Chapter-4

DESIGN AND METHODOLOGY

DESIGN

The present investigation was designed to study the relationship between anger expression and subjective well-being amongst male and female college students.

For the objective of investigating gender differences in anger expression and on measures of well-being a two group design was used. The two groups were male college students (Group-I) and female college students (Group-II) (Table 4.1). The independent variable was sex and the dependent variables were anger expression and measures of well-being i.e. psychological distress and self-esteem.

For the objective of investigating the relationship between the types of anger expression (i.e. AX/Ex, AX/In, AX/Out & AX/Con) and measures of well-being, a correlational study design was used.

Table 4.1: Design of the Study

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
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<tbody>
<tr>
<td>Male</td>
<td>Female</td>
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<tr>
<td>N=100</td>
<td>N=100</td>
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SAMPLE

The sample of the present study consisted of 100 males and 100 females under graduate students studying in various colleges situated at Rohtak. The sample was purposively selected from the M.K.J.K. College Rohtak, All India Jat Heroes Memorial College Rohtak and University College Rohtak. The colleges were selected on random basis from among the degree colleges situated at Rohtak. These colleges cater to the needs of both rural and urban students. The range of the age of the students was 16-23 years with a mean of 18.88 years and S. D. 1.68 years.

TOOLS USED:

In order to determine the anger expression and subjective well being (i.e. psychological distress and self-esteem) of the subjects the following tools were used:

I. Self-analysis questionnaire (AX) (Hindi version of Spielberger's anger expression scale, 1988)

II. General Health Questionnaire,(GHQ), (as a measure of Psychological distress,(Goldberg & Hillier, 1979)

III. Self-esteem Inventory (Backman et. al., 1978; Thomas & Raj,1984)
I). Hindi version of Self-analysis Questionnaire (AX)

Anger Expression was measured with Hindi form of Ax scale (Spielberger, 1988). The Ax Scale is a 24 item empirically derived self report measure of angry feelings. This scale is comprised of three 8-items subscale for assessing three components of anger expression i.e. anger-in, anger-out and anger-control. Anger-out (Ax/Out) measures anger directed outward i.e. toward other people or object in the environment. Suppressed anger (Ax/in) refers to how often anger is experienced actively suppressed by individuals. Anger control (Ax/con) assesses the frequency with which an individual attempts to control the expression of anger. The items are endorsed on a four-point frequency scale and are summed up to yield a general index of the frequency that anger is expressed regardless of the direction of the expression.

Ax scale has been widely used in anger and blood pressure research and its psychometric properties are well established (Sharma et al, 1996, Spielberger, 1988 and Spielberger et al, 1985).

Before introducing, this scale was translated into Hindi for the convenience of the subjects who belongs to the Hindi
speaking area. First of all, the English version of the scale was given to the 15 lecturers in English and Psychology of the M.K.J.K. college and University college Rohtak. These experts translated the English questionnaire in Hindi. After a gap of few days Hindi translated questionnaire was given to the same lecturers to retranslate it into English. No substantial difference was found between the English and Hindi translation by them. Relevant corrections were made on the basis of these translations. Those statements were selected on which majority of experts agreed and a questionnaire was formed. This questionnaire was cyclostyled and was sent to 5 judges and experts in the area of psychology. They were requested to examine the items in the light of relevance, ambiguity and difficulty level. After receiving comments from the judges, some items were modified. The Hindi version is also scored as the original scale. (see appendix ).

To measure the re-test reliability of the Hindi version, a group of 50 subjects (25 male and 25 female) were selected at random from those who were originally administered the scale. These were again asked to fill the Hindi version of the scale after a gap of 30 days. Pearson's correlation was calculated between the first testing score and second testing score. The
obtained co-efficient of correlation is 0.84. This indicates that the scale has high retest reliability.

To measure the validity of the scale, 50 subjects were given English and Hindi version of the inventory consecutively one after the other, to 10 males and 40 females postgraduate students of psychology department, M. D. University, Rohtak. The score on Hindi version of the inventory was correlated with the score on English version (i.e. original) by employing Pearson’s correlation. The obtained co-efficient of correlation is 0.88 which indicates toward the criterion validity of the scale.

II). Psychological distress:

Psychological distress was measured using a range of questionnaire methods. In the present study to measure the psychological distress of the subjects, the General Health Questionnaire (GHQ) by Goldberg and Hillier, (1979) was used. This is a self-administered screening test designed for detecting non-psychotic psychiatric disorders (Goldberg, 1972, 1978). It is concerned with two major phenomena: The inability to carry-out one’s normal healthy functions and the appearance of new phenomena of a distressing nature. The GQH has been described (Goldberg & Hillier, 1979) as a set comprising of

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questions which forms a ‘lowest common multiple’ of symptoms which will be encountered in the various differentiated Syndromes of mental disorders. The 12-item version of GHQ supplemented by 7-items of anxiety and depression scale each consist of 23-items (3 being common). Three scores were thus available for each respondent (i.e. GHQ-12, Anxiety and Depression) but scores on individual items were summed to produce a total severity score. In the present study only total scores are taken as a measure of psychological distress. All the scores reported here are with four point response scale, from 0 to 3. The possible scores could vary from 0 to 69. Note that a higher score indicates increased levels of psychological distress or lower mental health. The reliability and validity coefficients for GHQ are well established (Banks et al, 1980; Goldberg, 1972; Goldberg and Hillier, 1979). Moreover, Banks et al, (1980) demonstrated psychometric properties of the GHQ-12 in work and occupational studies.

III). Self- Esteem Inventory

A Self- Esteem Inventory (Hindi) consisting 20 items was used to measure the global self- esteem of the subjects. These items were selected from a pool of items, from two pre-existing measures of self- esteem: Backman et al, (1978) and Thomas &
Raj, (1984). In this inventory 10-items were positive and other 10-items were negative. The subjects were asked to answer on a five point scale from 'strongly agree' to 'strongly disagree' for each item, with a possible range of scores from 20 to 100. A high score indicates high self-esteem.

In order to determine the validity of this inventory the correlations were computed for the scores of the original inventories. The product moment correlations were found to be 0.91 (n=74) and 0.84 (n=74), respectively (Mohal, 1991).

PROCEDURE:
The investigator first of all collected the relevant material i.e. Questionnaires of Psychological distress, self-esteem measure and Self-analysis Questionnaire (Ax) from the laboratory and after the development of Self-analysis Questionnaire (Ax), the field work was started.

To administer the questionnaire to the college students, first of all, permission was obtained from the principals of the colleges. The relevant information and bio-data were recorded. All the three questionnaire were administered in a single session in the following order:
Firstly, the self-analysis questionnaire (Ax) was handed over to the subjects and the following instructions were given:

“Everyone feels angry or furious from time to time, and people differ in the way they react when they are angry. A number of statements are listed below. Read each statement and answer by encircling the number to the right of the statement. It indicates how you react or behave in the manner described. There are no right or wrong answers. Mark them as soon as possible and answer every question. Your responses will be kept confidential. Do not spend too much time on any one statement, just answer honestly and quickly.

After, all the Ss had completed their self-analysis questionnaire (Ax), they were handed over the General Health Questionnaire (GHQ). Instructions for this test were:

“These questions are related with your health and behaviour. Read them carefully and tick ( ) the option which you feel is appropriate for you. No answer is right or wrong. Do not leave any statement unanswered”.

Lastly, SEI- the self esteem measure was placed before the subject and the following instructions were given: “In this questionnaire you are provided with twenty statements which you are to express your subjective feelings by rating them on
the 5-point scale provided on this sheet. There is no time limit, but try to do them as early as possible and up to your maximum satisfaction of truth.”

**SCORING:**

After all the questionnaire had been administrated they were scored separately in accordance with their respective scoring rules provided in their manuals or as described above under the description of tools.

**ANALYSIS:**

The obtained data were analyzed by using following statistical techniques.

The means’s and SD’s of the variables (i.e. AX/EX, AX/In, AX/Out, AX/Con, P.D and SE) were calculated by applying elementary statistics, for both males and females separately.

For testing the group difference t-test was applied.

To investigate the relationship between anger expression (i.e. AX/EX, AX/In, AX/Out, AX/Con,) and measures of well being (i.e. psychological distress and self-esteem) Pearson’s coefficient of correlation was calculated.