Big Five Personality Traits, Gender, Academic level and Academic Procrastination among Pakistani Undergraduate Students

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The present study aimed to determine a relationship between personality traits and procrastination among the undergraduates and to compare mean scores of both the genders and academic years on Academic Procrastination Scale and Big Five Inventory. Through random sampling a sample of 250 undergraduate students (M = 21, SD = 1.47) was selected from a private university in Lahore, Pakistan. For measuring personality traits Big Five Inventory (BFI) was used and Academic Procrastination Scale (APS) was used to measure procrastination. Pearson Product Moment correlation depicted that out of the Big Five personality traits only neuroticism shares a positive correlation with procrastination. Furthermore, through descriptive statistics mean scores of both the genders and academic years on personality and procrastination scale were found to be insignificant; senior year female students scoring slightly low on procrastination as compared to males and other academic year students. This study would help researchers to explore this area on a large population taken from multiple institutions belonging to different gender and backgrounds.

Keywords: Procrastination, Big Five personality traits, academic year, gender

The use of technology has has led to an immense change in the lifestyle of people. Certain behaviors have been adopted by individuals, specifically students, that have led them to live an unproductive and unsuccessful academic life. One of those unhealthy behaviors that are prevalent in society in general is procrastination. According to O'Brien (2002), the percentage of the people who want to reduce it is 95% but unfortunately, they are unable to do so.

McCloskey (2011) reported in his study that procrastination is a constant behavior seen throughout people's lives meaning that if they delay work often it is likely that their delay/procrastination would remain stable throughout their life. In support of that test-retest reliabilities regarding procrastination, done over a period of 42 days, showed that the results were found to be high and constant, thus it was hypothesized that procrastination does remain constant in a person's life (Steel, 2007). Thus, in order to adapt healthy lifestyle this action needs to be reduced so that the productivity increases and quality of life gets elevated.

Procrastination is a prevalent action; a study by Klassen et al. (2008) delineated that the adult population that persistently procrastinates is about 20%. Another study by Özer et al. (2009) reported in their study that undergraduates tend to procrastinate a lot; 52% of the undergraduate students showed to be procrastinating on academic tasks.

Procrastination is a word which is derived from two different Latin words "pro" meaning "forward or in favor of" and "crastinus" meaning "tomorrow" meaning that something is being forwarded or put off for tomorrow (Pala et al., 2011). It is an action that has been under discussion for a long time, an English writer John Lyly in 1569 quoted in his writing that there is

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"nothing as perilous as procrastination" (Steel, 2007), meaning that procrastination is the most unhealthy and dangerous action which disturbs the lives of people in every way.

Steel (2007) reported that even at the time of industrial revolution, procrastination was prevalent and was considered to be unhealthy in fact a weakness of people. People have become less disciplined and inefficient and that is why they are found to save less for their future and retirement, in 1971, about 51% of the elderly population was seen having no income coming from their savings (Akerlof, 1991). Another study by Kasper (2004) mentioned that people even procrastinate when they have to pay their tax. According to a survey that took place in 2002, an overpayment of 473 million dollars was seen that resulted in costing the population approximately 400 $. The reason was that people procrastinated in paying their taxes and when they had to rush the payment, errors were made (as cited in Steel, 2007).

There are different types of procrastination, but the most prevalent one is academic procrastination. Dewitte and Schouwenburg (2002) found in their research that procrastination results in poor academic performance and organizational skill. Another study found that 70 % of the students are procrastinators and 40% of the students reported that if they find a course challenging or the instructor gives them hard time with the deadlines, they would drop that course (Schraw et al., 2007). Other reasons to procrasticate also include task complexity and avoidance, certain personality traits, spending more time with peers and indulging in more interesting activities which may lead to delaying the actual task (McCloskey, 2011).

Similarly, Harris and Sutton (1983) also reported that task characteristics and motivation to do a task play a role in predicting procrastination. Samuel Johnson (1752) mentioned that people are more likely to do work when the deadline comes near, meaning that people are more likely to procrastinate first and then do the work when the deadline comes near because it leaves them a strong impression that it needs to get done soon (as cited in Steel, 2007).

Being externally or internally attributed also plays a role, if a person is internally attributed then they would less likely to procrastinate as compared to a person who is externally attributed (Weiner, 1985). Also, poor time management also leads to procrastination as the person doesn't plan their routine and working hours well and ends up procrastinating more and thus performs poorly (McCloskey, 2011).

Some studies even reported that procrastination might be a trait or linked with genetics of a person. A longitudinal study by Elliot (2002) was conducted on 281 participants and test re-test of Adult Inventory of Procrastination was carried out and the results came out to be very high (.77) and from the results, it was concluded that procrastination could be considered as a trait (as cited in Steel, 2007). Big Five personality traits are also found to be linked with procrastination. Steel (2007) in his meta-analysis done on more than 4000 participants covering about 20 studies found that neuroticism including traits like being depressed, low on energy, having low self-esteem and having neurotic beliefs was positively correlated with procrastination as having low self-esteem is highly correlated with procrastination thus a person with neurotic trait would procrastinate the most because they would procrastinate just to get temporary relief from stress (Milgram et al., 1998) but all other traits were found to be negatively correlated with procrastination, conscientiousness being significantly negatively correlated with procrastination as it includes traits like being cautious, creative, thorough, organized and reliable. Cheng and Ickes (2009) in their study reported that having the trait conscientiousness strongly predicts good academic performance. In contrary to the findings of Steel (2007), some studies depict that the traits agreeableness, openness and extraversion are positively correlated with procrastination as

about 7% of the people have reported that they have procrastinated while agreeing or conforming to people at some point or another (Steel & Klingsieck, 2016).

Moreover, researches have shown that another thing that matters when it comes to procrastination is the educational rank of the students. Rosário et al. (2009) found in their research that a pattern was seen that as the educational rank increases, level of procrastination also elevates and performance gets dropped. In contradiction to that, Ferrari et al. (2009) found that students procrastinate less when they get promoted to higher standards. Therefore, researches contradict each other when it comes to procrastination and its relationship with the academic years. Some say that as the educational ranks increase procrastination decreases but others studies report otherwise.

Gender has also been found to be associated with procrastination, difference in the gender is seen when it comes to procrastination but results of most of the studies are not consistent with each other. Even some studies (Hess et al., 2000) couldn't establish a difference in procrastination among males and females but some studies (Doyle & Paludi, 1998) show that females procrastinate more (as cited in Balkis & Duru, 2017) and Steel and Ferrari (2013) suggest that males are more likely to procrastinate as compared to females. Chapell et al. (2005) reported in their study that females had high CGPAs as compared to males depicting that they perform better and thus procrastinate less in comparison to males. Also, Feinglod (1994) found that women were found to have the traits of agreeableness, neuroticism as compared to males because they are seen to be more nurturing, kind and tender-minded (as cited in Weisberg et al., 2011).

Hence, the purpose of this research was to find a relationship between Big Five personality traits and academic procrastination and compare the mean scores of genders and academic years on procrastination and Big Five personality scales.

Objective of the Study

- To establish a correlation between academic procrastination and the Big Five personality traits.
- To determine whether or not the mean scores of undergraduates vary on Academic Procrastination Scale and Big Five Inventory based on their gender and academic years.

Hypotheses of the Study

- Conscientiousness is negatively correlated with procrastination.
- Neuroticism is positively correlated with procrastination.
- The mean score value of males on procrastination level is higher as compared to females.
- The higher the educational rank in university is the lower the mean score value of procrastination is among the university students.

Method

Research Design

It was a cross-sectional study as the research data was gathered from multiple participants at a single point in time.

Sample

A random sample of 250 undergraduate students (M = 21, SD = 1.47) was taken from a private university of Lahore and the data was gathered in the months of January and February 2019.

Assessment Measures

After filling out the consent form demographic questions (gender, academic year) were asked from the participants before they were given out the following questionnaires.

Academic Procrastination Scale (APS)

The Academic Procrastination Scale (McCloskey & Scielzo, 2015) was used to assess academic procrastination. APS has 25 items and is a Likert type scale (1 meaning disagree and 5 meaning agree). For example, if a participant disagrees with the item "I know I should work on school work, but I just don't do it" would be an indicative of an individual who procrastinates at a lesser extent. It has a high Cronbach's Alpha value which was calculated to be 0.90.

Big Five Inventory (BFI)

Big Five Inventory (BFI), that assesses an individual's personality on five factors (John & Srivastava, 1999), was chosen to assess personality traits. According to John and Srivastava (1999) it has 44 items and 30 facets which are further divided into 6 main facets. It is a Likert type scale (1 meaning strongly disagree and 5 meaning agree strongly). The value of Cronbach's Alpha for BFI came out to be 0.66.

Procedure

After getting the permission approval letter from the institution to conduct the research, participants were randomly approached individually to participate in the study, after filling out the consent form that mentioned their confidentiality, voluntary participation and right to withdraw at any point in the study, they were given the questionnaire booklet having BFI and APS in it. Almost every participant took 20 to 25 minutes to complete both the questionnaires. Even after they were done with the questionnaires, they were made sure of the confidentiality and were given researcher's email address for any queries to be answered that participants might have had regarding the research.

Ethical Considerations

Voluntary participation of every participant was ensured. The nature of research, participant's involvement, and the rights of participants including confidentiality and anonymity of responses, and the right to withdraw at any time were discussed with the participants and were also maintained throughout the study.

Results

The purpose of this research was to find a correlation between Big Five personality traits and procrastination and also to compare mean scores of genders (males & females) and academic years on procrastination scale and Big Five Inventory through descriptive statistics. Pearson Product Moment correlation was done to find correlation between procrastination and Big Five personality traits. Also, descriptive statistics, frequency and percentage were found and mean value of the variables were compared.

Table 1

Frequency and Percentage of Gender and Academic year (N=250)

Variables	*f*	*%*
Gender		
Male	85	34
Female	165	66
Academic Year		
Freshman	45	18
Sophomore	43	17.2
Junior	41	16.4
Senior	121	48.4

Note. ***f***= Frequency, *%*= Percentage

With the frequency and percentage, it was evident that there were more female participants as compared to male participants. Moreover there were more senior participants when compared to the junior participants.

Table 2

Value of Correlation between Procrastination and Big Five Personality Traits

Measures	1	2	3	4	5	6
1. Extraversion	-	.07	.27**	-.29**	.23**	-.09
2. Agreeableness	-	-	.25**	-.09	.27**	-12*
3. Conscientiousness	-	-	-	-.29**	.16**	-.37**
4. Neuroticism	-	-	-	-	.05	.16*
5. Openness	-	-	-	-	-	-.06
6.Academic Procrastination	-	-	-	-	-	-

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

The above-mentioned correlation table depicts that only neuroticism shares a positive correlation with procrastination. Other four traits share a negative correlation, conscientiousness having the higher significant negative correlation.

Table 3

Standard Deviation and Mean scores of Genders on Academic Procrastination Scale and Big Five Inventory

Gender	Male		Female	
	M	*SD*	*M*	*SD*
Extraversion	7.01	5.13	5.98	6.47
Agreeableness	9.13	5.03	10.12	5.25
Conscientiousness	6.33	5.20	4.72	5.26
Neuroticism	5.27	5.46	8.97	6.18
Openness	23.02	5.20	24.33	4.61
Procrastination	47.47	16.50	42.96	17.84

Note. M= Mean, *SD*= Standard Deviation

The above table reports the standard deviation and means score values of procrastination and Big Five personality traits of males and females. The mean score value for males (*M*= 47.47) for procrastination was higher than females (*M* = 42.96). However, males scored high on conscientiousness as compared to females and females scored high on agreeableness and neuroticism.

Table 4

Standard Deviation and Mean scores of Academic Years on Big Five Inventory and Academic Procrastination Scale

Academic Year	Freshman		Sophomore		Junior		Senior	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Extraversion	6.84	5.74	6.33	5.97	5.73	7.80	6.35	5.60
Agreeableness	10.09	5.00	9.56	5.56	9.32	5.08	9.91	5.20
Conscientiousness	6.18	4.82	4.07	4.75	4.95	5.26	5.45	5.61
Neuroticism	5.87	6.26	7.53	5.10	8.32	5.83	8.26	6.50
Openness	23.73	6.02	23.12	4.13	24.15	4.62	24.13	4.70
Procrastination	45.29	16.65	47.40	14.65	45.63	20.48	42.79	17.64

Note. M= Mean, *SD*= Standard Deviation

The above table depicts the standard deviation and means score values of the four academic years for Big Five personality traits and procrastination. Sophomores were found to score high on procrastination as compared to freshman, juniors and seniors. Seniors scored the lowest on procrastination which depicts that the seniors seem to procrastinate less. Likewise mean scores of all four academic years insignificantly differed for procrastination and Big Five personality traits.

Discussion

The present study was conducted to discuss the relationship of academic procrastination with Big Five personality traits; Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness. Also, it was conducted to compare descriptive statistics; mean scores of genders (males & females) and the four academic years on the Big Five Inventory (BFI) and Academic Procrastination Scale (APS). Procrastination has long been under discussion and literature suggests that procrastination and personality traits are connected, researchers have found that people with neurotic traits would have a high chance of putting off their work but those having the other four Big Five personality traits; conscientiousness, openness, agreeableness and extraversion would procrastinate less as these traits have a negative correlation with procrastination (Steel, 2007). Likewise, Cheng and Ickes (2009) also reported in their study that conscientiousness is one of the traits that guarantee high academic achievements. In contraction to the results of Steel (2007), a study by Steel and Klingsieck (2016) found that openness, agreeableness and extraversion are traits that seem to share a positive correlation with procrastination just like neuroticism. Thus, results of researches are not consistent with each other.

The results of the present research are somewhat consistent with the findings of the literature. Neuroticism was found to be negatively correlated with procrastination and as the literature suggests that people with neurotic traits would procrastinate in their lives whenever they would be given a task due to their traits; depressed, low self-esteem and irrational beliefs because they would want to get instant relief from anxiety and stress that they would then

procrastinate in order to do so (Milgram et al., 1997). Similarly, results of the present study reported that the rest of the personality traits share a negative correlation with procrastination and some of the literature also suggests that except for neuroticism the remaining four Big Five personality traits share a negative correlation with procrastination (Steel, 2007).

Through the descriptive statistics mean score values of both the gender and academic years on Academic Procrastination Scale and Big Five personality traits were calculated and results were found to be in consistent with some of the literature, the mean scores of males on procrastination scale were higher than females and hence the results are consistent with the findings of Steel and Ferrari (2013), which suggest that males tend to procrastinate more as compared to females. Consistent with that Khan et al. (2014) also found in their study that males procrastinate more in comparison to females.

Furthermore, another variable that affects the level of procrastination is academic ranking. Ferrari, et al. (2009) found that when a student gets promoted to higher ranks, his level of procrastination declines which indicated that the higher the rank of academic level is lower the procrastination rate would be. By comparing the mean score values of participants belonging to the four academic years on the academic procrastination scale the present study found that the mean score value of the senior year students on procrastination was lower as compared to other three years. High competition in professional studies and higher the ranking in a professional study, the less procrastination is seen which showed that university students in higher level would be less likely to procrastinate because of high competition (Khan et al., 2014).

The results of the present study have also indicated that females scored high on openness, neuroticism and agreeableness, similar to what the literature suggests (Feingold, 1994) that women are found having the traits of agreeableness and neuroticism more as compared to males (as cited in Weisberg et al., 2011) and males scored high on conscientiousness and extraversion.

Implications

- As there is a dearth of research on procrastination and its correlation with personality traits, this study would play a role of a precursor for further research on this topic.
- Through this research, institutions and authorities could introduce programs, workshops and strategies to minimize the level of procrastination among undergraduates.
- This research could really help students to adopt personality traits and task oriented coping strategies that could help in minimizing the level of procrastination and increase their productivity.

Limitations and Suggestions

- This data is based only on one university and also having a majority of female participants thus we can’t generalize the findings on other universities and to gender as well. Therefore, to generalize the findings, a thorough study needs to be done on a larger and diverse population.
- The present study focused only on descriptive statistics to explain the level of procrastination among gender (male & female) and academic years. Thus, to find out the differences and comparisons further analysis needs to be run to ensure that results are found accurately through inferential statistics.

Conclusion

This research was done to find out a relationship of Big Five personality traits with procrastination and to compare the mean scores of both the genders and academic years on procrastination scale and on Big Five Inventory. As there is a dearth of research on this topic, hence this study would open door for further research in this area and from this study new coping skills and strategies could be introduced to minimize procrastination among the undergraduate students and increase their productivity.

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Contribution of Authors

Sr. No.	Author	Contribution
1.	Khadija Bushra	Methodology, Statistical Analysis, Interpretation, Write-up
2.	Ivan Suneel	Methodology, Critical Review of Write-up