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Prevalence of Academic Procrastination and Reasons for Academic Procrastination in University Students

***Safia Afzal and Humaira Jami, PhD**
National Institute of Psychology, Quaid-i-Azam University, Islamabad
Pakistan

The study was designed to investigate the prevalence and reasons for academic procrastination in public university students. The sample consisted of 200 university students including 155 women and 45 men students from social and natural sciences departments. Academic procrastination and reasons for it were measured by Procrastination Assessment Scale for Students (Solomon & Rothblum, 1984a). Backward linear regression analysis has shown that risk taking, task aversiveness, and decision-making were significant predictors (reasons) for academic procrastination while task aversiveness being strongest predictor with medium level coefficient of regression. It was also revealed that academic procrastination prevails at all three levels of education (MSc, MPhil and PhD). Task aversiveness, time management, laziness, rebellion against control, decision making, and lack of assertion were more common reasons in students of social sciences than natural sciences as shown by significant differences. Overall task aversiveness, fear of failure, dependency, decision making and risk taking were common reasons for indulging into academic procrastination.

Keywords. Academic procrastination, reasons for academic procrastination, university students

The concept of procrastination is explained by Solomon and Rothblum (1984a) as the tendency to delay initiation or completion of important tasks to the point of discomfort. Procrastination can be an enduring trait, viewed as a predisposition to postpone task which is necessary to reach at some goal (Lay, 1986) that may be related to temperament (Effert & Ferrari, 1995).

Academic Procrastination

Procrastination can be situation specific as Rothblum, Solomon, and Murakmi (1986) explained academic procrastination as: a) To nearly

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Correspondence concerning this article should be addressed to Safia Afzal, Alumni, National Institute of Psychology, Quaid-i-Azam University, Islamabad-Pakistan. Email: safiaafzal786@gmail.com
Humaira Jami, PhD, Assistant Professor, National Institute of Psychology, Quaid-i-Azam University, Islamabad-Pakistan. Email: jami@nip.edu.pk

or always put off academic task; and b) to nearly or always experience problematic level of anxiety associated with this procrastination. Tuckman and Sexton (1989) viewed procrastination as the tendency to put off or completely avoid an activity under one's control to reach goals. Noran (2000) considers procrastinator as someone who knows that he/she can do or want to do any task, plan and try for it; but does not complete it or excessively delay and waste time in less important activities or pleasure.

Procrastination is a common phenomenon among college and university students (Ellis & Knaus, 1977; Oweini & Harraty, 2005; Steel, 2007) that brings into negative outcomes on their academic achievement (Janssen, 2015; Klassen, Krawchuk, & Rajani, 2007). Steel (2007) in his metanalytical study found that 70-95% of the students procrastinate that is problematic in nature. It may be domain specific, as a study revealed that students who procrastinate consistently perform poorly on term assignments than students who do not procrastinate (Tice & Baureminder, 1997). With technological advancement where online learning as a tool for distant learning is important, procrastination is found to affect performance in web-courses (Tuckman, 2005) and also in online learning specifically when participants fail to be part of online discussions because of procrastination and drop out courses (Michinov, Brunot, Le Bohec, Juhel, & Delaval, 2011).

Reasons for Academic Procrastination

Solomon and Rothblum (1984b) in a study asked students and faculty members for reasons for academic procrastination and they found thirteen main reasons. A factor analysis (Solomon & Rothblum, 1984a) of the results yielded two major factors, "Fear of Failure" (evaluation anxiety, perfectionism, and lack of self-confidence) and second factor "Task Aversiveness" (aversiveness of the task and laziness). Along with these two major factors, the other factors emerged were dependency, risk taking, lack of assertion, rebellion against control, and difficulty making decisions. Among these, tasks evasiveness was found to be the most prevalent reason for academic procrastination. More aversive a task is perceived more likely one is to avoid it (Solomon & Rothblum, 1984a, 1984c). According to these researchers, academic procrastination is not deficit in study habits or time management, but a complex interplay of cognitive, behavioral, and affective components. Present study aims to study the reasons for procrastination.

Some other studies have also suggested that procrastination is linked to fear of failure, fear of rejection, perfectionism, fear of success,

social anxiety, depression (Ferrari, 1992), stress, life satisfaction (Aziz & Tariq, 2013a), low self-efficacy, rationalization (Tuckman, 1991, 2005), performance of task that are externally imposed (Lay, 1986), low self-esteem and low self-concept, forgetfulness, disorganization, learned resourcefulness, non-cooperativeness, life dissatisfaction, and lack of energy (Effert & Ferrari, 1989). Three psychological explanations for procrastination like indecision, irrational beliefs about self-worth, and low self-esteem was studied by Beswick, Rothblum, and Mann (1988) on 245 students. Results indicated that procrastination is detrimental to academic performance. It was also found that older students (21 years and over) were less likely to procrastinate than younger students. Klassen et al. (2007) also found age being related to academic procrastination.

A study was conducted by Rabin, Fogel, and Nutter-Upham (2011) on academic procrastination in college students and they found that executive functions including organizational ability, self-regulation, planning, and monitoring significantly predict academic procrastination. Low level of self-efficacy and motivation along self-regulation significantly predicts academic procrastination (Klassen et al., 2007; Steel, 2007; Tuckman, 2005; Milgram, Sroloff, & Rosenbaum, 1988). Self-regulation including disorganization and lack of metacognitive skills has been found to be related to procrastination. At the same time, those students who have mastery approach and are goal-oriented show less procrastination than those having avoidance-goal orientation (Howell & Watson, 2007).

Gargari, Sabouri, and Norzad (2011) in their research on Iranian students found that students who consider their success to be cause of their abilities showed less procrastination than those who associate their negative academic outcomes with internal factors; hence, show more procrastination while completing their assignments. So, in their view academic procrastination is a matter of perceived controllability related to one's success and failure. Hen and Goroshit (2012) found that emotional intelligence mediated between academic procrastination and GPA. This signifies the importance of emotional regulation, while, taking up academic tasks that may be because of learning deficits among students. Choudhry (2008) also found link between procrastination and emotional stability and conscientiousness.

Rationale of the Study

A few studies have been conducted in Pakistan (Aziz & Tariq, 2013; Choudhry, 2008; Fatima, 2001), but none has focused to find out reasons underlying academic procrastination among university students using Solomon and Rothblum model (1984a). Janssen (2015) studied the prevalence of academic procrastination among high school and undergraduate students and its relationship to academic achievement. Results showed that college students reported significantly more academic procrastination than high school students. Along with it, this study also highlighted the importance of considering students age when examining academic procrastination. Nonsignificant relationship was found between academic procrastination and academic achievement, as measured by grade point average.

Procrastination is a behavioral problem that many adults experience on a daily regular basis, particularly on task which should be completed by a specific deadline (Oweini & Haraty, 2005). The lives of university students are characterized by frequent deadlines given by university teachers and administrators to carry out various responsibilities such as registration for courses, completion of course forms and submission of class assignments or term papers (Popoola, 2005). A common form of academic procrastination among students is waiting until the last minute to turn in papers or to study for an examination (Oweini & Haraty, 2005).

Present study is aimed to study relationship between academic procrastination and reasons for academic procrastination and that among all proposed reasons by Solomon and Rothblum (1984a) which are most significant predictors of academic procrastination. This may help to plan interventions based on the findings that how the most significant reasons can be controlled to reduce academic procrastination in university students. In Pakistani university setting, two broad disciplines for study exist that is social sciences and natural sciences. Previous studies suggest some inconsistent evidences of displaying procrastination in academic setting for students across various disciplines (see e.g., Beswick et al., 1988, Tice & Baureminder; 1997; Tuckman, 1998) that is also targetted to be explored in current study.

Hypotheses

Following assumptions were made on the basis of literature review:

- There would be a positive relationship between reasons (i.e., task aversiveness, fear of failure, rebellion against control, lack of assertion, decision making, dependency, and risk taking) and academic procrastination.
- The reasons for academic procrastination including fear of failure and task aversion are likely to predict academic procrastination more than other reasons.
- Younger group (MSc students) experience more academic procrastination than older group (MPhil/PhD students).

Method

Sample

Two hundred university students with age range 20 - 41 years (*M*=23.10, *SD*= 3.03) were taken by using purposive sampling strategy from two faculties (100 from social sciences and 100 from natural sciences department) enrolled in MSc. (149, 74.5%), MPhil (36, 18 %), and PhD (15, 7%) levels from a public university in Islamabad. Purpose was to include all the students from the respective departments who were present on the day of data collection and seeking their volunteer participation. Women students were 155 (77.5 %) and men students were 45 (22.5 %).

Measures

Procrastination Assessment Scale Student (PASS). This scale (Solomon & Rothblum, 1984a) was designed to measure the cognitive and behavioral antecedents of procrastination. The PASS was developed to measure two areas: 1) the prevalence of academic procrastination, perceiving it as a problem, motivation to reduce it and 2) the underlying reasons. The first part has 18 items which measures the prevalence of procrastination in six academic areas (a) Writing a term paper, (b) Studying for an exam, (c) Keeping up with weekly reading assignments, (d) Performing administrative tasks, (e) Attendance tasks, and (f) Performing administrative tasks in general. Further, each academic area has 3 items, considering prevalence of procrastination, perceiving it as a

problem, and motivation to reduce procrastination in the respective academic area. In the present study, we were interested in prevalence of procrastination only (For perceiving it a problem and desire to reduce it see Afzal, 2009). For this, PASS has a 5- point Likert scale to measure the prevalence (1 = *Never procrastinated*, 2 = *Almost never procrastinated*, 3 = *Sometimes procrastinated*, 4 = *Nearly always procrastinated*, 5 = *Always procrastinated).* Scores are summed for each academic task for prevalence, perceiving it to be a problem, and desire to reduce in respective area. A score ranging from 6 to 30 for three domains separately is obtained across the six areas.

The second part assesses 13 reasons for academic procrastination and it has 26 items (2 items for each reason). These thirteen reasons are categorized in three major reasons as Task Aversiveness, Fear of Failure, and the other reasons. *Task Aversiveness* includes Fear of Success, Aversiveness of the Task, and Low Frustration Tolerance, Peer Influence, Laziness, and Time Management. *Fear of Failure* includes Evaluation Anxiety, Lack of Self-confidence, and Perfectionism. Other reasons include Rebellion against Control, Lack of Assertion, Dependency, Decision making, and Risk taking. Two statements are listed for each of these reasons and students are asked to rate each statement. For example, the two evaluation anxiety statements are: "You were concerned the professor wouldn't like your work" and "You were worried you would get bad grades" (Solomon & Rothblum, 1984a). These are also rated on 5-point Likert scale. The second part of the PASS by providing a procrastination scenario (in the present study "Delay in writing a term paper") helps in listing possible reasons for procrastination on the task.

In the present sample the reliability coefficients of PASS, its domains and for reasons is .90 which shows PASS is a very reliable measure. The alpha coefficient for reasons of procrastination was .80, and alpha coefficient for prevalence was .74 (Solomon & Rothblum, 1984a). Howell and Watson (2007) has reported an alpha coefficient of .75 reliability across prevalence and perceived problem ratings for PASS. It has got cross-cultural evidences of usage across many cultures with fair level of reliability and validity (Alexander & Onweueghuzie, 2007; Yong, 2010).

Procedure

As PASS was in English language, therefore, before administering the scale it was ascertained either scale needs to be translated, adapted, or just modification of some of the statements, or no modification would be needed for the scale to be used in the present

research. For taking the decision and finalizing the scale the evaluation of five Subject Matter Experts (Cohen & Swerdlik, 2010; Kline, 2005; Worthington & Whittaker, 2006) studying at PhD level was taken. On the basis of their opinion, the modifications were carried out.

1. Explanation was added in parenthesis i.e., "writing a term paper (for written assignments)".

2. The term Advisor was elaborated with Supervisor in domain 5 i.e., Advisor/ Supervisor.

3. Explanation for university activities for domain 6 was added as "University activities (seminars, conferences, etc)".

4. Meaning of the word 'resented' in items 25, 32, and 38 were added in parenthesis in front of the word, for example, the item in the scale was "You resented having to do things assigned by others" after modification "You resented (show or feel indignation at; be aggrieved [Thompson, 1995]) having to do things assigned by others".

Later, the try-out of the measure was carried out on 30 students to check the comprehension for the PASS. Comments from the students were taken regarding any difficulty they might have faced in responding to the items of the scales. Reportedly, students did not find any difficulty in understanding the items of both scales. Therefore, it was decided that PASS was suitable for present study. For data collection of the main study, students were approached by contacting the administration of the department. PASS and Consent Form to be filled by the students were shown to the administration authorities to address if they had any inhibition in the ethical use of the material. After seeking permission, the scale was administered in group form in classroom setting. Participants were assured anonymity and confidentiality regarding the information that would be used only for research purpose. They were informed that there was no right and wrong responses on the scale and no time limit was enforced for completing the scales. Participants were instructed to complete the scale by considering their own academic procrastination and related reasons. The scenario of writing a term paper (written assignment) was provided to the participants and they were asked to rate on the reasons that they thought were prevalent in them while doing that task. Total number of students of social sciences department was 150 while 300 students were from natural sciences however, at the time of data collection, only 201 participants were available. After collecting the data, all questionnaires were scrutinized and 1 questionnaire was discarded

because 18 items of the questionnaire were not rated by the participant. Students did not face any difficulty or any ambiguity in responding to the scales. Analyses were carried out by using SPSS 18.0.

Results

Pearson Product Moment Correlation was computed to study the relationship between prevalence of academic procrastination and reasons for academic procrastination. On the basis of correlation coefficient, linear regression analysis was conducted to examine the predictability of reasons for academic procrastination. Further, ANOVA was used to study group differences with reference to educational level whereas independent sample *t*-test was conducted to explore group differences across study discipline.

The relationship between prevalence of academic procrastination and reasons behind procrastination was computed through Pearson Product Moment Correlation (See Table 1).

Table 1

Relationship Between Prevalence and Reasons of Academic Procrastination in University Students (N = 200)

	Variables	2	3	4	5	6	7	8
1	Prevalence	.45**	36**	.27**	.22**	.34**	24**	.34**
2	Task aversiveness		57**	.56**	.36**	.42**	.51**	.46**
3	Fear of failure			.47**	.40**	.51**	.50**	.32**
4	Rebellion against control				.45**	.43**	.42**	.30**
5	Lack of assertion					.26**	.36**	.29**
6	Decision making						.38**	.27**
7	Dependency							.31**
8	Risk taking							

***p* < .01.

Table 1 shows significant positive relationship between prevalence of academic procrastination and for all the reasons for academic procrastination that range from .22 to .45 ($p < .01$) minimum for Lack of assertion and maximum for Task-aversiveness overall, respectively. Therefore, Hypothesis 1 has been confirmed. All the

reasons are also significantly correlated that ranged from .26 to .57 ($p <$ .01). Results also establish the construct validity of the scale. All reasons are also significantly correlated with each other, hence, showing that same construct is being measured by these domains that are reasons for academic procrastination**.** On the basis of correlation coefficients, linear regression analysis was conducted on prevalence of academic procrastination and reasons for academic procrastination. Results of the analysis have shown that separately each reason is significantly predicting academic procrastination at p = .00 significant level except Lack of assertion which is predicting at p = .01, while Fear of Success is predicting at .05 significant level (For details contact first author).

Backward linear regression analysis was carried out to determine the comparative predictability of reasons for academic procrastination (see Table 2) to test the Hypothesis 2.

Table 2

Backward Linear Regression Analysis Showing the Effect of Reasons for Academic Procrastination on Prevalence of Academic Procrastination in University Students (N = 200)

Model	*B*	*SE*	*β*	*t*	*p*
Constant	5.93	1.38		4.27	.001
Task aversiveness	.22	.06	.31	4.13	.001
Decision making	.44	.18	.17	2.44	.02
Risk taking	.35	.16	.16	2.22	.03
Fear of failure	.09	.09	.08	.97	.33
Dependency	.17	.20	.07	.87	.39
Rebellion against control	.10	.21	.04	.47	.64
Lack of assertion	.06	.12	.04	.50	.62
R = .50					
R^2 = .25					
ΔR^2 = .24					

Table 2 shows the ΔR^2 depicting 24% variance in prevalence of academic procrastination can be accounted for by the predictors (reasons) with F (191) = 9.47, $p <$ .000. The results indicated that task aversiveness, decision making, and risk taking are the strongest predictors for prevalence of academic procrastination. Fear of failure is not predicting as anticipated in comparative analysis. Therefore, second Hypothesis has

partially been accepted that is task evasiveness is predicting strongly, but fear of failure does not in comparative analysis.

One Way ANOVA was run to delineate differences among education groups in prevalence of academic procrastination and reasons for procrastination.

Table 3
One Way ANOVA Comparing Three Education Levels on PASS in University Students (N = 200)

Variables	MSc (n = 149)	MPhil (n = 36)	PhD (n = 15)		
	M (SD)	*M(SD)*	*M(SD)*	*F(2,197)*	*p*
Prevalence	16.65(5.38)	16.65(5.38)	15.83(5.84)	.41	.66
Task aversiveness	27.64 (6.81)	25.08(6.49)	23.00(6.26)	4.74	.01
Fear of Failure	16.40(4.69)	15.69(4.73)	12.07(4.86)	5.82	.01
Rebellion against control	5.11(1.96)	4.53(2.00)	4.40(1.84)	1.90	.15
Lack of assertion	6.02(3.40)	5.31(2.42)	5.00(2.42)	1.27	.28
Decision making	5.88(1.94)	5.69(2.14)	4.53(1.64)	3.21	.04
Dependency	5.87(1.95)	5.61(1.88)	4.00(1.60)	6.45	.00
Risk taking	5.10(2.37)	4.53(2.23)	4.07(1.98)	1.97	.14

Table 3 shows the results of ANOVA for comparing the prevalence of academic procrastination among three educational levels. Results indicate nonsignificant differences. Therefore, third hypothesis that academic procrastination is more prevalent in younger group has been refuted. This table also compares three educational levels on the reasons of academic procrastination. Results indicate significant differences in task aversiveness, fear of failure, decision making, and dependency. Significant differences appear on these variables that's why Tuckey's post hoc analysis was carried out for detailed comparison among three groups.

Table 4

Post Hoc Analysis among MSc, MPhil, and PhD (N = 200)

					95% *CI*	
Scales	*F*	I > j	D = i-j	*SE*	*LL*	*UL*
Task Aversiveness	5.1	M.Sc.> PhD	4.7*	1.8	.40	9.0
Fear of Failure	5.8	M.Sc. > PhD	4.3*	1.2	1.2	7.3
Dependency	6.6	M.Sc. > PhD	1.8*	.52	.64	3.1
		MPhil > PhD	1.4*	.60	.06	2.9
Difficulty in Making Decisions	3.0	M.Sc. > PhD	1.3*	.52	.10	2.6

Note. i-j = mean difference

*$p < .05$.

Post Hoc Analysis Using Tuckey's model was done for significant *F*-values only. Post Hoc analysis shows in Table 4 that M.Sc. students have significantly scored high than PhD students on task aversiveness, fear of failure, dependency, and difficulty in making decisions. However, MPhil students did not differ significantly from M.Sc. and PhD students on these, but MPhil students differ significantly from PhD students on Dependency.

Further, Independent Sample *t*-test was conducted to compare social sciences (n = 100) and natural sciences' (n = 100) students on PASS. For comparison on reasons, all 13 reasons are considered separately.

Table 5

Independent Sample t-test Comparing Natural and Social Sciences Students on PASS (N=200)

PASS	Social Sciences *(n = 100)*	Natural Sciences *(n = 100)*	*t(198)*	*p*	*Cohen's d*
	M(SD)	*M(SD)*			
Task Aversiveness					
Task aversiveness	5.16 (1.90)	4.82 (2.08)	1.20	.23	.17
Fear of success	4.75 (1.97)	5.14 (2.23)	1.31	.19	.18
Laziness	6.09 (2.31)	5.29 (2.23)	2.44	.02	.35
Peer influence	5.22 (1.81)	5.10 (2.01)	.44	.12	.06
Time management	6.84 (1.81)	5.26 (1.95)	5.91	.00	.84
Task Aversiveness overall	28.06 (6.27)	25.61 (7.20)	2.56	.01	.36

Table Continued

Table 5
Independent Sample t-test Comparing Natural and Social Sciences Students on PASS (N=200)

PASS	Social Sciences *(n = 100)*	Natural Sciences *(n = 100)*	*t(198)*	*p*	*Cohen's d*
	M(SD)	*M(SD)*			
Fear of Failure					
Fear of failure	16.22 (5.20)	15.66 (4.42)	.82	.41	.12
Evaluation anxiety	5.63 (2.18)	5.44 (2.17)	.62	.54	.09
Lack-of-self-confident	4.96 (1.91)	4.78(2.02)	6.45	.52	.09
Perfectionism	5.22 (1.81)	5.10 (2.02)	6.04	.55	.06
Other Reasons					
Rebellion against control	5.35 (1.93)	4.55 (1.94)	2.29	.03	.41
Lack of assertion	6.29 (3.77)	5.34 (2.35)	2.14	.03	.30
Decision making	6.06 (1.89)	5.43 (2.04)	2.26	.03	.32
Dependency	5.61 (2.07)	5.75 (1.87)	.50	.62	.07
Risk taking	5.08 (2.47)	4.76 (2.19)	.97	.33	.14

Table 5 shows reasons for academic procrastination that are prevalent in natural sciences and social sciences. Overall task aversiveness is more common among social sciences' than natural sciences' students. Under this broader category, ti me management and laziness are the reasons that are more common among the students of social sciences, hence, showing significant difference between the social science and natural sciences. Rebellion against control, decision making, and lack of assertion are also prevalent reasons for procrastination in social sciences students showing significant differences. Non-significant differences appeared on fear of failure overall and also on its separate categories.

Discussion

The present study was aimed at studying the relationship between prevalence of academic procrastination and reasons for academic procrastination. As indicator of psychometric properties of PASS, significant relationship was found between reasons for academic procrastination that reflects the construct validity of PASS. At the same time, as reported in instrument section, reliability .91 was also excellent (Cohen & Swerdlik, 2010).

It was assumed that there is positive relationship between reasons for academic procrastination and prevalence of academic procrastination. The present study supports this assumption as positive relationship between prevalence and reasons for academic procrastination is observed. A study conducted by Tice and Baureminder (1997) also support this assumption where students who procrastinated consistently performed more poorly on written assignments than students who did not procrastinate for various reasons. According to researchers (Solomon & Rothblum, 1984a, 1984c), academic procrastination is not deficit is study habits or time management, but a complex interplay of cognitive, behavioral, and affective components.

The second hypothesis was that among reasons for academic procrastination, task aversion and fear of failure positively predict academic procrastination more than other reasons. Table 2 has revealed that task aversiveness, decision making, and risk taking are the reasons that appeared in hierarchy significantly predicting academic procrastination more than any other reasons. Fear of failure did not predict as assumed. Solomon and Rothblum (1984a) proposed that task aversiveness and fear of failure hold major variance in academic procrastination. In the current study, task aversiveness emerged as significant predictor, but fear of failure did not show any significance. This may be because of nature of scenario proposed to the students for rating their reasons for academic procrastination that is "writing term paper or assignments". Lay (1986) suggested that task aversiveness include task characteristics such as boredom and unpleasantness. It can also be because of the reasons that come under task aversiveness including fear of success, laziness, peer influence, and time management. Students have rated the scenario according to these reasons.

Generally, written assignments are not much well prepared by the students and it is observed that because of the easy internet access, students indulge into plagiarism and they put less effort in such tasks. This may be because they lack metacognitive skills in learning that leads to procrastination (Howell & Watson, 2007). This is also reflected by decision making as another reason for academic procrastination in current sample. As students lack metacognitive ability, they may face difficulty in information gathering and appropriate material to be quoted in the assignment and then formatting as per standards of reporting. Another factor for these findings can be lack of self-regulation and problems is

executive functioning that involves planning, monitoring, and organizational abilities; as these decrease, procrastination increases (Klassen et al., 2007; Milgram et al., 1988; Rabin et al., 2011; Steel, 2007; Tuckman, 2005).

Interestingly, risk taking appeared as third most significant predictor. According to Oweini and Haraty (2005) common form of academic procrastination among students is waiting until the last minute to turn in papers or to study for an examination. Some individuals may believe in putting their best in emergency situations when anxiety is at its peak. Sensation seeking and thrill adds to flavor in life for some individuals and they get habitual in delaying the task. This suggests to study trait procrastination as linked to academic procrastination that may be linked to temperament (Effert & Ferrari, 1995). Nevertheless, fear of failure based on evaluation anxiety, lack of self-confidence, and perfectionism, did not emerge as significant predictor as students hope that they would pass written assignment, because scoring holds much element of subjectivity at the part of the evaluator in written assignments (Cohen & Swerdlik, 2010). The results can differ if scenario is changed that is to written exam or public presentation.

Third hypothesis was that 'younger group experience more academic procrastination than older group.' Present study results did not support this assumption as Table 3 shows nonsignificant differences among students of three education levels on prevalence of academic procrastination. The reason may be that all students hold similar feelings for scenario (writing term paper/assignment) either belonging to MSc, MPhil or PhD, hence, experiencing similar level of academic procrastination. A study by Burka and Yuen (1983) also supports the present study's findings. They have found that academic procrastination is common among college and university students that may be depiction of their age. Table 3 also shows that task aversiveness, fear of failure, dependency, decision making, and risk taking are more common in younger group than older group. The reason may be that younger group (MSc.) may face much tough routine that involve more course work and meeting deadlines than other levels. At the same time, self-regulation and metacognitive skills are age related (Beswick et al., 1988; Klassen et al., 2007) that may be less developed in younger group than older.

Results have shown that overall task aversiveness is more common among social sciences' than natural sciences' students. Under this broader category, time management and laziness are the reasons that are more common among the students of social sciences comparatively.

This may be because students of social sciences have more free slots and leisure time available for not having very tough schedule of classes and lab work as of students of natural sciences. This make them lazy and least concerned about time management, hence, they may procrastinate. A study by Harris and Sutton (1983) showed that task appeal refers to actions that we find unpleasant. Lay (1986) suggested that the definition of task aversiveness be broaden to include person-task characteristics such as uncertainty and boredom, which covers how unpleasant or aversive a task is to perform. Rebellion against control, decision making, and lack of assertion are also the more common reasons in students of social sciences and natural sciences. This may be because students of natural sciences get used to their defined schedule and amount of work and planning required to prepare their written assignments. They may have better metacognitive skills and self-regulation or receive more social support from their teachers as compare to students of social sciences while preparing written assignments. Natural sciences are also based on all-or-none phenomenon, while social sciences need to cater complexity and shades of social life that may also be reflected in more reasons for procrastination among them.

Conclusion. Although, in the current study, all the reasons proposed by Solomon and Rothblum (1984a) were found to be associated with academic procrastination, nevertheless, aversion for an academic task like writing a term paper, studying for an exam, keeping up with weekly reading assignments, performing administrative tasks, and maintaining attendance; along lack of decision making and risk taking behavior were the strongest predictors of reasons academic procrastination. Procrastination was equally prevalent among all educational groups, however, junior students displayed more academic task aversion, fear of failure, dependency, and decision making problems than senior students. Interestingly, procrastination was found to be more prevalent in social sciences' students than natural sciences', so are the various reasons for procrastination. Therefore, junior and social sciences' students need attention to address their academic procrastination related issues.

Limitations and Suggestions. Limitation of this present study was that the sample was not equally distributed along gender and all educational levels that may affect the external validity of the findings,

therefore, it is suggested to take equal distribution of sample along gender and educational groups to make inferences more meaningful. Another limitation was that the sample was not large enough and randomly selected to generalize the findings. A nation-wide study at university level can be taken up using random sampling to increase external validity of the study. Current study was cross-sectional, in future longitudinal studies can be taken up as differences along educational group reveal that procrastination may vary with time, increased level of training, and skills. Self-regulation and metacognitive skills can be taken up in future studies as correlate of academic procrastination. Modifications in PASS were done, but factor structure was not confirmed. In future, confirmatory factor analysis is recommended as indicator of construct validity. Indigenous measures to study procrastination can be developed to study this phenomenon in Pakistani context. More in-depth analysis along demographic variables are suggested to study the phenomenon in detail.

Implications. Based on present findings, interventions for students can be offered in respective departments to address reasons for procrastination, which are evidently needed for students of social sciences. Teachers can make written assignments more interesting so that students have intrinsic motivation to learn from the assigned task. Report writing skills can be improved through workshops and interventions to help students handle their inhibitions while writing term paper/assignments. In fact, at university level courses at M.Sc. level may be developed to promote this skill among students. Time management workshops can be arranged to address task aversiveness as a reason for procrastination.

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