



# Impact of Family Climate on Academic Achievement of Secondary School Students in Nainital District of Uttarakhand

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**Abstract-** Adolescence is the period of rapid growth. It is a period of transition when the past will affect the present as well as the future. Family is the basic environment which prepares the young children for future responsibilities, and parental attitude. Family consists of many factors such as culture of family, facility of family, standard of living in family. The growth and development of each person of the family members is dependent on family. In teaching learning phenomena, family circumstances are determining the learning abilities of the child; it leads their academic performance in different stages. Academic achievement depends on their family conditions like socioeconomic status, family type, family adjustment and health conditions etc. family climate is vast term. It includes various components which individually and collectively affects an individual. If family climate is favourable, it could make an average person into a distinct personality, but on the other hand, an unfavourable one could destroy all the chances for success of a brilliant person. The objectives of the study are to find out the difference in academic achievement between male and female students, to find out the impact of family climate on academic achievement of secondary school students. Survey method was used for the study. 378 Secondary school students of age ranged from 14- 18 years for the both males and females from Nainital district were taken as sample. The family climate questionnaire developed by Dr. Beena Shah (2006) has been used to measure the family climate of secondary school students. Frequency, percentage, mean, standard deviation and t test were used to analyze the data. The results showed that there was a significant difference between males and females towards their academic achievement as academic achievement was found to be more among females as compared to males. As far as impact of family climate on academic achievement was concerned among students, some aspects of family climate showed significant differences while some did not.

**Keywords-** Family climate, secondary school student

## I. Introduction

Adolescence is the stage between childhood and maturity. It's a period of transition, as biological and psychological variables collide to hasten development. The World Health Organization (WHO) defines adolescence as the time between the onset of puberty and the legal age of maturity, which falls between the ages of 10 and 19. Adolescence is the period during which a person develops the attitudes and beliefs necessary for successful involvement in society. According to Coleman (1980), adolescence is a time of vigour without the responsibilities of maturity, a time of pleasant family relationships with only minor conflicts, a time of fulfilling friendships, a time of heightened idealism, and a growing sense of life's thrilling possibilities.



Adolescence, according to Hall (1904), is a time of "storm and tension," with teenagers' emotional lives oscillating between opposing impulses.

The term family climate refers to the physical and mental surroundings as well as the status of the family, whether it is good, terrible, dysfunctional, or otherwise (Knapp, 1993). Synonyms for family climate include: familial support, home life, family life, family stability, family living, family atmosphere, home condition, family climate, living space, personal space, home setting, living conditions, family atmosphere, home atmosphere, family characteristics, and family culture. Family is a shelter for every civil in the world. Family consists of many factors such as culture, facility of the family, standard of living in family. The growth and development of the each person of the family member is dependent on family. In teaching learning phenomena, family circumstances are determining the learning abilities of the child. It leads their academic performance in different stages.

Academic achievement depends on their family conditions like socio-economic status, family adjustment and health conditions etc. Achievement is not only influenced by intelligence but the family and school also plays an important role. Family climate includes social and physical activities of child, his family members and helps in determining cognitive, social and intellectual development of the children. Crouter et al. (2004) found that families who share more quality time together have much warmer family relationship resulting in better psychological adjustments and thus better academic performances. Family climate is a vast term. It includes various components which individually and collectively affects an individual. If family climate is favourable, it could make an average person into a distinct personality, but on the other hand an unfavourable one could destroy all the chances for success of a brilliant person.

The study aims to identify the effect of parents' involvement and school environment on students' academic achievement. The family climate is influenced by a number of factors like the nature of families' constellation, number of family members, marital relationship, parental employment, family income, and sibling relationship, socio-economic and religious background of the family. Parental emotional and practical support predicts positive outcomes on adolescents like high social cognition, better self esteem and intellectual competence. Positive parenting behavior protects the adolescents from subsequent substance use and problem behavior

## **II. Objectives Of The Study**

**The study is designed with the following objectives:**

- To find out the difference in academic achievement between male and female students
- To find out the impact of family climate on academic achievement of secondary school students

## **III. Hypothesis Of The Study**

- There exists no significant difference in the academic achievement of secondary school students' boys and girls.



- There exists no significant impact of family climate on academic achievement of secondary school students.

#### **IV. Research Methodology**

- Development of Research Design
- Selection of locale
- Selection of Sample Size
- Variables used
- Research Instruments to be use
- Collection of Data
- Statistical Analysis of Data

##### **Development of the Research Design:**

This study is exploratory research titled “Impact of Family Climate and School Environment on Academic Achievement among Secondary School Students of Nainital district, Uttarakhand”. To complete the research study under investigation, exploratory research design will be utilized as a study approach by using the research instruments. The main purpose for using an exploratory research design is to learn more about the phenomena or subject concerned under the study to better understand it and draw conclusions about the problems.

##### **Selection of Locale:**

This study shall be conducted exclusively in Uttarakhand State. In Uttarakhand State, Nainital district shall be selected. There are eight blocks in Nainital District (Kotabagh, Ramnagar, Haldwani, Dhari, Bhimtal, Ramgarh, Betalghaat and Okhalkanda). Out of which five blocks (Dhari, Bhimtal, Ramgarh, Betalghat and Okhalkanda) are in hill region and three blocks (Kotabagh, Ramnagar, Haldwani) are in Tarai region. Three blocks of Tarai region (Kotabagh, Ramnagar, Haldwani) will be selected for the present study.

##### **Selection of Sample Size:**

The sample in this study will be secondary school students of 10th class. Data on the overall population was retrieved from School Board Office in Ramnagar, Nainital district. There are 56 government schools in Haldwani block, 43 government schools in Ramnagar block and 22 government schools in Kotabagh block. Total population of secondary school students of class 10th in Haldwani block (3700), Ramnagar block (2386) and Kotabagh block (814) is  $N=6900$  in Nainital district. Using Yamane’s (1970) formula for sample size, which is used for finite population. Total 378 participants are selected for this study. The formula is below mentioned which provides a more straightforward way to determine sample size for a known and finite population:  
$$N = \frac{N}{1 + N(e)^2} = \frac{6900}{1 + 6900(0.05)^2} = \frac{6900}{18.25} = 378.08$$

Total population of Haldwani Block (3700), Ramnagar block (2386) and Kotabagh block (814) in Nainital District is represented by ‘N’. Therefore total population  $N=6900$  and ‘e’ is error of confidence level = 0.05.



Equal percentage of government schools i.e. 15% will be selected from each block that is 8 govt. schools from Haldwani block, 6 govt. schools from Ramnagar block and 4 govt. schools from Kotabagh block. From each school, 21 students will be selected i.e. total 168 students from Haldwani block, 126 students from Ramnagar block and 84 students from Kotabagh block will be selected.

Three sub groups of sample for the present study thus would be as follows:

- Students from block Haldwani (168) (GROUP A)
- Students from block Ramnagar (126) (GROUP B)
- Students from block Kotabagh (84) (GROUP C)

### **Measurement of Family Climate**

The family climate questionnaire that was created by Dr. Beena Shah (2006) has been used for the study. The inventory had ninety questions and every question had three alternative responses, ranging from the most acceptable to the least acceptable choices. By using the questionnaire, we were able to obtain the comprehensive responses from each and every student in the class. Throughout the questionnaire session, explanations to questions were presented at various periods in time. The time period was sufficient for respond which was given to the respondents.

- Characteristics of the family climate scale measurement parameters:
- Restrictiveness vs. Freedom
- Indulgence vs. Avoidance
- Partiality vs. Fairness
- Attention vs. Negligence
- Acceptance vs. Rejection
- Warmth vs. Cold relations
- Trust vs. Distrust
- Dominance vs. Submissiveness
- Expectation vs. Hopelessness
- Open Communication vs. Controlled Communication

On the scale that was used to evaluate unfavourable (negative) remarks, there was a three-point scale with a rating of 0 for “always”, 1 for “sometimes” and 2 for “never”. On the contrary, when it came to favourable (positive) remarks, the overall rating was 2 for “always”, 1 for “sometimes”, and 0 for “never”, where as the “Positive Total Score” suggested that the family environment of the child was good and favourable, in contrast to the “Negative Total Score”, which “indicated Unfavourable Family Climate” of the child.

### **Measurement of Academic Achievement:**

The school’s record of students (9th grade final year results) was used to evaluate their academic performance.

### **Collection of Data:**

Survey method- this method is more accurate way of data collection for the study compared to all other methods (Ghosh, 2009). The investigator shall approach the Principal of the selected Government schools and clarify the purpose of the study and their role in the present study. After the schools agree to assist the researcher in the



present study, they shall be requested to provide demographic details of students and their families. Thereafter, the sample for the present study shall be selected. Further the chosen students shall be conveyed purpose of study and interviewed for data collection. It shall be assured that the information provided by them would be kept confidential and utilized only for the research purpose.

#### **Statistical Analysis of Data:**

To obtain meaningful and relevant findings according to the objectives, the collected information will be tabulated and classified. To analyze the data completely, we will use a number of statistical procedures. The statistical methods such as mean, percentage, frequency, standard deviation, t- test and correlation coefficient will be used for analyzing the data.

### **V. Results And Discussion**

#### **Difference in academic achievement between male and female students**

The study on the disparities of academic achievement between males and females of 9th class was carried out in table 5.1. Based on the results, it appeared that the females outperformed the males in terms of academic performance. The results of the study verified this. Research at this level of education has shown that there was a significant gap between both the genders. Differences in study habits, course participation, learning styles, or environmental factors that affect male and female students' academic performance might explain these discrepancies.

At the significance level of 5%, a difference between both the genders was found to be statistically significant. The calculated 't' value of 3.17 proved this to be true. This study highlighted that males and females do differently in terms of academic achievement. In every area of study that was tested, the average scores (ninth class) of females was 57, above that of the males' 53.

Table 5.1: Mean scores (average marks) of academic achievement

| Category | Academic Achievement |  |      | Statistical Value |          |
|----------|----------------------|--|------|-------------------|----------|
|          | No.                  | Average marks<br>(9 <sup>th</sup> class final<br>year marks) | SD   | t- value          | Sig. (p) |
| MALE     | 189                  | 53   | 12.3 | 3.17              | <0.05    |
| FEMALE   | 189                  | 57   | 12.2 |                   |          |

These findings are in line with Vamadevappa (2005) according to him, students' academic performance in upper-level primary school was positively and significantly correlated with parental involvement. Students whose parents were actively involved in their education tend to do better in school. Academic success was more common among girls than boys among high parental involvement group.



### Impact of family climate on academic achievement of students

#### Relation between family climate and academic achievement in male students

As shown in Table 5.2.1 that Among males, correlation which was observed to be positive between academic achievement and the various aspects for family climate, including indulgence vs. avoidance, partiality vs. fairness, attention vs. negligence, acceptance vs. Rejection, trust vs. distrust, warmth vs. cold relations, dominance vs. submissiveness, expectation vs. hopelessness, and open communication vs. controlled communication i.e. as the parents are more indulgent, partial, and more attentive, and they have acceptance behavior, trust, warmth, dominate behavior and have expectations, open communication to male students, their academic performance increases and vice versa. Findings from the studies on male students revealed a negative correlation between academic accomplishment and the aspects of family climate that pertain to restrictiveness vs. freedom. This means that as the parents are more restrictive with males, their academic achievement decreases and vice versa.

Table 5.2.1: Relation between family climate and academic achievement in male students

| Aspects of Family Climate        | Statistical Values |      |          |          |          |
|----------------------------------|--------------------|------|----------|----------|----------|
|                                  | Mean               | SD   | r- value | t- value | Sig. (p) |
| Academic Achievement             | 53                 | 12.3 |          |          |          |
| Restrictiveness Vs Freedom       | 11.72              | 2.4  | -0.052   | 0.712    | >0.05    |
| Indulgence Vs Avoidance          | 11.48              | 2.6  | +0.099   | 1.36     | >0.05    |
| Partiality Vs Fairness           | 12                 | 2.7  | +0.0079  | 0.108    | >0.05    |
| Attention Vs Negligence          | 10.79              | 3.3  | +0.232   | 3.26     | <0.05    |
| Acceptance Vs Rejection          | 11.7               | 3.4  | +0.176   | 2.44     | <0.05    |
| Warmth Vs Cold Relations         | 12.1               | 2.8  | +0.103   | 1.41     | >0.05    |
| Trust Vs Distrust                | 10.56              | 2.4  | +0.224   | 3.14     | <0.05    |
| Dominance Vs Submissiveness      | 10.35              | 2.2  | +0.062   | 0.85     | >0.05    |
| Expectation Vs Hopelessness      | 11.67              | 2.3  | +0.0874  | 1.2      | >0.05    |
| Open Communication Vs Controlled | 10.4               | 2.8  | +0.0527  | 0.72     | >0.05    |



|                      |        |     |  |  |  |
|----------------------|--------|-----|--|--|--|
| Communication        |        |     |  |  |  |
| Total Family Climate | 113.13 | 2.7 |  |  |  |

The significant correlations between academic achievement and some aspects of family climate were notable among male students. Aspects of family climate such as Attention vs. negligence ( $T = 3.26, p > 0.05$ ), acceptance vs. rejection ( $T = 2.44, p > 0.05$ ), and trust vs. distrust ( $T = 3.14, p > 0.05$ ) and academic performance of males were all examples of such correlations.

This finding is in agreement with the Siddiqui and Ali (2017) who found that students' academic performance improved significantly when parents were actively involved in their education. When parents were more involved in their children's education, their children did better academically than when parents were less involved.

**Relation between family climate and academic achievement in female students**

It was analyzed from the table 5.2.2 that there was a correlation found between the family climate and the academic achievement of females. All of the aspects of family climate, some aspects were positively correlated with students' academic achievement including restrictiveness vs. freedom, indulgence vs. avoidance, partiality vs. fairness, attention vs. negligence, acceptance vs. rejection, warmth vs. cold relations, trust vs. distrust, dominance vs. submissiveness, expectations vs. hopelessness, and open communication vs. controlled communication among females.

As a result, the conclusion that reached was that if increment in the aspects of above mentioned of the family climate is there, then academic accomplishment of female students also increases. Even at the significance level of 5%, it was analyzed the significant correlations between the academic achievement and aspects of the family climate related to indulgence vs. avoidance ( $t = 3.9, p > 0.05$ ), attention vs. negligence ( $t = 3.08, p > 0.05$ ), acceptance vs. rejection ( $t = 3.66, p > 0.05$ ), warmth vs. cold relations ( $t = 4.43, p > 0.05$ ), expectation vs. hopelessness ( $t = 2.44, p > 0.05$ ), and open communication vs. controlled communication ( $t = 1.98, p > 0.05$ ).

These correlations were noted among female students. The finding is in line with Mustaq and Shabana (2012) who indicated that family stress, learning facilities, appropriate guidance, and communication all play a role in students' performance. Their findings showed that students' performance improves when there is good communication, enough learning facilities, and appropriate direction, and that it drops significantly when there is family stress.

Table 5.2.2: Relation between family climate and academic achievement in female students

| Aspects of Family Climate | Statistical Values |      |          |          |          |
|---------------------------|--------------------|------|----------|----------|----------|
|                           | Mean               | SD   | r- value | t- value | Sig. (p) |
| Academic Achievement      | 57                 | 12.2 |          |          |          |



|  |        |     |        |      |       |
|--|--------|-----|--------|------|-------|
| Restrictiveness Vs Freedom                     | 11.6   | 2.2 | +0.044 | 0.6  | >0.05 |
| Indulgence Vs Avoidance                        | 11.71  | 2.8 | +0.275 | 3.9  | <0.05 |
| Partiality Vs Fairness                         | 11.9   | 2.3 | +0.116 | 1.6  | >0.05 |
| Attention Vs Negligence                        | 11     | 3.1 | +0.220 | 3.08 | <0.05 |
| Acceptance Vs Rejection                        | 11.7   | 3   | +0.259 | 3.66 | <0.05 |
| Warmth Vs Cold Relations                       | 12.24  | 2.9 | +0.312 | 4.43 | <0.05 |
| Trust Vs Distrust                              | 10.98  | 2.2 | +0.112 | 1.54 | >0.05 |
| Dominance Vs Submissiveness                    | 9.95   | 2.1 | +0.067 | 0.92 | >0.05 |
| Expectation Vs Hopelessness                    | 12.19  | 2.3 | +0.176 | 2.44 | <0.05 |
| Open Communication Vs Controlled Communication | 10.87  | 2.8 | +0.144 | 1.98 | <0.05 |
| Total Family Climate                           | 113.29 | 2.6 |        |      |       |

Based on the results shown in tables 5.2.1 and 5.2.2, there was strong positive relation among students between the many components of the family climate and the academic achievement of students. Among males, academic accomplishment improved, as the aspects of family climate, which include indulgence, partiality, attention, acceptance, warmth, trust, dominance, expectation, and open communication increased, except restrictiveness aspect. While in females, all the components of family climate, including restrictiveness, indulgence, partiality, attention, acceptance, warmth, trust, dominance, expectation, and open communication increased, academic accomplishment was also increased.

## VI. Summary and Conclusion

- Mean scores/average marks (9th class final year marks) of academic achievement was found to be more among females as compared to males. There was a significant difference between males and females towards their academic achievement as their calculated 't' value (3.17) was proved significant at five per cent level.
- As far as impact of family climate on academic achievement was concerned among students, some aspects of family climate showed significant differences while some did not. As the aspects of family climate i.e. indulgence, partiality, attention, acceptance, warmth, trust, dominance, expectation and open communication increased, academic achievement also increased among males. The significant correlations between academic achievement and some aspects of family climate were notable among male students. Aspects of family climate such as attention vs. negligence ( $T = 3.26, p > 0.05$ ), acceptance vs. rejection ( $T = 2.44, p$



>0.05), and trust vs. distrust ( $T= 3.14$ ,  $p > 0.05$ ) and academic performance of males were all examples of such correlations.

- While in case of females, where all the aspects of family i.e. restrictiveness, indulgence, partiality, attention, acceptance, warmth, trust, dominance, expectation and open communication increased, the academic achievement also increased. On the other hand, as aspect of family climate i.e. restrictiveness increased, the academic achievement decreased among males and vice-versa. Even at the significance level of 5%, it was analyzed the significant correlations between the academic achievement and aspects of the family climate related to indulgence vs. avoidance ( $t = 3.9$ ,  $p > 0.05$ ), attention vs. negligence ( $t = 3.08$ ,  $p > 0.05$ ), acceptance vs. rejection ( $t = 3.66$ ,  $p > 0.05$ ), warmth vs. cold relations ( $t = 4.43$ ,  $p > 0.05$ ), expectation vs. hopelessness ( $t = 2.44$ ,  $p > 0.05$ ), and open communication vs. controlled communication ( $t = 1.98$ ,  $p > 0.05$ ). These correlations were noted among female students.

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