

Relationship of Depression with Attributional Complexity and Self-esteem Among Boys and Girls

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The present study was aimed to investigate the level of Self-Esteem and Attributional Complexity and their relationship with level of depression among students. Attributional Complexity Scale (Fletcher, Danilovic, Fernandez, Peterson, & Reeder, 1986), Self-Esteem Scale (Rifai, 1999) and Siddiqui-Shah Depression Scale (Siddiqui, 1992) were used in the study. Attributional Complexity Scale was translated into Urdu language and psychometric properties of the scales were assessed. Sample consisted of 160 college students (80 boys and 80 girls) with an age range of 15 to 20 years. Results showed that there is non-significant correlation between depression and attributional complexity. Study showed a highly significant negative correlation between depression and self-esteem. Results also revealed that there is non-significant difference among girls and boys in level of depression.

Keywords: self esteem, attributional complexity, depression, students

Issues of self-esteem, attributional complexity and depression are common in adolescents. Poznanski and Mokros (1994) stated that adolescence is a period of time during which some clinical difficulties, such as mood disorders, become prevalent. Epidemiological studies show that the occurrence of mood disorders increases dramatically during adolescence (Santor & Rosenbluth, 2005). Lewinsohn, Rohde, Seeley, Klein, and Gotlib (2000) stated that lifetime prevalence rates of major depressive disorder typically range from 15% to 20%. Lewinsohn and Essau (2002) stated that incidence rates of first onsets in a 1-year period are 7.1% for girls and 4.4% for boys, and incidence rates of recurrences in a 1-year period are 21.1% for girls and 9.1% for boys. These alarming figures about prevalence of depression in adolescents necessitate the exploration of depression with diverse sample and diverse means. The present study aims to explore relationship of depression with attributional complexity and self esteem.

In the last few years, cognitive approaches to study and for the treatment of depression have dominated the literature. Revised learned helplessness theory (Miller & Seligman, 1978), and Beck Cognitive Theory (1967) have received the most attention and support. Both these theories emphasize the individual perceptions of control over own behavior and on environmental events. These theories also deal with general and specific expectancies and beliefs about the contingencies about personal behavior and positive and negative life events.

Beck, Rush, Shaw, and Emery (as cited in Mahlon & Bolocofsky, 1992) advanced a cognitive theory showing that adults have certain automatic negative thoughts and dysfunctional attitudes. They hypothesized that individual

with depression exhibit negative views of self, experiences and the future. Part of the theory states that individuals who cognitively distort information and events in a variety of ways are more prone to depression. Mahlon and Bolocofsky (1992) stated that Beck's theory emphasizes cognitive distortions of events while attribution theory describes how one's perceptions about causes of events effects depression. Beck (1998) defined depression in terms of following attributes: a specific alteration in mood: sadness, loneliness, apathy; a negative self concept associated with self reproaches and self blame; regressive and self-punitive wishes: desire to escape, hide or die; vegetative changes: anorexia, insomnia, loss of libido; changes in activity level: retardation or agitation.

The revised learned helplessness model of depression (Abramson, Seligman, & Teasdale, 1978) is concerned with perception of the controllability of aversive outcomes. Peterson and Seligman (1984) stated that reformulation predicts that individual having explanatory style tend to become depress when bad events occur, because explanatory style invokes internal, global and stable causes for bad events.

Wolman (1989) stated that depression is the feeling of helplessness, and blaming oneself for being helpless. He viewed that it is not related to negative feelings like sadness, unhappiness, frustration, sorrow or grief. Riskind, Castellon, and Beck (1989) based their study on this model. They found that depressed people are characterized by a particular style of causal attributions. These causal attributions are concerned with uncontrollability of past and present negative life events. These attributions lead to future uncontrollability and can cause depressed mood.

The reformulated learned helplessness models focus on factors that increase vulnerability to the onset of symptoms of depression has been empirically useful. Explanatory style may be related to the initiation of an episode of depression and to the maintenance of depressive symptoms as well. For

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example, Seligman, Kamen, and Nolen-Hoeksema (1988) found a significant positive correlation between change in explanatory style and change in symptoms of depression. They found that change in the composite attributional style for negative events was correlated with depressive symptoms. Stoltz and Galass (1989) tested the relationship between attributions and types of depression with and without low self-esteem postulated by reformulated learned helplessness theory. They found that depressed subjects with low self esteem made more internal characterological attributions for bad events than the other groups. Non depressed subjects made more internal behavioral attributions than depressed subjects.

Human behavior is the result of interaction between environment and person either directly or indirectly. Attributions play a vital role in this interaction. Hewstone (1989) stated that attribution occurs whenever we cognize the environment. He also stated that attribution is part of our cognition of the environment. Schultz and Schultz (2001) stated that Causal attributions refers to how people understand own and other's behavior with respect to situational constraints, social pressures or personality traits. Causal attribution is divided into simple and complex attributional processes (Kelley, 1983). Simple causal structure exists when only one cause produces one effect. Complex attributional process exists when several causes or interactions produce several effects. There are seven components of attributional complexity (Fletcher, Danilovic, Fernandez, Peterson, & Reeder, 1986).

Motivation: A person high in motivation will have complex attributional process.

Complex Explanation: A person with high preference for complex explanation will have complex attributional process.

Meta-Cognition: A person with meta-cognition will have complex attributional process.

Interaction: A person with high interaction will have complex attributional process.

Internal Attribution: A person with high tendency to infer complex internal explanations will have complex attributional process.

External Attribution: A person with high tendency to infer abstract, contemporary external causal attribution will have complex attribution process.

Past Causes: A person with high use of past causes to understand behavior will have complex attributional process.

Ramiro and Kenneth (2000) found that explanatory style of students is predictor of their college performance. Students with optimistic explanatory style obtained high grades. Schwartz, Kaslow, and Jennifer (2000) studied the role of attributional style in adolescent's psychological functioning by examining the cross-sectional correlates of attributional style on a sample of 841 adolescents. They

found that more maladaptive attributions are associated with psychological distress and more impaired cognitive and interpersonal functioning. Barnhill and Myles (2001) found a significant relationship between level of depressive symptoms and general attributional style in a sample of 33 adolescents with Asperger Syndrome.

Joiner and Wagner (1995) conducted a meta-analysis of some 27 studies in children and adolescents. The results supported the association between attributional style and depressed mood both concurrently and to a degree prospectively. In some studies attributional style was associated with depressed mood only in the presence of negative life events but not their absence. Spence, Sheffield, and Donovan (2002) found that attributional styles predict increases in depressive symptoms 12 months prospectively, irrespective of the occurrence of negative life events, even after accounting for baseline depressive severity. Siddiqui (1992) studied the relationship of depression with the qualitative dimension attribution. Through content analyses, he found that depressed people have internal, stable and global attribution style.

Bradley (as cited in Tennen & Herzberger, 1987) stated that reformulated learned helplessness model has stimulated considerable interest in attribution styles and its correlates. Frankel and Snyder (as cited in Tennen & Herzberger, 1987) stated that depressed people manifested attributional styles similar to those of manifesting low self esteem. They both positive and negative life events with similar attribution styles. Sterling, Yeisley-Hyness, Little, and Cater (1991) found that people with high self esteem used an ego protective attributional style, while people with low self esteem used a self protective attributional response style.

Burger and Schmolling (1993) stated that self esteem is positive or negative way of evaluating one's values feelings, attitudes, beliefs, fears, desires, strengths, and weaknesses. They stated that self emerges with in self and it is critical aspect of the self. Rafai (1999) stated that self esteem is the feeling that determines self worth of a person. She stated that self esteem is derived from psychological, social, and physical dimension of the self. She divided self esteem in to four components. Self-Acceptance is the one's evaluation of the worth of individual's feeling of disliking and disappointment with the overall self. Self-Competence reveals individual's adequacy to face life situation and a sense of confidence over one's abilities. Social and physical self acceptance explains the one's acceptance of the physical appearance from social point of view and acceptance of one's general self. Academic Self-Competence shows individual's feelings and evaluations of academic performance.

Abramson and Seligman (1983) stated that self esteem is a moderator in the onset of depression. Santor and Rosenbluth (2005) have stated that number of personality characteristics and vulnerability factors can increase the risk for developing mood problems in adolescence, ranging from temperamental differences identified early in development to differences in self-esteem. Harper and Marshal (1991)

stated that low self esteem is associated with a host of problems like drug abuse, eating disorders, depression, and suicide. Cutrona (as cited in Taylor & Brown, 1998) found that people with low self esteem experience negative emotions like stress, depression, anxiety, and maladjustment.

The present study was aimed to investigate the gender wise relationship of depression with existing attributional complexity and with level of self-esteem among boys and girls. Following hypotheses were made to achieve objectives of the study:

- The higher the attributional complexity among college students, the more they will be depressed.
- There will be an inverse relationship between depression and level of self esteem.
- There will be an inverse relationship between attributional complexity and level of self esteem.

Method

Research Design

The study was completed in two parts. In part I, Attributional Complexity Scale was translated into Urdu language. In Part II, the main study was conducted to assess psychometrics of the scales and to test the hypotheses of the study.

Instruments

Attributional Complexity Scale (Fletcher et al., 1986) is a self report measure of attributional complexity. It has 28 items with 7 point response format style with categories of '1' as "strongly disagree" to '7' as "strongly agree". It consists of 7 subscales (Attribution Motivation; Complex Explanations; Meta Cognitions; Interaction; Complex Internal Explanations; Complex External Explanations & Past Causes) with four items each. The score of the scale range from 28 to 196. High score show complex attributional processes and low score reveals simple attributional processes. Attributional complexity scale is a reliable measure and has a reliable factor structure (Fletcher et al., 1986).

Self Esteem Scale (SES) (Rifae, 1999) is a 29-item scale with a five point Likert scale response style with categories of '1' as "strongly disagree" to '5' as "strongly agree". There are four subscales: Self Acceptance; Self Competence; Social and physical Self Acceptance; and Academic self competence. The Self Esteem scale is available in English and Urdu language. Self Esteem Scale has been reported as a valid and reliable instrument to assess self esteem (Rifae, 1999).

Siddiqui-Shah Depression Scale (SSDS) is an indigenous measure of depression in Pakistan. It has 36 items with a four point rating scale response style with categories of '1' as "Never" to '4' as "all the time". The score of the scale ranges from 36 to 144. The scale comprise of two equal halves with equal number of items. The scale measures the varying intensity of depression (normal sadness, mild depression, & severe depression). Siddiqui (1999) stated that SSDS is a valid

and reliable measure to assess the depression in clinical and non clinical Pakistani population.

Procedure

Part 1: Translation of Attributional Complexity Scale

In part 1 of the study, Attributional Complexity Scale (Fletcher et al., 1986) was translated into Urdu to make it convenient for Pakistani population. Translation was carried out by the help of 7 bilingual experts having command on Urdu and English language. All bilinguals were psychologists having at least 16 years of education. All the bilinguals were briefed about research purpose and the topic for their better understanding. They were instructed to read each item carefully and translated the item into Urdu without losing its original meaning and content. They were further asked to avoid idioms and phrases and make sure that each item should be precise, simple, and conveying the desired meaning. Five out of 7 translations were selected for committee approach on the basis of translated items given by the translators. Committee consisted of three psychologists. Committee reviewed all the items and selected Urdu translations which maximally convey the meanings. Committee gave special attention to item number 6, 13, 19, 21, and 24 due to their length and difficulty in their conceptual meaning.

Part 2: Main Study

Sample: Sample of the study consisted of 160 college students. 80 of them were boys and 80 were girls. The age of the sample ranged from 15 to 20 years with mean age of boys ($M = 17.30$ and $SD = 1.50$) and girls ($M = 17.82$, and $SD = 1.15$) respectively. They were students of first year to third year (120 science & 40 humanities).

Results

Psychometric Properties of the Scales

Cronbach's alpha coefficient for 28 items of Urdu Version Attributional Complexity Scale was .67 on a sample of 160 students that is quite satisfactory. Guttman Split-half reliability coefficient of the Urdu Version Attributional Complexity Scale in the present study ($N=160$) was .75 which is also quite satisfactory. The inter scale correlation coefficients for most of the subscales of Urdu Version Attributional Complexity Scale and total Urdu Version Attributional Complexity Scale were significantly positive that shows internal consistency of these subscales. However, subscale Motivation has non-significant correlation ($r = .13$, $N=160$) with subscale Complex Explanation. Similarly, subscale Motivation has non-significant correlation ($r = .12$, $N = 160$) with subscale Internal Explanation. The subscale complex explanation has non-significant correlation with subscale Meta Cognition ($r = .11$, $N=160$), with External Explanation ($r = .07$, $N=160$) and with Past Causes ($r = -.06$, $N=160$).

Cronbach's alpha coefficient for Self Esteem Scale was .90 for the sample ($N=160$) of present study that is high and satisfactory. Guttman Split-half reliability coefficient for Self Esteem Scale was .90 for the present study ($N=160$) that is

high and satisfactory. The inter scale correlation coefficients for all the subscales and total Self Esteem Scale were significantly positive. This shows that Self Esteem Scale is homogeneously consistent and measures all aspects self esteem.

Cronbach's alpha coefficient for Siddiqui-Shah Depression Scale (SSDS) was ($r = .92, N=160$) of present study that is high and satisfactory. Guttman Split-half reliability coefficient for Self Esteem Scale was .90 for the present study ($N=160$) that is also high and satisfactory.

Results of Main Study

Table 1
Correlations between Attributional Complexity Scale (ACS) and Siddiqui-Shah Depression Scale (SSDS) (N=160)

ACS	SSDS		
	Boys (n=80)	Girls (n=80)	Total (N=160)
Motivation	-.07	-.06	-.06
Complex Explanation	-.01	-.05	-.03
Meta Cognition	.07	-.14	-.03
Interaction	.06	.08	.07
Internal Explanation	.05	.02	.05
External Explanation	.09	.28*	.19*
Past Causes	.08	-.08	.02
Total ACS	.68	.02	.05

* $p < .05$

Table 1 reveals that subscale External Explanation has significantly positive correlation with depression on a sample of boys ($r = .18, p < .05, n=80$) and girls ($r = .28, p < .05, n=80$), but non significantly on whole sample ($r = .09, p > .05, N=160$). On the whole, the relationship between attributional complexity and depression is non significant ($r = .05, p > .05, N=160$). Only sub scale external explanation has significantly positive correlation ($r = .19*, p < .05, N=160$) with depression. These results reject the hypothesis that the higher the attributional complexity among college students, the more they will be depressed.

Table 2
Correlations between Self Esteem Scale (SES) and Siddiqui-Shah Depression Scale (SSDS) (N=160)

SES Subscales	SSDS		
	Boys (n=80)	Girls (n=80)	Total (N=160)
Self Acceptance	-.72**	-.53**	-.62**
Self Competence	-.52**	-.41**	-.46**
Social & Physical Acceptance	-.34**	-.34**	-.33**
Academic Self Confidence	-.40**	-.35**	-.37**
Total SES	-.67**	-.51**	-.59**

* $p < .05$, ** $p < .01$

Table 2 shows highly significant negative correlation of depression with self esteem ($r = -.58, p < .01, N=160$) on the whole sample and for boys ($r = -.67, p < .01, n=80$) and girls ($r = -.50, p < .01, n=80$) separately. All the subscales of self esteem have also highly significant negative correlation with depression. These results accept the hypothesis that there

will be an inverse relationship between depression and level of self esteem.

Table 3
Means, Standard Deviations and t-values for boys and girls on Siddiqui-Shah Depression Scale (SSDS) (N=160)

	Gender				t	p
	Boys (n=80)		Girls (n=80)			
	M	SD	M	SD		
Total SSDS	67.27	17.95	69.91	15.64	.99	.534

$df=158, \text{Cohen's } d=0.15$

Table 3 indicates that there is non significant difference on level of depression among boys and girls ($t = .99, p > .05$) on the whole sample ($N=160$).

Table 4
Correlations between Self Esteem Scale (SES) and Attribution Complexity Scale (N=160)

	ACS			P
	Boys (n=80)	Girls (n=80)	Total (N=160)	
SES	.15	.14	.16	n.s

Table 4 shows that attributional complexity has not any significant correlation with the self esteem on the whole sample ($r = .15, p > .05, N=160$), and for boys ($r = .16, p > .05, n=80$) and girls ($r = .14, p > .05, n=80$) separately. These results reject the hypotheses that there will be an inverse relationship between attributional complexity and level of self esteem.

Discussion

Findings show that attributional complexity has no significant relationship depression and self esteem. Only subscale external explanation has significantly positive association with depression in sample of girls. Siddiqui (1992) also stated that depression is externalized in our culture. Our findings are similar to Siddiqui (1992) in terms of expressing depressed behavior in external terms. Usually girls use abstract, contemporary explanation of behavior. Jaswal and Dewan (1997) also stated that externality is positively related with depression.

Every culture has its own norms, rules, values and ethics which may be acceptable in a culture and unacceptable in another culture. Our Pakistani Culture is blend of religious moral and social values. Although emerging needs and trends are changing person's perception and the ways of thinking. Ethnic group influences, prevailing literacy rate, cultural pressures, family support and strains with unique cultural structure reveals that our people have simple as well as complex causal structure, but their complex structure is not related with depression, self esteem and gender.

Along with cultural diversity, another important influential factor is the origin of the concept. As the concept was originated and studied up till now in western cultures,

results of the present study are inconsistent with western findings. It shows the strong influence of cultural differences. A methodologically sound and extensive study of the same variable will be helpful in understanding the causal phenomena.

The sample consisted of science and art students. The science students were preparing for their entry test in medical colleges. While studying in academics they were approached for data collection. Some possible reasons for depression include uncertain future, economical insecurities, and existing method of admissions in medical colleges, prevailing unemployment, and political instability. These factors are constant threat for young population. They are not sure about their future and existing strains.

The sample of the study was normal population. The intensity of the depression among them was not clinically diagnosable. The absence of intense depression among the students might be the reason of statistically non significant differences. It would be interesting to carry out a similar study on other segments of population which have features of clinical depression. Hence, researchers will be able to know the differences between normal population and population having features of depression.

Another factor is the age of sample. College students are too young to understand the conceptual items of the scale properly. The adults as sample with diverse characteristics and of different age level might produce valuable effects on results.

The present study shows that self esteem is negatively related to depression. Beck (as cited in, Tice, 1991) stated that depressed subjects are characterized by a low self image and low self esteem. Further people with low and high self esteem have different motivational level. This finding of the study was consistent with theories of Beck (1967), Bibring (1953), and Sullivan (1956). Lewinsohn, Gotlib, and Seeley (1997) suggests that self esteem is critical aspect of depression. It predicts onset of depression. Roberts, Gotlib and Kasse (1996) also found that self esteem is a specific component of depression and predicts onset of depression.

This study has few limitations as well. Sample of (N=160) college students is very limited population. Attributional complexity should be studied with diverse populations. The study also lacks demographic information. The collection of detailed demographics and finding its relationship with attributional complexity might reveal useful information. There is need to compute validity of Urdu version of Attributional Complexity Scale. Back translation of the scale should be carried out as well. Another limitation is misunderstanding of conceptual items of Attributional Complexity Scale. Adults might be able to better understand the scale. Future studies should include variables like parenting styles, family environment, security, autonomy, peer relations and romantic functioning as well, as these might have impact on level of depression.

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Received: February 26, 2013