

Adjustment Problems, Depression and Academic Achievement: The Mediating Role of Resilience

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Entering college is a challenging phase as students have to experience adjustment problems which in turns significantly influence psychological wellbeing and educational attainment. The study intended to explore the mediational function of resilience within adjustment problems, academic achievement and depression. Sample ($N = 880$) was selected with age ranged from 16-26 years through purposive sampling from four universities of Lahore. Adjustment Problems Scale (Kazmi & Muazzam, 2017), Psychological Resilience Scale (Jawahir, 2013) and Siddiqui Shah Depression Scale (Siddiqui & Shah, 1992) were used to assess major constructs of the study. Results demonstrated a positive relation between adjustment problems and depression while inverse relation existed between adjustment problems and academic achievement. Likewise, depression positively predicted adjustment problems while adjustment problems inversely predicted academic achievement. Additionally, resilience mediated the relationship between adjustment problems and depression as well as between adjustment problems and academic achievement. The present findings would be useful for clinical psychologists/counselors for the initial screening and managing adjustment problems in students.

Keywords. Adjustment problems, depression, academic achievement, resilience

Entering college is considered as a demanding experience which may influence the life of students or they may find it as a source of

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happiness (Cliniciu, 2013). Experiences at universities enhance the insight of students (Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). Literature (Abdullah, Elias, Mahyuddin, & Uli, 2009) suggests that students of first year experience more adjustment problems as they are in the active phase of transition. The initial first six weeks of admission are thought to be crucial for the stay of students at college (Molnar, 1993). As they encounter with different challenges at college. They experience the change in teaching method of college from their school. Educational burden is more at college as compared to school as it needs extra effort in assignment, papers and reading which results in psychological pressure among students. Consequently, they face personal, educational, communal, and emotional problems during the phase of adjustment (Aladag, Kağnıcı, Tuna, & Tezer, 2003)

Student's adjustment and determination to university has significant contribution in predicting their future achievement (Wintre & Bowers, 2007). Many factors have an impact on the educational performance for example, personal factors, educational targets, previous educational record, dedication with institute, self esteem and student teacher interaction (Nugent, 2009; Robbins, Lauver, Davis, Langley, & Carlstorm, 2004). Educational burden significantly influence the educational attainment of students (Khan, Altaf, & Kausar, 2013). Common academic stressors are issues related to enrolment, subject selection, college schedule, class rooms, and teachers (Calaguas, 2012). Furthermore, poor educational performance is linked with depressive symptoms among students (Maliqi, Borinca, & Maliqi, 2015). School transition is demanding which may begin or worsen the depressive symptoms (Rutter & Sroufe, 2000). Students deal with unusual challenges for example, adjustment with new situation, increase work load and handling societal burden (Brougham, Zail, Mendoza, & Miller, 2009). They may be more susceptible to develop the depressive systems (Gallagher, 2011). It is further revealed that stress might cause anxiety, depression, and dropout (Banyard & Cantor, 2004; Dyson & Renk, 2006; Thurber & Walton, 2012). Literature (Tafoya et al., 2018) reveals that resilience has a protective effect on depressive symptoms among medical students. Furthermore, there is an inverse relation between resilience and depression and resilience significantly predict depression (Adams, Sanders, & Auth, 2004; Rydén, Karlsson, Sullivan, Torgerson, & Taft, 2003).

Resilience is considered a skill to bounce back from adverse and difficult situations in a constructive way (Tugade & Fredrickson, 2004). In current study, resilience is taken as an outcome oriented approach which is adaptable (Masten, 2001). Many factors predict

resilience and it can be influenced by these (Bonanno & Diminich, 2013). Many researches explored resilience and its role in adjustment in complicated situations (Fassig, 2003; Theron & Theron, 2013; Yates & Grey, 2012). Researches reveal that there is an inverse relation among resilience, adjustment problems, psychological problems, depression, and academic stress (Gloria & Steinhardt, 2014; Hu, Zhang, & Wang, 2015; Rahat & Ilhan, 2016; Wang, 2009; Wang, Chen, Zhao, & Yan, 2006). Literature (Lee, Hwang, Song, & Lee, 2014; Zhu, Lu, & Liu, 2012) reveals that resilience has a predictive role in adjustment among elementary and middle school student. It can be concluded that individuals who are less resilient more prone to adjustment problems at the time of transition from school to college (Orbay, 2009; Park & Lee, 2011). Resilient individuals can preserve their psychological and physical health by reducing the negative consequences of stressful situations (Liu, Chang, Wu, & Tsai, 2015; Ronen, Hamama, Rosenbaum, & Mishely-Yarlap, 2016). Research reveals that resilience partially mediate between stress and satisfaction with life (Shi, Wang, Bian, & Wang, 2015). Furthermore, there is a mediational role of resilience between educational burden and school adjustment (Kim, Kim, & Bae, 2018). Above mentioned literature presents direct evidence for the mediational role of resilience within adjustment problems of students and dependent variables (i.e academic achievement and depression).

Rationale of the Present Study

Literature (Mehmood, Hafeez, Hussain, Chaudhry, & Rehman, 2011) reveals that adjustment difficulties are prevalent and significantly predict depression and poor educational attainment. The role of resilience cannot be denied because it can be predicted and influenced by many factors. In Pakistan, three types of educational systems (English medium, Urdu medium, and *Deeni Madaris*) prevail. Students of these varied educational settings join university, face multiple types of challenges. There is insufficient indigenous literature to rule out the role of adjustment difficulties on depression, low academic performance, and the resilience of students to deal with adverse situations. So the present study aims to ensure that how students' life is influenced by adjustment difficulties and how resilience plays a mediating role among adjustment problems, academic achievement and depression.

Hypotheses

1. Adjustment problems positively predict high level of depression among adolescents.
2. Adjustment problems negatively predict resilience and academic achievement among adolescents.
3. Resilience mediates the relationship between adjustment problems, academic achievement, and depression among adolescents.

Method

Sample

Sample was selected through purposive sampling from four universities (public and private sector) of Lahore. Sample included 880 students comprising boys ($n = 379$) and girls ($n = 501$) with age range between 16-26 years ($M = 19.95$, $SD = 2.54$) boys including (43%) and girls (57%) participants were 57% and they were students of intermediate part I, BS 1st year, 3rd year and MS 1st semester ($n = 307$, $n = 210$, $n = 286$, $n = 77$) respectively. First year participants were 35%, BS participants were 56% and MS participants were 9%. Sample was initially screened out (exclusion criteria) by the researcher on the basis of whether they were residing in hostels or had any physical disability.

Instruments

Adjustment Problem Scale (APS; Kazmi & Muazzam, 2017). It is an indigenously designed questionnaire comprised of 58 items. It has 5 point Likert rating (*strongly disagree* = 0 to *strongly agree* = 4) with higher score reflecting higher level of adjustment problems. It has nine subscales which included work related stress, shame and guilt, sexual harassment issues, teacher related stress, educational, interactional, psychological, financial, and transport issues. The alphas of these subscales range from .88-.97. Discriminant and convergent validity was -.21 and .28. Test-retest reliability also found to be adequate with the attained value of .91 (Kazmi & Muazzam, 2017). In the present study, the alpha coefficient of .96 was achieved.

Psychological Resilience Scale (PRS; Windle, Markland, & Woods, 2008). It is comprised of 19 items with 5-point rating scale with response options ranging from *strongly disagree* = 1 to *strongly agree* = 5 with high scores indicating higher level of resilience. It has three subscales including self-esteem, interpersonal control, and

personal competence. In the present study Urdu translation of PRS scale was used (Jawahir, 2013) with alpha coefficient of .89. Permission to use this scale was sought from original as well as translated version authors. Alpha coefficient of .88 for PRS was acquired for the current sample.

Siddiqui Shah Depression Scale (SSDS; Siddiqui & Shah, 1992). SSDS was used to assess depression among university students. It has 36 items with 4-point response format (*never* = 0 to *all the times* = 3) in Urdu language with high scores indicating high level of depression. Internal consistency for general population as reported by original authors was .89 and split-half reliability was .80 (Siddiqui & Shah, 1992). Permission to use this scale was sought from the authors. In the present study, alpha coefficient of .87 was attained for the entire sample.

Academic achievement. This construct was assessed through the percentage of marks obtained by students in their first term/semester exams after enrolment. The results of students were collected from the concerned departmental notice boards and offices. This method of assessing academic achievement by considering students' academic achievement had been followed in multiple indigenous studies (e.g., Javed, 2017; Nisar, Mahmood, & Dogar, 2017; Saleem, 2011)

Procedure

The authorities of institutes were informed about the purpose of research. The establishment was requested to provide class sections randomly. Participants were chosen through purposive sampling strategy and were tested in a group setting (class rooms) with maximum 30 students at a point in time. Researcher informed participants about the purpose of study and their confidentiality was assured. Written permission was sought and administered research protocol and instructions related to the filling of questionnaire were delivered in Urdu language. Participants took 20-25 minutes to complete the questionnaire. Researcher thanked the participants for their active participation. The GPA's/marks of participants were confirmed from the departments of educational institutes.

Results

Descriptive statistics have been used to tabulate means and standard deviations of all variables including adjustment problems ($M = 107.52$, $SD = 47.90$), resilience ($M = 66.96$, $SD = 9.05$),

depression ($M = 30.38$, $SD = 16.97$), and academic achievement ($M = 69.60$, $SD = 9.26$). Pearson Product Moment correlation was used to determine the relationship among study variables. Linear regression analysis was computed to explore adjustment problems as predictor of depression and academic achievement.

Table 1

Relationship between Adjustment Problems, Resilience, Depression, and Academic Achievement (N = 880)

Variables	1	2	3	4
1. Adjustment Problems	-	-.18*	.23**	-.44**
2. Resilience		-	-.41**	.23**
3. Depression			-	-.19*
4. Academic achievement				-

** $p < .01$.

Results presented in Table 1 show inverse relation of adjustment problems with resilience and academic achievement. Findings also indicate positive relationship between adjustment problems and depression. In addition, resilience exhibits negative association with depression and positively linked with academic achievement. These results provide empirical support for first and second hypothesis.

Table 2

Linear Regression Analysis on Adjustment Problems as Predictor of Depression and Academic Achievement (N = 880)

Variable	Depression	Academic Achievement	95 % CI
	B	B	
Constant	21.38	78.79	[77.43,80.14]
Adjustment Problems	.08	-.08	[-.09,-.07]
R^2	.05	.19	
F	51.92	213.04	

*** $p < .001$.

Results based on linear regression show that adjustment problems positively predict depression in students ($R = .23$). It elucidated 5% variation in depression. This shows that adjustment problems may lead to depression. Likewise, adjustment problems significantly predict poor academic achievement ($R = .44$). It elucidated 19% discrepancy in academic achievement and this specifies that high adjustment problems may lead to low educational attainment. These findings provide further support for first and second hypothesis.

Mediation analysis was used to validate the hypothesis 3. The criterion of Baron and Kenny (1986) was used. Likewise, Preacher and Hayes (2004) proposition was used by using bootstrapping method. The graphic representation is given below:

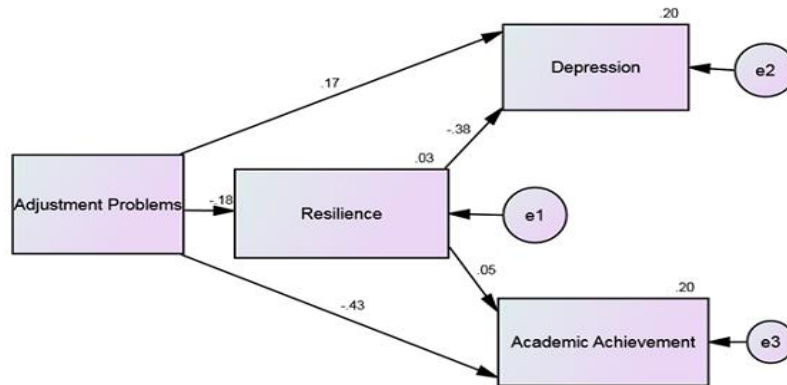


Figure 1. Mediating role of resilience in the relationship of adjustment problems with depression and academic achievement.

The model demonstrates excellent data fit. Model indices suggest good data fit. According to Kline (2011), Normed chi square value should be nonsignificant and less than 3. In the given model, value of normed chi square is within range. The other fit indices reveal good fit to the model. The value of indices are $GFI = .99$, $AGFI = .99$, $TLI = .99$, $CFI = .99$ and $RMSEA = 0.01$ with $PCLOSE = 0.63$.

Table 3

Direct, Indirect and Total Effects of the Proposed Model ($N = 880$)

Predictor	Criterion	Direct Effect		Indirect Effect		Total Effects	
		β	P	B	p	β	p
Adj. Problems	Depression	.16	.00	.07	.00	.23	.07
Adj. Problems	Academic Ach.	-.43	.00	-.01	.00	-.44	.01
Adj. Problems	Resilience	-.18	.00			-.18	.00
Resilience	Depression	-.38	.00			-.38	.00
Resilience	Academic Ach.	.05	.07			.05	.07

Note. Adj. = Adjustment; Ach. = Achievement.

Table 3 describes the total effects along with direct and indirect effects to support the hypothesis 3 of the research. The effect of resilience was evaluated in combination to adjustment problems, depression and academic achievement. The homogeneous direct effects illustrate that adjustment problems significantly predict

academic achievement, depression and resilience. Resilience considerably mediates within adjustment problems and depression while it does not totally account for academic achievement.

Discussion

Adjustment at university is considered to be a crucial factor in relation to persistence of students at university (Peterson, Louw, & Dumont, 2009). The findings of hypotheses 1 and 2 are consistent with literature which reveals negative relation among adjustment problems, resilience and educational attainment while positive relationship between adjustment problems and depression (Nidhi & Kermane, 2015). Results of linear regression (hypothesis 3) reveal that adjustment problems negatively predict academic achievement while positively predict depression. Literature supports that adjustment problems have negative relation with academic achievement (Nidhi & Kermane, 2015). Perceived educational workload and extrinsic regulation were revealed as significant predictors of educational success (Petersen, et al., 2009). This ascertain that students who perceive academic work demanding tend to have lower grades. Furthermore, adjustment problems significantly predict depression is also supported in literature (Villatte, Marcotte, & Potvin, 2017).

Mediating role of resilience was investigated. Results of mediational analysis reveal that all values are within acceptable limit which reflect excellent fit of the model. Findings show that resilience plays an important mediating role among adjustment problems, depression and academic achievement. Findings are in accordance of literature that characteristics of resilience play a vital role in university adjustment (Park & Lee, 2011; Rahat & Ilhan, 2016). High resilience helps in better adjustment at university (Fassig, 2003). Likewise, evidence was found in favor of present research findings that resilience and emotional intellect partly mediate within mental suffering and perfection.

Limitations and Suggestions

There are certain restrictions of the study which can be dealt better in future researches. The design of research was cross sectional, in which exposure to adjustment problems and outcome (depression, resilience, poor academic performance) was simultaneously assessed. For future studies, it is suggested to study the above mentioned outcomes through longitudinal research design. Although the sample was large but representation from each group (Intermediate, BS and MS) was unequal. For future studies, it is suggested to use stratified

sampling strategy for equal representation of the sample. In future, comparative study may be designed by taking hostel and resident students to compare their adjustment problems and level of resilience.

Implications

The study findings present imperative implications for future which highlights the need to target college students at the start of their semester/year. Adjustment problems are widespread in students and these problems further lead to many consequences (low academic performance and depression). The findings of this research will be useful for clinical psychologists and counselors to initially screen adjustment problems and also formulate management strategies as per need which will ultimately endorse mental health of college/university students. Furthermore, by promoting mental health of students may decline the ratio of drop out from college. Likewise, resilience is found to be an important dynamic process which helps individuals to deal with adversity. The management of colleges/universities may introduce resilience building/enhancing programs for students, so they may get benefit from such programs by enhancing their skills to deal with adverse situations.

Conclusion

The study aimed to reveal the relation among adjustment problems, educational attainment, depression, and resilience. It further aimed to examine the mediating function of resilience. It is concluded on the basis of above results that adjustment problems negatively predict academic achievement while positive predictor of depression. Resilience plays significant meditational role within adjustment problems and depression, also between adjustment problems and academic achievement.

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