rothblum et al. (1986) defined academic procrastination as the (a) self-reported tendency to put off academic assignments nearly always or always and (b) to experience nearly always or always problematic levels of anxiety related to this procrastination. They considered that self-reported procrastination must include both frequent delay and considerable anxiety. A study by Abu-Zreik and Jaradat (2013) examined the effects of modification of negative self-statements (MNSS) producing procrastination on reducing academic procrastination and enhancing academic self-efficacy in a sample of tenth grade students. Their results revealed that MNSS was significantly more effective in reducing procrastination and enhancing self-efficacy than no treatment at post and follow-up assessments.

Procrastinators delay in beginning or completing academic assignments until a later date (Ferrari et al., 1995). For example, rather than studying regularly, they begin studying late for exams, meaning that they begin studying later than it would be optimal. Milgram et al. (1988) suggested that this delay might be because their study behavior doesn't accord with their stated intentions, or because their intention to begin studying is postponed. Accordingly, both an intention-behavior discrepancy and a lack of promptness in intending to perform and performing study tasks may be observed. Furthermore, procrastinators are easily distracted toward activities other than studying (e.g., recreational or sport activities) (Ferrari et al., 1995). On the other hand, it has been found that there are differences between academic procrastinators in their attribution of academic performance. High procrastinators attribute their good test performance to luck or situational factors (external attributions), whereas low procrastinators attribute success on a test to effort or ability (internal attributions) (Rothblum et al., 1986).

Literature Review

Delaying academic assignments is a common practice among college students. A study by Solomon and Rothblum (1984) revealed that 46% of college students procrastinated on term papers, 30% on reading assignments, and 27% on exam preparation. The majority of these students reported that procrastination caused problems for them. Similarly, Onwuegbuzie (2004) found that between 40% and 60% of graduate students reported some level of procrastination on writing a term paper, keeping up with weekly reading assignments and studying for examinations. Özer et al. (2009) documented that 52% of students self-reported frequent academic procrastination. Another study by Abu Ghazal (2012) investigated the prevalence and causes of academic procrastination in 751 undergraduate students, his study found that that 21.6% of participants exhibited a high level of procrastination, and that fear of failure as a main reason for academic procrastination.

A variety of studies supported links between procrastination and personality variables among college students. A study by Carden et al. (2004) investigated locus of control and academic procrastination among college students. Results of their study indicated that internally oriented students showed significantly lower academic procrastination than externally oriented students. Another study by Rothblum et al. (1986) indicated that high procrastinators, particularly women, were significantly more likely than were low procrastinators to report more test anxiety, weekly

state anxiety, and weekly anxiety-related physical symptoms. A study by Lay (1986) found that procrastination was strongly correlated with organization and neurotic disorganization in university students. The relationship of procrastination with self-esteem was also investigated, Ferrari (1991) found that Female procrastinators self-reported significantly lower self-esteem than female nonprocrastinators. In a study by Ferrari and Díaz-Morales (2014), investigated also procrastination by students, they found that procrastinators compared to non-procrastinators reported lower positive actions and expression of feelings/needs. Boysan and Kiral (2017) reported that personality traits of agreeableness, conscientiousness and organization were inversely associated with procrastination behavior in young adults.

Several studies also suggest that procrastination is associated with negative academic outcomes among college students. For instance, Eun Hee (2011) found a relationship between procrastination and academic achievement in Korean undergraduates. Another study by Sæle et al. (2017) explored the relationships between learning approach, procrastination and academic achievement in university students. They found that less procrastination was associated with a strategic learning approach. Cerino (2014) found significant correlations between academic procrastination and 3 types of intrinsic, 1 type of extrinsic academic motivation and self-efficacy among college students. In addition, Howell and Watson (2007) found that procrastination related negatively to a mastery-approach goal orientation and positively to a mastery-avoidance goal orientation. Additionally, they reported that procrastination related to greater disorganization and less use of cognitive and meta-cognitive strategies. A study by Abu Ghazal et al. (2013) investigated the relationship of goal orientations to academic procrastination among 641 college students. The results of their study showed that academic procrastination positively correlated with the performance-avoidance orientation, and negatively with the mastery orientation. A study by Collins et al. (2008) examined the relationship between reading ability and academic procrastination in graduated students. Results of their study indicated that reading ability significantly correlated with procrastination associated with writing a term paper, performing administrative tasks, attending meetings, keeping up with weekly reading assignments, and performing academic tasks. Another study by Martinie et al. (2022) predicted variations in academic procrastination by achievement goals and learning strategies. The results of their study revealed that the variance in procrastination was predicted positively by avoidance goals and negatively by effort regulation management.

With regard to studies on procrastination in school students, a recent study by Jaradat (2024) investigated the relationship of academic procrastination to coping strategies with test anxiety and explored the differences in using these strategies between procrastinators and non-procrastinators. The results of the study found that academic procrastination positively correlated with anxiety repression and situation control, and negatively correlated with anxiety and danger control. It was also found that procrastinators used more strategies of anxiety repression and situation control, whereas non-procrastinators used more strategies of danger control and anxiety control.

It is clear that the scientific studies investigating the correlates of academic procrastination among school students are lacking. Most researchers were interested in examining the variables related to procrastination in college students. Hence, the purpose of this study is to investigate the relationships between academic procrastination, test anxiety, academic performance and satisfaction with study in a sample of Jordanian high school male students. The research questions were as follows:

- (1) Is there a significant relationship between academic procrastination and test anxiety?
- (2) Is there a significant relationship between academic procrastination and academic performance?
- (3) Is there a significant relationship between academic procrastination and satisfaction with study?
- (4) Is there a significant relationship between test anxiety and academic performance?
- (5) Is there a significant relationship between test anxiety and satisfaction with study?
- (6) Is there a significant relationship between academic performance and satisfaction with study?

Method

Participants

Participants were 480 high school students (232 males, 248 females) attending four public schools in the northern part of Jordan. The participants were selected using systematic random sampling method. They were in grades from 10 to 12. Forty students were selected from each grade in each school. The participants' mean age was 17.02 years (SD= 0.83).

Instruments

Academic procrastination was measured by using a short form of the Aitken Procrastination Inventory (API) (Aitken, 1982, as cited in Jaradat 2024). In his study, Jaradat (2024) translated the API from English into Arabic, and used a short form of it as a measure of academic procrastination. This same short form of the API was used in the present study. The short form of the API consisted of 11 items. A sample item: "I delay starting things until the last minute". Responses were rated along a five-point scale from 1 (almost never true) to 5 (almost always true). The higher the participants' scores the higher the participants' procrastination levels. Cronbach alpha for the inventory in this study was $=.77$. Corrected item total correlations ranged from 0.41 to 0.57.

Test anxiety was measured using the general test anxiety scale, developed by Rost and Schermer (1997, as cited in Jaradat 2019). This scale was translated from German into Arabic by Jaradat (2019), and used as a measure of test anxiety in his study. This scale consisted of 24 items. An example item: "When I get anxious my hands sweat". Responses were rated along a five-point scale from 1 (almost never true) to 5 (almost always true). The higher the participants' scores the higher the participants' anxiety levels. Cronbach alpha for the inventory in this study was $.89$. Corrected item total correlations ranged from 0.31 to 0.55.

GPA was used as a measure of academic achievement and was assessed by self-report. The GPA ranged from 1 (lowest) to 4 (highest). Satisfaction with study was assessed by a single-item scale. The item was rated using a five-point scale ranging from 1 (not at all satisfied) to 5 (very satisfied).

Procedure

After obtaining the approval from the ministry of education of Jordan, the scales were administered to a sample of students selected from four schools. Data were collected in classrooms by the researcher. The participants needed about 15 minutes to complete the

inventories.

Results

Table 1 presents the mean score for each scale. The relationships between the variables included in this study were assessed by calculating Pearson product moment correlation coefficients. As noted from the table, there was a significant positive correlation between academic procrastination and general test anxiety ($r = .35$), and there were significant negative correlations between academic procrastination and GPA ($r = -.20$), and between academic procrastination and satisfaction with study ($r = -.32$). On the other hand, test anxiety negatively correlated with each of GPA ($r = -.27$), and satisfaction with study ($r = -.26$); whereas GPA positively correlated with satisfaction with study ($r = .22$).

Scale	M	SD	Procrastination	Test anxiety	GPA	Satisfaction with Study
Procrastination	2.84	0.57	-			
Test-anxiety	2.54	0.61	.35*	-		
GPA	2.56	1.00	-.20*	-.27*	-	
Satisfaction with Study	3.09	1.02	-.32*	-.26*	.22*	-

Table 1. Mean Scores and Correlation Coefficients Across Self-Reported Measures

* $p < .01$

Discussion

The present study indicated that there were significant correlations between academic procrastination, test anxiety, academic achievement and satisfaction with study. These results are in line with those of studies conducted in similar settings. However, given the main focus of the study was on the relationship of procrastination with the other variables, particular attention is paid to this issue in discussing the results.

The results revealed that there was a positive correlation between procrastination and general test anxiety. This is consistent with a study by Solomon and Rothblum (1984), which found that fear of failure, as a reason for procrastination significantly correlated with trait anxiety. Also, the finding is consistent with a study by Rothblum et al. (1986), who reported that high procrastinators experienced high and stable levels of general anxiety, and also had more test anxiety. Thus, the relationship between procrastination and general test anxiety is clearly positive, indicating that high procrastination goes together with high-test anxiety and vice versa.

A negative correlation was found between procrastination and GPA, indicating that procrastination accompanies poor academic performance. In this respect, the results of the present study did not support those of Solomon and Rothblum (1984), who found that course grade was not significantly correlated with self-reported procrastination. They attributed the lack of correlation between self-reported procrastination and course grade to the measure of academic performance, which was based only on students' grades in a course. However, the results of this study supported those of Rothblum et al. (1986), who found a significant negative correlation between procrastination and grade point average. Moreover, the present study showed a negative correlation between procrastination and satisfaction with study. Students who delay completing their tasks are less satisfied with their studies than those who complete their tasks in time.

Limitations and Directions for Future Research

This study is not without limitations. First, the participants in this study were all selected from three grades. Therefore, future research is needed to replicate the results of this study in other samples include different grade levels. The second limitation of this study is that the cross-sectional, correlational design limited the extent to which cause-effect relationships can be inferred from the results. As a consequence, the findings should be explained with caution.

However, future studies can examine the relationships between academic procrastination, test anxiety, academic achievement, and satisfaction with academic achievement among students in younger grades, as well as the effectiveness of treatment programs in reducing academic procrastination and test anxiety and improving academic achievement among high school students, given that the results of this study showed that there are significant relationships between these variables.

Conclusion

Given that procrastination by students is significantly correlated with several academic variables, treating procrastination would result in positive effects on the general academic status of these students as well as on their mental health. Thus, it is of utmost importance that school counselors focus on helping procrastinators learn how to manage their time effectively and how to identify and change procrastination-causing thoughts.

Data Availability Statement

The de-identified dataset and materials associated with this article are available from the corresponding author upon reasonable request.

Disclosure Statement:

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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