Chapter-IV
Method and Procedure
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METHOD AND PROCEDURE

This chapter deals with all the methodological and procedural aspects of the problem. It explains the procedure or design followed in the selection of the sample, hypotheses, gives description of the tools employed, procedure adopted in data collection and statistical operation carried out for treatment of the data.

STATEMENT OF THE PROBLEM

“RISK TAKING BEHAVIOUR AMONG ADOLESCENIS IN RELATION TO FAMILY VALUES AND PARENTAL ENCOUREMENT”

DESIGN OF THE STUDY

The present study is a descriptive survey, which is conducted on adolescents of Jalandhar, Hoshiarpur, Kapurthala and Ludhiana districts. The study is equally balanced between male and female adolescents studying in rural and urban institutes of Punjab.

The investigator measured the psychological factors of the adolescents, i.e., family values and parental encouragement. In the present study, the techniques of correlation and regression analysis are employed in order to find out the nature and the extent of relationship of family values, parental encouragement with risk taking behaviour. Coefficient of correlation and regression equations are worked out. The t-ratios are worked out to find out the difference among levels of risk taking behaviour later on, multistage analysis of these correlates with risk taking behaviour is done. A diagrammatic representation of the design of the study is shown in Fig 4.1
Adolescents
(N = 600)

Rural Adolescents (N=300)

Urban Adolescents (N=300)

Male (N=150)

Female (N=150)

Male (N=150)

Female (N=150)

FV PE FV PE FV PE

Where N = Number of subjects, FV = Family Values, and PE = Parental Encouragement

Figure 4.1 SHOWING DESIGN OF THE STUDY
Districts from which data was collected

Fig. 4.2 Map of Punjab Showing Area of Data Collection

TOOLS USED

The following tools are used to collect data

1. Risk Taking Questionnaire (RTQ) – By Sinha and Arora (1983)

2. A Questionnaire on Family Values is prepared by the investigator.

3. Parental Encouragement Scale (PES) by Sharma (1988)
DESCRIPTION OF THE TOOLS

1. Risk Taking Questionnaire (RTQ) by Sinha and Arora: Risk Taking Questionnaire has been prepared and standardized by Dr. V.S. Sinha and Dr. Prem N. Arora in 1983. This questionnaire has been designed to measure the extent of risk taken by a particular individual in his personal as well as in his social life. It is capable of assessing the magnitude of risk in following different areas of life.

(i) Hills (A)
(ii) Space (B)
(iii) Sea (C)
(iv) Commercial Trade (D)
(v) Police and Intelligence Services (E)
(vi) Fire (F)
(vii) Professional Trades (G)
(viii) Military Services (H)

After revising the questionnaire all the vague, ambiguous and confusing items were dropped by the authors. Thus the final form of RTQ with 40 items, 5 in each area were ready for use. Though it is not a timed test but it takes about thirty minutes on an average in its completion. Since it is a 5 point scale (numerical type) and there is no right or wrong answers, there is no need to calculate the difficulty or discriminating indices of the item.

The instructions to be given to the subjects are written in Hindi on the cover page of RTQ, a few examples and some precautions to be taken are also given on the cover page. All these are self explanatory.

The responses on one scale form are scored conveniently by giving scores 5, 4, 3, 2 and 1 to responses—'very much,' 'much,' 'moderate', 'less', and 'very less' respectively. All the items have to be answered by tick marking one out of these alternatives.
The sum of the scores in all the eight areas gives the total extent of Risk tendency. The maximum possible scores in the tool are 200 and minimum scores are 40 only.

2. **Family Value Questionnaire prepared by investigator**: To measure the required dimensions of the study, the researcher herself prepared a questionnaire on values. The details of development of tool are given below.

**Development of questionnaire on Family Values**

A questionnaire is a popular means of collecting all kinds of data in research. It is widely used in educational research to obtain information about certain conditions and practices, and to inquire into opinions and attitudes of the subject. The use of questionnaire is relatively more convenient for the respondents as well as for investigators. It saves man power, time and money on data collection. Also, the respondents are free to fill in a questionnaire with well thought out answers whenever they can spare time for the purpose. As the respondents are expected to fill in the information themselves, this method eliminates the possibility of distortion on account of the influence of the interviewer. Respondents are free to write what they want as anonymity is guaranteed. Since questionnaire technique is widely used to inquire into opinions and attitudes of individuals. This technique was considered most suitable for gathering information on family values among adolescents. The preparation of questionnaire involves the following operations:

- (a) Content selection
- (b) Framing of the items
- (c) Final selection of the items, and
- (d) Determination of reliability and validity

(a) **Content Selection**

The content selection for the tool involved the following steps:

(i) Identification of areas
(ii) Study of literature on family values
(iii) Eliciting information from experts

The first step in the selection of the test content was to identify the areas. It was found that the values are of 6 types: Economic, Religious, Political, Aesthetic, Theoretical and Social. The investigator was to frame a questionnaire on these types of values.

The next step was to go through the literature related to family values. This literature was mostly found in books and journals pertaining to education, psychology and sociology. The study of this kind of literature further proved useful in selecting content for the tool. The literature about family values from internet was also thoroughly scanned for the purpose of selecting content for the tool.

After the thorough study of the literature regarding family, values and family values, the investigator came to know the following facts about these terms.

A family is a primary social group, a small community, in any society, typically consisting of a man and a woman, or any two individuals who wish to share their lives together in a long-term committed relationship with one another, raising offspring and usually reside in the same dwelling. Family is the main building block of a community; family structure and upbringing determines the social character and personality of any given society. - Family is where we all learn: love, caring, compassion, ethics, honesty, fairness, common sense, reason, peaceful conflict resolution and respect for ourselves and others, which are the vital fundamental skills, and family values, necessary to live an honourable and prosperous life in harmony, in the world community.

A value is a principle, standard, or quality considered worthwhile or desirable for maintaining a set of customary standards.

To have a sense of Family Values is to have good thoughts, good intentions and good deeds, to love and to care for those whom we are close to and are part of our primary social group, our community, such as children, parents, other family
members and friends. And to treat others with the same set of values, the same way we wish to be treated.

For eliciting information regarding family values, the investigator contacted different experts related to the fields of education, sociology and psychology. These experts were asked to give their valuable suggestions to frame the required items in the questionnaire.

(b) Framing of Items

In the light of information gathered from experts and from the perusal of the relevant literature, the investigator proceeded to frame the items of the tool on tentative basis. These items were framed in English, which were translated into regional language on the suggestion of experts. According to experts, the data was to be collected from urban as well as rural area and from the adolescents of the age group 12-18; they might not be able to understand some vocabulary items of English. So in order to make them understand what was asked, the questionnaire was translated in their mother tongue, i.e. Punjabi. The Punjabi version was put before two language experts for checking proper usage of the language. The revised questionnaire was again checked by 14 experts of the fields of education, sociology and psychology. Care was taken to frame the items in easy language for clear comprehension by the adolescents. The items were given the shape of statements and questions. It was done to detect the originality and genuineness of the response and to ensure awareness on the part of respondents while filling the questionnaire. The experts were requested to highlight any error, ambiguity and any technical problem that might have crept in spite of the best efforts on the part of the investigator. The valuable suggestions given and some errors pointed out by these experts were really helpful in framing a good questionnaire.

These experts were highly qualified and experienced persons from the fields of education, sociology and psychology. The list of experts which were contacted by the investigator is given in the table 4.1 ahead.
Table 4.1 Showing the List of Experts for the Development of Questionnaire

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Harjeet Kaur</td>
<td>Sr. Lecturer, MGN College of Educaton, Jalandhar.</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Joginder Mukherjee</td>
<td>Sr. Lecturer, Govt. College of Education, Sec 20, Chandigarh.</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Manjit Kaur</td>
<td>Sr. Lecturer, Dept. of Education (CC), Punjabi University Patiala.</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Monika</td>
<td>Lecturer, DAV College of Education, Hoshiarpur.</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Paramjit Kaur Sandhu</td>
<td>Sr. Lecturer, Deptt. of Education and Community Services, Punjabi Uni. Patiala</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Pinkee Kamran</td>
<td>Sr. Lecturer, DAV College of Education, Hoshiarpur.</td>
</tr>
<tr>
<td>7</td>
<td>Dr. Prem Lata</td>
<td>Sr. Lecturer, State College of Education, Patiala.</td>
</tr>
<tr>
<td>8</td>
<td>Dr. Pushpinder Kaur</td>
<td>Sr. Lecturer, Dept. of Education (CC), Punjabi University Patiala.</td>
</tr>
<tr>
<td>9</td>
<td>Dr. Rajinderpal Kaur Sidhu</td>
<td>Sr. Lecturer, Deptt. of Education and Community Services, Punjabi Uni. Patiala</td>
</tr>
<tr>
<td>10</td>
<td>Dr. Sham Sunder</td>
<td>Principal, SBHS Memorial Khalsa College of Education, Mahilpur</td>
</tr>
<tr>
<td>11</td>
<td>Dr. Shashi kala</td>
<td>Sr. Lecturer, DAV College of Education, Abohar.</td>
</tr>
<tr>
<td>12</td>
<td>Dr. Surjit Singh Sekha</td>
<td>Renowned Educationist, Retd. Sr. Lect., Khalsa College of Edu., Amritsar.</td>
</tr>
<tr>
<td>13</td>
<td>Dr. Surinderpal Kaur Dhillon</td>
<td>Principal, Khalsa College of Education, Amritsar.</td>
</tr>
<tr>
<td>14</td>
<td>Dr. Vibha Chawla</td>
<td>Lecturer, Rayat and Bahra College of Education, Hoshiarpur.</td>
</tr>
</tbody>
</table>

The questionnaire was, thus, modified on the basis of the valuable views of these experts. The first draft of the questionnaire contained 100 items, which were reduced to 60 in the modified draft.
Pilot study was done to test the improved draft of the questionnaire. Pilot study is preliminary study conducted on a limited scale before the original study is carried to gain some primary information, on the basis of which the main project would be planned and formulated. During this kind of flexible interviewing, the researcher tries to follow up every promising lead which may appear, to have different meaning of phrases, embarrassing areas of enquiry, and differences of response what seems to be the same question, new areas of subject matter etc.

(c) Final selection of the Items

The tool in its tentative form was submitted to experts again. They were requested to give their opinion with regard to the items that should be included in the final form of the tool. The application of suggestions given by the experts resulted in the elimination of 20 items. In this way, 40 items were left to be included in the final form of the questionnaire. Out of these 40 items 22 items were statements and the rest 18 items were presented in the question form. The statements were placed at number 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, 15, 17, 19, 20, 22, 25, 26, 31, 32, 34, 36, and 38. The questions were placed at number 6, 9, 10, 12, 16, 18, 21, 23, 24, 27, 28, 29, 30, 33, 35, 37, 39 and 40. The tool in its final form was named as Questionnaire on Values. As it is necessary and as is the normal practice, space was provided for the subjects to mention the particulars related to their name, age, sex, class and the name of the institution in which they were studying, if any.

Instructions to the subjects:

The instructions to the respondents were as follows:

“This is a psychological questionnaire. In the next few pages, you will be asked few questions. Every question is followed by three tentative answers. Read the questions carefully and answer them by ticking only one option out of the given three. Remember, this is not a test, in which you are to get good marks. So, choose the answer which you think is the best according to your own experience and knowledge. Do not follow anybody as he or she may have entirely different atmosphere and family background than that of you. Your name, address and the
information given by you shall be kept secret. So, please give your contribution 
for the true and valid results of this questionnaire.”

Scoring:

As already stated, the tool for family values have both statements and 
questions. Each has three choices. If the response of the subject is the first option, 
no credit was given. If the response of the subject is the second option, a credit of 
one mark was given. Similarly, if the response of the subject was the third option, 
a credit of two scores was given. All the credited scores (both for statements and 
questions) were summed up to arrive at the total score of the subjects.

(d) Determination of Reliability and Validity

Reliability is the extent to which an experiment, test, or any measuring 
procedure yields the same result on repeated trials. Without the ability to use 
research tools and procedures that yield consistent measurements, researchers 
would be unable to satisfactorily draw conclusions, formulate theories, or make 
claims about the generalization of their research. In addition to its important role 
in research, reliability is critical for many parts of our lives, including 
manufacturing, medicine, and sports.

For determining reliability of the present questionnaire, it was administered 
to 100 adolescents. The reliability of the tool was determined through Split-half 
Method and Test and Retest Method.

In split half method, the reliability of the questionnaire was calculated by 
finding the correlations between the odd and even halves scored by tested 
populations. This correlation co-efficient was computed by applying Spearman 
Brown Prophecy Formula. The reliability was found to be 0.84.

Determination of reliability through test and retest method involved 
computation of correlation coefficient between two sets of scores taken at an 
interval of 15 days. The coefficient of correlation was found to be 0.80.

Validity refers to the degree to which a study accurately reflects or assesses 
the specific concept that the researcher is attempting to measure. While reliability
is concerned with the accuracy of the actual measuring instrument or procedure, validity is concerned with the study's success at measuring what the researchers set out to measure.

The face validity of the present family value questionnaire is fairly high as items were retained which showed family values. The content validity was adequately assured as only those symptoms which showed 100 percent agreement amongst the judges regarding their relevance to the study of values were selected.

3. Parental Encouragement Scale (PES) by Sharma: The parental encouragement scale has been developed to measure the degree/amount of encouragement which a child receives from his parents and also to categorize the students in terms of degree/amount of their parental encouragement. It has been designed for the student population upon higher secondary stage. The final form of parental encouragement scale contains 40 items with three response alternatives.

Reliability:

The reliability of the scale was measured firstly by split half method. The value was found to be 0.83. Secondly, to test-retest reliabilities were determined one after an interval of two weeks and other after four weeks. The values of these two reliabilities were found to be 0.73 and 0.76 respectively.

Validity:

The indices of the parental encouragement scale were figured out.

1. Content Validity: The content validity of each item of the parental encouragement scale were critically examined by five judges specialized in the field of education, psychology and sociology. The opinion of these judges confirmed that parental encouragement scale was a sufficiently valid instrument.

2. Convergent Validity: The convergent validity of parental encouragement scale was ascertained by correlating the scores of this scale with Uniyal and Aggarwal’s Parental Encouragement Scale. The coefficient of this
correlation was found to be 0.68. This indicates that the scale is fairly a valid tool.

**Administration and Instruction:**

The parental encouragement scale can be administrated individually as well as in a group. There is no limit for the completion of scale; however, ordinarily an individual student takes 25 to 30 minutes to complete it. The general instructions on the title page of the scale should be read out loudly and clearly and the subject should go through the instructions before they start making their responses.

**Scoring:**

There are three response alternatives in each item of the scale. The subject has to choose only one alternative. The marks will be allotted as:

<table>
<thead>
<tr>
<th>Response alternatives</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>(अ)</td>
<td>0</td>
</tr>
<tr>
<td>(ब)</td>
<td>1</td>
</tr>
<tr>
<td>(स)</td>
<td>2</td>
</tr>
</tbody>
</table>

The total score of the questionnaire is 80.

**PROCEDURE OF THE DATA COLLECTION:**

Prior to the administration of the Risk Taking Questionnaire, Family Values Questionnaire and Parental Encouragement scale in different schools, the investigator sought the permission and cooperation of the heads of the institutions and teachers. First of all, the purpose of test was clarified to the teachers and rapport was established with them. All the students of senior secondary school under study were assured that the information would be kept strictly confidential and it would be used only for the research purpose. After seeking their consent different tests were administered on them. The tests were administered to students of senior secondary schools in one sitting. All three Questionnaires were given to them.
STATISTICAL TECHNIQUES USED:

1. Descriptive statistics, namely, Mean, Median, Mode, SD, SE₀, Skewness, Kurtosis, and t- ratios were worked out.

2. Bi-variant correlation ratio between criterion variables of risk taking behaviour and other predictor variables under study were calculated.

3. Multiple correlations and multiple regressions were computed for predicting risk taking behaviour among male and female adolescents.

4. Graphic representation was made whenever necessary.

NATURE OF SCORE DISTRIBUTION

The graph of the associated probability density function is “bell”-shaped, with peak at the mean, and is known as the Gaussian function or bell curve.

The final scores of the three tests related to the present study were divided individually into class intervals. The frequency of each class interval was calculated so as to draw the normal distribution curves. The class intervals, their frequencies and the normal distribution curves of the final scores of each test are shown as follows:
Risk taking scores of adolescents studying in educational institutions were put to normalcy. The value of mean (140.54), median (161.00) and mode (141.00) were indicative of the fact that the distribution of risk taking scores was normal. The value of Skewness (-0.2553) and kurtosis (0.0567) showed that the distribution is slightly negatively skewed. These results are also supported by the way of frequency polygon in figure 4.2 below.
The normal distribution of the scores of the variable of family values is done as under.

**Table 4.3 Showing Distribution of Scores of Adolescents on Family Values (N = 600)**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>59.08</td>
<td>59.00</td>
<td>62.00</td>
<td>6.55</td>
<td>-0.4486</td>
<td>1.8781</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Class Interval</th>
<th>Mid Point</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31-40</td>
<td>35.5</td>
<td>08</td>
</tr>
<tr>
<td>2</td>
<td>41-50</td>
<td>45.5</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>51-60</td>
<td>55.5</td>
<td>289</td>
</tr>
<tr>
<td>4</td>
<td>61-70</td>
<td>65.5</td>
<td>239</td>
</tr>
<tr>
<td>5</td>
<td>71-80</td>
<td>75.5</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>Total</td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>
The values of Mean, Median, Mode, S.D., Skewness and Kurtosis obtained on the variable of family values of adolescents are given in table 4.3. The values of mean (59.08), median (59.00) and mode (62.00) showed that distribution of family values scores of adolescents was normal. The values of Skewness (-0.448) and kurtosis (1.87) showed that curve is slightly negatively skewed. These results are also supported by the graphical representation by the way of frequency polygon shown in figure 4.3 below.

![Frequency Polygon](image.png)

**Fig. 4.4 Showing Frequency Polygon of Scores of Adolescents on Family Values (N=600)**

The normal distribution of the scores of the variable of parental encouragement is done as under.
The values of Mean, Median, Mode, S.D., skewness and kurtosis obtained on the variable of family values of adolescents are given in table 4.4. The values of mean (64.98), median (67.00) and mode (68.00) showed that distribution of parental encouragement scores of adolescents was normal. The values of skewness (-1.0824) and kurtosis (1.792) showed that curve is slightly negatively skewed. These results are also supported by the graphical representation by the way of frequency polygon shown in figure 4.4 below.
CONCLUSION

An overview of the above results suggests that the score distribution of the variable of risk taking behaviour closely approximated the normal distribution. Minor variations in the values of skewness and kurtosis could however, be attributed to chance fluctuations of sampling. On the whole, scores on risk taking behaviour may safely be accepted as normally distributed.