

Academic performance, resilience, depression, anxiety and stress among women college students

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It is a growing concern among educators about the low academic performance of college students and its influence on their mental health. Many university students continue to have low grades, while many manage to turn around their academic fortunes (Martin & Marsh, 2006). Programs aimed at teaching academic resilience have proven highly effective in improving academic performance. The present study aims at finding the relationship between academic performance, resilience, depression, anxiety and stress and also the predictors of academic performance and resilience, namely, depression, anxiety and stress among women college students. Expost facto research design was used for the study. The sample consisted of 446 college going women, currently pursuing their second year of under graduation in city colleges. The tools used were the Connor Davidson Resilience scale (2003), the DASS scale by Lovibond & Lovibond (1995), measuring depression, anxiety and stress and the academic performance, using the marks obtained in the continuous assessment cycle. Correlation was found using the Pearson's Product moment method. Regression analysis was done to study the predictors. Results indicates that academic performance, resilience depression, anxiety and stress were positively correlated among women college students. Regression analysis revealed that academic performance significantly predict depression, anxiety and stress women college students, while depression alone is significantly predicted by resilience.

Keywords: college students, academic performance, resilience, depression, anxiety, stress

Academic Performance in college students

It is a growing concern among educators that some college students continue to perform poorly in their tests and exams and how it takes a toll on their mental health. Many university students continue to have low grades, while many manage to turn around their academic fortunes (Martin & Marsh, 2006). A safe and calm environment is important for academic performance, which includes physical, social, emotional, spiritual and psychological well-being. Those who are experiencing psychological problems such as depression, and stress may face problems in managing their academic performance (Yasin & Dzulkifli, 2011).

There is a strong tie between students' overall health and resilience and their academic achievement (West, 2003). In summarizing studies on the relationship between children's emotional distress and achievement behavior, researchers found that students with frequent feelings of internalized distress (e.g., sadness, anxiety, depression) show diminished academic functioning and those with externalized distress (e.g., anger, frustration, and fear) exhibit school difficulties including learning delays and poor achievement (Roeser, Eccles & Strobel, 1998). Adolescents with depression are at increased risk for impairment in school and educational attainment (Asarnow, Jaycox, Duan, LaBorde, et al., 2005).

Resilience

There are considerable resources and interventions available for students with low academic performance and only recently have educators begun to tap into the power of resilience. Resilience, then, can be conceptualized as a process as well as a personal characteristic

that can be developed over time and in response to the exposure to and subsequent effects of stressors (sometimes referred to as the "steeling effect") (Rutter, 2006). Over the past ten years, there has been much research that strongly supported resilience as one possible solution in helping at-risk students as well as all other students. Resilience is a strength based concept that all children have strengths and can be taught to use their strengths to negate, inhibit, or moderate the affects of at-risk factors that can cause them psycho-social harm. Researchers have learned much about resilience such as it can be fostered in all children through protective factors such as caring adults, opportunities for involvement, and high expectations. Furthermore, researchers have known that resilience was fostered in the presence of adversity, and that it operated within the context of home, school, and the community.

Programs aimed at teaching academic resilience have proven highly effective in improving academic performance. A longitudinal study by Scales et al. (2003) found that higher levels of resiliency traits are strongly correlated with higher grade point averages (GPAs) among middle and high school students. Hanson and Austin (2003) conducted a longitudinal study of students in California and found that nearly every measure of resilience was positively related to concurrent test scores. The highest increases in test scores occurred in schools where the students reported high levels of resilience.

Solberg, Gusavac, Hamann, Felch, Johnson, Lamborn, and Torres, (1998) identified six key skills as the foundations of educational resiliency: building confidence, making connections, setting goals, managing stress, increasing well-being, and understanding motivation. These factors are most closely linked to academic performance.

Depression, anxiety and stress

Furr, Westefeld, McConnell and Jenkins (2001) reported that 53% of

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1,455 college students labeled themselves as being depressed since starting college and are attributed to academic issues, loneliness, financial difficulties and social relationship problems.

Greater resilience was associated with lower depression scores for students whose stress impeded their academic performance, irrespective of their sex and age (total R^2 depression = 40%). The relationship between stress and depression was partially mediated by resilience (37% to 55% mediation depending on the severity of stress). Individuals who are in their early college years are faced with the developmental challenges of this life phase which can be complicated by a variety of stresses.

Students must manage multiple demands including the transition from adolescence to adulthood, adapting to a new environment, establishing new social networks, independently managing the demands of daily life, and meeting their personal goals. Although these potentially stressful transitions are expected, they can contribute to symptoms of depression (Dyson & Renk, 2006). The experience of stress and its consequences can either enhance or constrain the development of resilience. For example, in college or university students, stress can affect academic performance (e.g., students may withdraw from or fail a course), and consequently can contribute to a more general perceived inability to manage stress (i.e., reduced resilience). Students with limited resilience are vulnerable to adverse psychological outcomes including depression. In the context of statistical modeling, this intervening role of resilience can be represented as a mediating effect of the relationship between adverse stress and depression.

Specifically, although potentially stressful transitions are expected in university students, referrals to and the provision of counselling services that focus on enhancing students' resilience, may help to mitigate undesirable consequences of stress and reduce the risk of depression. Research has shown that performance in school and college was affected by symptoms of depression that manifested in the lack of concentration, lack of interest and motivation, fatigability, and poor attendance (Fine & Carlson, 1992).

Research also shows that test anxiety is related to academic performance. Test anxiety (TA) causes poor performance. It relates inversely to students' self-esteem and directly to their fears of negative evaluation, defensiveness, and other forms of anxiety. Conditions (causes) giving rise to differential TA levels include ability, gender, and school grade level. A variety of treatments are effective in reducing test anxiety. Contrary to prior perceptions, improved test performance and grade point average (GPA) consistently accompany TA reduction.

Need for the study

Academic pressure, intrapersonal and interpersonal difficulties, death of loved ones, illnesses, and loss of relationships have been found to be significant stressors in young people. Academic performance is influenced by a number of variables and recent studies focus on the relationship between academic performance and resilience.

Interventions to build resilience have resulted in academic success. Therefore, the results of the present study may help have a more clear understanding of the relationship between resilience and the academic performance, especially in the Indian setting. There is a need to identify a student's resiliency level and foster it with the help of different strategies and guidelines. This study will help the educators, practitioners, teachers, and parents as well, to understand

the importance of the resiliency concept and to enhance it. In light of the above discussion, the objectives of this study were to explore the correlation between academic performance and resilience and to measure the predictors of academic performance and resilience, namely depression, anxiety and stress.

Hypotheses of the study

- There will be a significant relationship between academic performance and depression among women college students.
- There will be a significant relationship between academic performance and anxiety among women college students.
- There will be a significant relationship between academic performance and stress among women college students.
- There will be a significant relationship between academic performance and resilience among women college students.
- There will be a significant relationship between resilience and depression among women college students.
- There will be a significant relationship between resilience and anxiety among women college students.
- There will be a significant relationship between resilience and stress among women college students.
- Academic performance scores will significantly predict depression scores among women college students.
- Academic performance scores will significantly predict anxiety scores among women college students.
- Academic performance scores will significantly predict stress scores among women college students.
- Resilience scores will significantly predict depression scores among women college students.
- Resilience scores will significantly predict anxiety scores among women college students.
- Resilience scores will significantly predict stress scores among women college students.

Method

The present study aimed to find the relationship between academic performance, resilience, depression, anxiety and stress in college students and measure the predictors of academic performance and resilience, namely, depression, anxiety and stress.

Participants

The research design used for the study was the Expost facto design. The sample consisted of 446 female college students pursuing their second year under graduate program. Random sampling was used to select the sample from two city colleges. The independent variables were depression and anxiety and the dependent variable was stress.

Instrument

The tools to measure resilience, depression, anxiety and stress were administered to the sample. The tools used included the personal data sheet, the Connor Davidson Resilience scale and the DASS (Depression, Anxiety, Stress scale). Academic performance was measured using the continuous internal marks, cycle I, obtained by the students in the fourth semester.

The CD-RISC is designed as a self-rating scale, although where necessary, an assistant may read out each question to the subject and record the answer. The subject is directed to respond to each question with reference to the previous month, understanding that if a

particular situation has not arisen in this time, then the response should be determined by how the person thinks they would have reacted. The factors validated in the CD-RISC included personal competence, trust in one's instincts or tolerance of negative effects, positive acceptance of change, control and spiritual influences. Scoring of the full 25-item scale is based on summing the total of all items, each of which is scored from 0-4. The full range is therefore from 0 to 100, with higher scores reflecting greater resilience. The score range for the 10-item scale is from 0-40, and for the 2-item scale, it ranges from 0-8. Connor and Davidson showed acceptable test-retest reliability for the full CD-RISC ($r=0.87$).

The DASS (Lovibond, S.H & Lovibond, P.F., 1995) is a self-report scale designed to measure the negative emotional states of depression, anxiety and stress. Each of the three DASS scales contains 14 items, divided into subscales of 2-5 items with similar content. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Subjects are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state over the past week. Scores for Depression, Anxiety and Stress are calculated by summing the scores for the relevant items. As the essential development of the DASS was carried out with non-clinical samples, it is suitable for screening normal adolescents and adults.

Statistical analysis

Pearson's product moment correlation was used to measure the relationship between academic performance, resilience, depression, anxiety and stress. Regression analysis was used to measure the variance.

Procedure

The students were selected from the General English classes, with the permission of the English Department, so that a sample consisting of various academic streams could be selected. After explaining the purpose of the study and obtaining cooperation from the students, the questionnaires were handed out to the students to be filled. The questionnaires required 20 minutes to be completed.

Results and discussion

Table 1: Relationship between academic performance, resilience, depression, anxiety and stress among women college students

	1	2	3	4	5
1. Academic Performance					
2. Resilience	.014				
3. Depression	-.232**	-.288**			
4. Anxiety	-.216**	-.169**	.661**		
5. Stress	-.113*	-.217**	.691**	.725**	

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

There was a significant negative relationship between academic performance and depression, anxiety and stress among the sample. The r values were $-.232^{**}$, $-.216^{**}$ and $-.113^{*}$. While the

relationship between academic performance and depression and anxiety was significant at the 0.01 level, academic performance and stress was significant at the 0.05 level. Thus the hypotheses that there is a significant relationship between academic performance and depression, anxiety and stress are accepted. When there is low mood, the level of anxiety tends to increase, especially when having to perform in evaluative situations.

It was seen that that the relationship between academic performance and resilience was not significant among women college students ($r = .014$). However, Wagnlid and Collins (2009) found positive relationships between resilience and academic success.

There was a significant negative relationship between resilience and depression, anxiety and stress among women college students. The r values were $-.288$, $-.169$ and $-.217$ respectively, which was significant at the 0.01 level, indicating that the variables are associated. Thus the hypotheses that there is a significant relationship between the variables is accepted.

Table 2: Significant predictors of academic performance among women college students

Predictors	Constant	R ²	β coefficient	t value
Depression	69.41	.08	-.23	-3.46**
Anxiety			-.20	-2.91**
Stress			-.20	2.68**

** $p < .01$

Depression, anxiety and stress significantly predict academic performance among women college students. The obtained $R^2 = .08$, which indicated that 8% of variance in academic performance is negatively predicted by depression, anxiety and stress. This showed that a college student experiencing high depression, anxiety or stress tends to have low academic performance. Depression, anxiety and stress significantly contribute to variance in academic performance scores, the β values being $-.23$, $-.20$ and $-.20$ for depression, anxiety and stress respectively ($p < .01$). Therefore, the hypotheses stating that academic performance will significantly predict depression, anxiety and stress scores is accepted.

Table 3: Significant predictors of resilience among women college students

Predictors	Constant	R ²	β coefficient	t value
Depression	69.41	.09	-.29	-4.31**
Anxiety			.07	1.04NS
Stress			-.07	-.99NS

** $p < .01$

NS Not Significant

Table 3 indicates that depression is significantly predicted by resilience among women college students. The obtained $R^2 = .09$, which indicated that 9% of variance in resilience is negatively predicted by depression. This showed that a college student experiencing high depression tends to have low resilience. Depression significantly contribute to variance in resilience scores, the β value being $-.29$ ($p < .01$). Therefore, the hypothesis stating that resilience will significantly predict depression scores is accepted. However, anxiety and stress do not contribute to the variance in resilience scores. Therefore, the hypotheses that resilience significantly contribute to anxiety and stress is rejected.

Conclusion

- There was a significant relationship between academic performance, resilience, depression, anxiety and stress among women college students.
- Academic performance scores significantly predict depression, anxiety and stress scores among women college students.
- Resilience scores significantly predict depression scores among women college students.
- Resilience scores do not significantly predict anxiety and stress scores among women college students.

The significant negative relationship between academic performance and depression, anxiety and stress indicate that academic failure can exist alongside mental health issues. The significant negative relationship between resilience and depression, anxiety and stress indicate that high resilience can help in lowering mental health problems. Regression analysis revealed that academic performance significantly predict depression, anxiety and stress women college students, while depression alone is significantly predicted by resilience.

The present study has positive implications on the need for promoting positive mental health in college and include it as part of their curriculum. This can be done through resilience building programs. One of the limitations of the study was that gender differences were not taken into account.

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