ABSTRACT

Though various constitutional measures provided for the education of the Scheduled Caste and Scheduled Tribe in the post-independent period, these students lagged behind in their educational achievements. They were not psychologically geared to take full advantage of the available opportunities. Therefore, it was important to understand the operation of various social psychological factors affecting their educational achievement. This study probed into the differences in academic self-concept, stress and academic performance of SC, ST and general male and female students in the arts and science stream.

The research used several theoretical concepts from social psychology, namely; Coopersmith's (1967) Behaviourial Academic Self-Concept model, Festinger's (1954) Social Comparison Processes theory and Roger's Self theory (1961).

The following specific hypotheses were tested:

1. The academic self-concept, the level of stress and academic performance will vary among SC, ST and general category of students.

2. The academic self-concept, the level of stress and academic performance will vary between arts and science students.

3. The academic self-concept, the level of stress and academic performance will vary between males and females.
4. There will be significant interaction effects of social category, subject stream and gender on academic self-concept, stress and academic performance.

5. The academic self-concept, the level of stress and academic performance will relate to each other as well as with various personal and social variables.

6. Academic performance of different social groups will be differentially predicted by the factors of academic self-concept, stress and various personal and social variables.

The Study used a 3 x 2 x 2 factorial design. The first three units of design referred to social categories (SC, ST and general), the second unit to two subject streams (arts and science), and the last two units to gender (male and female). The main effects of social category, subject stream and gender and the interaction effects of social category and subject stream, social category and gender; subject stream and gender, and social category, subject stream and gender were examined on factors of academic self-concept, stress and academic performance.

The purposive sampling method was used to draw the sample from the Sundargarh and Phulbani districts of Western Orissa and Cuttack and Puri districts of Eastern Orissa. A total of 600 students were selected, out of which 200 were SC, 200 ST and 200 general category students. Again SC students included 100 arts and 100 science students. Among 100 arts students there were 50
males and 50 females. The same sampling was followed for ST and general category students.

Social category (SC, ST and general); subject stream (Arts and Science) and gender (male and female) were taken as the matching variables. There were three measured variables namely academic self-concept, stress and academic performance. Student's personal and social characteristics comprised of information like socio-economic status, family size, place of residence and place of schooling etc.

A personal information sheet to collect information on personal and social characteristics, Academic self-concept scale (modified version of Coopersmith’s Behaviourial Academic Self-Esteem scale, 1967), Self-Report Stress Symptom Inventory (Hopkin, 1974) were used. The percentage of marks obtained in pre-university examination and final year examination were taken as an index of students' academic performance. All the inventories were administered first to a small sample to test the reliability, factor structure and applicability. With minor alterations the inventories were administered to the total sample in small groups of SC, ST and general students.

This method was adopted to avoid any kind of bias of prejudice in the responses of the students, particularly the SC and ST students. The inventories were self-administering and could be used either in an individual or group setting. The data collected were coded and factor analysed to find out the
factorial dimensions of each scale. Later each factor of the major variables (academic self-concept and stress) was treated as one variable.

Data were analysed using quantitative methods - ANOVA, 't' tests, Pearson correlations (r) and step wise regressional analysis. The important findings were as follows:

The social category had significant effect on academic self-concept. The general students had significantly higher academic self-concept than the SC; but not from ST. SC and ST did not differ significantly on academic self-concept; but they differed from general students on initiative and social attention factors. Social category also had significant effect on stress. SC students had significantly higher stress, anxiety, somatization and lack of efficiency than general students. They also had significantly higher stress, anxiety and somatization than ST students. The ST students did not differ significantly from general students on stress. On academic performance SC and ST students differed significantly from general students. SC and ST students did not differ between themselves on academic performance.

The main effect of subject stream was not significant on academic self-concept, implying that the arts and science students had comparable academic self-concept. Arts students had higher ability to accept failure. Arts students had significantly
greater stress, anxiety, mental weakness and depression than the science students. Science students showed significantly better academic performance than arts students.

The effect of gender on academic self-concept was significant, revealing that the females showed higher academic self-concept, self-confidence and ability to accept failure. The females had significantly higher stress, anxiety, mental weakness, depression and obsessive-compulsiveness than the males. The main effect of gender on academic performance was not significant, implying that the males and females had similar level of academic performance.

The interaction effects of social category, subject stream and gender on academic self-concept revealed that social category and gender, and subject stream and gender interacted to influence the academic self-concept and its dimensions.

Social category and subject stream interacted significantly to influence the stress and its factors of anxiety, mental weakness and depression; whereas subject stream and gender had significant interaction effects on somatization and obsessive-compulsiveness. Social category, subject stream and gender together influenced the depression and obsessive-compulsiveness.

Social category and gender, and subject stream and gender had significant interaction effects on academic performance.

The between group differences on personal and social
variables revealed that the general, science and female students came from higher socio-economic background than the SC, ST, arts and male students. The average age of SC, ST, arts and male students were significantly higher than that of the general students, science and female students. The number of general, science and female students having urban residence and schooling were much more in comparison to SC, ST, arts and male students. The academic self-concept was found positively related with academic performance in all groups except general students. The stress did not show the expected negative correlation with academic performance. For SC, general and science students the stress had low positive relationship to academic performance. As expected, the academic self-concept was negatively related to stress of students in all the groups.

The academic self-concept was positively related to socio-economic status, especially the mother's education. Family size was negatively related to initiative and social attention. The social attention was positively related to family income. Age was positively related to stress and lack of efficiency in all groups, except the general category students. The education of parents related negatively to stress.

The academic performance was positively related parents' education, but negatively related to institution types. Academic performance was negatively related to age in SC/ST groups. The academic performance of all groups of students could be predicted better by social variables than the psychological variables of
academic self-concept and stress, indicating the predominance of former in educational attainments. For general students, mainly mother's education, institution types and mother's occupation predicted their academic performance, but for SC students the institution types, age and social attention were major contributors. For ST students mother's education, place of schooling and age were good predictors of academic performance.

The following conclusions were drawn:

1. While STs' academic self-concept and stress were comparable to general students, SC lagged behind on academic self-concept and were more stress prone.

2. All students' academic self-concepts though in the moderately high range, these were not congruent with their academic performance.

3. The academic performance of SC and ST was adversely affected by the stress.

4. The curricula of science and arts were not perceived as making any difference. Both were perhaps equally non challenging.

5. Lack of objectivity in arts subjects made the students to perceive little link between effort and outcome and hence they exhibited greater stress.

6. Females showed higher academic self-concept, higher stress
and comparable academic performance to males.

7. The academic self-concept was positively related to performance of SC and ST students.

8. The students from higher socio-economic status, particularly those with higher level of mother's education, had higher academic self-concept.

9. Educational climate and infrastructural facilities in educational institutions influenced the academic performance of students.

10. Large size family hampered the academic performance.

11. SC students experienced greater anxiety and insecurity, because of lack of social attention received by them.

Findings of the research had following implications:

The incongruence between academic self-concept and academic performance have implications for teachers, administrators and parents. They ought to find ways by which students could utilize their abilities more meaningfully and get best out of their potentialities. In this context, it seemed that the teacher's styles of teaching and the contents they teach should be reality oriented. Since the SC/ST students were lower on initiative and social attention, teacher should give special attention to the SC/ST students. They should encourage and motivate these
students to take the lead in determining their actions. The researchers should probe deep into the relevant factors that would demonstrate clear links between academic self-concept and academic performance. The administrators ought to enforce the existing legal provisions for the protection of SC/ST people with all sincerity.

The relationship between stress and academic performance for SC/ST students implied the need of instituting counselling. Special intervention programmes should be designed to boost the moral of these groups. A comparable academic self-concept between science and arts students suggested the need of the injecting some professional element in both curricula. Gender inequality in academic self-concept and stress suggested that parents should be given some counselling for realistic goal setting for their sons and daughters. Females should be given equal opportunities in all fields to utilise their potentialities. The links between parental education and academic performance have implications for adult literacy programme.

The present research also had some limitations. Since the results were sample specific, the future researches should try to include students from different fields of study and rural-urban areas. The study was based on one time data, indicating the need of a longitudinal study. The researchers, should consider many other variables not included here while studying the relationships among academic self-concept, stress and academic performance. Further researches should include both qualitative
and quantitative data. There was need of identifying other causal factors of stress along with the coping strategies used by students of different social groups.