

Evaluating the Frequency of Academic Procrastination and Associated Factors in the Academic Population

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Abstract

Background: There are few people who do not delay in their daily lives. Procrastination behavior is a very common problem we face in also academic life.

Aim: In this study we aimed to elucidate the frequency of academic procrastination and associated factors in the academic population.

Method: This study includes 306 volunteer participants who work as professors, associate professors, doctors, lecturers, research assistants and lecturers at Balıkesir University. Aitken Academic Procrastination Scale, Spielberg State-Trait Anxiety Scale, Brief Symptom Inventory, Rosenberg Self-Esteem Scale and Hewitt Multidimensional Perfectionism Scale were applied to all participants. The sociodemographic data form and all the other scales were filled in by the participant himself.

Results: According to the findings of the study, the frequency of academic procrastination in the academic population is %48. Among the socio-demographic variables; age and academic duration were found to be associated with academic delay. The groups with high academic procrastination were found to have higher levels of state-trait anxiety; mental symptoms such as depression and somatization were found more common. A negative relationship was determined between self-focused perfectionism and academic procrastination in the academic population.

Conclusion: This research was a pioneer study conducted in the academic population compared to previous literature. Regarding the outcomes one can conclude that seniority in academic profession and age has positively affected the endurance of the individual while tendency to anxiety and self-focused perfectionism increased procrastination behavior.

Keywords: Academic Procrastination, Depression, Anxiety, Perfectionism.

INTRODUCTION

Procrastination is a consequence of choices. This decision often persists despite numerous opportunities to modify the existing model (1). The behavior of procrastination, which is initially pleasant for the person; becomes a habit accompanied by emotional anxiety, worry, feelings of inadequacy and unhappiness over time (2).

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Postponement is handled in two parts; the first is "procrastination as a personality trait" or "chronic procrastination" and the second is "situational procrastination" (3). Procrastination as a personality trait can be shown in many areas, which can cause feelings of inadequacy and helplessness in the process of coping with his environment, compulsive procrastination, procrastination, and neurotic procrastination. Situational procrastination occurs in certain periods of life, is not typical, is less common than procrastination, which is seen as a personality trait, and has two sub-dimensions: general procrastination and academic procrastination (4,5). Psychiatric problems may stand out as both the cause and the result of the procrastination process (6). Anxiety is one of these problems among the main reasons for academic procrastination (7).

As the procrastination behavior increases, the anxiety of the individual increases (8). In studies conducted with adults, significant positive relationships were observed between academic procrastination and anxiety (9,10). Researchers questioning the reasons for procrastination have examined the relationship between procrastination and self-esteem. Individuals with a high procrastination behavior in delaying starting or completing a task fear failure and evaluation for their own performance and abilities (6).

In many academic procrastination studies, significant negative relationships were found between self-esteem and academic procrastination (11,12). Individuals who procrastinate can spend less effort on their duties and leave their jobs more quickly so that their self-esteem is not further negatively affected (13).

Another important predictor of academic procrastination has been evaluated as a perfectionist personality trait. Studies in this direction have mostly been carried out according to the perfectionism dimensioned by Hewitt and Flett (14). This dimensioning includes self-focused perfectionism, others-oriented perfectionism, and socially oriented perfectionism. Self-focused perfectionism involves the individual setting high standards for himself, evaluating his own behavior strictly, and disapproving of his behavior. Others-oriented perfectionism includes expectations and beliefs about the capabilities of others. Socially oriented perfectionism includes the belief and perception that others have high standards for themselves and are pressured by others to be perfect (14). Self-focused perfectionists have a tendency to approach situations that require success. They are meticulous in their work and motivate themselves to achieve perfection. They try to perfect their action to avoid failure (14).

There is a negative relationship between procrastination and socially oriented perfectionism. Since the standards imposed by others are considered more than normal and uncontrollable, reactions such as tension, anxiety, depression, and failure may occur in the person. This situation may present itself with a positive relationship with procrastination behavior (15).

The number of people who do not procrastinate in daily life is almost negligible. Procrastination is a very common problem in academic life. When the literature was examined, it was seen that studies on academic procrastination were conducted in high school and university students (16-18) rather than academicians.

Study Hypothesis

The number of people who do not procrastinate in daily life is almost non-existent. Procrastination is a very common problem in academic life. In academics, the study of academic procrastination did not stand out in the literature.

Therefore, in this study, we tried to elucidate the frequency of academic procrastination and the factors that may be associated with academicians who work as professors, associate professors, doctoral faculty members, lecturers, research assistants, lecturers in the academic units of Balıkesir University.

METHOD

A total of 306 academicians have been enrolled in this study. The study group consisted of academic staff of both genders working as professors, associate professors, doctoral lecturers, lecturers, research assistants and lecturers in different education units at Balıkesir University. The ethics committee approval has been granted at 09.10.2019, protocol number 2019 – 140.

In the first stage, male and female participants were divided into 2 groups and compared with respect to clinical variables. According to the Aitken academic procrastination scale, the participants were divided into two groups as low academic procrastination (Group-1) (52% and n=159) and high academic procrastination (Group-2) (48% and n=147).

Sociodemographic data form, Aitken Academic Procrastination Scale (AAPS), Spielberg State-Trait Anxiety Inventory (STAI-1, STAI-2), Brief Symptom Inventory (BSI), Rosenberg Ego Respect Scale (RERS) and Hewitt Multidimensional Perfectionism Scale (HMDPS) were applied. The sociodemographic data form and all other scales were filled in by the participant himself.

Statistical Analysis

Statistical analyzes were performed using the SPSS Statistics 20.0 package program. In our study, Skewness and Kurtosis values were examined to determine whether the groups showed a normal distribution. Skewness value is between 0.439-0.139; Kurtosis value, on the other hand, was observed to vary between -0.307-0.278 and was considered to have a normal distribution. Pearson Correlation analysis was applied to reveal the relationship between the groups. T test was used for difference analysis, and those with a p value less than 0.05 were considered significant.

RESULTS

A total of 306 volunteers, 155 women (50.7%) and 151 men (49.3%) from the academic staff of Balıkesir University had participated in this study. The academical titles of the individuals were as follows: 14.1% of them (n=43) were professors, 16.7% (n=51) of them were associate professors, 27.1% (n=83) of them were physicians, and 5.9% of them were (n=18) lecturers. The mean range was 23-67 years (ranging between 37.79±8.914 years) and the mean academic profession time was 1-44 years (ranging between 10±9.086 years).

According to the age variable, the difference between men and women was not significant. The mean score of academic procrastination tendency scale and STAI-1 was not significant between the groups. On the contrary, the mean score of STAI-2 was statistically significant between female (40.09±9.873) and male (37.52±9.073) individuals (t=2.367 and p=0.019) (Table1).

The participants were divided into two groups as low academic procrastination (Group-1: 52% and n=159) and high academic procrastination (Group-2: 48% and n=147). According to the Aitken Academic Procrastination scale the difference between the groups was statistically significant (t=2.988 and p=0.003) in terms of age (Group 1: 39.23 years versus Group 2: 36.22 years) (Table2).

Table 1. Comparison of Variables by Gender

	Groups	N	Mean	SD	P	T
Gender	Female	155	33.53	11.09	-0.678	0.498
	Male	151	34.4	11.453	-0.677	0.498
Age	Female	155	37.56	8.819	0.654	-0.449
	Male	151	38.02	9.033	0.654	-0.449
Academic Profession Duration	Female	155	11.61	9.072	0.218	1.234
	Male	151	10.33	9.085	0.218	1.233
AAPS	Female	155	33.53	11.09	0.498	-0.678
	Male	151	34.4	11.493	0.499	-0.677
STAI – 1	Female	155	36.32	10.852	0.275	1.093
	Male	151	35.02	9.962	0.275	1.094
STAI – 2	Female	155	40.09	9.873	0.019	2.367
	Male	151	37.52	9.073	0.018	2.369
BSI – A	Female	155	5.78	7.198	0.798	0.256
	Male	151	5.57	7.216	0.798	0.256
BSI – D	Female	155	8.1	8.163	0.369	0.9
	Male	151	7.27	7.877	0.369	0.9
BSI – S	Female	155	3.83	4.524	0.075	1.787
	Male	151	2.93	4.263	0.075	1.789
BSI – H	Female	155	4.41	4.718	0.792	-0.264
	Male	151	4.55	4.79	0.792	-0.263
BSI – O	Female	155	6.29	7.578	0.95	-0.062
	Male	151	6.34	7.609	0.95	-0.062
RERS	Female	155	0.8511	0.68019	0.237	1.185
	Male	151	0.76	0.66536	0.237	1.185
EXCELLENCE – SF	Female	155	87.7	17.849	0.936	0.08
	Male	151	87.52	19.855	0.936	0.08
EXCELLENCE – S	Female	155	53.94	13.025	0.61	-0.511
	Male	151	54.63	10.314	0.609	-0.512
EXCELLENCE – B	Female	155	43.77	10.555	0.611	-0.509
	Male	151	44.38	10.399	0.611	-0.509

AAPS: Aitken Academic Procrastination Scale, STAI-1: Spielberg State-Trait Anxiety Inventory – I, STAI-2: Spielberg State-Trait Anxiety Inventory – II, BSI: Brief Symptom Inventory, BSI-A: Anxiety, BSI-D: Depression, BSI-S: Somatization, BSI-H: Hostility, BSI-O: Negative Self, RERS: Rosenberg Ego Respect Scale, EXCELLENCE-SF: Self-Focused Perfectionism, EXCELLENCE-S: Socially Oriented Perfectionism, EXCELLENCE-B: Others-Focused Perfectionism.

The duration of academic profession average was significant, 12.72 years in Group-1 and 9.1 years in Group-2. The difference between the groups according to the STAI-1 variable was significant, 33.93 in Group-1 and 37.57 in Group-2 ($t=-3.095$ and $p=0.002$). The STAI-2 score average was 36.44 in Group-1 and 41.40 in Group-2 ($t=-4.69$ and $p=0.000$) (Table2).

Table 2. Comparison of the Groups with Low (1) and High (2) Academic Procrastination Tendency

	Groups	N	Min	Max	Mean	SD	T	P
Age	1	159	23	67	39.23	9.439	2.988	0
	2	147	23	56	36.22	8.052	3.006	0
Academic Profession Duration	1	159	1	44	12.72	9.904	3.554	0
	2	147	1	32	9.1	7.71	3.589	0
STAI – 1	1	159	18	69	33.93	9.841	-3.095	0.002
	2	147	20	71	37.57	10.739	-3.084	0.002
STAI – 2	1	159	21	79	36.44	8.99	-4.69	0
	2	147	22	63	41.4	9.513	-4.68	0
BSI – A	1	159	0	47	4.36	6.615	-3.372	0.001
	2	147	0	34	7.1	7.545	-3.355	0.001
BSI – D	1	159	0	48	6.61	7.948	-2.469	0.014
	2	147	0	34	8.86	7.962	-2.469	0.014
BSI – S	1	159	0	31	2.86	4.332	-2.159	0.032
	2	147	0	19	3.95	4.446	-2.157	0.032
BSI – H	1	159	0	27	4.01	4.838	-1.787	0.075
	2	147	0	19	4.98	4.609	-1.791	0.074
BSI – O	1	159	0	45	5.44	7.625	-2.116	0.035
	2	147	0	30	7.27	7.442	-2.118	0.035
RERS	1	159	0	4.67	0.7524	0.6013	-1.456	0.146
	2	147	0	4.5	0.8643	0.7411	-1.444	0.15
EXCELLENCE – K	1	159	37	126	91.69	18.758	4.039	0
	2	147	24	122	83.2	17.959	4.046	0
EXCELLENCE – S	1	159	21	94	54.01	12.413	-0.415	0.68
	2	147	18	83	54.57	11.025	-0.417	0.68
EXCELLENCE – B	1	159	14	63	45.17	10.586	1.923	0.055
	2	147	10	58	42.88	10.237	1.925	0.055

AAPS: Aitken Academic Procrastination Scale, STAI-1: Spielberg State-Trait Anxiety Inventory – I, STAI-2: Spielberg State-Trait Anxiety Inventory – II, BSI: Brief Symptom Inventory, BSI-A: Anxiety, BSI-D: Depression, BSI-S: Somatization, BSI-H: Hostility, BSI-O: Negative Self, RERS: Rosenberg Ego Respect Scale, EXCELLENCE-S: Self-Focused Perfectionism, EXCELLENCE-S: Socially Oriented Perfectionism, EXCELLENCE-B: Others-Focused Perfectionism.

BSI – Anxietyscore average was 4.36 in Group-1 and 7.1 in Group-2 ($t=-3.372$ and $p=0.001$). BSI – Depressionmean score was 6.61 in Group-1 and 8.86 in Group-2, significant between the groups ($t=-2.469$ and $p=0.014$). BSI – Somatizationmean score was 2.86 in Group-1 and 3.95 in Group-2, significant ($t=-2.159$ and $p=0.032$). The mean BSI – NegativeSelf score was 5.44 in Group-1 and 7.27 in Group-2. The difference between the groups according to the BSI – Negativeself-variable was significant ($t=-2.116$ and $p=0.035$). Self-Focused Perfectionism mean score was statistically different between the groups, 91.69 in Group-1 and 83.2 in Group-2 ($t=4,039$ and $p=0.00$) (Table 2).

Table 3. Correlation Analysis of Group 1's Scores with the Academic Procrastination Tendency Scale and Related Factors

		AAPS	STA I1	STA I2	BSI-A	BSI-D	BSI-S	BSI-H	BSI-O	RERS	EXCELLENCE-K	EXCELLENCE-S	EXCELLENCE-B
RERS	R	1											
	P												
	N	159											
STAI-1	R	,255**	1										
	P	,001											
	N	159	159										
STAI-2	R	,240**	,673*	1									
	P	,002	,000										
	N	159	159	159									
BSI-A	R	,096	,645*	,699*	1								
	P	,231	,000	,000									
	N	159	159	159	159								
BSI-D	R	,157*	,645*	,731*	,856*	1							
	P	,048	,000	,000	,000								
	N	159	159	159	159	159							
BSI-S	R	,053	,542*	,623*	,758*	,708*	1						
	P	,505	,000	,000	,000	,000							
	N	159	159	159	159	159	159						
BSI-H	R	,119	,610*	,514*	,725*	,709*	,624*	1					
	P	,134	,000	,000	,000	,000	,000						
	N	159	159	159	159	159	159	159					
BSI-O	R	,187*	,598*	,678*	,838*	,869*	,650*	,766*	1				
	P	,018	,000	,000	,000	,000	,000	,000					
	N	159	159	159	159	159	159	159	159				
RERS	R	,063	,350*	,439*	,534*	,542*	,418*	,335*	,557*	1			
	P	,434	,000	,000	,000	,000	,000	,000	,000				
	N	159	159	159	159	159	159	159	159	159			
EXCELLENCE-K	R	-,064	,100	,053	,079	,052	,068	,173*	,170*	,152	1		
	P	,423	,212	,511	,323	,517	,395	,030	,032	,055			
	N	159	159	159	159	159	159	159	159	159	159		
EXCELLENCE-S	R	,126	,167*	,262*	,243*	,247*	,175*	,174*	,339*	,347*	,419**	1	
	P	,114	,035	,001	,002	,002	,027	,028	,000	,000	,000		
	N	159	159	159	159	159	159	159	159	159	159	159	
EXCELLENCE-B	R	,126	,167*	,262*	,243*	,247*	,175*	,174*	,339*	,347*	,419**	1,000**	1**
	P	,114	,035	,001	,002	,002	,027	,028	,000	,000	,000	0,000	,000
	N	159	159	159	159	159	159	159	159	159	159	159	159

**The correlation was significant at the 0.01 level.
 * The correlation was significant at the 0.05 level.

Table 4. Correlation Analysis of Group 2's Scores withthe Academic Procrastination TendencyScale and Related Factors

		AAPS	STA II	STA I2	BSI- A	BSI- D	BSI- S	BSI- H	BSI- O	RER S	EXCELLENCE -K	EXCELLENCE -S	EXCELLENCE -B
RERS	R	1											
	P												
	N	147											
STAI – 1	R	,142	1										
	P	,087											
	N	147	147										
STAI – 2	R	,226**	,725*	1									
	P	,006	,000										
	N	147	147	147									
BSI – A	R	,217**	,572*	,609*	1								
	P	,008	,000	,000									
	N	147	147	147	147								
BSI – D	R	,252**	,595*	,690*	,840*	1							
	P	,002	,000	,000	,000								
	N	147	147	147	147	147							
BSI – S	R	,152	,466*	,499*	,760*	,698*	1						
	P	,066	,000	,000	,000	,000							
	N	147	147	147	147	147	147						
BSI – H	R	,107	,473*	,569*	,790*	,794*	,712*	1					
	P	,196	,000	,000	,000	,000	,000						
	N	147	147	147	147	147	147	147					
BSI – O	R	,219**	,544*	,607*	,867*	,850*	,723*	,787*	1				
	P	,008	,000	,000	,000	,000	,000	,000					
	N	147	147	147	147	147	147	147	147				
RERS	R	,280**	,273*	,467*	,535*	,446*	,370*	,388*	,528*	1			
	P	,001	,001	,000	,000	,000	,000	,000	,000				
	N	147	147	147	147	147	147	147	147	147			
EXCELLENCE – K	R	-,130	-,014	-,006	,042	,051	-,024	,080	,086	,014	1		
	P	,117	,866	,938	,612	,536	,772	,338	,300	,866			
	N	147	147	147	147	147	147	147	147	147	147		
EXCELLENCE – S	R	,152	,345*	,449*	,345*	,384*	,328*	,380*	,413*	,285*	,355**	1	
	P	,066	,000	,000	,000	,000	,000	,000	,000	,000	,000		
	N	147	147	147	147	147	147	147	147	147	147	147	
EXCELLENCE – B	R	,152	,345*	,449*	,345*	,384*	,328*	,380*	,413*	,285*	,355**	1,000**	1**
	P	,066	,000	,000	,000	,000	,000	,000	,000	,000	,000	0,000	,000
	N	147	147	147	147	147	147	147	147	147	147	147	147

**The correlation was significant at the 0.01 level.
 * The correlation was significant at the 0.05 level.

In Group 1; a positive and significant relationship was found between the Aitken Academic Procrastination Scale, STAI-1 and STAI – 2scales. A positive and significant relationship was found between the Aitken Academic Procrastination Scale and the BSI sub – dimensionsof Depression and Negative Self score (Table 3).

In Group 2; a positive and significant relationship was found between the Aitken Academic Procrastination Scale and STAI – 2scales. A positive and significant relationship was found between the Aitken Academic Procrastination Scale and Depression, Anxiety and Negative Self sub-dimensions of the BSI scale. A positive and significant relationship was found between the Aitken Academic Procrastination Scale and the Rosenberg Self-Esteem Scale (Table 4).

DISCUSSION

Previously, studies that had been conducted with high school and university students have shown that the frequency of procrastination has reached up to 60% and above. The absence of studies in academic populationmakes it difficult to derive comparisons, thus making this study a pioneer in this era.

Ferrari and Beck reported that procrastinators felt more negative after making fraudulent excuses for work not completed on time (19). Tice and Baumeister stated that academic procrastinators reported lower stress and less illness at the beginning of the semester than non-procrastinators, but generally higher stress and more illness in the late period (20). The procrastination process can cause more stress to the person as the due date of the tasks that need to be done approached and required the completion of the task. The high levels of stress experienced due to this behavior might cause adverse immune changes that lead to an increased risk of disease (21,22).

According to the results of this study, the tendency to procrastinate was 48% in the academic population. Among the groups with high and low procrastination tendencies, the highest rate belongs to research assistants and doctoral faculty members.

According to Akdoğan and Deniz, academic procrastination average scores of university students differed significantly according to their depression, anxiety and stress levels. Due to the complaints of depression and anxiety, students' starting and maintaining their academic duties and responsibilities may be delayed or incomplete (23). It has been observed that studies on psychiatric symptoms such as somatization and hostility, in which sub-headings such as anxiety and depression were frequently examined, were insufficient in evaluating academic procrastination and related factors in the literature (24). In this study, it was observed that somatization affects academic procrastination, and this can be interpreted as depression or anxiety may cause somatic symptoms in individuals who procrastinate.

In the relationship between age and academic procrastination; It was concluded that academic procrastination tendency was negatively correlated with age. This result was in line with the studies in the literature (25-27). Similarly, a negative relationship has been found between academic profession time and procrastination. This might be an indication that individuals develop strategies to overcome or avoid procrastination over time (28).

In previous research, it was shown that there was no gender difference in academic procrastination (29) although some studies reported that male students had more academic procrastination tendency (30). In this study, no statistically significant difference was observed between gender and academic procrastination.

Academic procrastination behavior emphasized that anxiety was one of the leading reasons for procrastination (6,7). This situation has been elaborated in the literature examining the relationship between state and trait anxiety and academic procrastination (9,10,31,32). The relationship between academic procrastination and anxiety level is bidirectional, and anxiety has been defined as a condition that both causes procrastination and occurs after this behavior (6). According to the results of our study, it was found that statefulness and trait anxiety significantly predicted academic procrastination behavior.

Published research have shown that procrastination was linked to negative mental health conditions, including anxiety, depression and high stress perception (33). In this study, we have determined that while somatization, depression and anxiety affected academic procrastination behavior, hostility did not.

Researchers who investigated the causes of procrastination also tried to reveal the relationship between self-esteem and procrastination behavior. In many academic procrastination studies, significant negative relationships were found between procrastination tendency and self-esteem (34). In the literature, it was stated that the education factor was an effective variable on self-esteem and that self-esteem might increase with the increase in educational level (35). In this study, it was observed that self-esteem was not effective on academic procrastination behavior, and this difference showed that self-esteem was higher with the increased educational level.

In summary, we aimed to examine academic procrastination and related factors in the academic population. The frequency of academic procrastination was 48%. Age and academic duration from sociodemographic variables were found to be associated with academic procrastination. State and trait anxiety levels were higher in the group with procrastination tendency. Psychological symptoms such as depression and somatization were more common in the group with a high tendency to academic procrastination. It has been observed that self-esteem does not pose a risk for procrastination in academics. A negative correlation was found between self-focused perfectionism and academic procrastination in the academic population.

Limitations of the Study

The main limitation of the study could be attributed to the sample population obstacles. All academics working at Balıkesir University could not be included in the research. In addition, the number of research assistant participants in the study group was higher compared to other studies.

Previously published studies on academic procrastination have been mostly conducted with high school and university students. The absence of data with the academic population makes this study a unique research. Detection of risk factors and accompanying psychiatric complaints related to procrastination in larger studies could contribute positively to the academic success of individuals.

CONCLUSION

This research was a pioneer study conducted in the academic population compared to previous literature. Regarding the outcomes one can conclude that seniority in academic profession and age has positively affected the endurance of the individual while tendency to anxiety and self-focused perfectionism increased procrastination behavior..

Informed consent: Informed consent has been obtained from all the patients before the initiation of the study.

Institutional Review Board Approval: The ethics committee approval has been granted at 09.10.2019, protocol number 2019 –140.

Abbreviations

AAPS	: Aitken Academic Procrastination Scale
BSI	: Brief Symptom Inventory
CI	: confidence interval
EXCELLENCE-B	: Others-Focused Perfectionism
EXCELLENCE-K	: Self-Focused Perfectionism
EXCELLENCE-S	: Socially Oriented Perfectionism
HMDPS	: Hewitt Multidimensional Perfectionism Scale
RERS	: Rosenberg Ego Respect Scale
SD	: standard deviation
SPSS	: Statistical Package for the Social Sciences
STAI	: Spielberg State-Trait Anxiety Inventory

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