

**RELATIONSHIP BETWEEN EMOTIONAL MATURITY AND  
MATHEMATICS PERFORMANCE: A STUDY ON ADOLESCENTS OF  
RAJOURI DISTRICT OF JAMMU AND KASHMIR**

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**ABSTRACT**

In the present stressful life, emotional control is of immense importance in the survival during hardships. The development of a balanced personality is characterised by the level of emotional maturity one possess. Owing to spurt in physical development during adolescent stage, it is quite common that they may face challenges with their emotional control which can affect their academic performance. The present study is an attempt to unfold the relationship between emotional maturity and academic performance among the adolescents of district Rajouri of Jammu and Kashmir. Data were collected from 102 adolescents, aged 13- 15 years using Emotional Maturity Scale developed by Y. Singh and M. Bhargava. Results revealed that adolescents of Rajouri district are extremely unstable emotionally. Gender wise comparisons showed that boys are emotionally immature as compared to girls. However no differences were observed in the emotional maturity of govt. school students and private school students. It was also reported that adolescents belonging to joint families are emotionally more immature as compared to those from nuclear families. Correlation analysis revealed that there is a negative relationship between emotional immaturity and academic performance.

**Keywords:** Emotional maturity, Adolescence, Academic Performance.

**Introduction**

Santrock (1993) defines adolescence as, the developmental period of transition between childhood and adulthood that involves biological, cognitive and social changes. This stage of life is marked by spurt in physical development along with pubertal changes and an extreme overflow of multiple emotions. Hall (1904) denoted this period as “Storm and Stress” and states “conflict at this developmental stage is normal”. Owing to numerous physical and social

changes, it often becomes difficult for them to know how to behave. Besides behaviour confusion they also face problems in dealing with erupting emotions. In order to control and manage their emotions, they have to be emotionally mature. Emotional maturity includes the ability to deal constructively with reality (Menninger, 1999). According to Dosanjh (1960) "Emotional maturity means balanced personality. It means ability to govern disturbing emotion, show steadiness and endurance under pressure and be tolerant and free from neurotic tendency. In the words of Frank (1963), Emotional Maturity actually is, "A process of readjustment, the infant learns under parental supervision what situations after permissible opportunities for emotional reactions and to what extent, so that primitive elemental psychological response that we call „emotion“ becomes patterned in accordance with approved from the expression and repression favoured by culture." Focussing on adolescents, Singh (1990) said, "Emotional maturity is not only the effective determinant of personality pattern but also helps to control the growth of an adolescent's development. A person who is able to keep his emotions under control, to brook delay and to suffer without self-pity might still be emotionally stunned." Emotional maturity comes under the purview of affective domain that facilitates adjustment. It has a potential to affect the outcomes of the individual. Van Heck, Oudsten, and Den (2008) suggested that emotional abilities are strong predictors towards healthy life and psychological well-being. According to Mayer and Salovey (1997), emotional maturity is the ability that accurately perceives emotional expression, the ability to understand and regulate emotions to promote emotional and intellectual growth. Also it has been found that emotional maturity is positively related to intelligence (Arya A, 1984; Anju, 2000) which is an important predictor of performance. Many studies have been conducted on the emotional maturity of the adolescents and adults to ascertain its relationship with the performance. Sufficient evidences were found for a positive relationship between emotional maturity and academic performance. For instance Dharmi (1974) reported a high significant relationship between emotional maturity, intelligence and scholastic achievement of high schools students. Similarly Sabapathy (1986) also found that emotional maturity was positively and significantly related to achievement in individual subjects and total academic achievement. In a comparative study on slum and urban inhabitants, Muley Patnam and Vasekar (2000) found a significant positive relationship between urban children's emotional maturity and their academic performance that fetches support from Suman's (2009) results that revealed a significant positive relationship between emotional competence & learning achievement in science. Recently, Shanmuganathan & Chinnappan (2014); Shafeeq & Thaqib (2015) and Kumar and Mishra (2016) reported a significant relationship between the emotional maturity and academic achievement of adolescent students. However there are ample research studies that showed contrary results. For instance Kaur (2001) reported that no significant relationship was found between emotional maturity and academic achievement among the adolescents that draws support from the findings of

Upadhyay and Upadhyay (2004); Singh and Thukral (2011). Gakhar (2003), on the other hand reported a negative correlation between academic achievement and emotional maturity that is validated by the findings of Lekhi (2005) who also reported a significant negative relationship between emotional maturity and academic achievement among adolescents of Punjab. Recently Saraswat (2015) again reported that there is no correlation between emotional maturity and academic achievement.

Previous researches on the demographic correlates of emotional maturity produced mixed results with gender. Some establishing significant differences across gender (Gupta, 1989; Kaur, 2000; Gakhar, 2003; Sheema Aleem, 2005; Bansibihari & Lata, 2006; Thahira and Hameed, 2010; Mallick et al, 2014; Sakshi and Gupta, 2015) while some reporting no effect (Kaur, 2001; Upadhyay and Upadhyay, 2004; Lekhi, 2005; Singh and Thukral, 2011; Subbarayan & G. Visanathan 2011; Dutta, Chetia and Soni, 2013; Bagh, 2018). Likewise the effect of school type is not clear from the past researches. There are evidences reporting that significant differences existed in the emotional maturity of students of government and private schools (Gakhar, 2003; Babbar and Verma, 2017) while some studies reported no effect of school type (Kaur, 2001; Mallick et al, 2014). Considering family type, it was reported by Subbarayan & G. Visanathan (2011) that family type did not play any role in emotional maturity of college students. However Rawat and Singh (2017) reported adolescents from joint families were more emotionally progressive, socially well adjusted, had adequate personality and were independent than those from nuclear families. On the contrary Kondiba and Hari (2018) showed that nuclear family children had significantly high emotional maturity than the joint family children.

Since the studies addressing emotional maturity of adolescents provide mixed results, it was considered relevant to explore this concept further. Moreover, there is no single study reported in the Jammu and Kashmir state of India that attempted to study the emotional maturity of adolescents of district Rajouri. The aims of the study are twofold; first to understand adolescents' emotional maturity across gender and school type second to investigate the relationship of emotional maturity with academic achievement in mathematics. The following hypotheses are formulated for empirical verification:

1. The adolescents of Rajouri district experience moderate emotional maturity.
2. The emotional maturity of adolescent boys and girls does not differ significantly.
3. The emotional maturity of adolescents belonging to government and private schools does not differ significantly.
4. The emotional maturity of adolescents belonging to joint families and nuclear

families does not differ significantly

5. There exist no significant relationship between emotional maturity and academic achievement of adolescent students of district Rajouri.

## **Method**

### *Sample*

Participants in the study were a group of 102 adolescents, aged 13-15 years studying in grade 10. The participants were selected using random sampling technique such that the final sample was drawn from one government school and one private school of district Rajouri from Jammu & Kashmir state of India

### *Materials*

The study tools used for the present study were as follows:

- 1) Emotional Maturity Scale (Y. Singh and M. Bhargava, 2010). The scale consists of 48 negatively worded items, each having five response options. High scores on the scale indicate high level of emotional immaturity and vice versa.
- 2) Personal Information Sheet: A personal information sheet was used for gathering information about the demographic and socioeconomic profile of the adolescents, their parent profile and type of family in which they are nurturing.
- 3) Academic achievement Records: it comprises of the record of marks obtained in Mathematics by the sampled adolescent students in their previous class collected from the office record of the controller of examinations of the sampled schools

### *Procedure*

The investigators visited the selected schools personally and administered the Emotional Maturity Scale (EMS) on 102 secondary school students. Data were collected with the voluntary consent of the adolescent participants. Voluntary consent was obtained after sharing the objectives of the study and reassuring the participants about their anonymity and the confidentiality of information they were providing.

### *Data Analysis*

Data collected from the adolescents were cleaned and prepared for analysis. Apart from

descriptive statistics (percentage, mean, S.D), independent samples t-tests and Pearson Product moment correlation were applied for hypotheses verification

## **Results**

### ***Background Information***

The sample comprised of 102 adolescent students: 50% were boys and 50% were girls; all were selected from grade 10 of government and private schools of district Rajouri. Out of them, 48.0% were from joint families and 52.0% were from nuclear families.

### ***Emotional Maturity among Adolescents***

To understand the emotional maturity of the adolescents, emotional maturity scale was used. Data displayed in Table 1 and 2 show the percentage of adolescents falling into different categories as per the norms provided in the manual and the mean along with percentile scores of the emotional maturity of adolescents.

**Table 1: Emotional Maturity of Adolescents of Rajouri**

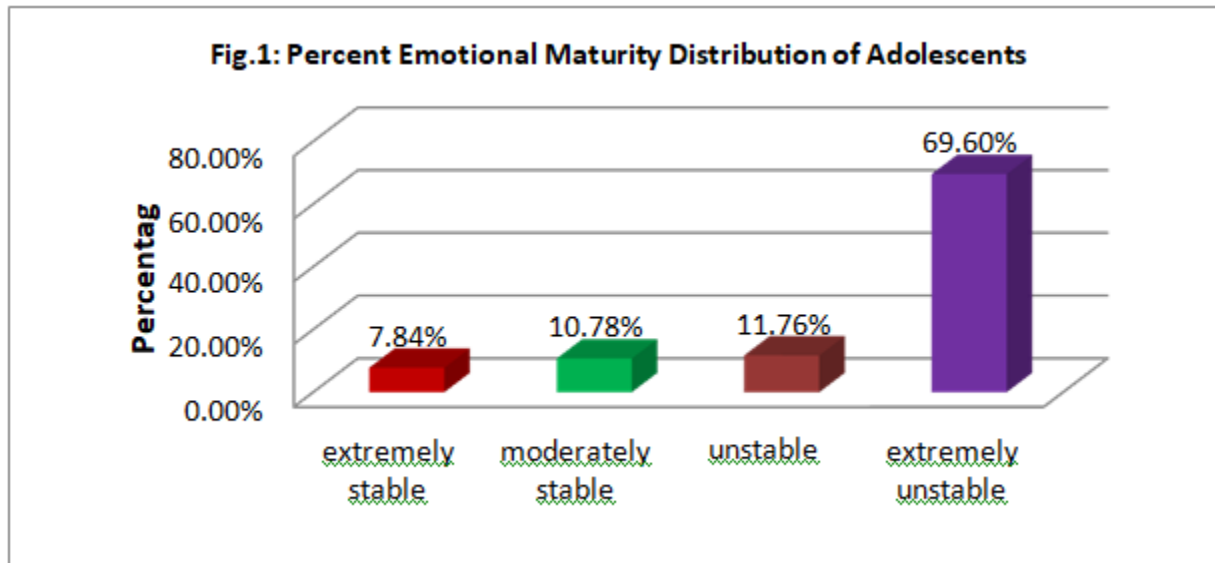
Emotional Maturity	Range of scores	Frequency	Percentage
Extremely stable	50-80	8	7.84%
Moderately stable	81-88	11	10.78%
Unstable	89-106	12	11.76%
Extremely unstable	107-240	71	69.60%

**Table 2: Mean and Percentile scores of emotional maturity of total sample.**

Variable	N	M	S.D	P <sub>25</sub>	P <sub>50</sub>	P <sub>75</sub>
Emotional Maturity	102	122.24	28.45	96.75	122.0	146.25

Results from table 1 and 2 showed that the sampled adolescents of district Rajouri are in extremely unstable emotional state on account of mean emotional maturity score that falls in the category of ‘extremely unstable’ making 69.60 percent of the total sample. The result is further validated from percentiles. The first quartile i.e P<sub>25</sub> is 96.75 indicating that seventy five percent

of the adolescents are having higher scores than P<sub>25</sub> which relates with unstable emotional state. The results are depicted graphically in Fig. 1

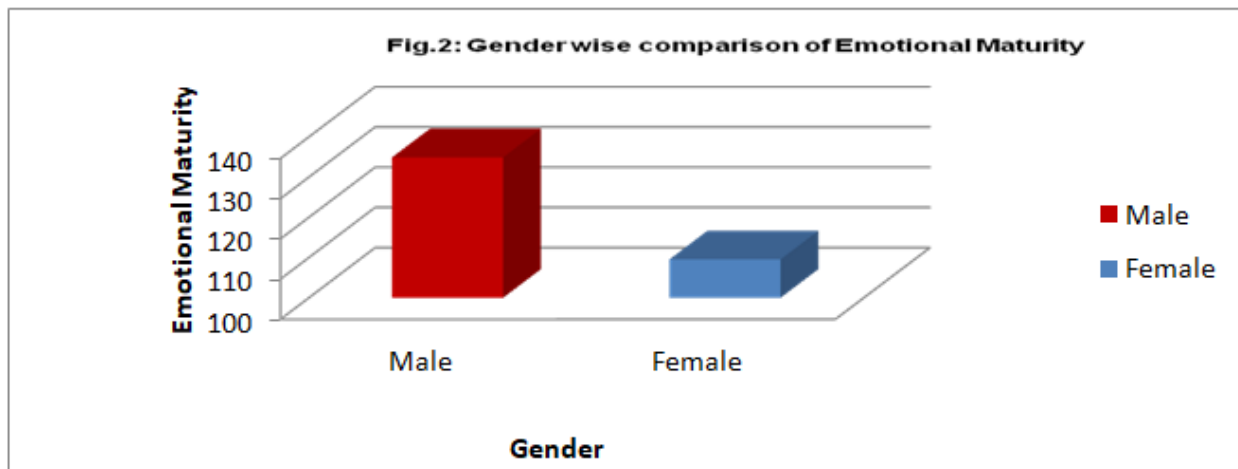


***Emotional Maturity with respect to Gender***

Results from Table 3 show that male and female adolescents differ significantly in their emotional maturity ( $t(100) = 5.01; p < .01$ ) and further mean comparison revealed that boys are emotionally immature ( $M = 134.92, S.D = 23.71$ ) in comparison to girls ( $M = 109.55, S.D = 27.28$ ) [Figure 2]. Thus hypothesis stating “The emotional maturity of adolescent boys and girls does not differ significantly” is rejected.

**Table 3**

Variable	Gender	M	S.D	df	t	p
Emotional Maturity	Male	134.92	23.716	100	5.012	.000
	Female	109.55	27.288			

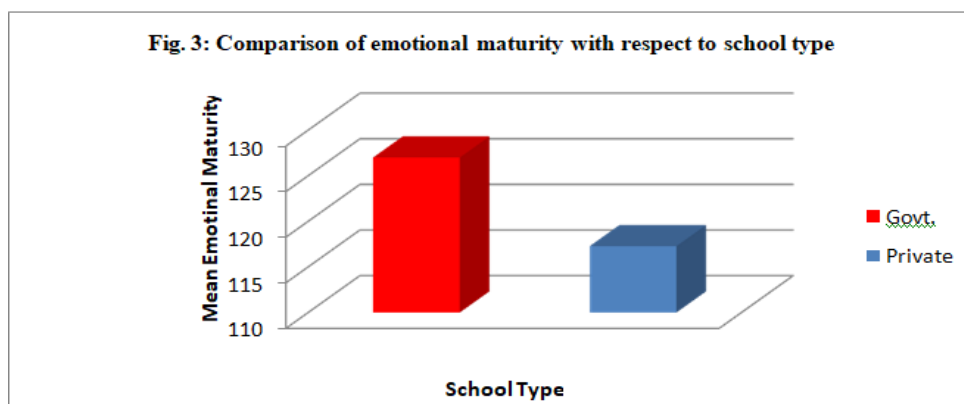


**Emotional Maturity with respect to Type of School**

In order to find out the differences in emotional maturity of adolescents of Govt. and private Schools, Independent sample t-test was applied. Results from table 4 revealed that school type does not affect the emotional maturity of adolescents ( $t(100) = 1.742; p > .05$ ). In other words, adolescents of government and private schools have nearly same level of emotional maturity as depicted in Figure 3. Therefore hypothesis stating “The emotional maturity of adolescents belonging to government and private schools does not differ significantly” is accepted.

**Table 4**

Variable	School Type	M	S.D	df	t	p
Emotional Maturity	Govt.	127.00	33.526	100	1.742	.085
	Private	117.28	21.208			

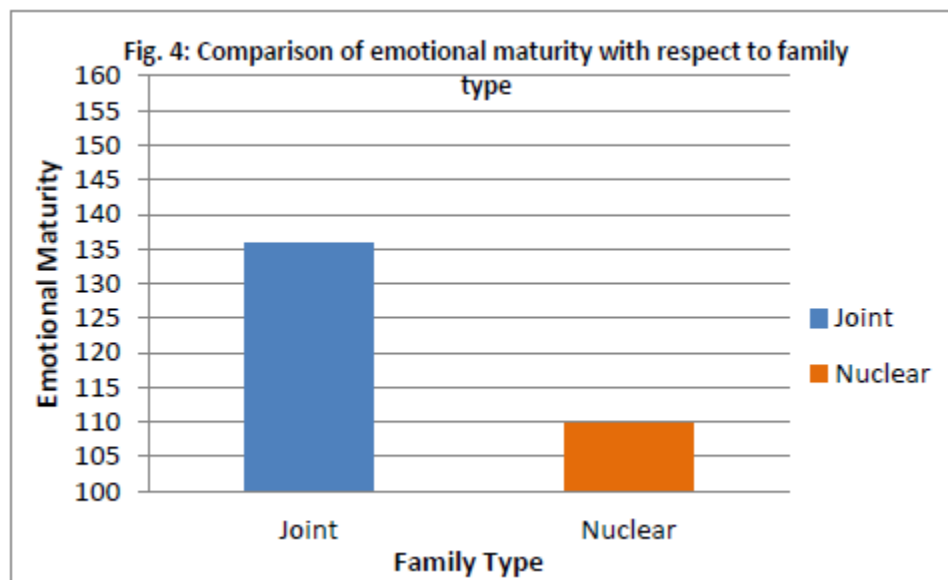


***Emotional Maturity with respect to Type of Family***

Adolescents belonging to nuclear family and joint family are compared on emotional maturity by independent sample t-test [Table 4] that revealed a significant effect of family type ( $t(100) = 5.228; p < .01$ ). Further mean comparison as presented in Fig 4 shows that adolescents from joint family are emotionally immature ( $M = 135.88, S.D. = 23.645$ ) as compared to those belonging to nuclear families ( $M = 109.62, S.D. = 26.813$ ). Hence, hypothesis stating “The emotional maturity of adolescents belonging to joint families and nuclear families does not differ significantly” is rejected.

**Table 4**

Variable	Family Type	M	S.D	df	t	p
Emotional Maturity	Joint	135.88	23.645	100	5.228	.000
	Nuclear	109.62	26.813			



***Relationship between Emotional Maturity and Mathematics Achievement***

Correlation analysis was carried out to investigate the relationship between the two variables and results as presented in table 5 shows that there is a substantial negative relationship between emotional maturity and mathematics academic achievement ( $r = - 0.517, n = 102, p = .000$ ). It means that higher scores on emotional maturity scale indicating emotional immaturity leads to



lower academic achievement in mathematics. Thus hypothesis stating “There exist no significant relationship between emotional maturity and academic achievement of adolescent students of district Rajouri” is rejected.

**Table 5**

Variable	N	r	p
Emotional Maturity	102	-0.517	.000
Mathematics Academic achievement			

**Discussion**

Adolescents of the Rajouri are reported to be extremely unstable in terms of emotional maturity. The possible cause may be the location and nurturing environment. Most of the inhabitants of district Rajouri are farmers and their educational standard is not so high. Moreover, tribal people also inhabit some areas of district Rajouri who are nomadic and do not have a secure and stable life. Owing to these reasons, adolescents are not provided a congenial home environment that facilitates sound emotional development. Also adolescence is a stage of heightened emotionality in which there is influx of emotions and most of the adolescents are facing difficulties in managing their changing emotional across the world. The study further revealed that boys are emotionally immature than girls. This finding is in line with the results of other researchers like Tatawadi (2009) and Lakshmi and Krishnamurthy (2011) who also reported girls as more stable and sensible as compared to boys. Another finding of the present study showed that the adolescents of govt and private schools do not differ significantly in their emotional maturity which draws support from the findings of Kaur, Manjeet (2013). Also it was found that adolescents of nuclear families showed better emotional maturity in comparison to those belonging to joint families. This finding is in line with the findings of Kondiba & hari (2018). Lastly, a significant relationship is reported between emotional maturity and academic achievement. This finding is supported by other researches like Gakhar (2003), Ronald E. McNairs (2004), Suman (2009) who also revealed that emotional maturity leads to better achievement scores.

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