

# MENTAL HEALTH AND ACADEMIC ACHIEVEMENT OF ADOLESCENT STUDENTS IN RELATION TO THEIR EMOTIONAL INTELLIGENCE

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## Abstract

The study is an attempt to investigate the status of the mental health and academic achievement of adolescent students in relation to their emotional intelligence. Five hundred adolescent students were selected as a sample of the study. Emotional Intelligence Scale by Anukool Hyde, Sanjyot Pethe and Upinder Dhar, Mental Health Scale by A.K. Srivastava and Academic Data Blank were used to assess the emotional intelligence, mental health and academic achievement of the students respectively. 2x2 factorial design was employed on the scores of mental health and academic achievement. After analysis it was found that 1) Students with high emotional intelligence have better mental health and academic achievement than students with low emotional intelligence. 2) There is no interaction between gender and emotional intelligence of adolescent students on the scores of mental health and academic achievement. 3) Girls have better academic achievement than boys. 4) Mental health and academic achievement of adolescent girls are positively correlated. However, in case of boys, mental health and academic achievement have no association.

## Introduction

In modern times with rapid advancement in all walks of life, problems have also multiplied in that proportion. Life is becoming fast with increasing impact of science and technology. Fast life and competition over world are slowly harming ones mental health. Emotions are the prime movers of thought and conduct. High emotional conditions disturb the mental equilibrium. In words of Goleman (1995), "The present generation of children is more troubled emotionally than the last, more lonely and depressed, more angry and unruly, more nervous and prone to worry, more impulsive and aggressive". Place of feelings in mental life has been surprisingly reduced over the years. There is need to bring intelligence to emotion. Place of feelings in life acts as antidote to all problems that youth encounter. Emotional intelligence has recently received considerable attention and has come to be regarded as a new measure of success in life. What doesn't feel good to us normally doesn't feel good to others. But to understand the importance of this we must first be in touch with our own feelings.

## Emotional Intelligence

Emotional Intelligence has its roots in the concept of social intelligence first coined by E.L. Thorndike in 1920, who has grouped intelligence into abstract intelligence, concrete intelligence and social intelligence. Gardner (1983) advanced Thorndike's ideas of social intelligence by talking about multiple intelligence including interpersonal and intrapersonal intelligence. Later on Sternberg (1988) also through his Triarchic Theory of intelligence introduced contextual intelligence relating one's capacity of making adjustment to various contexts and being street smart. Mayer and Salovey (1995) defined emotional intelligence "as the capacity to reason with emotions in four areas; to perceive emotions, to integrate it in thought, to understand it and to manage it." Goleman (1995) categorized emotional intelligence into five components i.e. self awareness, self regulation, motivating oneself, empathy and social skills. Robert (2002) conceptualized that emotional intelligence is an array of emotional and social knowledge and abilities that influence our capabilities to effectively cope with environmental demand.

Researches have found that our emotional awareness and ability to handle feelings determine our success and happiness in all walks of life. Emotions, feelings and values are vital for a person's well being and achievement in life (Ediger, 1997). Goleman (1996) reported that an individual's success at work is 80% dependent on emotional intelligence and only 20% on intelligence quotient. Cognitive intelligence helps an individual to enter an organization, however, its E.I, which shows how successful that person will be in organization. Kavanaugh, Zimmerberg and Fein (1996) reported that emotions have pervasive influence on consciousness; they influence information processing (perception, judgment, interpretation, decision making) and ultimately behavior. Ciarrochi, Chan, Caputi (2000) found that emotional intelligence is positively correlated with variables such as empathy, verbal intelligence, extroversion, openness to feelings, self esteem and life satisfaction. Yates (1999) found that health habits of adolescents have positive relationship with their emotional

intelligence. Fredrickson (2000) reported that negative emotions narrows an individual's momentary thoughts and action repertoire towards specific actions; by contrast positive emotions broaden an individual's momentary thoughts and action repertoire, which in turn can build individual's enduring personal resources. Positive emotions can optimize health, subjective well being and psychological resilience.

Payton et al (2001) found that social emotional learning as one of best way to promote Mental Health and reducing risk behavior. Ciarrochi, Deane and Anderson (2002) reported that Emotional Intelligence protect Adolescent's Mental Health from negative effects of stress. Manhas (2004) found a positive and significant correlation between emotional intelligence and mental health. Pacheco and Berrocal (2005) found that emotional intelligence is predictor of mental, social and physical health of adolescent students.

Human emotions are found to be highly correlated with interest, efforts, irrelevant thinking and academic achievement (Perkrum, 1998). Low emotional intelligence has potentially negative consequence not only for academic achievement but also for personal relationships (Ghosm, 1999). High emotional intelligence leads to high academic achievement (Ohm, 1998; Gautam, 2000; Amber Farooq, 2003; Manhas, 2004; Unha, Heekman and Masterov, 2006). Girls have better emotional adjustment (Kuruvilla, 2006), better adjustment in school, home and society (Brody and Hall, 1994) than boys.

### **Mental Health**

Mental health is a combined outcome of five healths i.e. physical, emotional, moral, spiritual and social health. Mental Health of a person helps the person in making best use of his intellectual capacities like thinking, reasoning, memory, intelligence, concentration, problem solving, creativity etc. Watlin (1935) defined that a mentally healthy person is the one who has a wholesome balanced personality free from inconsistencies, emotional and nervous tensions, discords and conflict. Wolman's dictionary of behavioral sciences (1950) defined that Mental Health is a state of relatively good adjustment, feeling of well being and actualization of one's potentialities and capacities. Bhan and Dutt (1975) concluded that a mentally sound person have adequate feeling of personal works, adequate understanding of others, adequate emotional maturity, adequate orientation and adequate creativity.

Saarni (1999) reported that emotional competence is crucial components of social development contribute to the quality of interpersonal relationships. Berrocal and Pacheco (2005) found that high emotional attention is positively and significantly related to the mental health.

Ahuja (1975) found that girls have better mental health than boys. Kessler, McGonagle, Zhao (1994) reported that overall rates of mental disorder are almost identical for men and women. Chen (1997) found that the children's social competence, aggression and peer acceptance contributed to their academic achievement. Anand (1999) found that Mental Health of adolescents and their Academic Achievement are positively related. Amber Farooq (2003) found that high level of stress management and adaptability has a positive effect on academic performance of students. Various type of stress, anxiety and emotional deficits have been shown negatively to affect scholastic achievement (Roeser and Eccles, 2000). Early onset (before adulthood) depression is associated with less schooling (Berndt, 2000) and high school dropouts (Fletcher, 2008). Allegrante (2009) found positive relation between selected health behavior and academic achievement.

### **Academic Achievement**

Academic Achievement is concerned with quality and quantity of learning attained in a subject or group of subjects after a period of instructions. Trow (1960) defined academic achievement as the attained ability or degree of competence in school tasks usually measured by standardized tests and expressed in grades or units based on norms derived from a wider sampling of pupil performance. Academic Achievement seems to be the vital factor which affects the emotional state of mind. It is the act of accomplishing or furnishing something that has been attained successfully especially by means of skill or practice.

Academic Achievement of girls was found to be superior to that of boys (Dixit, 1995; Petrides and Furnham, 2000). High Interpersonal skills have positive effect on academic achievement of the students (Farooq, 2003). Chen (1997) found that children's academic achievement predicted their social competence and peer acceptance.

From above it can be concluded that during adolescence, there is a refinement of many forms of emotional expression. Emotions dominate adolescent's identity and ideals. They need to learn how to manage, control and tolerate their emotionality. High emotional conditions disturb the mental equilibrium. Teaching emotional and social skills are very important at school, it can affect academic achievement positively, not during the year, and they have long term effect on achievement. The present study is an attempt to observe the impact of emotional intelligence on mental health and academic achievement of adolescent students.

### Objectives

The study has been designed to attain the following objectives

1. To study the mental health and academic achievement in relation to emotional intelligence of adolescent students.
2. To study the relationship between mental health and academic achievement of adolescent students.

### Methodology

#### Design and Procedure

2x2 factorial design has been employed on the scores of mental health and academic achievement which have been studied as dependent variables. Emotional intelligence and gender have been studied as independent variables and have been used for the purpose of classification viz. boys and girls with high emotional intelligence and low emotional intelligence. The study has been conducted on 250 boy students and 250 girl students randomly selected from 7 boy schools and 7 girl schools of Jalandhar Division. After selection of the students, Emotional Intelligence Scale has been administered. On the basis of the scores of emotional intelligence, boy and girl students have been arranged in descending order. 30% top i.e. 75 boys and 75 girls and 30% bottom i.e. 75 boys and 75 girls have been identified as students with high emotional intelligence and low emotional intelligence respectively. Then Mental Health Scale has been administered to both the groups. For Academic Achievement, marks obtained by students in their previous class promotion examination (i.e. class 9th examination) has been considered. The collected data has been scored and statistical techniques have been employed to analyze the data.

#### Tools

The following tools have been used to collect the data

1. Emotional Intelligence Scale by Anukool Hyde, Sanjyot Pethe and Upinder Dhar.
2. Mental Health Scale by A.K. Srivastava.
3. Academic Data Blank in which academic record of 9th class has been taken.

#### Analysis and Interpretation

The means of subgroup of analysis of variance for 2x2 design in respect of mental health and academic achievement have been calculated and put in the Table 1, Table 2, Table 3 and Table 4 respectively.

**Table - 1**  
Means of subgroups of ANOVA for 2x2 design on the scores of mental health in relation to emotional intelligence of boys and girls

	H.E.I.	L.E.I.	
<b>BOYS</b>	M1=158.8 $\sigma_1=21.38$	M2=150.65 $\sigma_2=14.86$	MM1=154.7
<b>GIRLS</b>	M3=159.66 $\sigma_3=13.45$	M4=149.17 $\sigma_4=12.85$	MM2=154.4
	MM3=159.23	MM4=149.91	

**Table - 2**  
**Summary of ANOVA 2×2 design in respect of mental health in relation to gender and emotional intelligence**

Source of Variance	df	SS	MSS	F-Ratio
Gender	1	7.36	7.36	0.028
Emotional Intelligence	1	6524.007	6524.007	25.15**
Interaction	1	102.086	102.086	0.3936
Within	296	76777.797	259.38	

\*\* Significance at the 0.01 level of confidence.

**Table - 3**  
**Means of subgroups of ANOVA for 2×2 design on the scores of academic achievement in relation to emotional intelligence of boys and girls**

	H.E.I.	L.E.I.	
<b>BOYS</b>	M1=445.59 $\sigma_1=90$	M2=390.49 $\sigma_2=78.13$	MM1=418.04
<b>GIRLS</b>	M3=491.29 $\sigma_3=117.48$	M4=455.76 $\sigma_4=112.09$	MM2=47352
	MM3=468.44	MM4=432.13	

**Table - 4**  
**Summary of ANOVA 2×2 design in respect of academic achievement in relation to gender and emotional intelligence**

Source of Variance	df	SS	MSS	F-Ratio
Gender	1	230907.76	230907.76	22.46**
Emotional Intelligence	1	153997.367	153997.367	14.98**
Interaction	1	7173.64	7173.64	0.697
Within	296	3042864.17	10279.19	

\*\*Significance at the 0.01 level of confidence.

### **Mental Health**

It may be observed from the table - 2 that the F-ratio for the difference between means of boys and girls on the scores of mental health was not found to be significant even at the 0.05 level of confidence. This indicates that two groups don't differ significantly on mean mental health scores. Meaning thereby boys and girls do not differ significantly in their mental health.

It may be observed from the table - 2 that the F-ratio for the difference between students with high emotional intelligence and low emotional intelligence on the scores of mental health was found to be significant at the 0.01 level of confidence. This indicates that two groups differ significantly on mean mental health scores. The mean of mental health of the corresponding groups in the Table 1 suggests that students with high emotional intelligence were found to have better mental health than students with low emotional intelligence. Meaning thereby emotional intelligence has positive impact on mental health.

Further, it is observed that F-ratio for the interaction between gender and emotional intelligence on the scores of mental health was not found to be significant even at the 0.05 level of confidence.

### Academic Achievement

It may be observed from the table - 4 that the F-ratio for the difference between means of boys and girls on the scores of academic achievement was found to be significant at the 0.01 level of confidence. This indicates that two groups differ significantly on mean academic achievement scores. Further examination of means Table 3 suggests that girls have better academic achievement than boys.

It may be observed from the table - 4 that F-ratio for the difference between the students with high emotional intelligence and low emotional intelligence on the scores of academic achievement was found to be significant at the 0.01 level of confidence. This indicates that two groups differ significantly on mean academic achievement scores. The mean of academic achievement of corresponding groups in the Table 3 suggests that students with high emotional intelligence were found to have higher academic achievement than students with low emotional intelligence. Thus it is concluded that emotional intelligence positively affects academic achievement of the students.

Similarly F-ratio for the interaction between gender and emotional intelligence on the scores of mental health was not found to be significant even at the 0.05 level of confidence.

### Correlation between Mental Health and Academic Achievement

The correlation between mental health and academic achievement has been presented below in the Table 5

**Table - 5**  
**Correlation between mental health and academic achievement**

	N	r value
Boys	150	0.138
Girls	150	0.221**
Total	300	0.164**

\*\*Significance at the 0.01 level of confidence

It may be observed from the table - 5 that correlation between mental health and academic achievement for total students and for girls was found to be significant at the 0.01 level of confidence whereas, the correlation between mental health and academic achievement for boys was not found to be significant even at the 0.05 level of confidence. This suggests that there is positive and significant relationship between mental health and academic achievement of adolescent girl students and total sample.

### Discussion

In the present study mental health and academic achievement of adolescent students have been studied in relation to their emotional intelligence. It has been found that emotional intelligence affects the mental health and academic achievement of adolescent students. The major findings of the study are given as follows

Boys and girls do not differ significantly in their mental health. This may be because now girls are treated equal as boys and are provided with same opportunities. They work under same conditions which may leads to no difference in their mental health. The present finding is in tune with the findings of Kessler, McGonagle, Zhao (1994) and offers a contrasting perspective to the findings of Ahuja (1995).

Students with high emotional intelligence have better mental health and academic achievement than students with low emotional intelligence. This may be because emotionally intelligent persons have control over their emotions and have capacity to recognize and express their emotions which help them in avoiding getting stuck in depression, anxiety or other negative mood states and thus leading to better mental health. They are in a better state to channelize their emotions appropriately which help them to progress in the class. The present finding is in tune with findings of Yates (1999), Manhas (2004), Pacheco and Berrocal (2005) and (Ohm, 1998; Gautam, 2000; Amber Farooq, 2003; Manhas, 2004; Unha, Heekman and Masterov, 2006).

Girls have better academic achievement than boys because they have better emotional adjustment and better adjustment in school, home and society, so they are in better position to channelize their emotions and mental energy constructively for the attainment of desired goals. The present finding is in tune with findings of Dixit (1995); Petrides and Furnham (2000).

Mental health and academic achievement of adolescent students in general and girls in particular are positively correlated. Mentally healthy persons direct their energy inwards, for the management of emotions, rather than outwards to resolve everyday problems. Such adolescents are in better position to channelize their impulses appropriately and perform well. This finding is in tune with the findings of Chen (1997), Anand (1999) and Allegrante (2009).

The findings of the study suggest that high emotional intelligence leads to better mental health and better academic achievement. Since school plays very important role in improving the mental health and academic achievement of the students. So programs should be organized in the schools to improve emotional intelligence of the students. Attempts should be made to make the students to participate actively in co-curricular activities and teachers should have positive attitude towards students.

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