CHAPTER III

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In order to translate into action the objectives which the researcher has in mind, the procedures to be adopted, the tools to be used, the sample to be tapped must be clearly spelled out. The design or structure of the investigation will then take shape and we must evaluate it critically to see the extent to which it fulfils scientific dictates as well as the objectives of our investigation.

It may be recalled that the three factors being investigated are parental attitude, sibling-reaction and peer-group acceptance. We are interested in evaluating to what extent these factors are predictors of depression, anxiety and self-confidence amongst handicapped. Thus we have three dependent variables also. Our design is a multivariate design, in which three independent variables and three dependent variables have to be studied.

Two possibilities existed for the investigator, the first possibility was to study the three independent variables and the three dependent variables together and undertake canonical analysis. The second possibility was to take up each dependent variable separately and study it with
reference to the predictor variable. In this case we would come to conclusions about the three dependent variables separately. The investigator chose the second option.

One reason for this choice was the absence of a software programme for canonical analysis appropriate to our study. This short-coming would have been overcome had this method been considered the best option, but it was felt by the investigator that studying each dependent variable separately would be better since the three dependent variables were distinct entities, totally unrelated to each other. Inter-correlation amongst them ranged between $-0.02$ to $+0.03$.

Another reason was that although canonical analysis is the most general of the multivariate techniques (in fact, the other procedures -- multiple regression, discriminant function analysis, and MANOVA are all special cases of it), but it is also the least used and most impoverished of the techniques. Although a large number of research questions may be asked of canonical analysis in its many specialized forms (such as discriminant analysis), relatively few intricate research questions are readily answerable through direct application of computer programs currently available for canonical analysis. In its present stage of development,
canonical analysis is best considered a descriptive analysis or a screening procedure rather than hypothesis-testing procedure. Canonical correlation has several important theoretical limitation that may explain its rarity in the literature. Perhaps the most critical limitation involves interpretability: Procedures that maximize correlation between linear combinations of variables do not necessarily facilitate interpretation of the underlying dimension. It was therefore considered advisable to avoid canonical analysis.

SAMPLE

The study was conducted on a sample of 200 handicapped male (120) and female (80) subjects, ranging in age 12-25 years. Both sensory and orthopaedically handicapped subjects comprised the sample. The sample was drawn randomly from four institutions.

(1) Ahmedi Blind School, Aligarh.
(2) Deaf and Dumb School, Aligarh.
(3) Deaf, dumb and Blind School, Ram Bagh, Srinagar, Kashmir.
(4) Bones and Joints Hospital Barzulla, Srinagar, Kashmir.

Some patients resided permanently in the institutions while some lived at home. Data was collected from both institutionalized and non-institutionalized subjects.
DATA COLLECTION:

Data was collected individually from each subject. Some non-conventional procedures, necessitated by the nature of the sample, were adopted. For example, for orthopaedically handicapped subjects, there was not any special instruction, but for the sensory handicapped i.e. Blind, deaf and dumb special methods were adopted. The braille and special sort of paper had to be given to blinds and instructions were simple and in easy language. For deaf and dumb subjects, who could not read, questionnaires were distributed to small groups by their class-teacher and questions were explained in sign language by the teacher, and it was in sign language that the deaf-dumb responded.

The responses were noted on the sheet by the teacher. For non-institutionalized deaf-dumb handicapped subjects data was collected with the help of their close family members, especially the mother, sister or brother of the handicapped.

Tools of Study

(1) Measure of Parental Acceptance

In order to study parental acceptance, the investigator used the parental attitude scale constructed by Ansari (1975). This scale measures attitude and behaviour of parents towards their children as experience and perceived by the children.
themselves. The scale consists of 29 items indicating the behaviour of parents in their daily life with their children.

Three response categories, viz., 'Always', 'sometimes', and 'Never' were provided against each item and the subjects were asked to put tick mark (/) in front of each item in its respective column. Scores ranged from 1 to 3, depending upon the direction. An item expressing acceptance by parents is scored 3 if marked always, 2 for sometimes and 1 for never. The scoring system is reversed in the case of an item indicating non-acceptance or rejection. The split-half reliability of the scale had been found to be 0.81. The scale has been used by many research investigators (Kaleem, G.A., 1970, Hanfai, A., 1974, Khan, S.A., 1975, Rahman, Z., 1976).

Sibling Reaction Measure:

The interaction with sibling covers a large gamut of experiences. The handicapped child may find himself in many disturbing and pressing situations vis-a-vis his siblings. To investigate this aspect of the handicapped individual's world, a sibling-reaction scale had been constructed by Tabassum & Ahmed (1989). The scale consists of 37 items each having two response categories - 'Yes' and 'No'. Subject was asked to indicate his agreement or disagreement with the
statement by putting a tick mark either on 'yes' or 'no'. A score of 2 was given for 'Yes' response to statement indicating positive attitude and a score of 1 to 'no' response of such statements. Conversely a score of two (2) was given to 'no' response of negatively biased items and a score 1 to 'yes' response of such items. The split-half reliability of the scale was 0.82.

Peer-Group acceptance Scale Sociometric technique measure

The term sociometry has been derived from Latin and it means 'social on comparison measurement. A scale is developed by Moreno (1934). The sociometric test is a technique for measuring the extent to which individual's are accepted by other group members for determining the internal structure of a group. It is basically a method of evaluating the feelings of the group members towards each other with respect to a common criterion (Gronlund, 1959).

Since our purpose was to evaluate the peer-group preference and acceptance of the individual, and this involved an understanding of the individual in a group setting. However, a socio-metric tool had been devised by Rasheed, T. (1989) which appeared to be appropriate to study peer-acceptance. Therefore, the tool designed by the above investigator was used. Questionnaire had given with three
situations to the subjects.

(1) Which three students of this class-room would you like to have as your seating companion?
(2) Which three students of the class-room would you like to play with during recess in School?
(3) Which three students of this class-room would you like to do a class-assignment with you?

The questions are simple and meaningful to students, undergoing education in a group. At the same time they would bring out by how of his/her peers has the subject been accepted.

**Self-rating Depression Scale**

The instrument used for the qualitative measurement of depression is Zung's self-rating Depression Scale (SDS). It was first published in (1965). The scale contains a list of 20 items that tap affective, biological and psychological functioning. Each relates to a specific characteristic of depression. Adjacent to the statement are four columns headed -- None; A little of the time; some of the time; good part of the time and most or all of the time; the subject is asked to put a check mark in the box most applicable to at the time of the test. The key for scoring, raw score is converted into 100. The scale is constructed that a low index indicates
little or no depression and a high index indicates depression of clinical significance.

Zung (1969) found that his twenty item (SDS) scales is highly correlated with physicians ratings of depression in England (.65), Switzerland (.45) and Japan (.43). Zung and Master (1969) have validated the scale in India in (1975) and it has been used in identifying the depressed individual by Marsella, Kinzia and Gardon (1973).

The mean index of a series of previously diagnosed hospitalized depressed patients was over 70 score and over 60 for previously diagnosed depressed outpatients. Low ratings (40 and below) obtained in normal controls indicated that little and no depression was present; above 50 were obtained in several patients with various, known emotional disorders.

General Anxiety Scale

Anxiety can be defined as an unpleasant and distressing psychological state arising from inner conflicts. Sarason's (1960) General anxiety scale is a widely used and standardized scale developed by Sarason and his associates. The scale has 45 items related to varied life situations, such as -
(a) Health, physical appearance and injury.
(b) Success or failure in his work.
(c) Fear of animals and strange things
(d) Social relations and social approvals.
(e) Worries regarding family members and other relatives.
(f) Worries regarding the future happenings.
(g) Afraid when alone.

While adapting the scale items, care was taken to employ simple words of general use with subjects. Although the scale was used on a sample comprised of a comparatively younger age-group, we found that the test was appropriate for our handicapped sample, because they were able to comprehend it clearly. The items covered by the test were more relevant for them than items of any other test.

Coefficient of reliability for this scale was determined by two methods viz. split-half method and Kudur-Richardson formula. The high index of reliability i.e., 0.90 provides evidence of a high degree of internal consistency of the scale.

Scoring - It is an easily scorable scale; The 'Yes' answer to an item means admitting anxiety and 'no' answer to an item means not admitting anxiety.

SELF-CONFIDENCE MEASURE:

The scale used by the investigator to measure self-confidence was a modified version of the inventory by
Basavanna (1971). The original scale comprised of 100 items, a large number of which were relevant only for the non-handicapped population.

The investigator requested five teachers and senior research scholars to evaluate each of the 100 items in terms of their relevance for handicapped subjects. Items which were considered irrelevant 80 percent times, that is by four evaluators, in terms of the handicapped sample were rejected. In this way, 35 items were retained, the content validity having been established. Split-half reliability was found to be 0.91.

The item required responses in terms of true and false. Scoring was done with the help of key. The higher the score, the lower the level of self-confidence and vice-versa.

STATISTICAL ANALYSIS

In our study there are three independent variables and three dependent variables. Only a statistical test that could handle such a large information successfully could be useful. For such purposes multiple regression analysis is considered to be a suitable and useful technique. Multiple regression analysis is a method for studying the effects, and the magnitudes of the effects of more than one independent variable on one dependent variable using principles of
correlation and regression. Regression analysis is perhaps the most widely applied set of data analytic techniques used for assessing relationships among variables. It is used to investigate the relationship between a dependent variable and one or more independent variable. Multiple regression analysis can be conceived as a refined and powerful method of "controlling" variance. It is an efficient and powerful hypothesis-testing and inference-making technique, since it helps the scientist to study, with relative precision, complex interrelation between independent variables and dependent variables.

The choice of the technique also rests on a quality of prime importance possessed by the technique, namely, its flexibility. The technique does not impose any restrictions of the independent variables being correlated or uncorrelated, and is equally applicable in both conditions, it is of special importance to the researcher who is interested in real-world or very complicated problems that can not be reduced to orthogonal designs.