CHAPTER IV

METHOD
The Background of the Study

The present research is a part of the series of studies linking disadvantage with stress undertaken by Dash and his students. In an earlier study conducted by Dash et al. (see Pattnayak, 1982) investigated the socio-environmental life stresses of socially disadvantaged (ST/SC) and non-disadvantaged general caste (GC) school children. Sixty socially disadvantaged (ST/SC) and 60 non-disadvantaged or general caste (GC) children studying in Grades 6, 7, 8, and 9 of a single school in Bhubaneswar completed a Life Stress Perception Scale. The study followed a 2 (Castes- ST/SC & GC) x 4 (Grades - 6, 7, 8, 9) classification design, with 15 children in each of the 8 cells. The Life Stress Perception Scale consisted of 40 items divided into 10 areas and sources of stress commonly found in the lives of children such as, (1) health status, (2) hereditary or family diseases, (3) birth and parity status, (4) parental education and home stimulation, (5) economic status, (6) socio demographic status, (7) home emotional environment, (8) peer relations, (9) school and teacher related problems, and (10) personal problems. The Scale is reproduced below:
1. Had you ever been hospitalised for more than a week?
2. Had you ever met any serious accident?
3. Are you suffering from any chronic disease?
4. Are your weight, height, and physical stamina comparable to your friends of same age?
5. Is anybody in your family or among your relatives blind, deaf, dumb, or mute?
6. Is anybody in your family or among your relatives suffering from rheumatism or paralysis?
7. Is any of your family members or relatives mad or mentally disordered?
8. Does any of your family members or relatives suffer from chronic and serious illness?
9. Was your mother less than 20 or more than 35 years at the time of your birth?
10. Have you been told about any serious disease that you suffered during your childhood?
11. Do you have more than 5 brothers and sisters?
12. Do you have more than 4 elder brothers and sisters?
13. Is your father’s educational qualification below 7th grade?
14. Is your mother’s educational qualification below 7th grade?
15. Do you have story/novel books other than text books?
16. Do you get sufficient time, opportunities, and encouragement for your study at home?
17. Whether your family income is less than Rs. 300/- per month?
18. Have you seen your parents borrowing money?
19. Do you get enough money to buy your necessities?
20. Are your admission, tuition fees, and purchase of books done at the right time?
21. Is your house located in a Harijan (SC) or tribal village?
22. Is your house located in a remote rural or segregated area?
23. Do you change your house frequently due to any reason?
24. Does your family have good relations with neighbours?
25. Do your parents quarrel a lot?
26. Whether you were neglected in your childhood?
27. Does your father remain absent from home most of the times?
28. Are you beaten or punished frequently by your parents/siblings?
29. Do you have a number of good friends in your community?
30. Do you have plenty of time for playing, talking, and moving with your friends?
31. Do you have many good friends in your class?
32. Are you very often joked/teased by other school mates?
33. Do you understand all the subjects taught in the class?
34. Have you secured less than 30% of marks in any subject in the last examination?
35. Are you beaten/scolded/offended by your teachers?
36. Do you feel that you are lagging behind in your studies compared to other children?
37. Do you feel afraid of some unknown reason?
38. Do you have nightmares in sleep?
39. Are your parents pleased with your study, manner, and behaviour?
40. Have you come across any situation ever when you cannot express your thoughts/feelings?

The obtained mean number of stressful factors of the ST/SC and GC groups of the (1) health status, (2) hereditary or family diseases, (3) birth and parity status, (4) parental education and home stimulation, (5) economic status, (6) socio demographic status, (7) home emotional environment, (8) peer relations, (9) school and teacher related problems, and (10) personal
problems were 0.93, 1.00, 1.43, 1.55, 1.26, 1.00, 0.95, 1.52, 1.46, 1.23 and 0.87, 1.00, 1.11, 1.41, 1.67, 0.92, 0.98, 1.25, 1.60, 1.30, respectively. The results showed that excluding the birth and family status, economic status, peer relations, and school and teacher related problems categories, the ST/SC and GC children reported similar amounts of stressful situations in the remaining six areas of their lives. Based on the total score (out of 40) of each child, the findings showed that the mean scores of the children of Grades 6, 7, 8, and 9 of ST/SC group were 10.60, 12.74, 13.00, and 13.20, respectively; and of GC group were 13.00, 11.33, 12.53, and 14.00, respectively. The results showed that with increasing age, ST/SC children consistently perceived more life conditions/situations to be stressful. However, the children of GC group were somewhat inconsistent, though an incremental trend was noticeable. On the whole, the means of the individual’s total scores of the ST/SC and GC groups did not differ significantly. This study also found that academically and socially competent children enjoying popularity among their peers reported greater number of stressful life events.

The Rationale of the Study

Findings of some of the earlier studies suggest that stress probably acts as a growth-promoting catalyst or stimulation for creative process, for which it is essential to investigate and recognise the positive as well as negative influences of most common stressors that confront the adolescents. So, a systematic
analysis of the above factors would help to understand, how adolescents of our Orissan culture, perceive, experience, react, and manage as well as cope with the difficult or stressful situations at a developmentally critical stage. It would be helpful to devise and provide counselling services for stress management and training in coping skills to face stressful situations.

Adolescence is a developmentally critical stage in human beings' life. Certain stresses are inherent/ immanent/ inevitable with this stage of development. The rapidly occurring biochemical, physical, psychological, emotional, cognitive, and moral changes with or within the adolescent have some positive or constructive and negative or developmentally detrimental impacts on the life and development of the individual.

Studies have revealed that there exist strong similarities/ associations/ correlations between stress, disadvantage, frustration, conflict, and crisis; which justify to label them as 'psychologically critical life situations' (PCLS). A number of Indian studies have used urban, rural, and tribal samples assuming that disadvantages vary across these demographic groups/ backgrounds/ habitats. The findings of these studies have supported their assumptions. Usually, the tribal samples have been found to be the most disadvantaged and the rural samples to be more disadvantaged; compared to the urban samples. Findings of studies done at CASP, Utkal university have partly supported the above results. No differences have been found between urban
slum, rural lower SES, and tribal samples with regard to home environmental stimulations available to infants. Realising the paucity of Indian studies dealing with such demographic/SES differences in stressful situations, reactions, and coping efforts of children, the present study was undertaken.

Research findings have usually shown clear sex differences in stress and coping, varying with type of stressful life situations and social support network. Most studies suggest that females may have been biologically predisposed and/or socio-culturally conditioned to develop higher stress resistance/tolerance.

Studying the types of stressful life situations, resultant stress reactions, and coping approaches adopted in these stressful or PCLS of different samples (relatively normal as well as disadvantaged) adolescent boys and girls is a worthwhile research area. Only a few earlier studies did attempt to systematically investigate the developmental trends or differences in stress experience and coping approaches with regard to demography, age, and sex factors. Particularly in the Indian context, specifically in Orissa, no systematic study has been yet attempted to provide sufficient data to understand the common stressors/stressful life situations), resultant psycho-physiological reactions, and individual coping approaches of adolescent boys and girls.
The Objectives

To build up a data base on children's stress, the present study was designed and conducted with the following objectives. This study aimed at investigating the similarities as well as differences in: (a) the stressors/stressful situations encountered/experienced and subjective judgements of the stressfulness of the stated stressors/stressful situations; (b) the physical/physiological/behavioural reactions usually occurring when confronted with stressful life situations; and (c) the various types or ways of coping generally adopted to manage, master and cope with stressful situations; of adolescent boys and girls of Urban (relatively the least disadvantaged), Rural (relatively more disadvantaged), and Tribal (relatively the most disadvantaged) areas in their day-to-day lives.

The Hypotheses

On the basis of the theoretical bias of this research and the preceding review of relevant studies, the following hypotheses may be proposed for the present study. It was hypothesised that: (1) there would be no significant differences between the urban, rural, and tribal children, (2) there would be no significant differences between the younger and older children, and (3) there would be no significant differences between the boys and girls; with regard to their stressful life situations, resultant stress reactions, and coping approaches/types.
Plan and Design of the Study:

This study is an exploratory, descriptive, and survey type developmental research aimed at collecting basic normative data with regard to stresses and coping patterns of children of the State of Orissa, India. The work was planned and undertaken to investigate the sources of and reactions to stress, and patterns of coping of adolescent boys and girls of urban, rural, and tribal areas; studying in grades 7 and 9. The present research was the first systematic attempt to study this problem. From total sample of 350 children on whom the survey was done, 300 children were randomly selected to constitute a three-factor, \( 3 \times 2 \times 2 \) Factorial Design, with 25 children per cell. The three factors were: Area (urban, rural, and tribal), Grade (7 and 9), and Sex (boys and girls). Their subscores of Coping Approaches Inventory were analysed to find out variations in different coping approaches due to Area, Grade, Sex. Thus the study began with a survey, but developed a Factorial ANOVA design to test certain objectives.

The Samples and Selection Procedure:

The study was done on a total sample of 350 boys and girls of grades 7 and 9 of urban, rural, and tribal area schools of the Cuttack, Jajpur, and Khurda districts of Orissa. The number of urban, rural, and tribal children were 114, 115, and 121 respectively. There were 167 students from grade 7 and 183 from grade 9. The sample consisted of 187 boys and 163 girls.
The data of all these 350 children were used in the survey phase of the study. Later only for studying different coping approaches, 300 children were randomly selected to constitute a Factorial research design with equal number of cases in each cell, which yielded a 3x2x2 Factorial ANOVA design. The three factors and their respective levels were Area (urban, rural, and tribal), Grade (7 and 9) and Sex (boys and girls).

The Urban children belonged to the schools of the state capital city of Bhubaneswar in the district of Khurda. The Rural sample was selected from Niali and Brahmanjharilo schools of Cuttack district and Begunia school of Khurda district. The three Rural schools are situated in an area of about 50 km. in diameter and at an approximate distance of 50 km. from both Cuttack and Bhubaneswar.

The Tribal sample was selected from a single school situated at Daitari in the district of Jajpur, at a distance of about 100 km from Cuttack. Daitari is a small hill-top iron ore mine in Orissa. While the Urban and Tribal samples were the students of single schools having boys and girls more or less equal in number; in the Rural area not many girls were found in the higher classes in the co-educational schools. Therefore, the children of three Rural schools were selected to get equal numbers of boys and girls. Usually all the children of an entire class were administered the research instrument in urban and tribal areas. But in the rural area, equal number of boys and girls were selected from each grade of each school.
THE PILOT STUDY

The purpose of this pilot study was twofold: first, to test the definition of the disadvantaged—that a disadvantaged child is one whose needs are not adequately met; and second, to demonstrate that disadvantage, like stress, is a PCLS. The data for the present study were collected together with the data of the main study, based on the same sample, so that disadvantage and stress can both be examined as PCLSs. It was hypothesised that disadvantage, defined in terms of need satisfaction, would be normally distributed, irrespective of SES/class/caste or urban, rural, or tribal background.

Method

**Subjects**: The data were collected from children of urban, rural, and tribal areas of the state of Orissa; to investigate the patterns and sources of need satisfaction of adolescents of urban, rural, and tribal areas; of 7th and 9th grades; and of boys and girls. The detail description of the samples and their selection procedures has already been given earlier.

**The Research Instrument**: Based on the empirical observation that children's development depends to a large extent on family's ability and effectiveness in satisfying their needs, Dash developed the **Need Satisfaction/Social Support/Family Effectiveness Inventory** in the early 1980s. The purpose of this inventory was to find out (a) the frequently felt needs of
children, (b) the social support network satisfying the needs of children, (c) the effectiveness of the family in satisfying children's needs, and (d) the extent/level of needs satisfied. It was also useful in revealing how children themselves try to satisfy their needs, if the family's internal support system failed in meeting their needs satisfactorily. This Inventory consisted of 35 items and provided indices for children's need satisfaction, family effectiveness and social support available for the satisfaction of the following seven categories of needs: (1) Need for expression, (2) Need for actual help, (3) Need for economic freedom, (4) Need for expressing grievances or complaints, (5) Need for blame-avoidance, (6) Need for harm-avoidance, and (7) Need for emotional expression. These 35 needs are the most basic of the day-to-day life of any Indian child.

The Inventory was presented in a tabular format. There were five columns for each of 35 items to which the children were instructed to respond. Under each column, varying numbers of categories of alternative response-choices were listed, out of which the child had to choose the suitable or appropriate or relevant one under each column, for each item, separately. The five columns contained the following five questions along with their response alternatives:

Column 1: Have you ever felt this need? Yes = 1, No = 2

Column 2: When faced with this need, to whom do you go or approach for need satisfaction? Father = 1, Mother = 2,
Siblings = 3, Friends/Peers = 4, Teachers = 5, Others = 6, and None = 7.

Column 3: What they usually do to satisfy your need? Solve = 1, Advice = 2, Punish = 3, and Ignore = 4.

Column 4: Does this whole process satisfy your need? Yes = 1, No = 2.

Column 5: If your need still remains unsatisfied, what do you do next? Try Again = 1, Go to Another Person = 2, Forget = 3, and Feel Sad and Helpless = 4.

The 35 items of the Inventory are listed below, under the seven categories of needs.

Verbal Companionship: Need to talk about...
1. personal/confidential matters
2. peers/friends
3. studies/school/teacher
4. games, hobbies, TV/cinema
5. any thing (i.e. chit-chatting)

Direct Assistance/help in...
6. studies - homework
7. planning future career/life
8. solving problems/taking decisions
9. making/creating something
10. social/personal relationships/problem

Economic Needs - Money for...
11. buying something
12. new dress
13. books/magazines
14. seeing movie/exhibition
15. going out with friends

Need for Expressing complain ...
16. concerning home/family
17. about school/teachers
18. about relatives/friends
19. brothers/sisters
20. about food/clothes

Need for Support after ...
21. doing something bad/wrong
22. having injured/hurt yourself
23. having quarreled with someone
24. poor academic/examination performance
25. telling a lie and getting caught

Need for Protection after ...
26. physically assaulted/beaten by someone
27. teased/bullied by someone
28. siblings' interference in studies
29. having a horrible nightmare
30. feeling insecure & lonely

Need for Socio-Emotional Support when ...
31. someone making dirty/bad comments
32. feeling sad/unhappy
33. something valuable is lost/broken
34. feeling happy/jubilant
35. wishing to have fun
**Administration Procedure**: The Inventory was administered in a single session, in group settings, in children's respective classrooms. Sufficient time was allowed to establish rapport with the children, in order to convince them that they should respond freely and frankly. The instructions were repeated and examples from their day-to-day lives were used to explain how to respond and fill up the Inventory. The whole session usually took about an hour and a quarter on average. All questions and doubts of the children were clarified prior to the administration of the main Inventory.

**Scoring Procedure**: The Inventory was scored in the following way. Column 1: Needs felt/ experienced - The "yes" (1) responses were counted for each of the seven categories of needs felt by the child. Then a total score was derived for the total number of needs felt.

Column 2: Functional Agents in the Social Support Network - The number of responses for each of the six agents mentioned (father, mother, siblings, peers, teachers, and other relations) as well as for the column 'none' were calculated. The intra-familial and extra-familial support scores were obtained to find out the ratio between the needs satisfied in the family and others, total number of needs satisfied in the family was divided by the total number of needs satisfied outside the family, to get the family effectiveness ratio.

Column 3: Type of social support - The different types of social support received by the child was found by counting the
frequencies of responses for each type of social support received by the child (giving solutions, advise, scolding and ignoring).

Column 4: Total needs satisfied - The number of 'yes' responses in column 4 for each of the seven categories of needs felt, were calculated and added up. All the seven scores, gave the total need satisfied score. The ratio between needs satisfied and needs felt was obtained by dividing the total number of needs satisfied by the total number of needs felt.

Column 5: Subsequent Action, if not satisfied - The number of responses for each of the subsequent action adopted was counted and then added up to form a total score. The subsequent actions undertaken by the child were - trying herself/himself, seeking somebody's help, forget, feel sad and helpless.

In the present study, information from only Columns 1 and 4 were utilised which showed the percentages of children who "felt the need" and whose "need remained unmet", item-wise.

Results and Discussion

The data obtained were first arranged into frequency tables. Chi-square tests were performed on these frequencies to test whether the group-wise frequencies differed significantly. First, item-wise Chi-squares were done which revealed that less than 1/3 of the total items showed significant differences between the groups. Then, treating the 35 items as individual subjects, the percentages were subjected to One-Way Analyses of Variance to check the group differences. The result tables present the percentages.
Table 'A' presents the summary of results in percentages of children responding to all items under the five columns of the whole Inventory. It may be observed that the three groups did not differ significantly individually or on the whole. Though earlier researchers in India and abroad have treated the Tribals as the most and the Rural populations as more disadvantaged than the Urban populations, in the present study, in terms of children's need satisfaction as the defining criterion of disadvantage, this practice was found to be not substantiated by data. The urban, rural, and tribal groups were found to be almost similar in most of the scores. As per the hypothesis of the study, it may be observed that disadvantages are normally distributed in the human population and there should not be great differences between castes, areas of residence, races, or nations. This supports Dash's argument that disadvantage can not be viewed as the characteristic of an individual or a group, rather it describes the critical life situations confronted by an individual.
### Table ‘A’

**Children’s Responses to the whole scale**

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Tribal</th>
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<tbody>
<tr>
<td></td>
<td>n=114</td>
<td>n=115</td>
<td>n=121</td>
</tr>
</tbody>
</table>

(a) Have you ever felt the need?
- Yes  
  39.69  
  35.26  
  31.57

(b) Needs Satisfied by:
1. Father  
   24.06  
   22.75  
   22.25
2. Mother  
   21.48  
   21.70  
   20.32
3. Siblings  
   11.15  
   08.97  
   10.03
4. Peers  
   14.43  
   18.14  
   11.29
5. Teachers  
   04.99  
   12.41  
   08.98
6. Others  
   03.69  
   04.96  
   06.04
7. None  
   18.37  
   14.46  
   17.82

(c) What do they do?
1. Solve  
   31.68  
   33.23  
   30.34
2. Advise  
   32.83  
   33.15  
   29.29
3. Rebuke  
   12.83  
   14.46  
   15.84
4. Ignore  
   22.60  
   19.76  
   24.50

(d) Do these satisfy your needs?
- Yes  
  62.53  
  62.46  
  53.40

(e) What you do if needs are not met?
1. Try again  
   31.07  
   32.02  
   33.64
2. Approach another person  
   19.40  
   22.48  
   23.50
3. Forget  
   25.92  
   20.03  
   21.87
4. Feel depressed and helpless  
   23.26  
   24.53  
   20.81
Table 'A1' presents two sets of data. The first three columns present the percentages of children of the three groups who reported having felt or experienced the 35 needs mentioned in the Inventory. The remaining three columns present the percentages of children of the three groups who reported that their felt/experienced needs remained unmet or were not usually satisfied. It may be observed that for 'NEEDS FELT', the percentages ranged between 30% and 92%, 40% and 97%, and 25% and 86% for Urban, Rural, and Tribal groups, respectively. Some predominant concerns of the adolescents such as studies, peer-relations, and money matters surfaced predominantly in their responses. While the three groups did exhibit some differences on individual items, the item-wise Chi-squares as well as group-wise ANOVA did not show noteworthy differences. It may be said that in most societies, adolescents' needs are more or less similar and the intra-group differences are as diverse as inter-group differences. Similar findings were obtained for 'NEEDS MET'. The percentages ranged between 16% and 53%, 13% and 61%, and 26% and 60% for Urban, Rural, and Tribal groups, respectively. On the whole, the results of the present study clearly indicate that when children's need satisfaction is used as the criterion for defining the disadvantaged, all children, all families - irrespective of caste/background - experience some degree of disadvantage. The findings strongly support Dash's contention that disadvantage is a psychologically critical life situation, normally distributed in the population, over the life-span of the individual.
Table 'A1'

Percentages of Urban, Rural, and Tribal Children reporting actual experiencing of the needs (NEEDS FELT) and non-satisfaction of needs (NEEDS UNMET).

<table>
<thead>
<tr>
<th>Item</th>
<th>NEEDS FELT</th>
<th>NEEDS UNMET</th>
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<td>Urban</td>
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<tr>
<td>1.</td>
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<td>2.</td>
<td>73</td>
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<td>3.</td>
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Sress and disadvantage are both PCLS differing only with regard to their ontological fields of operation. Disadvantage is a stressful life situation, and to be under stress is a disadvantaged condition. Instead of viewing each one of the PCLS such as, disadvantage, stress, frustration, conflict, and crisis separately as discrete, independent, or orthogonal; it would be empirically and conceptually more reasonable and useful to consider these PCLS as overlapping and interrelated points on a single scale or continuum. The findings presented here provide support for the above statements.

Another purpose of the Pilot Study was to check the applicability and reliability of the inventories. So, a randomly selected sample of 60 children belonging to both the grades and all the three areas were administered all the four inventories twice with a test-retest interval of two weeks. Percentage of agreement between the test and retest responses was used as the criterion of reliability. Seeking clarifications during administration and consistency in response patterns were used as indices of applicability. An 80% or above agreement between a child's test and retest responses was considered ideal and satisfactory. For lower percentages, some modifications were made in the wording of the statements and specific instructions were given elaborately during administration. It should be admitted that no specific attempt was made to test the validity of the inventories. The investigator's subjective, qualitative, global appraisal of the reliability and validity of the inventories was
satisfactory. It is strongly suggested that other researchers who might consider using these inventories should examine them thoroughly and establish their psychometric indices.

THE MAIN STUDY

Research Instruments of the Study:

Three research instruments were specially designed for the present study namely, the Stressful Situations Inventory, the Reactions to Stress Inventory, and the Coping Approaches Inventory. These inventories were developed on the basis of:

(a) already existing research instruments developed by a number of researchers used for specific stress related studies (Cohen & Lazarus, 1979; Johnson & Sarason, 1979; Selye, 1976; Vaillant, 1977),
(b) studies of environmental disadvantages conducted at the CAS in psychology, Utkal University, Bhubaneswar (Rath, Dash & Dash, 1979; Dash, 1989), and
(c) the researcher's as well as supervisor's personal observations of children's stresses and coping approaches. All the inventories were in oriya. Simple and suitable wording was used in all three questionnaires. Each Inventory contained detail instructions in the beginning and the children were assured that, their doubts and questions relating to the instructions would be explained to them. Detail descriptions of these inventories are presented below:
1. **The Stressful Situations Inventory**

This Inventory consisted of 34 items specially relating to the common problems of school children, particularly in Orissan (Indian) socio-cultural and environmental context. A variety of problems of the home environment, illnesses of the family and self, and change in living conditions were included in the Inventory. The questionnaire was framed to elicit two types of information from the children to be filled in two columns. The first column was meant for the degree of importance of the event described in each statement to be rated on a three point scale: very important, slightly important, and not at all important. The second column was meant to get information about whether the children have experienced the individual events described in the Inventory. This inventory was particularly developed with a view to assessing the prevalence as well as importance of certain stressful events in children's lives and investigating the types of common stressors to which children are exposed to. The English translation of the inventory is reproduced here.

**The Stressful Situations Inventory**

Name __________________School________________Class_______Age_____

**Instructions**:

In our everyday life we usually come across many critical situations involving trials and tribulations. A list of such critical life situations, which are common in case of many children of your age, have been presented in this Inventory.
Each child has her/his own quota of problems and predicaments. Also, the importance of any critical situation varies from child to child. In this study, the purpose is to know your own critical life situations and their importance to your life. Your responses shall be kept anonymous and will be used for research purposes only. So, please respond to all the statements/questions freely and frankly. You are required to give two responses in the two columns given beside each item. First, you are to recollect whether you have faced or experienced the stressful situation described in each item in the recent or distant past. Then you have to put a cross-mark (X) for 'No' and a check-mark (\/) for 'Yes' in Column 1 beside each item. Secondly, you are requested to judge or rate the importance of each critical/stressful life situation/problem listed below in the following manner: Not at all important = 0, Slightly important = 1, and Very much important = 2. Choose any one of the three responses based on your own subjective judgement for each item and write the appropriate response-category number under Column 2 beside that item.

01. Compelled to do something against your will
02. Denied the freedom in most activities and situations
03. Deprived of opportunities inside and outside the home
04. Experiencing doubt or suspicion about somebody
05. Repeatedly bothered by disturbing thoughts
06. Being blamed or accused without any fault
07. Being cheated or betrayed
08. Being insulted by someone
09. None encouraging or guiding you in difficult, important, or serious matters
10. Not getting love and sympathy when you need
11. Repetedly bothered by sad/unpleasent memories
12. Not in good terms with your neighbourhood peers
13. Theft or burglary occurring in your house
14. Not being able to work properly as you wish
15. Compelled to work hard
16. Not getting expected success even after hard labour
17. Financial difficulties in your family
18. Repeated conflicts and quarrels between parents
19. Staying away from home, parents, and family
20. Not liked by parents and teachers
21. Feeling someone's absence or separation
22. Disagreement with parents
23. Arrival of a new comer in your family
24. Caught red-handed while smoking with peers
25. Not getting sound sileeep
26. Sudden death of a family member or close relation
27. Becoming sick suddenly and seriously
28. Serious or chronically ill person in your family
29. Deprived of care and treatment during illness
30. Deteriorating health conditions
31. Initiating or terminating friendship with someone
32. Scandal or disreputation of family or someone close
33. Frequent change of school or residence
34. On-going family tensions
2. **The Reactions to Stress Inventory**

This Inventory was designed to survey the common reactions of adolescent school children to stressful life situations. The Inventory consisted of 29 items describing children's common physical, mental, and behavioural reactions/manifestations occurring in stressful situations. Each statement was to be judged and rated on a four-point rating scale (Always, Frequently, Sometimes, and Never). The subjects were repeatedly reminded to base their judgements on their own personal experiences and feelings. The English translation of this Inventory is presented here.

**Reactions to Stress Inventory**

Name __________________ School______;_____Class___________Age_____

**Instructions :**

Human beings usually show some common physical and mental reactions in critical life situations like stresses, disadvantages, disappointments, conflicts, sorrows, and sufferings. These reactions serve a purpose, they are just usual, natural human responses under stress/tension. Whether these reactions are good or bad, desirable or undesirable; can only be decided purely subjectively.

Some such common reactions to stress/tension are listed below. Please read each item carefully and answer honestly from your own experience. Please give your own judgement about how
frequently you have experienced these reactions. On the right side of each item, write: "A" if you have 'Always', "F" if you have 'Frequently', "S" if you have 'Sometimes', or "N" if you have 'Never' experienced the reaction described in that item. Please answer freely and honestly. Your answers will be kept confidential and anonymous.

01. Feeling very sad and depressed
02. Getting extremely annoyed or disgusted
03. Trembling of hands and legs - showing nervous mannerisms
04. Pounding of heart
05. Feeling of dryness of mouth and throat
06. Feeling like crying
07. Crowding of all sorts of thoughts in the mind/brain
08. Feeling restless and unable to concentrate
09. Feeling tired and exhausted
10. Feeling of meaninglessness of life
11. Stuttering, stammering, or other difficulties in speaking
12. Not having sound sleep or insomnia
13. Excessive sweating
14. Inability to sit quietly and peacefully
15. Frequent tendency to urinate
16. Indigestion, stomach queasiness or diahorrea
17. Headache
18. Pain in the body, knee and elbow
19. Loss of appetite or excess interest in food
20. Excessive appetite or too much interest for food
21. Nightmares in sleep
22. Getting usually and unreasonably scared or afraid
23. Feeling of dizziness and fainting
24. Feeling pain in chest or stomach
25. Remembering constantly the past mistakes and fault
26. Losing interest in all works
27. Getting tense and irritable
28. Losing self confidence
29. Scolding and criticizing others

3. **The Coping Approaches Inventory** :

   This Inventory was designed to find out the different approaches/strategies/styles commonly adopted by children to manage, avoid, and/or cope with stressful life situations. It consisted of 32 items covering eight distinct types of coping approaches/strategies/styles namely, acceptance, relaxation, aggression, submission, distraction, self-control, reality distortion, and actualization. The children were asked to rate each item on a four-point rating scale (Always, Frequently, Sometimes and Never) basing their ratings on their own judgements of personal experiences. An English translation of this Inventory is presented here.
Coping Approaches Inventory
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Name___________________ School____________ Class________ Age____

Instructions:
This Inventory consists of 32 statements describing the different ways adopted by different individuals when trying to adjust-to or cope-with stressful life situations and problems of life. This study intends to find out how you yourself cope with critical life situations. There are no wrong or right ways of responding to stress. Each person behaves differently. Still, all human beings show certain common patterns of behaviour. Please read each item carefully. Just respond by judging how frequently you manifest reaction/behaviour/coping effort described in each item. You may ask questions if you have any doubt, but answer freely, without any hesitation. Your responses will be kept anonymous. Beside each item, write; "A" if you do it 'Always', "F" if 'Frequently', "S" if 'Sometimes' or "N" if you 'Never' do/show it. Answer in this manner to all statements.

01. Getting involved and engrossed in some interesting work

02. Trying to accept that which cannot be changed - trying to endure that which cannot be cured

03. Ordering tasks on the basis of priority and seriousness before attempting to solve the tasks

04. Trying to tolerate and bear with whatever happens when events cannot be changed by any means

05. Trying to get enough rest and sleep
06. Trying to take rest-breaks during regular work for merry-making/ fun/ amusement/ entertainment
07. Trying to 'talk out/express troubles or worries to others
08. Trying to forget the problems by helping and working for others
09. Arguing a lot with others
10. Supplicating, pursuading, insisting, and threatening others
11. Trying to control others through aggression and force
12. Criticising and finding faults with others
13. Accepting everything disregarding others' ideas and opinions
14. Obeying rules and orders without questioning
15. Always trying to please all
16. Trying to imitate others' behaviours and personalities
17. Spending more time in fantasy and day-dreaming
18. Seeking out pleasant/joyful experiences intentionally
19. Citing others' opinions and views to defend own stand
20. Changing events by modifying the styles of working and thinking
21. Trying to ignore and forget
22. Trying to see greater faults in others than oneself
23. Trying to suppress/ block/ hide feelings and behaviours
24. Reasoning out through arguing with oneself
25. Putting the blame on or scapegoating others
26. Changing the goal and renewing the efforts
27. Trying to be perfect and up right in all aspects
28. Forming one's own point of view based on personal knowledge, attitudes, beliefs, and convictions
29. Seeking others' advice/suggestions and contemplating on them
30. Becoming spontaneous and natural in expressing thoughts, feelings, and emotions
31. Open-minded/broad, free, and frank expression of actions, thoughts, and feelings
32. Explicit and direct communication of ideas and emotions - no attempt to hide oneself or blur self-expression

**Administration Procedure**

After obtaining the permission of the Headmasters of the schools, the cooperation of the class teachers were sought. They were appraised of the objectives and plan of research. The questionnaires were administered in group settings to the children of different classes in their respective classrooms. Sufficient attention was given to establish good rapport. The subjects were first given some preliminary information relating to the purposes of the present research as well as the practical implication of the study. All the items of all the Inventories were read out loudly by the investigator and children's doubts were cleared. They were also given detailed instructions on how to respond to all the items of each Inventory. After explaining everything in detail, the subjects were requested to give honest, free, and frank opinions while responding to the statements without fear or inhibition. They were assured that their responses would be kept confidential and would be used for research purposes only. Separate sessions were used for administering different Inventories and the general procedure of administration was the same in all the areas, grades, and schools. While administering the instruments, care was taken to get
complete data on all items of all three Inventories from all the subjects.

The administration of the Stressful Situations Inventory was in a group setting - the questionnaire was distributed among all the students in the class. They were then asked to go through the instructions thoroughly; and get themselves clarified of their doubts if any. When it was felt that the subjects fully understood the procedure of filling up the Inventory, they were instructed to give their answers to all the items in two columns. The first column was meant for recording children's responses relating to their own personal experiences of each of the problems and the second column for recording children's judgements on the degree of importance of each problem. So the subjects were told to put a cross-mark for 'NO' and a check-mark for 'YES' in Column 1, and write "2" for "very important", "1" for "slightly important", and "0" for "not at all important" responses in Column 2 beside each item. This Inventory took about one hour to be completed.

The Reactions to Stress Inventory was administered in the third session. Here again the subjects were clarified on all points in detail. In this Inventory there were four response alternatives: "A" for "Always", "F" for "Frequently", "S" for "Sometimes", and "N" for "Never". The subjects were instructed to encircle A, F, S, or N against each item based on their own experiences and judgements. It took about 45 minutes to complete this Inventory.
The Coping Approaches Inventory was administered in the last session. The procedure was the same as in the Reactions to Stress Inventory. Here also the students were told to encircle A, F, S, or N against each item according to their own judgements. This Inventory took about 45 minutes to be completed.

While administering the Inventories, the subjects were instructed to respond to each item separately but respond to all items of the Inventory. Inspite of the care taken to get complete data from all subjects, some incomplete questionnaires were detected, which had to be rejected. As a result, a total of 350 complete data sets were available for the present study. In the second phase of the study, 300 cases were selected at random to constitute a 3x2x2 Factorieal Design with 25 children in each cell for statistical analyses.

**Scoring Procedure**

For the convenience of scoring, the four completed Inventories of each subject was pinned together to make a complete set. Then these sets were serially numbered. Initial scoring was done on the questionnaires of each child. One master table was prepared for each Inventory of each sub-group to tabulate their responses separately. The following scores were obtained from each inventory which were subjected to statistical treatments.
The Stressful Situations Inventory consisted of 34 items, each item requiring two responses in two columns from each subject. From the first column, the check-marks were counted for each subject. From the second column, frequencies of 0, 1, and 2 were obtained for each subject. Thus, item-wise as well as subject-wise frequencies were obtained for the whole Inventory.

The scoring of the Reactions to Stress Inventory and the Coping Approaches Inventory were done to obtain frequencies of A, F, S, and N response-categories were obtained in separately master tables, item-wise as well as group-wise. Thus, separate master tables were made for each of the three areas, two grades, and both the sexes.

In addition to the above, children's responses to the Coping Approaches Inventory were scored again, differently. These scores were analysed to find out the most frequently used coping approaches of the children of different Areas, Grades, and Sexes. In order to obtain individual scores, the 32 items of the Coping Approaches Inventory were divided into eight types/categories of coping, each type represented by four consecutive items, giving eight scores for each subject. To find each child's scores for each of the eight types of coping, the alternative response categories were assigned weights in the following method: Never = 0, Sometimes = 1, Frequently = 2, Always = 3.