



Effect of Rumination and Worry, Test Anxiety, and Academic Procrastination on Academic Achievement of Pakistani University Students

Vol. IV, No. 1 (Winter 2019) | Page: 420 – 426 | DOI: 10.31703/grr.2019(IV-I).45

p-ISSN: 2616-955X | e-ISSN: 2663-7030 | ISSN-L: 2616-955X

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Abstract

This study was performed to discover the influence of rumination and worry, test anxiety and procrastination on the educational attainment of the students of the university. The descriptive survey research method was used for conducting the research. The technique of stratified random sampling was used to select 400 students from the 7th and 8th semesters of fall, 2018 from four public sector universities of the Hazara Division. The ruminative responsive scale developed by Treynor, Gonzalez and Nolen-Hoeksema, (2003), Test anxiety developed by Nest and Diehl (1990), and Abu Ghazal (2012) scale of academic procrastination was adopted as data collection instruments. Regression analyses, coefficient of correlation, mean, and standard deviation was applied for the analysis of data. The results of the study found that test anxiety is greater among students of the university. It was established that rumination and worry, academic procrastination and test anxiety has a significant positive relationship among each other. Further, it was indicated that test anxiety and academic procrastination has significant impact on educational attainment.

Key Words: Academic Procrastination, Rumination and Worry, Test Anxiety, University Students

Introduction

According to Borkovec et al. (1983), worry is the effort of engaging in mentally solving problem on an issue which has doubtful results and has the likelihood of single or more adverse results. In another means, worry is a mental action with which anxiety is accompanied about the events which have unclear result but which are considered to finish badly (MacLeod et al. 1991).

Rumination, a mental activity, is since discussed in numerous contexts in various theories; therefore, there is no consensus on its single definition (Smith & Alloy 2009). But broadly it can be defined as all thinking patterns going on repeatedly (Martin & Tesser, 1989).

The response style theory states that rumination is the result of negative feelings, and experiences during depressive mood (Nolen-Hoeksema, 2004), and is defined as “repetitively focusing on the fact that one is depressed; on one’s symptoms of depression; and on the causes, meanings, and consequences of depressive symptoms” (Nolen-Hoeksema 1991, p. 569).

Procrastination is the postponement of intended assignments to later on time (Lay, 1986) or according to Haycock, McCharty and Skay, (1998), putting down the concluding assignments, decisions, or jobs to very last moment. In other words, it is the postponement of academic duties because of fear of making mistakes (Schouwenburg, 1992). According to Balkis and Duru (2009), this poor performance of the person is due to everyday routine. Another shape of procrastination is the academic procrastination that is defined as the postponing behavior in education process.

According to Senécal, Julian, and Guay (2003), academic procrastination is the unreasonable delaying of launching or completion of any academic assignment. Various surveys have been conducted to explore whether university students procrastinate on academic tasks or not.

According to Balkis and Duru (2009), twenty three (23%) percent of the student procrastinate on academic assignments. Similarly, academic tasks are procrastinated by 52% of the students (Ozer, Demir, & Ferrari, 2009). On the other hand, the previous studies showed that this academic procrastination was at an alarming rate of 95% (Akinsol, Tella, & Tella, 2007). The students procrastinate on other academic assignments like preparation for exam studies (Clark, & Hill, 1994). This behavior of students certainly has a negative effect on their academic performance (Akin, 2009).

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Academic achievement and well-being of the students is greatly influenced by academic procrastination (Kim & Seo, 2015). Academic achievement of students is negatively influenced by academic procrastination (Özer et al. 2009). Similarly, academic motivation is greatly influenced by the academic procrastination (Terzi, Uyangor & Dulker (2017). Both studies highlight that higher academic procrastination leads to lower academic achievement.

Academic procrastination has a positive correlation with anxiety. It is because academic procrastination results in permanent or temporarily delay the academic responsibilities with results in anxiety (Rothblum, Solomon, & Murakami, 1986). Freud claimed that with anxiety, individual various defense mechanisms are used by ego and rely on avoidance (procrastination) (Erfidan, 2015). During the examination, the prevention of the use of beforehand obtained information is called test anxiety (Cetinkaya, 2018). It is originated from self-efficacy, beliefs of self-confidence and the attitude of teachers in the process of education as well as expectations of the family as well as community (Akan, 2011). A research endeavour carried out in Egypt found that 71% of the students had experienced a moderate level of test anxiety (Ibrahim, Kelly, & Glazebrook, 2012). Similarly, 70 percent of the students face anxiety and depression (Khan, Mahmood, Badshah, Ali, & Jamal, 2006). This results in the prevention of use of acquired information profoundly influence the academic achievement of the students (Aydin, 2017). In the same way, many research studies have found the relationship of test anxiety, academic procrastination as well as academic achievement (Borekci, & Uyangor, 2018; Hussain, & Sultan, 2010). While this study was conducted for the investigation of the effect of rumination and worry, test anxiety, and procrastination on the educational attainment of students of the university. This research endeavour was meant for the achievement of the subsequent objectives.

Objectives of the Survey

1. To document the rumination along with worry, test anxiety, and procrastination as well as academic achievement levels of university students.
2. To investigate the relationship among rumination along with worry, test anxiety as well as procrastination.
3. To determine the effect of rumination along with worry, test anxiety, and procrastination on the academic success of the pupils of the university.

Research Questions

- Q1. What is the level of rumination plus worry, test anxiety and procrastination as well as the educational attainment of students of university?
- Q2. Is there any relationship between rumination with worry, test anxiety as well as procrastination?
- Q3. What is the effect of rumination with worry, test anxiety as well as academic procrastination on educational attainment of university students?

Hypothesis of the Survey

1. Test anxiety is the highest among the three variables.
2. Rumination plus worry, test anxiety and procrastination are highly correlated.
3. Rumination plus worry, test anxiety and procrastination have a noteworthy effect on the educational attainment of students of the university.

Significance of the Study

It is hoped that students and teachers will get benefits from the findings of this study. This research endeavour will be helpful for teachers in understanding the concept of effect of anxiety, procrastination, rumination and worry on academic achievement. This research study will help the students to know the impact of anxiety and procrastination in their daily life and also its effect on their study and academic performance at university level. It will help them to overcome this practice/habit in light of the findings of this research study.

This study will create awareness about rumination and worry, test anxiety, and procrastination, among the students. Furthermore, the role of repetitively negative feelings (worry and rumination) test anxiety and procrastination in the educational attainment of students of the university will be clarified. The research study will also be beneficial for parents, educators, curriculum developers, policy makers and society in one way or the other.

Research Methodology

This study aimed at the identification of the impact of rumination and worry, test anxiety and procrastination on the educational attainment of students of the university. The descriptive research design was used while conducting this study.

This survey research consisted of all Bachelor students of 7th as well as 8th fall (2018) semesters, enrolled in universities of Hazara Division namely Hazara University, Mansehra, COMSATS, Abbottabad, Abbottabad and The University of Haripur as the population of the research study. The sample of the research contained 400 BS students of semester 7th and 8th of four public sector universities. The sample was selected through selection of technique of stratified random sampling.

Intended for the collection of data from the (sample) section of students, Ruminative responsive scale developed by Treynor, Gonzalez and Nolen-Hoeksema, (2003), Test anxiety developed by Nest and Diehl (1990), and Abu Ghazal (2012) scale of academic procrastination was adopted as data collection instruments. The first part of the questionnaire consisted of the demographic information including candidate's name, university name, their roll number, department name, and marks obtained in CGPA in the 6th semester. Ruminative responsive scale contained 5 items which comprised of 4 point Likert scale having 4 options i.e. "Almost Never"; "Sometimes"; "Often"; "Almost Always". Test anxiety scale contained 5 point Likert scale with 5 options i.e. "Never"; "Rarely"; "Sometimes"; "Often"; "Always" while academic procrastination scale containing 5 point Likert scale with 5 options of "Apply to Me Very Low", "Apply to Me Low", "Apply to Me Moderately", "Apply to Me High", "Apply to Me Very High".

A pilot study was carried out on a sample of 100 BS students (50 males and 50 female) for finding out the reliability of the instruments. During the actual process of conducting the research and collecting the sample, these respondents were not included. The reliability coefficient of Cronbach alpha for the ruminative scale was 0.72, for the test anxiety it was 0.65, and for academic procrastination, it was 0.69.

After taking the authority letter from the Education Department University of Haripur, the researcher personally visited the selected universities. After formal permission from the head of the respective department, the students were randomly selected and the information required from them was collected through the use of questionnaires. The selected students were given surety that the data which they will provide would not be disclosed to anyone and will be used for research purposes only. Their names will be kept anonymous so that they can easily and confidently provide the actual information. Furthermore, they were allowed that anyone if like to withdraw from the survey at any stage would be allowed to do so.

The researcher collected filled questionnaires back from the students at the spot. The data was analysed by using descriptive statistics and correlation coefficient, and regression analysis.

Results and Discussion

In this research, it is attempted to describe the effect of rumination and worry, test anxiety, and academic procrastination on the educational attainment of students of the university. Descriptive statistics like mean coupled with standard deviation were applied for the describing rumination along with worry, test anxiety, and academic procrastination. Coefficient of Spearman correlation was employed to show the connection among rumination and worry, test anxiety, and procrastination while multiple regression model was applied to predict the influence of rumination with worry, test anxiety, and procrastination on the educational attainment of students of the university. The descriptive statistics of rumination along with worry, test anxiety, and procrastination is offered in the underlying table.

Table 1. Mean and Standard deviation of the variables

	f	Mean \pm S. D
Rumination and worry	400	2.34 \pm 0.88
Test anxiety	400	2.73 \pm 0.71
Academic procrastination	400	2.72 \pm 0.70

Table 1 shows the mean, along with standard deviation values of the research study.

Rumination with worry (N = 400, Mean = 2.34, SD = 0.88) often found in the students. Moreover, test anxiety (N = 400, Mean = 2.73, SD = 0.71) moderately found in the university students. In addition, academic procrastination (N = 400, Mean = 2.72, SD = 0.70) apply to the students moderately. Furthermore, CGPA in terms of academic achievement found above 3.00 (N = 400, Mean = 3.17, SD = 0.45).

Table 2. Relationship of Rumination and Worry, and Academic Procrastination

	Academic procrastination	Test anxiety
Rumination and worry	0.103*	0.124*
Sig. (2-tailed)	0.039	0.013
N	400	400

The results in Table 2 highlight the connection of rumination and worry, test anxiety, and procrastination. The results show that rumination and worry, and academic procrastination has a noteworthy positive relationship with each other which is shown by the coefficient of correlation of $r = 0.103$, $\alpha = 0.039$. This relationship is not only positive but significant.

The results in table 2 highlight that rumination and worry, and Test anxiety has a noteworthy positive relation with each other as shown by the coefficient of correlation of $r = 0.124$, $\alpha = 0.013$. This relationship is not only positive but significant.

Table 3. Relation of academic procrastination and test anxiety

	Test anxiety
Academic procrastination	0.64**
Significance level	0.000
f	400

Table number 3 elaborates the relationship of academic procrastination with test anxiety. The results in table 3 highlight that Academic Procrastination, and Test Anxiety has significant positive relationship with each other ($r = .636$, $\alpha = .000$). This relationship is not only positive but significant.

Table 4. Effect of Rumination and Worry, Test Anxiety, as well as Academic Procrastination on Academic Achievement

	B	S. E	β	t	p value
Rumination and worry	-0.057	0.025	0.113	-2.269	0.024
Test anxiety	-0.052	0.040	-0.084	-1.305	0.193
Academic procrastination	-0.045	0.041	-0.071	-1.105	0.270
R=0.17 R ² =0.03 Adjusted R ² =0.021	F=3.87	P =0.009			

a. CGPA as Dependent Variable

Table 4 shows that the R² value is 0.03 that imitates that rumination and worry, Test Anxiety and Academic Procrastination explain 3 % of the variability in academic achievement. The $F = 3.872$ and $Sig. = .009$ statistically, correct, significant predictions are shown between the variables at $p = 0.05$ significance level. The β value for rumination and worry is -0.057 significant impact on academic achievement is revealed by rumination and worry as shown by $t = -2.269$, $\alpha = .024$. β value for Test Anxiety is -0.052 which reflects that Anxiety due to has an adverse but insignificant impact on academic achievement as denoted by $t = -1.305$ and $\alpha = .193$. The β value -0.45 for Academic Procrastination reflects that academic Procrastination has a negative but insignificant influence on academic achievement as denoted by $t = -1.105$ and $\alpha = .270$.

Discussion

The outcome of the research study showed that test anxiety is greater among university students. These results are consistent with Abbott (2016). It is possible that the students of the 6th or 7th semester remain more conscious of the fact that their CGPA may become down while some of them may feel anxious about the possibility of failure. Therefore, they feel more anxious.

It was also found out that rumination and worry, academic procrastination and test anxiety has a significant positive relationship among each other. These results are consistent with the results of Raes (2010); Constantin, English, and Mazmanian (2018); Stöber, and Joormann (2001) who found positive relationship of rumination and worry, academic procrastination and test anxiety. He feels that he is helpless and his failure sense is then become stronger. The social-psychological function of individual may tempt a gloomy state, under the influence of rumination, as result passionate disorders, including anxiety and depression are born (Deyo et al, 2009). It is indicated by these results that those students who have a high level of anxiety, are more vulnerable to procrastination which results in more worry and rumination. It is possible that the students who respond have problems such as sleeping disorders, sadness, hopelessness, lacking motivation which results in problems of focusing, memorization, or issues of studies.

This also points towards a fact that due to procrastination, there is a failure of self-regulation which results in detachment between the present and future with a special reference that procrastinators have less focus on future tasks (Sirois and Pychyl, 2013).

The results of the study indicate a negative insignificant effect of educational procrastination on the educational success of the students of the university. The results are partially the same as the results of Grunschel et al. (2013) where they found

a powerful encouraging association among academic procrastination and dysfunctional learning products like low academic achievement, little quality of educational work, less knowledge, pressure of time and lengthened course study.

Our results indicate a negative insignificant influence of test anxiety on educational attainment of the students of university. Furthermore, the outcome of the study found that rumination and worry had profound negative influence on educational accomplishment of students of university. The outcomes of this research were the same as the results of Yilmaz (2017); Yurtseven and Akpur (2018); Legesse (2014). On the other hand, Constantin, English, & Mazmanian. (2018) found a small correlation between procrastination and worry.

Conclusion

Test anxiety is greater among university students. Rumination and worry, academic procrastination and test anxiety has significant positive relationship among each other. Further, it was indicated that Academic Procrastination and Test Anxiety has a significant impact on educational attainment.

Recommendations

On the basis of conclusion, the following recommendations can be formulated:

- i. Since anxiety has a deep impact on the educational attainment of students of university, it is necessary to help out the University students to reduce test anxiety through group work among students and parents.
- ii. Since negative significant impact by anxiety due to test on achievement in academics of university pupils hence, it is recommended that Test anxiety can be reduced giving help by parents, teachers and administrators, using strategies which are cognitive, affective and behavioral ones. Their faculty of department ought to put in the picture students about courses, duration of semester and need of commitment for the successful completing course successfully.
- iii. High Test Anxiety students should be known and treated in a way so that they become successful academically.
- iv. Family's encouragement, support and active participation in all their actions are necessary to lessening anxiety due to tests in students and thus resulted in better preparations for examination.
- v. As Academic Procrastination (AP) has negative and profound impact on achievement in academics (AA) of University pupils, it is recommended that instructors should design tasks that will improve learning strategies of the students to engage them with course material.
- vi. The instructors should take into considerations academic procrastination while designing the courses and their assignments.
- vii. Teachers and parents need to encourage the students on reading culture.
- viii. Teachers who serve as a model need to tell the students the implication of procrastination, so that they too will understand the negative impact of procrastination.
- ix. Persuade the students to get ready for the examinations in advance. Consequently, they will develop confidence that will resolve and help in reducing anxiety from tests.
- x. Guiding the academic and so advising counselling programs might be activated especially before examinations that may help to reduce test anxiety and thus develop the academic performance of students.
- xi. It is should be made compulsory for family to provide support to participate in social activities which will reduce test anxiety in students preparing for different exams.
- xii. To handle anxiety in examination, it is important to direct students to manage the anxiety during examinations and be made to understand that anxiety can be used as a motivating factor during examinations.
- xiii. Examinations and continuous assessment tests should be well planned for avoiding unnecessary strain on students.

Suggestion for Further Research

A larger sample can be used to replicate this study. Additionally, the combination of both quantitative and qualitative should be used to identify the causes which lead to anxiety among the students.

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