

## Original Article

## The investigation of relationship between behavioral and decisional procrastination with personality characteristics among students of Tehran Universities

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(Received: 30 July 2016; Revised: 20 Augst 2016; Accepted: 24 Oct 2016)

### Abstract

**Introduction:** The present study was carried out with the aim to investigate the relationship between behavioral and decisional procrastination with personality characteristic among students of Tehran Universities.

**Methods:** the number of samples in this research includes 400 students (114 female and 286 male) from Tehran universities that selected using random cluster-multistage sampling and completed behavioral, decisional procrastination and five factor personality questionnaire. Data were analyzed using descriptive statistics, independent t-test and Pearson correlation.

**Results:** Data indicated that the most prevalence of behavioral and decisional procrastination was between Shahid Beheshti and Tabatabaie universities respectively. On the other hand, procrastination was related positively to neuroticism and negatively to consciousness, extraversion and agreeableness. Also, there were no relationship between procrastination and openness.

**Conclusion:** Considering the positive relationship between procrastination and neuroticism and negative relationship with consciousness, extroversion and agreeableness, attention to personality characteristics can reduce procrastination and in turn, improve engagement in educational activities.

**Declaration of Interest:** None.

**Key words:** Decisional procrastination, Five factor model of Personality, Students

### Introduction

College students have to deal with different task like doing homework under pressure that may prevent optimal learning (1). Most people would agree that they have delayed or procrastinated their activities a few times in their life (2). Procrastination is defined as volunteer delay in doing tasks until the last minutes (3) and leads to lowered performance level of tasks and frustration tolerance and inability to regulate emotions (4). Ferrari (5) believes that there are different kinds of procrastinations. He attests that two

behavioral categories include academic and global and from their position, decisional procrastination is the avoidance of decision making in a given time. Milgram and Tennen (6) believes that few studies concentrated on decisional procrastination and its correlations. They considered decisional procrastination as a general tendency to different behaviors and a tendency to specific behaviors. Kuhl (7) in Action Control Theory, believes that decisional and behavioral procrastination needs two Separate higher meta-control processes: decisional procrastination reduces self-adjustment, behavioral procrastination and self-

control (8). A principal feature of Action Control Theory is the separation of the "predecisional phase" and "postdecisional phase". Predecisional phase involves planning and goal setting process in which desires are evaluated in related to desireability. The postdecisional phase is regarded as motivational maintenance and control during the implement of intention (9).

Solomon and Rothblum (10) describe academic procrastination as completing homework or preparing for examination until last minutes. According to studies, many reasons like poor time management skills, self-efficacy beliefs and personal characteristics like neuroticism, irrational thoughts and external contortedness negatively affecting university life (11, 12).

Due to steel and Ferrari (13) report, procrastination can be studied as a personality trait addition to behavioral level. Effert believes that procrastination is at the core of impulsivity (14) and represented by an inability to postpone present time needs in order to get future goals (15).

Due to John and Bloom (16) report, procrastination has been researched in two aspects including past performance and relationship with personality factors (17). Procrastination assumed to be related to certain personality such as low consciousness (18), high extroversion (19) and low emotion intelligent (20, 21). In regard to association between procrastination and personality, the literature indicates that procrastination has the most positive significant correlation with neuroticism and strong negative relationship with consciousness (22).

Also, Johnson and Bloom (16) showed that neuroticism and underlying facets of impulsiveness were significant predictors of procrastination among university students (23). Procrastination, which includes distraction and disorganization, can be considered as a symptom of ADHD (24). A person with poor executive function abilities such as attention control, cognitive flexibility, information processing and goal setting, may have problem in procrastination (25). Also, according to history (25,26), disobedience, antagonism and hostility which consist agreeableness factor, are important motivations for procrastination (3).

Among the big five personality traits, openness demonstrates the strongest relationship with academic activities (27), and no direct relationship has been showed between procrastination and openness (3). Extroversion is one of more complicated causes of procrastination. Extroverts are described as social, optimism, exciting and impulsive (28). Pessimism and lethargy are aspects of extroversion as measured by negative affect (29). Due to these findings, lethargy shows lack of extroversion and impulsivity demonstrates plenty of it (3). Given the implication of procrastination for a broad range of situation including academic performance and effect of it on achievement, it seems reasonable to systematically examine this phenomena. In current study, our aim was to investigate the relationship between behavioral and decisional procrastination with personality characteristics among students of Tehran Universities.

## **Methods**

### **Participants and procedure**

The research participants were 114 female and 286 male university students with average age of 22.73 years (SD=4.67). Their ages ranged from 17 to 51 years. At first, 5 universities were selected by cluster sampling among 13 Tehran universities. Then, 5 faculties were used as random sampling. All participants were informed about the aim of study and they filled out NEO-FFI, General procrastination scale, and Decisional procrastination. For Inclusion criteria, participants whose scores were below 23 in GHQ considered as normal population and data were analyzed. All of the students had informed consent for participating in this study. All participants were assured about the confidentiality of their personal information and were allowed to leave the study at any time.

Questionnaire of demographic characteristics.

In order to collect data about the demographic characteristics of the population of the study, the researcher devised a questionnaire to find out about their age, sex, marital status, course, education.

General procrastination scale (GP, 30). The GP scale that developed by Lay in 1986 is

consisted of 20 items that measure trait procrastination on a variety of everyday activities (e.g, I always seem to end up shopping for birthday gifts at the last moment"). Items are scored on a 5-point Likert scale ranging from 1 (false of me) to 5 (true of me). The mean of all items yields a composite score, with higher values indicating a higher tendency to procrastinate. The internal consistency has been shown to be 0.78 and the test-retest reliability 0.80 (2). Hosseini & Khayyer (31) evaluated the scale in Iranian subjects and internal consistency for total score was 0.78.

**Decisional procrastination:** This scale was introduced by Mann (32) on the base of descriptions of coping styles. Decisional procrastination was measured with the 5-item decisional procrastination scale (32), where participants rate their tendency to procrastinate on a 5-point Likert scale. The items were summed and created an index of decisional procrastination. Higher scores show greater decisional procrastination. Psychometric properties of this scale have been reported good (33). Internal consistency of the scale in Iranian samples by Hosseini & Khayyer was reported 0.78 (31).

**NEO-FFI**

Personality variable was assessed by NEO-FFI (34), which is a short form of the NEO

personality inventory. This scale which was developed by Costa & McCrae in 1989, consists of 60 items to measure five dimensions include neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. In a study by Roshan et al (35) test-retest reliability in interval of 7 days on 51 persons reported between 0.29 and 0.84. Participants indicated their responses on a likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Costa & McCrae (36) reported that the range of internal consistency is from 0.68 to 0.86.

## Results

Means, standard deviations about age are reported in table 1. Table 1 shows that there is no significant difference between male and female at age.

Table 1. Means, standard deviations, minimum and maximum scores about age

Group	n	Minimum	Maximum	M	SD
Female	114	17	51	21	4.6
Male	286	18	47	23	4.4
Total	400	17	51	22.73	4.67

In table 2. We report descriptive statistics for all the variables. There were no sex differences in either of procrastination measures and personality traits.

Table 2. Descriptive statistics for behavioral and decisional procrastinations and personality traits

Variables	Female		Male	
	M	S D	M	S D
<b>Behavioral procrastination</b>	37.44	7.92	37.43	6.70
<b>Decisional procrastination</b>	8.00	3.89	7.62	3.67
<b>Factors of NEO</b>				
<b>Neuroticism</b>	24.22	8.11	20.89	8.00
<b>Extroversion</b>	28.9	6.88	29.67	6.51
<b>Openness</b>	27/42	5.10	27.02	4.68
<b>Agreeableness</b>	29.78	5.10	30.13	5.30
<b>Conscientiousness</b>	33.07	7.34	32.78	6.14

data indicated that the most prevalence of behavioral and decisional procrastination was among Shahid Beheshti (female 57.7%, male 59%) and Tabatabaie Universities (female 13.38%, male 13%) respectively.

In order to investigate the link between the personality characteristics and decisional and

behavioral procrastination, we conducted Pearson correlation (see table 3). In regard to data analysis, behavioral and decisional procrastination has positively correlated with neuroticism and had inverse relation with extroversion, agreeableness and conscientiousness.

Table3. Pearson correlation between the personality and procrastination

Variables	Behavioral procrastination	Significant level	Decisional procrastination	Significant level
Neuroticism	0.25**	0.001	0.42**	0.001
Extroversion	-.018**	0.001	-.031**	0.001
Openness	0.02	0.76	-.001	0.89
Agreeableness	-.013**	0.008	-.021**	0.001
Consciousness	-.048**	0.001	-.045**	0.001

\*\* p<0.05

Pearson correlation revealed that consciousness had the strongest significant correlation with decisional ( $r=-0.48$ ,  $p=0.001$ ) and behavioral ( $r=0.45$ ,  $p=0.001$ ) procrastination. On the other hand, agreeableness had the least correlation with both kinds of procrastinations ( $r=-0.13$ ,  $p=0.0081$ ,  $r=-0.21$ ,  $p=0.001$ ). Among personality characteristics, only openness had no relation with both kinds of procrastinations.

### Conclusion

The aim of this study was the investigation of relationship between behavioral and decisional procrastination with personality characteristics among students of Tehran Universities. Procrastination has positive correlation with neuroticism and strong negative correlation with consciousness (22,6). Neuroticism as a source of procrastination is similar to worrying or anxiety (3). People, who are highly anxious, procrastinate on stressful or aversive tasks. Ellis (1973) believes that they have some irrational attitudes that fulfillment of desires and no amenable to proof and create anxiety (3).

These personality factors help procrastinators to protect academic self-concepts (37). Ferrari, Johnson and McCown (2) believed that extreme anxiety is a pivotal cause for procrastination, given that it is more reinforcing to avoid the anxiety associated with studying. Chronic procrastinators esteem time poorly and avoid focusing on their intentions. These characteristics can be related with low self-esteem, perfectionism, self-control and anxiety. In self-handicapping, which is equated with behavioral procrastination, students use procrastination as an excuse to do poorly on an exam (38). On the base of inversely correlation between procrastination with extroversion, it can be concluded that some characteristics of extroversion like being gregarious and active are abilities in decision-making (6). Extroverts

have greater social competence and get more support that ease decision-making (39). The finding of Freeman et al. (19) was opposite of our findings. We can explain this contradictory due to arousal procrastination that measured in that study. Ferrari (5) believes that in addition to decisional and avoidant, in arousal procrastination, tasks are postponed until last minutes to seek thrill-making behaviors.

Negative correlation between procrastination with agreeableness is in line with meta-analytic study of Steel (3). Solomon and Rothblum (40) introduced rebellion against control dimension to explain this connection. In regard to this etiology, in paradoxical treatment direct people to procrastinate and they rebel against this direction and early start work (3). People with these characters are more likely to delay work, since they experience enforced tasks as aversive and by starting them on own plan reassert their autonomy (3).

Our results showed no relation between procrastination and openness. Of the big five personality traits, openness, which includes depth of feeling, behavioral flexibility and unusual attitudes (3), shows the strongest relationship with intelligence (27) and no direct relation has yet been noted. Vallerland (41) believes that individual who scored higher in openness more likely get along with others and compromise their own interests.

Despite these promising results, several limitations have to be acknowledged. One of the limitations is that the no experimental designs do not allow conclusion as to whether procrastination is preceded or followed by a certain variable. Future experimental research is needed to clarify a casual relation between personality and procrastination and continuing research on personality profile of procrastinators will guide to better treatment of this unsuitable coping system. Since, we examined

procrastination in student population; we cannot generalize our findings to another population. Due to widespread of his phenomenon in different conditions like working area, we suggest carrying out this investigation in different conditions.

Acknowledgement the authors appreciate the assistance all of the individuals that as sample involved in the study

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