



CHAPTER – II

Research Methodology

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RESEARCH METHODOLOGY

Introduction:

Evidence of exhaustive literature suggests that academic achievement is negatively and significantly co-related with stress.

Several socio-economic background factors are associated with student stress. Adolescent age has its own reasons for stress. Hence the present study tries to see the frequency of stress among IX grade students in both rural and urban habitat, keeping in view the culture of Charotar Patidar Area, mingled with the rapid modernization and urbanization as well as the impact of NRI culture.

OBJECTIVES OF THE STUDY

1. To understand the prevalence of stress in adolescent student
 2. To study the association of stress with social and economic background variables.
 3. To study the association of stress with academic orientation
 4. To study the association of stress with achievement orientation
 5. To suggest alternative approach for improving performance of students and school by intervening early at various levels.
- ❖ Socio economic variables include habitat, gender, taluka, parent age and education, cast and class mainly.

• HYPOTHESES

1. The higher the achievement lower is the stress.
2. The higher the academic orientation and higher achievement orientation, the higher is associated with stress.
3. Extent of stress varies gender wise, and habitat wise.

4. Stress is associated with background socio and economic variables like parents age, education, income, caste and so on.

Research Design: Descriptive Design – Observational Cross Sectional Study

Descriptive is a fact finding approach related largely to the present situation and abstracting generalization by cross sectional study.

The respondents have been studied based on their availability at the time of study.

- In the present study the domain selected is 9th graders, belonging to GSEB, in Anand district. (Moderating Variable)
- The hypothesis is clearly defined i.e. studying the association between stress and achievement.
- Various methods of data collection have been used to arrive at logistic decision, (Focused Group Discussion with student, parent group interview, interview with principal and teachers – refer appendix 2, 3 respectively.)
- Background variables like parental age, education, income, family size and type, ordinal position and caste has been studied for selected sample size.
- The batteries of four scales have been administered.
- Case study of specific high stress students and mother has been done.
- Stress in diverse situation like academic and achievement orientation with Taluka, habitat, gender and marks scored in standard VIII (final exam) has been studied.

Variables

Independent variables : Level of achievement, Taluka habitat, gender, achievement, orientation, academic orientation perceived family pressure and financial condition.

Dependant Variables : Level of stress experienced by respondent (as per the four scales).

Operation Definition (Terminology)

Stress

The frequency of stress experienced as per the response of the students for the questions belonging to the four scales used, which is graded on a 5 point scale of always, often, sometimes, rarely and never. Students scoring 5 and 4, that is answering always and often are considered as high stressed and those scoring 3 to 1 are consider as low stress. (The mode value is calculated)

Rural habitat – characteristic

A locality having population of one thousand to eight thousand, with majority of people having agriculture as the main occupation, having prevalence of poverty, illiteracy, and blind faith. Social structure involves caste system and joint family. Majority of the houses are semi pakka and infrastructure is poor.

Urban Habitat

A locality having multi storey complex, with good infrastructure, wide pakka roads and modern means of transportation / communication. A locality having a population of more than eight thousand, with people living primarily in

nuclear family, pursuing a variety of occupations and having a cosmopolitan population, who have high aspiration and literacy level.

Achievement Stress:

It is stress arising out of the push for acquiring high standard in terms of prioritized need like wealth, fame, status, learning, power and so on, competing with peers in classroom, selecting a traditionally valued career, securing high percentage, doing class work with perfection.

Achievement stress is measured by the scale which involves the perception of the student, based on the interview.

Academic stress:

It is the fear of failing or securing less score, choosing the major subject / stream, managing effectively work load in terms of time and task, balancing social and academic, participating in class and test (verbally and written).

Academic stress is measured by the scale which involves the perception of the student, based on the interview.

Family Stress:-

The push from family for achievement, the rigid imposition of adult ideology, the pressure of family conflict or parental conflict, the rejection, ridicule, comparison, emotional problems due to adoption, death of a family member, having a chronically ill family member, migrating, strained relation with sibling.

Family pressure is measured by the scale which involves the perception of the student, based on the interview.

Economic Stress:

It includes problems due to low socio economic condition, sudden loss of family income unfulfilled wants and pangs due to lack of monetary resource, humility face, thwarted opportunity for better exposure or access to resources and so on.

Financial condition is measured by the scale which involves the perception of the student, based on the interview.

Achiever: Students scoring atleast 50% in previous year.

Universe of Study :

Student belonging to std. 9th, from 263 High schools, belonging to GSEB in Anand district, covering 8 talukas, scoring 50% and more.

Sampling Design : Multistage Sampling

Stage One: Select talukas using purposive sampling

Anand district has eight talukas (Anand, Borsad, Umreth, Sojitra, Tarapur). Out of these only three talukas have been selected based on the following criterion.

1. The geographical layout and ecological balance (i.e. urban rural combination)
2. The talukas having greater number of schools (Anand Taluka has sixty eight schools, followed by Borsad, which has forty six schools and Umreth which has thirty nine schools).

- Refer Annexure – 1 A,B,C.

Stage Two: Selection of schools from selected talukas based on Simple Random Sampling (SRS) that is 20% schools (i.e. 31 schools, enrolling 1983 students in std. 9th)

Stage Three : Selection of students from selected school using Random Sampling

From each school approximately (26 to 30 students) students, scoring 50% and above have been selected to get a wide coverage and to avoid error in data collection.

Final Sample Size

- The researcher has decided to replicate each combination some number of times to estimate error and hence, has taken observations for each combination ($24 \times 25 = 600$).

- The researcher has taken some more observations to avoid non-response error, or subject bias, or, to avoid non-availability of all the four matching inclusive criterion.

Steps in selecting students

From the selected schools the researcher has selected 25 to 26 students, per school.

From these total students selected, the researcher has divided students into 2 groups, as per the inclusion criterion i.e. 50-65% and 65% above.

In each of the two groups approximately equal gender ratio has been selected.

Care in selecting the talukas as sample has helped to get approximately equal proportion of urban and rural samples.

Methods of Data Collection

- FGD (focused group discussion) with all students, scoring 50% and above, were interviewed. Interview with parents group, interview with principal and teachers from the selected school.
- Gathering personal profile of respondents with respect to socio-economic background.
- Administration of 4 standardized scale for finding out frequency of stress and conducting interviews for background data of the selected 600 students.
- Case study

The study is divided into three phases.

Phase – I

- FGD with students of std. IXth, Taluka wise and Habitat wise
- Interview with principal and high school teachers in group, Taluka wise and Habitat wise.
- Meeting with parents of ninth grade students in group, Taluka wise and Habitat wise.

Phase – II

- Interview schedule for availing personal profile and background information of students.
 - a) Achievement stress battery
 - b) Academic stress battery
 - c) Family stress battery
 - d) Financial stress battery
- Administration of four standardized scales to Std. IX students scoring 50-65% and above 65% rural and urban habitat.

Phase – III.

- Case study of 6 urban and 6 rural students depicting high stress.

Tools of Data Collection

- Skeletal guide line for FGD and group interview with parents and teachers
- Interview schedule self made for gathering information about socio-economic back ground.
- Use of for scales (standardized test).
- Case study format.

Case Study (of selected cases)

Total students having high stress have been 19 (based on mode value of scale as 5 and verification with teachers).

6 student from urban area and 6 students from rural area have been studied in depth, as typical high stress sample, depending on the availability of cases and the consent.

Sources of the study

Primary and Secondary

Source of study

Primary	Secondary
<ul style="list-style-type: none">• FGD• Interview with parents• Interview with teachers• Interview schedule for individual respondents• BBSS Scale (Abha Rani Bisth Battery of 13 section) has been used (Achievement, academic, financial condition, family pressure academic, finance and family• A standardized test in Gujarati is developed and approved by experts on content validity of items. (psychiatrist, psychologists and social worker and educationist)	<ul style="list-style-type: none">• Review of appropriate abstracts• Record of performance of std VII & VIII & special comments (for the terminal and final exam. Pre-testing tools

- The tool has been administered on a sample of 30 students for ruling out the language barrier.
- The validity of the tool has been based on reporting the same co-relation as reported by the author in the original Hindi version whereby the consistency coefficient (split half) for each section selected is .88, .88, .62 and .91 respectively.
- A pilot study has been done on 120 students across Anand district from diverse habitat.
- The test items and language has been modified and discussed with the same 'panel of experts' comprising of a psychologist, educationist and social worker, for adaptation and implementation.
- The tool has been administered twice to the same respondents with in a gap of 6 months to establish the reliability or reproducibility.

Reliability of the scales of the battery was calculated for knowing dependability i.e. short term test retest correlations, for each scale.

For achievement orientation reliability was .70

For academic orientation reliability was .87

For family pressure reliability was .88

For financial condition reliability was .83

About the tool

Bisith Battery Scale

The tool is designed for the assessment of the components of stress and the stressors divided into 13 categories along with the measurement of the frequency and extent of stress.

The BISHT BATTERY OF STRESS SCALE is a standardized test for measuring the four components of stresses i.e. frustration conflict, pressure and anxiety.

It comprises of 13 types of the stress i.e. existential stress, achievement and academic stress, social stress, family and institutional stress and so on.

Reliability of Tool

The tool has been standardized for the use with student's from 9th to 12th.

The particular scale has been earlier used in 2 other studies in the related field i.e. Establishing co-relation between achievements and stress.

Ponam Malick has used this scale for exploring co-relation between achievement and stress. (reference n ROL).

Mr. P.J.Shah and P.S.Bhattnagar has also adopted this scale for studying rural and urban Indian adolescent stress. (Reference in ROL).

Validity of the tool

The original tool is standardized based on the use of different approaches

Methodology or approach of tool

- Methodological approach advocated by
Vinokura & Sazler (1975)
Theorell (1979)
Paykel & unlenhuth (1972) (as per reference given by original tool framer)
Measures stress through subjective feelings (with closed end scale options)
- **Theoretical approach**
Five points scale with two continuum i.e. frequency and extent
- Static approach advocated and established by
Abha Rani Bisht Psychologist
Stress can be conceptualized in 4 components (frustration, conflict, pressure, and guilt).
- **Rational approach**
Stress items are based on diverse aspects i.e. lack of resource (finance), failures (achievement) expectation and attitude (academics) and pressure (Family)
- **Normative approach**
The scale used has established percentile norms based on a sample of 300 IXth and XIth std. students in each of the three specific aspects

High stress	P ₇₀ & above
Average stress	P ₆₉ -P ₃₀
Low Stress	P ₃₀ & below
- **Empirical approach**
Use of content analysis through diverse sources of data.

Method of Data Analysis

- Uni - / Bi – variate, analysis with percentage
- Statistical analysis using
 1. Chi-square test
 2. Factorial analysis and
 3. Correlation Co – efficient, with p – values for each.
- Qualitative Analysis of Focused Group Discussion, interview with parents and interview with teachers.
- Case study record with socio matrix cum socio gram and psycho social diagnosis.

Limitation of the study:

1. Acquiring more detailed and in-depth perspective about the problem has not been possible, (only cross sectional observation study has been done).
2. Action research has not been conducted, i.e. pre and post treatment approach, considering the feasibility of circumstances.
3. Certain talukas have been dominated rural based giving little chance for comparison within the talukas.
4. Many a students from the well off strata in rural area commute to urban area, therefore they have mix identity of falling under urban school but belonging to rural habitat.
5. Co-operation of respondents has not been optimal due to lack of awareness about academic investigation.
6. Many respondents have exhibited inhibition or resilience in giving frank answers pertaining to personal matters and disclosure of family matters. This could be because of lack of rapport within a short time period.

7. The interview schedule being too long, it has been administered skillfully, so as to save time and not to make the process monotonous for respondents.
8. The optimal number of group members for focus group discussion and group interview has been approximately 25 to 30, for feasibility.
9. The resistance of rural people in revealing the exact income has made it difficult to get the exact family income.
10. Consent for case study data is restricted to the availability of respondents.

The scope of the study

1. The Micro level intervention and Macro level intervention can be worked out for improving school performance, environment and education.
2. Follow up further study can be taken up with more of case study, pre and post study and longitudinal study for future research.
3. Action research can be planned out to develop students life skill and community awareness.

Chapterization Scheme

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Chapter – VII	: Qualitative Analysis
Chapter – VIII	: Case Studies
Chapter – IX	: Suggestion & Action Plan

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