

## Original Article

## EFFECT OF PROCRASTINATION ON SELF-REGULATION AMONG UNIVERSITY STUDENTS

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**Background:** Procrastination is a wide spread and deleterious form of self-regulatory failure that can have an impact on major areas of a person's life. A large number of research studies have been carried out internationally on procrastination, but in Pakistan they are negligible. As a very limited work is published on this topic, this area is carefully chosen as a research area in order to open new avenues for future research work. The aim of the present study was to investigate the relationship of self-regulation with procrastination.

**Materials and Methods:** A sample of 200 students (100 males and 100 females) from the universities of Islamabad [International Islamic University (IIU), Foundation for Advancement of Science and Technology University (FAST) and National University of Sciences and Technology (NUST)], Pakistan was used for the study. Participants' age ranged from 18 to 28 years with a mean age of 22 years. Each participant was assessed using psychometrically valid measures General Procrastination Scale (Lay, 1986) and Self-Regulation Questionnaire (Carey, 2004).

**Result:** The results were analyzed using SPSS 21. Regression Analysis was used to investigate procrastination as predictor of self regulation failure. Findings showed that Procrastination significantly predicted self-regulation failure. T-test revealed that male students tend to procrastinate more than female students, while there were no gender differences on self regulation.

**Conclusion:** Research findings illustrate the importance of enhancing self-regulation to combat procrastination.

**Keywords:** Procrastination, self-regulation, university students

**Introduction**

Procrastination is defined as “the voluntary delay of an intended and necessary and/or (personally) important activity, despite expecting potential negative consequences that outweigh the positive consequences of the delay.”<sup>(1)</sup> Procrastination is observed worldwide and is considered to be quite unfavorable throughout the world as it influences the daily routine and productivity of people in a detrimental way.<sup>(2)</sup> Universality of this problematic behavioral tendency and resulting negative effects on one's physical, academic, occupational and social wellbeing compel one to think about its underlying factors and correlates.<sup>(3)</sup>

In an attempt to gain more insight about the predictors of procrastination the present research has focused on studying procrastination in relation to self-regulation. Self-regulation is characterized by adaptation of the attributes that equip people to extend, modify and transform their responses to live up to the social, personal, occupational, academic or other demands and standards.<sup>(4)</sup> Self-regulation helps to exert control over the thoughts, feelings, impulses and work performances.<sup>(5)</sup>

During stress related situations or while performing tasks that involve high cognitive load procrastinators fail to regulate their functioning. Hence procrastination might be termed as a self-regulatory failure.<sup>(6)</sup> Both procrastination and self-regulatory failure involve tendency to seek escape from unpleasant or stressful thoughts, feelings and actions.<sup>(7,8)</sup>

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Self-regulation enables an individual to monitor his own behavior in terms of internal and external standards and if any discrepancy is found leads him to modify his behavior towards betterment.<sup>(9)</sup> Self-regulation leads towards ability to initiate and maintain goal directed activity as well as generates persistence on tasks.<sup>(10)</sup> In contrast procrastination is characterized by inability to monitor one's own behavior or judging internal and external cues and hence procrastinators cannot decide when to initiate, maintain and terminate their goal directed functioning.<sup>(11)</sup>

Procrastinators tend to prefer activities that give immediate pleasure or gratification and they indulge in useless or less purposeful activities.<sup>(12)</sup> On the other hand self-regulation involves behaviors that are targeted and purposeful and individuals with high level of self-regulatory tendencies are able to postpone activities that are pleasurable but are useless in terms of their set goals targets.<sup>(13)</sup> For the present study it was hypothesized that Procrastination leads

to self-regulation failure. It was also hypothesized that there is significant difference on procrastination and self-regulation across gender among university students.

### Materials and Methods

A sample consisted of 200 university students (100 males and 100 females) were recruited for the present study. The age of the sample ranged from 18-28 years. Sample was taken from the Universities of Islamabad [International Islamic University (IIU), Foundation for Advancement of Science and Technology *University (FAST)* and National University of Sciences and Technology (NUST)]. The data was collected via three instruments for the study. A self-generated demographics information sheet was used to collect personal information from the respondents on the relevant variables including Age and Gender, Qualification. The General Procrastination Scale (Lay, 1986), a 20-item inventory scored with a five-point Likert-type scale was used. It measures general procrastination. The scale has high internal consistency ( $\alpha = .82$ ). The scoring categories include 1= Extremely

Uncharacteristic, 2= Moderately Uncharacteristic, 3= Neutral, 4= Moderately Characteristic, 5= Extremely Characteristic.<sup>14</sup> Short Self-regulation Questionnaire (SSRQ) developed by Carey in 2004 was used. It is a 31 item short form and showed good internal consistency ( $\alpha = 0.92$ ). The scoring categories are 1= Strongly disagree, 2= Disagree, 3= Uncertain or unsure, 4= Agree, 5= Strongly agree.<sup>13</sup> The sample for the present research was gathered using the convenient sampling technique. Consent was taken from the participants. The subjects were personally approached and questionnaires were administered. All the questionnaires were self-explanatory and the instructions were clearly given. The respondents were thanked for their cooperation. After gathering the data was analyzed using SPSS 21v software.

### Results

For the present study Lay's General Procrastination Scale (LGPS) and Short Self Regulation Questionnaire (SSRQ) have Cronbach alpha reliability of 0.74 and 0.83 respectively. Results indicate that the scales are suitable for the study sample.

**Table 1: Frequency and percent demographic variables gender, age and qualification.**

	<i>f</i>	%
<b>Gender</b>		
Male	100	50
Female	100	50
<b>Age</b>		
18	1	.5
19	8	4.0
20	34	17.0
21	52	26.0
22	49	24.5
23	30	15.0
24	16	8.0
25	7	3.5
26	1	.5
28	2	1.0
<b>Qualification</b>		
BS	158	79.0
MA/MSc	34	17.0
MS/MPhil	8	4.0

**Table 2: Linear Regression Analysis Indicating Procrastination as the Predictor of Self-regulation Failure.**

Model	B	SE	$\beta$	t	<i>P</i>
Constant	166.73	6.96		23.92	.000
Procrastination	-.76	.094	-.491	-7.92	.000
R <sup>2</sup> =.241					
F=62.779					

Simple linear regression analysis was used to test if the level of procrastination significantly predicted participants level of self-regulation failure. The results indicated that the predictor accounted for 24.1% of the variance ( $R^2=.24$ ,  $F(1,198) = 62.78$ ,  $p < .001$ ). It was found that procrastination significantly predicted the level of self-regulation failure ( $\beta = -.76$ ,  $p < .001$ ) among university students.

**Table 3: Mean, Standard Deviation and t-values of males and females on procrastination and self-regulation**

Scale	N	df	M	SD	t	p	95% CI		
							LL	UL	
LGPS	Male	100	198	74.90	11.98	2.21	.02	.34	6.1
	Female	100	198	71.63	8.70				
SSRQ	Male	100	198	111.90	17.26	-.53	.58	-5.6	3.2
	Female	100	198	112.69	14.85				

Note: Lay's General Procrastination Scale= LGPS, Short Self Regulation Questionnaire=SSRQ

Table 3 shows significant difference between males and females on procrastination. Males tend to procrastinate more than females. Results are significant at 0.05 level. The sample data supports the hypothesis that there is a significant gender difference on procrastination. The findings also reveal that there exists a non-significant difference between males and females on self-regulation. The results do not support the hypothesis there is a significant gender difference on self-regulation.

## Discussion

The goal of the current study was to examine the effect of procrastination on self-regulation. The significant negative correlation of procrastination with self-regulation confirmed the hypothesis that procrastination correlates negatively with self-regulation. This finding is consistent with previous researches; a study found the similar results that procrastinators failed to regulate themselves as intended. When self-regulation fails, short term emotional repair takes precedence over long term goal, seeking immediate emotional relief and walking away leaving the task for tomorrow.<sup>(15)</sup> Many researches evidenced that procrastination is a self-regulation failure.<sup>(6,16)</sup>

The present study also attempted to explore the gender differences on procrastination. The findings indicated that level of procrastination is higher among the males as compared to the females. Similar results were found in other relevant studies.<sup>(17,18,19,20)</sup>

The study also aimed to determine the gender differences on self-regulation. The t-test analysis revealed that there were no statistically significant mean differences in males and females on self-regulation. Literature provides a blend of significant and insignificant differences between males and females on self-regulation. Meta-analysis of similar studies illustrated that females have a higher motives and capabilities to reflect self-regulation as compared to males.<sup>(21,22)</sup> On the other hand many research findings indicate that there are no significant differences on self-regulation with respect to gender.<sup>(23,24)</sup> These findings suggest that enhanced self-regulation may contribute to reduce procrastinating behavior.

There have been some limitations of the present study. The sample consisted almost entirely of young adults or undergraduates. Similarly participants were taken from only few universities of Islamabad. These factors limit the range of population to which findings can be generalized. Although instruments used in this study have sound psychometric properties, self-report measures can be subject to response biases.

Despite the limitations, the results are significant and beneficial. The negative association of procrastination with self-regulation implies that trainings, approaches or interventions that seek to enhance self-regulatory functioning of an individual can be used to reduce procrastinating behavior. Self-regulation based practices and interventions can reduce procrastination thus can be introduced in

occupational settings to improve employees' efficiency. In educational settings self-regulatory trainings can be introduced in order to minimize students' procrastinating behavior.

Future research should scrutinize these findings in more varied populations. Future studies should investigate the relationships among these variables by using different methods such as behavioral tasks and physiological measures, longitudinal and experimental studies, which would provide further insight in to relationship between procrastination and self-regulation.

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### Author's Contribution:

**Tamkeen Saleem:** Conception and design of the work, acquisition, analysis, interpretation of data, drafting the work and revising it critically for important intellectual content for final approval. Accountable for integrity of intellectual contents.

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