RESEARCH

METHODOLOGY
CHAPTER 3
RESEARCH METHODOLOGY

Methodology is the logic of scientific investigation and procedure of research technique. Methodology means description, explanation and justification of methods and not the method themselves. The steps include the research design, tools and techniques used. The present study was undertaken to study the “Pattern of Adolescents- Parents Relationship and Factors of Influence”. This chapter has been presented under the following subheads-

- Research Design
- Locale of the Study
- Population and Sample Selection
- Data collection procedure
- Variables and their Measurements
- Statistical used for data Analysis

**Research Design:**

Descriptive design was used for the study. Descriptive research is used to describe characteristics of a population or phenomenon being studied. It does not answer questions about how/when/why the characteristics occurred. Rather it addresses the "what" question (What are the characteristics of the population or situation being studied?) The characteristics used to describe the situation or population are usually some kind of categorical scheme also known as descriptive categories.
Locale of the study

The study was conducted in New Delhi, capital state of India. According to 2011 census there are 16,753,235 million inhabitants in the territory. The total area of New Delhi is 1483 square kilometres. New Delhi is divided in nine zones- East Delhi, South Delhi, North Delhi, West Delhi, Central Delhi, North East, South West and North West Delhi. New Delhi has an average literacy rate of 86.34 per cent. The literacy rate of males and females is 91 per cent and 80.9 per cent respectively.

Study was conducted in schools situated under municipal area of Delhi imparting education from sixth to twelfth classes. Delhi was selected for two reasons. Firstly Delhi provides different settings and people from different SES and cultural background and secondly the researcher belongs to this place and it was convenient to contact and collect information as well as validation of data if needed.

Population and sample selection

20 schools of Delhi were randomly selected from the list of schools. Efforts were made to include government/nongovernment, coeducation/same sex education schools. Twenty schools were randomly selected from list of various Government and non government schools in Delhi, obtained from internet database. Researcher contacted to school authorities to explain purpose of research and for seeking permission for data collection. Two schools denied permission to collect data after initial approval. Hence 18 schools (10 non Government schools and 8 Government school) were part of the study. Students studying in 7th, 9th and 11th classes of selected schools formed our sample for study.
Sample size

Questionnaires were distributed to all the students of 7th, 9th and 11th classes, present at the time of data collection (980 students from private and 973 from government Schools). Incomplete sheets were excluded from study (82 from private schools and 152 from government schools). The final break up of total sample (1719 adolescents) for the study was arrived as shown in the following diagram-

Fig 1: sample of study at a glance
Variables under Study and Their Measurements:

Selection of variables and tools for measurement depend most prominently upon various considerations, such as (a) objectives of the study (b) availability of suitable tools (c) amount of time at the disposal of researcher (d) competence of researcher to administer score and interpretation. Keeping these factors into consideration, various standardized and nonstandardized tools were used for the study. Brief overview of variables included in the study with tools for measurement has been presented in the following table-

Table 3.1: Variables and their Measurements

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tools used to measure variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic characteristics of Respondents includes-</td>
<td>General Information Blank</td>
</tr>
<tr>
<td>Sex, Age, class, Education of Father, Education of Mother, Occupation of</td>
<td>Developed by researcher</td>
</tr>
<tr>
<td>father, Occupation of mother, Birth order, Number of sibling, Socioeconomic status, Type of family, Number of family members, Religion</td>
<td></td>
</tr>
<tr>
<td>Quality of (Adaptability and Cohesiveness) relationship in term of</td>
<td>Family Adaptability and Cohesiveness Evaluation (FACE) scale 1V developed</td>
</tr>
<tr>
<td>cohesiveness, flexibility, family communication and family satisfaction</td>
<td>by Olson</td>
</tr>
<tr>
<td>Conflict style (aggression/compromise) and outcomes (frustration/intimacy)</td>
<td>When We Disagree Scale (adolescent version) developed by Elvira Cicognani and Bruna Zani</td>
</tr>
<tr>
<td>Parenting style- Rejection Vs Acceptance, Carelessness Vs Protection, Neglect Vs Indulgence, Utopian Expectation Vs Realism, Lenient Standard Vs Moralism, Freedom Vs Discipline, Faculty Role</td>
<td>Parenting scale developed by R.L Bharadwaj measuring eight parenting style</td>
</tr>
</tbody>
</table>
Expectation Vs Realistic Role, Marital Conflict Vs Marital Adjustment

Quality of interaction, parental support, kind of treatment, punishment and reward, matter of issues of disagreement, criticism/complaints and expectations

Adolescents-Parents Issues Inventory (APII) developed by the investigator

**Description of tools:**

**Family Adaptability and Cohesion Evaluation scale (FACE IV)**

Olson et al. (2008, 2010) developed an update FACE-IV. New questionnaire, introducing six scales, two scales balanced and four unbalanced, to capture both cohesion and flexibility balanced and unbalanced extremes (42 items), a scale of family communication (10 item) and family satisfaction scale (10 item). Responses range from strongly disagree-1, generally disagree-2, undecided-3, generally agree-4, strongly agree-5. For satisfaction very dissatisfied-1, generally satisfied-2, somewhat dissatisfied-3, very satisfied-4, extremely satisfied-5.

**Reliability**

Cronbach’s alpha were used to assess reliability. Cohesion (0.78) flexibility (0.72) disengagement (0.69), enmeshment (0.70), rigidity (0.73), chaos (0.75), communication (0.90), satisfaction (0.91)

**Validity**

A further analysis of construct validation has been carried out not from the correlations between the individual items, but on the correlation matrix between Scoring
FACES-IV is scored by summing all items to obtain the total score, 7-18 raw scores of cohesion and flexible under (some what connected/flexible) 19-28 (connected/ flexible) 29-35 (very connected/ flexible) 7-16 raw scores of unbalanced family (enmeshed, chaotic, rigid and disengaged) under (very low) 17-21 (low), 22-25 (moderate), 26-29 (high), 30-35 (very high). 10-28 raw scores of communication under (very low), 29-32(low), 36-39 (moderate), 40-44 (high) 44-50 (very high) 10-29 raw scores of satisfaction under (very low), 30-35(low), 33-37 (moderate), 38-43 (high) 45-50 (very high)

**When we Disagree scale (WWD) (adolescent version)**

It was constructed by Honess et al., (1997). The WWD measures two styles of conflict: compromise (five items) and aggression (seven items) and two different outcomes: frustration (six items), and intimacy (seven items). This version of the instrument includes four sections for conflict style-(1) description of father, (2) description of self toward father, (3) description of mother, and (4) description of self toward mother—and two sections for conflict outcomes (outcomes with father; outcomes with mother). Section 1 (conflict style) respondents were asked: ‘How well does each of the following statements describe YOUR MOTHER/ FATHER when you and she/ he disagree about something which is important to both of you?’ (Not at all = 1; not too well = 2; fairly well = 3; very well = 4).

As regards conflict outcomes, adolescents were asked to think about the outcomes of disagreements with father and, subsequently, with mother (‘Different things can happen when two people have a serious disagreement. How often does each of these things happen when YOU and your FATHER [MOTHER] disagree about something which is important to both of you?’) (Never = 1; almost never = 2;
once in a while = 3; fairly often = 4; very often = 5). High scores show high compromise, aggression, frustration and intimacy.

Cronbac’ alpha values range from .72 to .81 for comp .70 to.77 for intimacy. The escalation scale was not considered in further analyses, owing to insufficient alpha values (from .61 to .64).

Generally some conflict and outcomes are common in families because of generation gap and different thinking, it’s a part of life not a problematic situation but more conflict, aggression and frustration are a big problem. Extreme ends (fairly well, very well responses, fairly often and very often) of each questions were considered to find out more frustrating and aggressive thing between adolescent and parents.

**Parenting scale**

(developed by R.L Bharadwaj) includes eight parenting models Rejection Vs Acceptance, Carelessness Vs Protection, Neglect Vs Indulgence, Utopian Expectation Vs Realism, Lenient Standard Vs Moralism, Freedom Vs Discipline, Faculty Role Expectation Vs Realistic Role, Marital conflict V.s marital adjustment. This scale has 40 items spread in a meaningful manner except those related to the marital conflict V.s marital adjustment. These items were placed in block at number 36 to 40. The item numbered 4, 11, 18, 25 and 32 are stated negatively just to check the habitual disposition of responses.

**Reliability and validity**

Co-efficient of reliability (test-retest) of total modes of parenting was .72 and validity Co-efficient of total modes of parenting was .75.

**Scoring**

The scoring of the parenting scale is of quantitative type and is based on five likert scale. Each item of the scale is to be scored from upper to lower in terms of 1, 2,
3, 4, and 5. The scoring of item number 4, 11, 18, 25 and 32 will be in reverse order (5, 4, 3, 2 and 1). The obtained raw scores for different modes of parenting are to be transformed into ‘Z’ scores. ‘Z’ scores obtained for the marital conflict Vs marital adjustment are to be added on both the occasions along with other ‘Z’ scores obtained for different modes of parenting to determine the scores for mothering and fathering separately.

**Adolescent- Parent Issues Inventory (APII)**

(Prepared in house) is meant for adolescents’ responses towards their parents (separately for mother and father) on various issues pertaining to day to day life activities.

General background information included: name, sex, age, class, education of father, education of mother, occupation of father, occupation of mother, birth order, number of sibling, socio economic status, type of family, number of family members, religion.

**Procedure of tool development**

For preparing the research tool, literatures pertaining to parent-adolescent issues of agreement/disagreement were reviewed thoroughly. During preparation and selection of questionnaire, points kept in mind were- content and its relevance to its objective, clarity of questions, understanding and simplicity of language.

**Pilot study**

The investigator negotiated access to the field by consulting the principal to discuss aims, objectives and ethical considerations, sought permission for conducting the pilot study in school, (which was not part of the final study). Purpose of running a pilot test of the research instruments was to identify ambiguity in the questionnaires, or in the procedure of administration, as well as in the instructions for the participants,
if any, over all, to improve research items, format, and scales. With permission granted, 50 test-participants were administered with the developed tool.

These completed self-report questionnaires were collected, thoroughly reviewed and analysed. Irrelevant questions were dropped; some questions were added as per suggestions of the respondents. Over all, the participants indicated that the items and instructions were easy to understand and that the process of administration was clear and effective. This corrected version was given to 20 experts (Human Development and Psychology) to evaluate the different domain of issues of day to day life by which agreement/disagreement can be measured adequately.

In final form of the inventory; adolescent issues were divided into six sections. Details of each section has been given below-

Section I Quality of interaction- includes 34 statements about interaction with father/mother and respondents were asked to put number for each statement, with 4 options likert scale type, (strongly agree=4, agree sometime=3, disagree somewhat=2 and strongly disagree=1)

Section II parental supports- includes 25 statements as regards parental support in different situations. Adolescents were asked to think about the support of father/mother. How often does this happens in every situations (A= always, S= sometime and N= never) when you need support.

Section III Kind of Treatment-includes 94 items with six options. Respondents were asked to think how often each of these things happen with your father/mother (daily=1, frequently=2, within3 days=3, monthly=4, past month=5 and never=6).

Section IV Reward and Punishment- include 48 statements for general environment, rules and regulations and response of parents in term of reward and punishment, with four options for each item. Respondents are asked to rate each of the
item on the basis of how often that behaviour typically occurs (never=1, rarely=2, occasionally=3 and often=4).

Section V Matter of Agreement and Disagreement- includes 47 statements related to simple day to day issues around which arguments often centre and may be matter of agreement and disagreement with four options for each statement. 4 option (often=4, occasionally=3, rarely=2 and never=1).

Section VI – Criticism/Complaints- includes 29 Yes/No type statements based on feeling of adolescent towards their parents. Respondents are asked to read each statement and indicate whether they agree or disagree with that specified behaviour of father/mother. (Put √ for agree and x for disagree).

Section VII- Expectations of adolescents from parents includes 27 items. Respondents were asked to put √ mark on what they would like to change about their relationship with father/mother in terms of expectations or desired behaviours.

Scoring procedure

The scoring of adolescent-parent issue inventory (APII) is simple.

Section I- scores for all the items are to be added to get total scores for quality of interaction, minimum and maximum scores ranging from 34 to 136. High scores are indicative of high and better interaction quality.

Section II - scoring should be done in 3 (always), 2(sometimes), 1 (never) orders. Each item scores to be added to get scores for parental support, ranging from 25- 75. High scores show high parental support.

Section III - To get kind of treatment each item scores given by respondents to be added. Scores ranges from 94 to 564. Item numbered 29-71 and 85-94 should be scored in reverse order (i.e. 6, 5,4,3,2 and1). These items are stated negatively to
check the partial/abuse treatment. Low scores show better treatment and high scores show poor and partial/abuse treatment.

Section IV - All the scores of each item to be added to get total scores of reward and punishment. Item numbers 1-2, 5-10, 16-37 have to be reversing scored. High scores indicate harsh and strict environment with high punishment for noncompliance whereas low scores show more of lenient and flexible environment as well as rewards. Minimum and maximum scores range from 48 to 192.

Section V - Scores given by respondents for the entire items are to be added to get issues of agreement and disagreement. Scores range from 47 to 188. High scores on this section indicate more of matter of disagreements and discussions.

Section VI - each statements has to be scored either (1 for x) or (2 for √). Total scores range from 29 to 58. High scores show more of criticism/complaints towards each other.

Section VII - More √ marks are indicative of more expectations and need of change in relationships and sometimes may be indication for need of family guidance. Separate instructions for each section are printed on the booklet at the stating of the each section.

**Data collection procedure**

All the four instruments were administered individually to each respondents in class rooms during period assign by the school in cooperation with class teacher in general, after establishing rapport with the respondents set of tests were distributed to each one of them. Since the entire tools have printed instruction on the front pages, they were red out by the investigator with asking respondents to read them saliently. Respondents were asked to clear any doubts or curiosities prior to start filling the tools. Although there was no time limit for completion but it took about one and a half
to two hours for this investigator, on an average in administration of all the tests to one group of students.

**Statistical analyses**

Statistics means aggregates of facts affected to a marked extent by multiplicity of causes, numerically expresses, enumerated or estimated according to reasonable standards of accuracy, collected in a systematic manner for a predetermined purpose and placed in relation to each other. Following statistical techniques were employed, in accordance with objectives of study, for analysis of data.

The statistical software SPSS version 16.0 was used to carry out the analysis.

The raw scores obtained by various tools were tabulated separately in to frequency distribution/ percentages.

**Means, Standard Deviations and t ratio** (to find out significance of difference) are calculated.

**Chi-square test** ($\chi^2$) is used to test the interdependence of attributes in two criteria of classification. It is a measure of actual divergence between observed and expected frequencies.

**Correlation** ($r$) Karl Pearson correlation method is used to assess how strong relationships between two variables are.