ACADEMIC STRESS, PSYCHOLOGICAL WELL-BEING AND ACADEMIC ACHIEVEMENT AMONG COLLEGE STUDENTS

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ABSTRACT

The current study explored the relationship of demographic variables, academic stress, and psychological well-being with academic achievement among college students. Sample of total 350 college students (132 male & 218 female) from private and government colleges was selected through stratified random sampling technique. The Educational Stress Scale for Adolescents (Dunne, Sun, Hou, & Xu, 2011), Psychological Well-being Scale (Aslam & Kausar, 2010), and obtained marks in last examination were used to measure study variables. Hierarchical multiple regression analysis revealed that demographic variables (gender, educational level (first year/second year), organization (private/government), academic stress (worry about grades) and psychological well-being (personal growth) accounted for 89% variance in the scores of academic achievement. These findings provided a better indication of what is operative in promoting the psychological well-being to increase the academic outcome of students.

Keywords: *Academic Stress, Academic Achievement, Psychological Well-Being, College students*

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INTRODUCTION

In the present competitive education system students experience stress due to examinations, assignments, projects and grades. Besides that the cost of their education, hostel life and future job scenario add fuel to injuries (Garret, 2001). Transition from school to college may bring new and exciting educational and social experiences for the students however; the adjustment to these learning environments can be cause of distress to the majority of them. This stress may harm the mental health of the students which further restrict the abilities of the students to socialize and to achieve their academic goals (Scott, 2013).

Academic stress can be stated as an unpleasant state of emotional and physiological arousal that individuals experience in particular situations that they perceive as dangerous or threatening to their well-being (Auerbach & Grambling, 1998). Academic stress can be defined as a mental distress with respect to some anticipated frustration associated with the academic failure, anticipation of such failure or even an awareness of the possibility of failure (Verma & Gupta, 1990). Educational stress to some extent is common for the students, but too much educational pressure can signify the unhappiness which in turn can disturb the psychological well-being and academic achievements (Tennat, 2002).

Achievement is well-defined "as measurable behavior in a standardized series of tests". In most circumstances the term "accomplishment" is sometimes used in place of "achievement" (Simpson & Weiner, 1989, as cited in Yusuf, 2012, p.6). Achievement is also considered as an action of concluding or achieving by effort. It can be defined "as the outcome of education or the extent to which a student, teacher or institution has achieved their educational goals" (Singh, 2015, p.114). On the other hand, psychological well-being can be defined as "the state of successful performance throughout the life course integrating psychical, cognitive, and socio-emotional functions that results in productive activities deemed significant by one's cultural community, fulfilling social relationships, and the ability to transcend moderate

psychosocial and environmental problems" (Bornstein, Davidson, Keyes, & Moore, 2003).

The findings of recent studies showed negative relationship of academic stress with academic achievement and psychological well-being (Omidi, Akbari, & Mahdian, 2011; Misra & McKean, 2000; Sohail, 2012) as well as stress has also been found a strong negative predictor of academic achievement as compared to other independent variables (Khan, Altaf, & Kausar, 2013; Solomon 2013). The literature originate from the sociology of learning, societal epidemiology shows that adolescents with academic stress as well as those with emotional and psychological problems achieve less in academic setting (Campbell & Berg, 2007, as cited in Singh, 2015). Whereas, the findings of other studies indicate that students with lower level of academic stress reported higher level of psychological well-being (Akhtar, 2012).

On the other hand a few studies have been conducted on the role of demographic variables in academic achievement of the students (Bulala, Ramatlala, & Nenty, 2014). The findings of previous studies also found family income, family system, age gender, type of institutions (private & government), parental education as significantly predictors of the academic achievement of students (Jha, Kudachi, & Goudar, 2012; Egalite, 2016; Adeyemi, 2014; Abubakar & Oguguo, 2011; Isaacs & Magnuson, 2011).

In this regard, the present research aimed to study the relationship of demographic variables, academic stress and psychological well-being with academic achievement among college students. The present study will help to enhance the awareness of the stakeholders that education system and other demographic variables may induce academic stress in the students which leads towards lower academic achievement as well as reduced psychological well-being. It will help to understand that not only exams, projects, assignments, but the other variables like type of institutions (private & government), gender, educational level of the student (first year/second year), family income and parental education can play an important role in academic achievement of the students. Especially

in the context of Pakistan where two types of institutions in respect of their educational system (private & government) are prevailing the significance of the present study is evident. In this respect, this study will be a significant addition in the literature because the findings will help the stakeholders like, teachers, educationist, policy makers, psychologists and students to find the definite reasons of academic stress which lead towards reduced psychological well-being and poor educational performance. The stakeholders thus may devise some stress management program or counseling to the students to reduce their academic stress and enhance their psychological well-being which may further improves their academic performance.

Following was the study hypothesis.

1.   Demographic variables (age, gender, educational level, institution type, father's education, mother's education, monthly family income, residential area, family system), academic stress (pressure from study, study workload, worry about grades, self-expectation stress and study despondency), and psychological well-being (autonomy, environmental mastery, personal growth and positive relations with others, purpose in life and self-acceptance) will significantly predict the academic achievement of college students.

METHOD

Participants

In this correlational, cross sectional survey a stratified random sample of 350 college learners was selected from the 2 private and 2 government colleges of Dinga City, Pakistan. The description of the demographic characteristics of the sample is given in Table 1.

Measures

Following instruments were used for data collection.

Demographic Information Form

Demographic Information Form was designed to get information about participants' age, gender, educational level, organization type, father's education, mother's education, and monthly family income, region of residence, family system and marks obtained in previous examination.

Educational Stress Scale for Adolescents

Educational Stress Scale for Adolescents (ESSA; Dunne, Sun, Hou, & Xu, 2011) was used to measure academic stress. This original scale had English version but in this study this scale has been translated into Urdu using Lexicon Equivalence method with the author permission due to study requirements. The ESSA consists of 16 items and 5 dimensions: *Pressure from study, Study workload, Worry about Grades, Self-expectation Stress* and *Study Despondency*. The items are rated on 5-point Likert Type scale ranging from *'strongly disagree=1'* to *'strongly agree=5'*. Scores on ESSA are obtained by calculating sum of scores on each item of scales. The overall ESSA reported to have good internal consistency ($\alpha = .81$). The Cronbach's alpha values for subscale range from .66 to .75 (Dunne et al., 2011). The Cronbach's alpha value ($\alpha = .74$) obtained in the present research also indicates satisfactory internal consistency.

Psychological Well-Being Scale

The Urdu version of Psychological Well-Being Scale (PWBS; Aslam & Kausar, 2010) was used to measure participant's psychological well-being. It consists of 84 items and 6 dimensions: *Autonomy, Environmental Mastery, Personal Growth, Positive relations with others, Purpose in life and Self-acceptance.* The items are rated on 6-point Likert type scale ranging from *'strongly disagree = 1'* to *'strongly agree = 6'*. There were 40 negative items in the scale. All negative items were reversed scored before calculating the scale score. Scores on PWBS are obtained by calculating sum of scores on each item of the scale. Ryff (1989) reported that the measure has been proven to have good internal consistency with Cronbach's alpha of .86. For present research Cronbach's alpha for PWBS is .82 indicating good internal consistency.

Academic Achievement

Academic achievement was measured through the student's obtained marks in their recent examination.

Procedure

Official permission was obtained from the head of the colleges prior to data collection. A written informed consent was also taken from the participants. They were educated that the data obtained from them will be kept private and will be used only for research purpose. They were also told that they can quit from research at any point of time.

Statistical Analysis

The Statistical Package for Social Sciences (SPSS-V. 20.0) was used for data analysis. Pearson product- moment Correlation was performed to see relationship among academic stress, academic achievement and psychological well-being. Hierarchical multiple regression analysis was performed in three steps to determine the relationship of demographic variables (gender, educational level, organization, monthly income, father education, mother education, residence and family system), dimensions of academic stress and psychological well-being as predictors and academic achievement as outcome variable.

RESULTS

Table 1
Descriptive Statistics for Demographic Variables of Participants (N=350)

Variables	*f*	*%*
Gender		
Male	132	37.7
Female	218	62.3
Educational level		
1st year	175	50.0
2nd year	175	50.0
Organization		
Private	150	42.9
Government	200	57.1
Father Education		
Illiterate & Below Matric	126	36.0
Above matric	224	64.0
Mother Education		
Illiterate & Below Matric	202	57.7
Above matric	148	42.3
Monthly Income		
Below 50 thousands	265	75.5
Above 50 thousands	85	24.3
Residential Area		
Urban	144	41.1
Rural	206	58.9
Family system		
Nuclear	220	62.9
Joint	130	37.1

Table 2
Bivariate Correlation among Academic Stress, Psychological Well-Being and Academic Achievement (N=350)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	M	SD
1 AS	-														49.89	9.41
2 AS(PS)	.81**	-													11.86	3.53
3 AS(SW)	.65**	.47**	-												9.22	2.58
4 AS(WG)	.61**	.33**	.20**	-											9.68	2.49
5 AS(SES)	.62**	.29**	.18**	.30**	-										10.27	2.66
6 AS(SD)	.68**	.40**	.36**	.29**	.28**	-									8.54	2.60
7 AA	-.03	-.11*	.03	-.07	.04	.02	-								5.13	7.51
8 PWB	-.29**	-.27**	-.21**	-.06	-.12*	-.27**	.16**	-							3.24	34.4
9 PWB(A)	-.21**	-.16**	-.16**	-.10	-.10	-.16**	.10*	.52**	-						49.64	7.53
10 PWB(EM)	-.24**	-.24**	-.18**	-.07	-.16**	-.14**	.13*	.72**	.27**	-					53.74	7.69
11 PWB(PG)	-.06	-.11**	-.10*	.06	.09	-.13*	.13*	.72**	.19**	.40**	-				60.54	8.70
12 PWB(PR)	-.26**	-.23**	-.19**	-.03	-.19**	-.18**	.11*	.73**	.23**	.45**	.44**	-			57.91	9.30
13 PWB(PIL)	-.17**	-.19**	-.13*	-.01	.01	-.26**	.13*	.77**	.20**	.48**	.56**	.43**	-		55.30	9.00
14 PWB(SA)	-.31**	-.23**	-.17**	-.11*	-.24**	-.27**	.08	.69**	.34**	.44**	.34**	.39**	.13*	-	50.41	7.72

Note. AS = Academic Stress; PS = Pressure from Study; SW = Study Workload; WG = Worry about Grades; SES = Self-Expectation Stress; SD = Study Despondency; AA = Academic Achievement; PWB = Psychological Well-being; A = Autonomy; EM = Environmental Mastery; PG = Personal Growth; PR = Positive Relations with Others; PIL = Purpose in Life; SA = Self-Acceptance

Table 3

Hierarchical Multiple Regression Analysis predicting Academic Achievement among the college students from demographic variables, academic stress and psychological well-being (N = 350)

Steps and Predictor variables	Block 1			Block 2			Block 3		
	B	*SE*	*B*	*B*	*SE*	*B*	*B*	*SE*	*B*
Gender	89.37	9.02	.20***	82.62	8.94	.19***	78.39	9.34	.18***
Educational level	80.63	8.12	.90***	80.41	7.83	.91***	78.40	7.83	-.89***
Institution Type	39.33	9.06	.09***	43.83	8.77	.10***	44.10	8.76	.10***
Monthly Income	5.27	9.72	.01	7.23	.00	.01	6.82	.00	.01
Father Education	.58	1.13	.01	.76	1.09	.01	.87	1.09	.01
Mother Education	.82	1.08	.01	1.26	1.05	.02	1.16	1.04	.02
Residence	3.83	8.79	.00	1.45	8.46	.00	3.41	8.49	.00
Family System	2.44	8.54	.00	5.68	8.31	.01	5.42	8.27	.01
PS				-2.09	1.38	-.03	-1.67	1.38	-.02
SW				2.67	1.78	.03	3.20	1.78	.03
WG				-8.76	1.72	-.10***	-9.23	1.72	-1.09***
SES				3.00	1.60	.03	2.56	1.67	.03
SD				-.64	1.71	-.00	-1.24	1.76	-.00
A							.14	.55	.00
EM							.85	.64	.03
PG							1.17	.57	.04*
PR							-.12	.53	-.00
PIL							.13	.60	.00
SA							-.36	.62	-.01
ΔR^2		.85***			.03***			.01	

Note. PS = Pressure from Study; SW = Study Workload; WG = Worry about Grades; SES = Self-Expectation Stress; SD = Study Despondency; AA = Academic Achievement; PWB = Psychological Well-being; A = Autonomy; EM = Environmental Mastery; PG = Personal Growth; PR = Positive Relations with Others; PIL = Purpose in Life; SA = Self-Acceptance
*p < .05, ***p < .001

DISCUSSION

The present study was conducted to find the relationship of demographic variables, academic stress, and psychological well-being with academic achievement in college students. The obtained findings are as such.

The results of the bivariate correlation (Table 2) revealed all study variables to be correlated with each other. To illustrate, there is an negative association between academic stress and psychological well-being and these

outcomes are consistent with the results of previous researches (Akhtar, 2012; Clemente, Hezomi, Allahverdipour, Jafarabadi, & Safaian, 2016; King, Vidourek, Merianos, & Singh, 2014). These researches suggest significant negative relationship between academic stress and psychological well-being and academic achievement of the students. So, it can be concluded from these findings that respondents with the lower level of academic stress reported higher psychological well-being than those of who practiced more academic stress. In addition, results of the present study suggest that there is a noteworthy negative association among academic stress in terms of pressure from study and academic achievement. These findings are supported by the results of the previous studies (Ebrahimi, 2013; Solomon, 2013; and Sohail, 2012). So, it can be determined that educational achievement decreases with the increase of academic stress. Moreover, findings of correlation revealed significant positive relationship between academic achievement and psychological well-being. These findings are consistent with those of previous researches which suggest that academic achievement is positively related to psychological well-being (Singh, 2015; Turashvili & Japaridze, 2012).

The hypotheses of the study was that demographic variables, dimensions of academic stress and psychological well-being will predict the academic achievement. Hierarchical multiple regression analysis was used to test the hypothesis (Table 3). In first step demographic variables (gender, educational level, organization, monthly income, father education, mother education, residence and family system) that we want to control (covariates) were entered as predictors of academic achievement. In second step sub-variables of academic stress ('pressure from study', 'study workload', 'worry about grades', 'self-expectation stress' and 'study despondency') were entered because academic stress is the strong predictor of academic achievement as compared to other independent variables (Khan et al., 2013; Solomon, 2013). Likewise, in third step sub-variables of psychological well-being ('autonomy', 'environmental mastery', 'personal growth', 'positive relations with others', 'purpose in life' and 'self-acceptance') were entered as independent variables. So, that variance explained by covariates and independent variables could be found separately (Flom, 2017). The results suggest that Model 1 which comprised demographic variables was significant. At this step gender, educational level (first year/second year), and organization (private/government) emerged as significant predictors of academic achievement. This model accounted for 85% variance in achievement score. The Model 2 including sub-variables of academic stress revealed that worry about grades significantly predicts the academic achievement. This model accounted

for 3% variance in achievement score. Furthermore, Model 3 including sub-variables of psychological well-being revealed that psychological well-being in terms of personal growth significantly predicts the academic achievement. This model accounted for 1% variance in achievement score. Overall, demographics and above mentioned sub-variables accounted 89% variance in academic achievement. These results indicated that academic stress in terms of worry about grades correlated negatively and psychological well-being in terms of personal growth correlated positively with academic achievement of students.

Results of the significant prediction of academic stress on academic achievement are consistent with those of (Khan et al., 2013; Solomon, 2013) which reported that stress and its different components (sub variables) are the significant predictors of academic achievement. Likewise, the findings of the significant prediction of psychological well-being on academic achievement are consistent with those of Heffner and Antaramian (2016) and Merwe (2005) study's findings which reported that psychological well-being significantly predicted the academic achievement. In addition results of the roles of demographic variables (gender, educational level, type of institutions) are consistent with the findings of other studies (Khan et al., 2013; Daraney & Abdelsalam, 2012) which suggest that age, gender, educational level and type of institutions significantly predict the academic achievement in students. However, the results of present study revealed that area of residence, family system, monthly income and parental education are not the significant predictors of academic achievement in students. These findings are in line with the previous researches which revealed that area of residence is not the significant predictor of academic achievement (Bulala, Ramatlala, & Nenty, 2014). Moreover, recent studies indicated that monthly income, family system, and parental education significantly predict the academic achievement (Egalite, 2016; Isaacs & Magnuson, 2011). In short the findings of the present study confirmed the results of the previous researches.

In conclusion, the findings of this study indicated that demographics, academic stress and psychological well-being play significant roles in academic achievement of the college students. Academic stress decreases whereas psychological well-being improves the academic performance of the students. The obtained findings are significant as outcomes of this investigation provide the basis to the researchers who want to explore the effects of academic stress and psychological well-being on the academic achievement of the students. Moreover, the findings of this study may help educationists to take initiatives for removing the academic stress of students studying in colleges. Such as, provision

of counseling services for students in academic setting may be initiated. The psychological support may enable the students to manage the academic stress and enhance their psychological well-being which in turn will improve their academic performance. This study has few limitations, such as the factors of academic stress could not be explored in depth due to quantitative design of the study therefore in-depth study is recommended to find out the academic stress and psychological well-being of the students. Moreover, larger sample size is recommended in future quantitative studies to increase the power of generalizability of the findings.

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