

Summary

The problem

Education is a powerful means through which all sorts of development and changes, in an individual and society, are possible. It works as an instrument of economic, social and personal development and upward mobility. The type and level of education (formal) determines the type of occupation for a person which by and large depends upon the academic excellence or academic achievement. Academic achievement is the end product of formal education and considered as a yardstick of the quality of education and skill acquired by an individual. It happens to be one of the core determinants of career planning and success in the professional life of children. As such parents, teachers and children themselves are quite concerned and worried about the level of academic achievement.

The level of academic achievement mainly depends upon the socio-psychological-economic environment, especially, the family environment which is, to a great extent affects the academic achievement of a child. Family environment comprises the favourable or unfavourable conditions existing in a family where a child grows in. Favourable and peaceful family environment may help a child to perform better and an unfavourable family environment may lead to a poor

academic performance. Family environment not only influences the academic achievement but also affects the mental condition of a child. A congenial family environment supports a child to maintain a good mental health. On the other hand, uncongenial family environment forces a child to develop several unpleasant mental conditions viz. tension, anxiety, stress etc., which leads to poor academic performance.

Stress indicates the response to events that disrupt or threaten to disrupt one's physical or psychological functioning. It is a kind of physical or mental pressure (worry) caused by any type of problems in any individual which interferes with normal functioning. There is often little consistency in different people's reactions to stress. In some individual, stress may find expression in physical (bodily) conditions while in others it may be reflected in their psychological condition and in yet another it might result in a profound deterioration in performance. Responses to stress involve physical, psychological and behavioural systems. Stress may create several types of adjustment problems in the children if it is not managed on time and that may lead to acute stress disorders.

Stress is mainly developed due to anxiety, the diffused, vague, very unpleasant feelings of fear and apprehensions. Anxious person worries a lot, particularly about the unknown danger. In addition, an anxious individual shows several symptoms, like rapid heartbeat, shortness of breath, loss of appetite, diarrhea, fainting, dizziness, sweating, sleeplessness, frequent urination and tremors. All the physical symptoms accompanied with unknown fear; an anxious person does not know the reasons for the fear. The characteristics of anxiety include feelings of uncertainty, helplessness and psychological arousal. A person who experiences anxiety complains of feeling nervous, tension, irritation and uneasiness. He/she faces difficulty in falling asleep at night and

gets fatigued easily. It is normal for a person to experience anxiety when faced with stressful, threatening situations, but it is abnormal to feel strong, chronic anxiety in absence of an obvious reason. Therefore, anxiety up to certain limit helps the person to achieve more but absence of anxiety or its existence beyond a certain limit may hinder achievement.

Since the family environment is a function of physical and cultural environment and as is pointed out above these affects the psychological functioning of an individual. It is, therefore, necessary to study the relations among family environment, stress, anxiety and academic achievement in different geographical and cultural situations. Again it is necessary to ascertain whether individuals coming from different communities show any differences in these relationships.

In the present study, three important variables have been chosen which usually affect the academic achievement of secondary students. The variables under study are family environment, stress and anxiety. The socio-economic variables undertaken in the study are sex, category, religion, rural/urban residence, types of family, parental education and per capita income.

Objectives of the study

The objectives of the study are:

1. To find out the family environment of the students.
2. To find out the level of stress among the students.
3. To find out the level of anxiety of students.
4. To find out the relationship between family environment and academic achievement.

5. To find out the relationship between stress and academic achievement.
6. To find out the relationship between anxiety and academic achievement.
7. To find out the relationship between academic achievement and other socio-economic variables viz. sex, category, religion, rural/urban residence, parental education and per capita income of the respondents.
8. To find out the interrelationship between family environment, stress and academic achievement.
9. To find out the interrelationship between family environment, anxiety and academic achievement.

Hypotheses

The following hypotheses are formulated and tested through this piece of research.

- H₁. Family environment is positively related to academic achievement.
- H₂. Stress is negatively related to academic achievement.
- H₃. Anxiety is negatively related to academic achievement.
- H₄. There will be no relationship between academic achievement and socio-economic variables.
- H₅. Academic achievement besides being related to family environment and stress individually, is also related to the interaction effects of these variables.
- H₆. Academic achievement besides being related to family environment and anxiety individually, is also related to the interaction effects of these variables.

Delimitation of the study

Due to the paucity of time and resources at the disposal of the investigator, it is not possible to make an in depth study of all the secondary school students in the entire North-Eastern Region, nor even in one state as a whole. Therefore, the present study is delimited to only XI standard students of Arts Stream of two sub-division of Jorhat district of Assam i.e. Jorhat and Titabor.

Research Design

Survey type research method was adopted with '*Ex-post facto*' design. In the present study, three variables viz. Family Environment, Stress, Anxiety were considered as independent variables and academic achievement of the students was considered as dependent variable.

Population

All the secondary school/college students studying in XI standard, Arts Stream of Jorhat district, Assam, constitutes the population of the study.

Sample

In the present research, the field of study is Jorhat district of Assam. Jorhat district has three Sub-divisions, i.e., Jorhat, Titabor and Majuli. Out of three sub-divisions, two sub-divisions were selected by the investigator purposively i.e., Jorhat and Titabor. There are 41 schools/colleges offering Arts subjects in both sub-divisions. Out of which, 15 (approximately 36%) schools/colleges were selected randomly from Jorhat and Titabor sub-divisions. Out of 24 schools/colleges, nine were selected from Jorhat sub-division which constitute 37.5% and out of 17 schools/colleges, six were selected from Titabor sub-division which

is 35.29% of the total schools/colleges. These schools/colleges were selected randomly. All the students enrolled in XI standard of Arts Stream of selected institutions, constitute the sample of the study. Finally, the sample consists of 1200 XI standard students.

Tools Used

To collect the requisite data for the study three standardized tools and one personal information schedule were used. To collect the information regarding academic achievement, the photocopy of the mark sheets were collected from the students and verified it with the office records.

Techniques for data analysis

The collected data were classified and tabulated according to the requirement of the objectives of the study. To analyzed and interpreted the data, descriptive statistics like proportions, measures of central tendency, measures of variability, standard deviation etc were applied. To examine the relationship between the variables, Co-efficient of correlation, 't' test and ANCOVA were employed.

Major Findings

The analysis of data and its interpretation lead to the following major findings:

1. An observation of the data on family environment inventory reveals that approximately 71% of the respondents had moderate family environment followed by 20% favourable and 9% unfavourable family environment.

Results of the study also show that majority of the male and female respondents had moderate family environment followed by favourable and unfavourable family environment.

In comparison to male, larger proportion of female respondents had moderate family environment, whereas in comparison to females larger proportion of males had favourable as well as unfavourable family environment.

2. The data indicates that majority of the respondents of various categories had moderate family environment and this proportion was highest among the SC's followed by ST's, OBC/MOBC's and General category.

Among all the categories, largest proportion of General category respondents had favourable family environment followed by ST's, OBC/MOBC's and SC's; while the variations in unfavourable family environment was more or less similar among all categories.

3. Membership of various religious communities had a relation with family environment. Though majority of respondents from various religious communities had moderate family environment, yet highest proportion of Muslim respondents had unfavourable family environment followed by the Christians and Hindus. None of the Buddhist and Sikh respondents had unfavourable family environment.

The proportion of respondents with favourable family environment was found to be largest among Hindus followed by Buddhists, Muslims, Sikhs and Christians.

4. Majority of the rural and urban respondents had moderate family environment; and the proportion of rural respondents with

moderate family environment was much higher than their urban counterparts.

The family environment of the urban residents was found comparatively more favourable than that of rural residents.

5. Almost equal proportion of respondents from all types of family had moderate family environment. The data indicates that nuclear family provides better and more favourable family environment followed by joint and extended families. It appears that highest proportion of respondents belongs to the extended families had unfavourable family environment followed by joint and nuclear family. It shows that nuclear family is more popular in this district.
6. The data indicates that majority of the respondents with average academic achievement had moderate family environment followed by low and high academic achievers. Highest proportion of high academic achievers had favourable family environment followed by average and low; while higher proportion of low academic achievers had unfavourable family environment followed by average and high.

A positive and significant relationship ($r = .67$) was found between family environment and academic achievement of the respondents.

Family environment and academic achievement of various categories, i.e. General, OBC/MOBC, ST, and SC were found to be positively related to each other.

The high and low academic achiever groups differ significantly in their family environment. The high achievers had more favourable family environment than that of low achievers.

7. The result shows that more than 70% of the respondents had average level of stress followed by 18.92% low and 9.5% high.

Majority of male and female respondents had average level of stress. The proportion of female respondents with average level of stress was slightly higher than that of male respondents.

In comparison to females, larger proportion of males had low level of stress, while in comparison to males larger proportion of females had high level of stress.
8. Majority of the respondents from all categories had average stress and the proportion was highest among the SC's followed by ST's, OBC/MOBC's and General category.

Amongst all categories, the largest proportions of OBC/MOBC respondents had high level of stress followed by SC, General and ST. The variation of low stress was much different among all categories.
9. It is found that majority of the respondents from various religious groups had average level of stress; and the proportion was highest among the Sikhs followed by Buddhists, Muslims, Christians and Hindus. Though majority of the respondents from various religious communities had average level of stress, yet the highest proportion of Hindus had high level of stress followed by Christians, Muslims and Buddhists. None of the Sikh respondents had high level of stress. Largest proportion of Hindus had low level of stress followed by Christians, Muslims, Sikhs and Buddhists.
10. The result shows that majority of the rural and urban respondents had average level of stress; and the proportion of rural respondents with average level of stress was much higher than their urban counterparts.

Largest proportion of rural residents had high level of stress than that of urban residents, while the proportion of low level of stress was higher among urban residents than their rural counterparts.

11. The data indicates that majority of the respondents from all types of family had average level of stress; and the proportion of respondents with average stress was highest in the joint family followed by extended and nuclear family.

The proportion of respondents with high level of stress was maximum in the nuclear family followed by joint and extended family, while the proportion of respondents with a low level of stress was found maximum in the nuclear family followed by extended and joint family.

12. Results of the study show that higher proportion of average academic achievers had average level of stress followed by low and high achievers. Larger proportion of low academic achievers had high level of stress followed by average and high academic achievers; while largest proportion of high academic achievers had low level of stress followed by average and low achievers.

A negative and significant relationship ($r = -.41$) was found between stress and academic achievement of the respondents.

Stress and academic achievement of various categories were significant and negative.

The findings revealed that high and low academic achiever groups differ significantly on stress. The low academic achievers had more stress than that of high academic achievers.

13. An observation of data on anxiety scale revealed that approximately 63% respondents had normal anxiety followed by 19% above normal anxiety and 18% below normal anxiety.

Majority of the male and female respondents had normal anxiety; and the proportion of females with normal anxiety was higher than the males.

The result shows a larger proportion of male respondents had anxiety below normal level in comparison to female respondents, while a larger proportion of females had anxiety above normal than their male counterparts.

14. Membership of various social categories had no relation with a person's level of anxiety. Majority of respondents from all categories had normal anxiety, whereas the proportion was highest among ST's followed by OBC/MOBC, SC and General.

Largest proportion of OBC/MOBC respondents had above normal anxiety followed by SC, General and ST; while larger proportion of General category respondents had below normal anxiety followed by SC, ST and OBC/MOBC.

15. Membership of various religious communities show that larger proportion of respondents had normal anxiety, this proportion was highest among the Buddhists followed by Sikhs, Christians, Hindus and Muslims.

The proportion of the respondents with above normal anxiety was largest among Muslims followed by Hindus, Christians and Buddhists. None of the Sikh respondents had above normal anxiety. The extent of below normal anxiety was highest among Sikhs followed by Hindus, Christians, Buddhists, and Muslims.

16. Majority of the rural and urban respondents had normal anxiety. The proportion of respondents with normal anxiety was highest among rural residents than that of urban residents.

A difference was observed between rural and urban respondents' level of anxiety. Larger proportion of rural residents had above normal anxiety than the urban residents, while larger proportion of urban residents had below normal anxiety than their rural counterparts.

17. On an average more than 63% of respondents had normal level of anxiety irrespective of their family types. The respondents from extended families were proportionately more in normal anxiety than the respondents of joint and nuclear families.

It appears that highest proportion of respondents belongs to the joint families had above normal anxiety followed by nuclear and extended families. The level of anxiety deviating from normalcy was found maximum in nuclear family respondents followed by joint and extended families.

18. Majority of the respondents had normal anxiety and the proportion of respondents with normal anxiety was highest among average academic achievers followed by low and high academic achievers. The proportion of respondents with above normal anxiety was highest among low academic achievers followed by average and high academic achievers; on the other hand, the proportion of respondents with below normal anxiety was highest among high academic achievers followed by average and low academic achievers.

A negative and significant relationship ($r = -.54$) was found between anxiety and academic achievement of the respondents.

A significant negative relationship was found between anxiety and academic achievement of various categories.

The high and low academic achiever groups differ significantly on anxiety. The low academic achiever group has more anxiety than the high academic achiever group.

19. Amongst all categories, the academic achievement (Average & above) of ST was approximately 78% followed by General category 72%, SC 63% and OBC/MOBC 60%. In other words, the largest proportion of OBC/MOBC category respondents had low level of academic achievement followed by SC, General and ST.
20. The data indicates that 95% Sikhs were average and above in academic achievement, followed by approximately 81% Buddhists, 78% Christians, 66% Muslims and 64% Hindus. It means largest proportions of Hindus were low in academic achievement followed by Muslim, Christian, Buddhist and Sikh.
21. Larger proportion of respondents belongs to nuclear family had achieved high in academics (67%, average & above) followed by extended (61%, average & above) and Joint (60%, average & above), while the proportions of respondents with low academic achievement were larger in case of joint, extended and nuclear family.
22. Fathers' level of education has a positive relationship with respondents' academic achievement.
23. Mothers' level of education has a positive relationship with respondents' academic achievement.
24. The proportion of male respondents with high academic achievement was higher than the female respondents; while the proportions of female respondents with average and low academic achievement were much higher than that of male respondents.

In comparison to females (60.17%, average & high academic achievement), males (72.66% average & above) perform better in academics in Jorhat district.

The result reflects that male and female respondents differ significantly in their academics. Male respondents of Jorhat district were better in their academics than their female counterparts.

25. Higher proportion (approximately 87%, average & above in academics) of urban residents had achieved high in academics than that of rural residents (approximately 56%, average & above); while the proportions of rural residents with low academic achievement were larger than the urban residents.

The groups of respondents i.e. rural and urban differ significantly in their academics. Urban respondents of Jorhat district show better performance in academics than that of rural respondents.

26. A significant positive relationship was found between Per capita income and academic achievement of the respondents.
27. The results indicate a significant interaction effect of family environment and stress on academic achievement of the respondents. However, the interaction effects of family environment and anxiety on academic achievement of the respondents were not significant.

Implications for Education

The findings of the study listed above have considerable implications for education.

Academic achievement of the students depends, besides other factors, on the environment of the family, level of stress and level of anxiety. Therefore, for making learning process more effective and for increasing the level of academic achievement, a student needs to have congenial environment in the family. Favourable family environment helps the students to learn better. Academic achievement is influenced by stress faced by the student. Level of stress affects the learning process; high level of stress becomes the obstacle in the path of the learner. Reduction of stress helps the learners/students to achieve better in academics. Anxiety is another variable which has significant influence on achievement of the students. In one hand high level of anxiety is detrimental, whereas moderate/low level of anxiety contributes to the academic achievement of the students. Academic achievement is influenced by several socio-economic variables and the impact of these variables is clearly visible on students' academic life. Therefore, the first and foremost need of the hour is to address these issues (variables) which create hindrances in the path of a student's academic achievement.

Therefore, the governmental and nongovernmental organizations may organize the programmes for parents, guardians, relatives and family members of the students to generate an awareness regarding the need and importance of healthy environment and trains them to develop a healthy congenial environment at home, so that the students can pay more attention to their studies and remain stress free at home. Unhealthy family environment creates stress among the children and consequently it affects the academic achievement of the students. If the family atmosphere is healthy, the level of stress and anxiety will automatically be reduced to some extent. A congenial family environment motivates the students for better academic achievement.

Therefore, parents, guardians and teachers need to be aware of their adolescent children' academics and they should provide an appropriate opportunity and learning facilities at home.

The results of the present study revealed that larger proportions of SC and OBC/MOBC category respondents had unfavourable family environment than that of General and STs. Therefore, alternative measures should be taken for uplift of these families either by Government, various social organizations or both.

In the light of findings of the study, it is advisable to all the families of the school/college going children to provide a better family environment and create a congenial atmosphere at home, by which they can perform better in academics. Muslim and Hindu families need special attention in this direction. The teachers, social scientists, educationists and leaders should try to generate awareness among parents, guardians and other family members about the need and importance of the family environment of a student and its effect on their academic achievement.

The families residing in rural areas need some guidance to create a congenial family environment for their members. The NGOs or social workers can organize some training camps to enlighten these rural residents. Parents and guardians need to be aware of the importance of having good family relationship amongst the family members.

Adolescent students sometimes face many obstacles in their family or at society which may affect their scholastic achievement. To overcome the obstacles hindering the academic achievement, the Government and Non-Government Organizations along with the individuals concerned can put an effort in this direction. There is a need to organise intervention programmes for parents and guardians, by

which they can enrich the family environment and contribute in the development of academics of the adolescents.

Stress and anxiety also have influences on academic achievement of the students. The teachers, guidance workers, counselors can organize and engage students in several co-curricular activities, like Yoga, Physical Training (PT), Sports, games, meditation and so on to reduce the stress and anxiety for better performance in academics.

Stress is common to all, but excessive stress has an adverse effect on students' academic achievement. If the high level of stress is not reduced on time, it may severely affect the performance of the students. Female students need special attention in this direction. Hence, the efforts should be made by the teachers, parents, guardians and professionals in various fields to reduce the stress so that its effect can be eliminated or at least reduced.

In general, adolescent students feel more stressors in the career aspect. In comparison to 'high' and 'average' level of stress, 'low' level of stress is less harmful for any kind of achievement. Therefore, higher level of stress needs to be identified and treated as a priority either by teachers/professionals or by the family members; otherwise it may affect the academic achievement of the students negatively.

It is observed that the rural residents had more stress than that of urban residents. So, parents and guardians residing in rural areas should provide more support and care to their adolescent children by which they can deal with the various stressors. Similarly, parents should avoid having too high expectations of their adolescent children and causing them additional stress.

Young children sometimes face additional stress in their family, school and social environment. It may result in physical and mental

problems of the adolescents. These problems might affect their academic achievement. Therefore, reduction of stress is essential for better performance in academics. Counseling can help the students to cope up excess level of stress.

Stress is considered as one of the variables which have a negative effect on academic achievement. The results of the study also suggest that the level of stress of the students should be reduced. So, adolescent students should learn various stress reducing measures from various channels to enhance their academics. They should pay attention to their physical and mental health to avoid developing stress. Educationists, policy makers and others associated members can help them to reduce excessive level of stress and to improve in academics through proper remedial measures.

The low academic achievers have more stress than the high academic achievers. Therefore, appropriate intervention programmes can be planned to assist these students to deal effectively with their personal and emotional problems. In addition, students should be encouraged to involve in co-curricular activities, as these physical activities make students free from excessive stress.

Anxiety is a very common symptom and certain amount of anxiety is useful to the students as it acts as a stimulant and increases efficiency in their learning situation. But, excessive level of anxiety is not good in any learning situations. Thus, it is necessary to identify the students who are having high levels of anxiety and reasons for it. Academicians or counselors can provide support and suggestions to the students to avoid excessive anxiety or at least minimize the level of anxiety.

Anxiety can create serious problems for students, parents, teachers and society. The findings of the study revealed that anxiety was

more among females as compared to males. Therefore, it becomes necessary to reduce anxiety, for which the parents/ guardians/ school/ college authority may organize some special recreation/entertainment / tour for the female students in order to reduce their anxiety level.

Rural residents had more anxiety than that of urban residents. So, there is a necessity to guide and counsel rural students on their personal, social, education and career related aspects. School/College and family institutions must assist the students in managing their anxiety through counseling and behavioural technique, and introducing adolescent education and life skills in the school curriculum may fulfill this need.

Excessive anxiety not only decreases adolescents' learning capabilities but also may affect their academic performance. The findings also indicated that students' academic achievement is negatively related to anxiety. Therefore, some preventive activities can be proposed at school/college on targeted students who are having academic problems. Specialized intervention programmes should be arranged to give suggestions to the students in order to minimize excessive anxiety as well as to improve their academic performance.

The results of the study suggest that the level of anxiety of low academic achievers need to be reduced. So, efforts should be made to encourage these students to improve in their academic pursuits. In addition, better communication skills, technical and computer abilities, good relations with peers and teachers may help the adolescents in solving the problem of excessive anxiety.

In order to achieve academic success, programmes should be designed for low achieving students to perform better in academics. 'Learning centre' programmes can be introduced for them.

Teachers/academic advisors should be more actively involved for such programmes to enhance students' skills and abilities for better performance.

Limitations of the study

The present study has some limitations. Due to the paucity of time and resources at the disposal of the investigator, the study remains confined to the two sub divisions of Jorhat district, Assam. Further, the study remains confined to a sample of 1200 XI standard Arts students.

Suggestions for further research

The results and experiences gained from the piece of research, following suggestions are made for further research:

1. The study is confined only to the limited number of Higher Secondary Schools/Colleges in the district of Jorhat, It could be replicated by using a representative sample from all other districts of Assam.
2. The study was conducted on XI standard students. The study can be extended to school level and university level students.
3. An extensive study can be carried out at state and national level.
4. The effect of various social-economic-psychological variables can be explored which influence the student's academic performance.
5. The relationship between family environment, stress, anxiety and academic achievement can be extended on Professional course students, i.e. Medical, Engineering, Law and Technology students.