

## ORIGINAL ARTICLE

## DEPRESSION, ANXIETY, AND STRESS IN RELATION TO LIFE SATISFACTION AND ACADEMIC PERFORMANCE OF ADOLESCENTS

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**Background:** Depression, anxiety, and stress all have number of emotional and physical consequences on person's ability to function at work, school, and at home. Life satisfaction is global satisfaction with individual lives in different life domains. All these mechanisms play their role in adolescents' academic performance. Keeping in view the vulnerabilities of adolescents/teenagers due to being immature and unprepared for the tasks that put them at high stakes, present study investigated the impact of their subjective state in terms of depression, anxiety, stress, and life satisfaction on their academic performance with reference to the gender and grade of the participant. **Methods:** The study was cross sectional and used convenience sampling approach for data collection. Sample comprised of 500 adolescents (age range= 13–21 years). Depression, anxiety and stress scale and Satisfaction with Life Scale were used to assess the study variables. **Results:** Findings revealed that those adolescents who had high level of depression, anxiety, and stress were less satisfied with their life as compared to who had low level of depression, anxiety and stress. Gender differences revealed that girls had high level of anxiety and stress in comparison to boys. Moreover high grade achievers reported lower level of depression, anxiety, and stress than low grade achievers on the other hand high grade achievers had greater life satisfaction than low grade achievers. **Conclusion:** Adolescents who experience depression, anxiety, and stress are less satisfied with their lives and show low academic performance in terms of grades. Moreover gender also effects on vulnerability to experience anxiety and stress. Study also highlights the practical implications for parents, educators, counsellors, and mental health professionals.

**Keywords:** Depression, anxiety, stress, life satisfaction, academic performance, adolescents

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## INTRODUCTION

Adolescence is a time of storm and stress when young people move from dependence on parents to independent functioning. The pressures imposed on them such as meeting deadlines and coming up to the expectations of parents and society may affect their psychological and physical health. Many a times they experience depression, anxiety and stress which impairs their academic performance. Depression is feeling of dysphoria, hopelessness, devaluation of life, self-deprecation and lack of interest/involvement, and inertia.<sup>1</sup> Depressed adolescents are more prone to anxiety and have the tendency to withdraw from academic pursuits.<sup>2</sup> Anxiety is an autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience of anxious effects.<sup>1</sup> Anxiety which is characterized most commonly as a diffused, unpleasant and vague sense of apprehension is an understandable response in the context of uncertainty which dominates many adolescents.

Anxiety plays a major role in interfering with children's and adolescents' academic performances by hampering their abilities to perform adequately. Gender differences in depression and anxiety level of secondary school students were observed as females displayed greater levels of anxiety and negative effect immediately before the examinations, whereas males reported higher

positive affect and self-esteem and lower depression and anxiety, even within the week prior to the examinations.<sup>3</sup> Stress is a form of chronic nonspecific arousal which creates difficulty in relaxing and plays a significant role in development of adolescents.<sup>1</sup> It indicates an imbalance between the individual and environment and signifies that something is at stake.<sup>4</sup> Adolescents daily come across with mild stressful situations though many of them are universal in nature and had also been found in diverse cross-cultural samples yet some are context specific.<sup>5</sup>

All study variables, depression, anxiety, and stress (das) are found to have inverse relationship with academic performance.<sup>6</sup> In a study the prevalence of das among adolescents was found as 65.53%, 80.85%, and 47.02%, respectively.<sup>7</sup> Moreover, comorbidity between depression and anxiety was 57.65%. Previous findings indicated that resilience mediate the relationship between anxiety, depression, and stress experienced by adolescents.<sup>8</sup>

Individual's feeling of subjective well being which is also referred as quality of life, sense of happiness and satisfaction had been the focus of researchers. Previous studies mostly concentrated on life satisfaction of adults but recently there has been an increase in studies focusing on children and adolescents.<sup>9</sup>

With reference to Pakistan it was found that students of social sciences and engineering students experience significantly more depression, anxiety, and stress as compared to medical students whereas no significant difference was observed in their life satisfaction.<sup>10</sup> It had been observed that very high level of life satisfaction is associated with higher academic performance not the average or low level of life satisfaction.<sup>11</sup> Keeping in view the literature support present study was undertaken to explore the nature of relationship in adolescents' academic performance and level of depression, anxiety, and stress with their life satisfaction. So the teachers, parents, and counsellors may help them in managing negative thoughts and stress and keeping them at ease which may in turn improve their performance and satisfaction with their life.

## METHODOLOGY

Present study was a cross-sectional study and used convenience sampling approach. The study was conducted at National Institute of Psychology, Quaid-i-Azam University Islamabad from January to March 2013 after getting approval from Institutional Review Board of the University. Inclusion criteria for sample of adolescents was based on adolescent definition of World Health Organization (WHO) that considered any person between ages 10–24 years falls under the category of adolescents. G power was run for a post hoc: compute achieved power test to see the effect size and power of the test. This revealed that with pre-specified sample size (N=500), alpha 0.05, and the effect size of 0.25 which is a medium effect size for ANOVA, the power of the test was 0.99 which shows that the sample employed to run the analysis was quite adequate in size.

Written informed consent was also obtained from all the participants. Overall 525 Pakistani adolescents from different educational institutions of Rawalpindi and Islamabad were initially contacted, out of those 500 adolescents volunteered to participate and responded with zeal. They were informed about the objectives and significance of the study.

Urdu translated versions of Depression, Anxiety, Stress Scale (DASS-21) and Satisfaction With Life Scale (SWLS) were used to collect data. Both DASS-21 and SWLS (original and translated version) are in Likert type format and have been validated and widely used in the indigenous context. DASS-21 is a shorter version of original DASS. The response options for DASS-21 range from 0 (did not apply to me at all) to 3 (applied to me very much). The score on subscales of depression, anxiety, and stress has to be multiplied by 2 to get final score. DASS-21 recommends cut-off scores for conventional severity labels such as normal, mild, moderate, severe, and extremely severe.

For SWLS the response options are 1 (strongly disagree) to 5 (strongly disagree) and score range is 5 to

25. All the items are positively phrased. To measure academic performance of adolescents previous results of annual examination held by their respective boards were obtained from their respective institution.

Participants were handed over the set of questionnaires manually. Those who achieved grade A and B in last annual board examination were categorized as high achievers and grade C, D, and E were categorized as low achievers. Data were entered and analyzed through SPSS-18. Frequency and percentages were calculated for categorical variables whereas mean and frequency for numerical variables. Mean score on depression, anxiety, stress, and life satisfaction was compared between genders and high and low achievers at Alpha value of 0.05.

## RESULTS

There were 263 (52.6%) boys, and 237 (47.4%) girls in the study. The mean age of the participants was 15.77±1.87 years with the age range of 13–21 years. The education level of participants ranged from matriculation (49.8%) to graduation (50.2%). Table-1 shows frequency and percentage of participants in different categories of depression, anxiety, and stress according to severity level. Maximum percentage of sample experienced normal level of depression, anxiety, and stress.

Level of depression, anxiety, stress and life satisfaction between boys and girls has been compared in Table-2. It also reveals the values for significance and effect size.

Comparison of high and low achievers on depression, anxiety, stress, and life satisfaction is shown in Table-3 along with *p*-value and effect size.

**Table-1: Frequency distribution of participants in different categories of depression, anxiety, and stress**

	Depression n (%)	Anxiety n (%)	Stress n (%)
Normal	339 (67.8)	274 (54.8)	430 (86.0)
Mild	93 (18.6)	63 (12.6)	62 (12.4)
Moderate	67 (13.4)	117 (23.4)	6 (1.2)
Severe	1 (0.2)	42 (8.4)	2 (0.4)
Extremely severe	0 (0)	4 (0.8)	0 (0)

**Table-2: Comparison of depression, anxiety, stress, and life satisfaction between boys and girls (Boys=263, Girls=237)**

Variables	Gender	Mean±SD	95% CI	<i>p</i>	Cohen's d
Depression	Boys	7.31±7.40	-0.92–0.75	0.83	-0.01
	Girls	7.40±5.11			
Anxiety	Boys	7.10±4.60	-1.23–0.47	0.03*	-0.07
	Girls	7.98±5.13			
Stress	Boys	8.98±3.91	-1.41–0.08	0.04*	-0.15
	Girls	9.64±4.61			
Life Satisfaction	Boys	17.66±4.38	-0.52–1.04	0.51	0.05
	Girls	17.40±4.51			

\*Significant

**Table-3: Comparison of depression, anxiety, stress, and life satisfaction between high achievers and low achievers (High Achievers=423, Low Achievers=77)**

Variables	Groups	Mean±SD	95% CI	p	Cohen's d
Depression	High Achievers	7.04±4.67	-3.16–0.86	0.001*	-0.30
	Low Achievers	9.06±4.93			
Anxiety	High Achievers	7.00±4.80	-3.02–0.68	0.002*	-0.27
	Low Achievers	8.85±4.86			
Stress	High Achievers	9.14±4.22	-2.07–0.03	0.04*	-0.17
	Low Achievers	10.18±4.47			
Life Satisfaction	High Achievers	20.16±4.18	-0.49–1.04	0.003*	0.06
	Low Achievers	18.45±4.01			

\*Significant

## DISCUSSION

The current study intended to explore the level of depression, anxiety, stress and life satisfaction between genders and high and low achievers. Results showed that as our sample was representative of normal population so the highest percentage of participants reported normal level of depression, anxiety, and stress. Differences highlighted that girls reported significantly higher level of anxiety and stress as compared to boys. Regarding depression, no significant differences emerged between boys and girls. Study also explored the differences between high and low achievers on all the study variables and results showed that high grade achievers reported lower level of depression, anxiety, and stress and higher level of life satisfaction than low grade achievers.

These findings lend support to the previous findings where significant gender differences emerged in reported level of anxiety and stress.<sup>12</sup> Current findings generated a hypothesis about gender being a confounder that needs to be further investigated either through experimental study designs to provide better evidence for the cause and effect or through stratification. As regards to life satisfaction non-significant gender differences are also in line with previous literature that reported gender as a weak predictor of adolescents' life satisfaction.<sup>13,14</sup> Since adolescents being more prone to life stresses and challenges they come across so they are adversely affected in terms of their academic performance. Significant differences in depression, anxiety, stress and life satisfaction between high and low achievers also support the earlier findings that also report similar nature of differences.<sup>15</sup> Previous research also revealed positive reciprocal causal relationship between life satisfaction and grades of adolescents.<sup>16</sup>

Depression, anxiety, stress and life satisfaction in adult population had been the focus of researchers but with reference to adolescent population there is dearth of research. The focus of current study is on issues related to adolescence, because adolescents play a pivotal role in the process of globalization. Unlike children, they are more mature and have access to

information available around the world but like adults they do not have coping skills that help them in managing stressors. As adolescents in Asian setting such as Pakistan live with their immediate or extended family where they are influenced by family and cultural norms and resulting behaviour is the outcome of interaction between multiple influencers. They constantly remain under social and cultural pressures that associate their worth with their achievements. So a need exists that adolescents may be properly counselled, equipped with better and problem oriented coping skills in case of challenges and stresses. Moreover promoting sense of well being, optimism, hope, and contentment with life may lessen the chance of falling into demise.

Results of the present study have their implications for administration of those institutions who are concerned with adolescent student development and academic achievement. As study provides empirical support regarding negative effects of psychological problems on adolescents' academic achievement so counsellors, psychologists and educationists can benefit from these findings in designing and developing proper intervention programs to reduce their psychological problems such as depression, anxiety and stress. Although results of the present research are meaningful extension of existing research and are of great theoretical interest, still there is room for further studies to use behavioural indices for assessment of psychological problems. Future studies may also consult family, peers, colleagues and other close circle of participants instead of relying only on self-report measures. Cross-sectional nature of study limits the causal interpretations and firm conclusions regarding relationship between variables.

## CONCLUSION

The study highlighted that depression, anxiety, and stress significantly effects adolescents' academic performance and life satisfaction. Practical steps may be taken by the parents, educators, counsellors, and mental health professionals to lower the risk of psychological problems among adolescents.

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