METHODOLOGY AND DESIGN

EXPERIMENTAL DESIGN

The design of this study is 'randomized group design', whose elements have been selected on the basis of randomization. In the present study, a 2x2x2 factorial design consisting of three independent variables is employed. The first variable, Age, has two levels i.e. 25 yrs and 40 yrs old B.P. patients. The second independent variable, Sex, has been studied by using males and females. Degree of B.P., third independent variable has also two levels i.e. high B.P. and Low B.P.

Specific symbols have been assigned to each independent variables and their levels for the sake of convenience, the symbols used are as follows.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>A</td>
</tr>
<tr>
<td>1. 25 yrs</td>
<td>A₁</td>
</tr>
<tr>
<td>2. 40 yrs</td>
<td>A₂</td>
</tr>
<tr>
<td>Sex</td>
<td>B</td>
</tr>
<tr>
<td>1. Male</td>
<td>B₁</td>
</tr>
<tr>
<td>2. Female</td>
<td>B₂</td>
</tr>
<tr>
<td>Degree of Blood Pressure</td>
<td>C</td>
</tr>
<tr>
<td>1. High B.P.</td>
<td>C₁</td>
</tr>
<tr>
<td>2. Low B.P.</td>
<td>C₂</td>
</tr>
</tbody>
</table>

A factorial arrangement has been depicted in figure.
Schematic Representation of Independent Variables
(2x2x2) Factorial Design

Age of the subjects

Sex of the subjects

Degree of blood pressure

A1 - 25 yrs.
A2 - 40 yrs.
B1 - Male
B2 - Female
C1 - H.B.P.
C2 - L.B.P.
Distribution of Total 120 Patients (Subjects) According to Age, Sex and Degree of B.P.

Patients
(120)

A

B

A₁
(60)

B₁
(30)

C₁
(15)

C₂
(15)

C

A₂
(60)

B₂
(30)

C₁
(15)

C₂
(15)

C

A - Age
A₁ - Age 25 yrs.
A₂ - Age 40 yrs.

B - Sex
B₁ - Male
B₂ - Female

C - Degree of blood pressure
C₁ - high b.p.
C₂ - low b.p.
DEPENDENT VARIABLES

The following two dependent variables have been the subject for investigation.
1. Mental health or
   Scores on mental health.
2. Depression or
   Depression scores.

SAMPLE

A sample of 120 B.P. patients (60 having H.B.P. and 60 having L.B.P.) with an equal number of males and females and further equally divided with 25 yrs and 40 yrs in each category of male and female has been employed in the present context.

PROCEDURE

MEASURING TOOLS

In the Present investigation, the two measuring tools have been employed.

Mental health scale

The detailed description is given below:
1. Name of the scale - PGI health questionnaire N-1
5. Age range - Adult
6. Duration - 30 Minutes
7. Reliability - .88
8. Validity - High
9. Availability - Department of Psychology, C.C.S. University, Meerut.

**Depression Scale**

Depression scale has also been used in the study to obtain scores on depression. Following is the detailed description.

1. Name of the scale - Depression Scale.
2. Author - Shamin Karim and Rana Tiwari.
5. Age range - Adult
6. Duration - About 30 minutes
7. Reliability - .86
8. Validity - High
9. Availability - Department of Psychology, C.C.S. University, Meerut.

**INSTRUCTIONS FOR MENTAL HEALTH**

After forming the 'rapport', the patient was instructed in individual session to sit on the chair comfortably. Here, you read out this test carefully in a free mood. If the item matches with your temperament in positive way you tick right [✓] the same and if you
feel that any particular item is not matching with your temperament, than you can place [x] in the block made against the item. Therefore, you have to finish this task in about 20 minutes. However, if you face/feel any trouble during this work you can ask immediately so that this task be performed in normal course.

**SCORING**

The scoring was done by following the point given in manual. The number of ticks on section A and B indicate the respective scores, which can be added up to give a total scores also. If a person ticks more than 10 items (Questions), chances are high that he has got marked neurotic and abnormal pattern or trend.

**INSTRUCTIONS FOR DEPRESSION**

Some statements are given on the following pages. Please read then carefully. You will get one answer sheet along with the test in which, in front of every statement followed by five types of responses 'Not at all', 'A Little bit', 'Moderately', 'Quite a bit' and 'Extremely'. If a given statement is 'not at all' applicable on you, tick [✓] mark in the space provided below the column 'Not at all' and if it is not applicable on you only a little tick [✓] mark in the space provided below the column 'A little bit', If it is moderately applicable on you, tick [✓] mark below the column 'Moderately'. It is 'Quite applicable' on you, tick [✓] mark in the space provided below the column 'Quite a bit' and if it is totally applicable on you, tick [✓]
mark in the space below the column 'Extremely'. Thus tick [✓] mark to only one response which describe the best how much the statement in applicable on you. Please do not leave any statement. Try your best to respond to all the statement. In case you change your mind. Cross your last mark completely and do not mark any extra mark on the sheet. There is no time limit to complete the test but still try your best to finish it, at the earliest".

**SCORING**

For scoring the test, 0 mark should be given to 'Not at all' response, 1 mark to "A little bit" response, 2 marks to "Moderately", 3 mark to "Quite a bit" and 4 mark to "Extremely", response. For getting the total score, each response mark of a given statement should be added together to form total raw scores of an individual depression obtained through the test.

**DATA COLLECTION**

The work of data collection for this present study was done on the 120 B.P. patients. First of all, the proper environment was created for obtaining the scores related to mental health and depression. The 'rapport' was established with subject. The subject asked to sit on the chair comfortably and he or she was provided mental health questionnaire. The subject was also told to read out the instructions on the front page of the scale, and the subject was asked to face any problem or difficulty regarding the
scale. The subject filled the scale in about 20 to 25 minutes and returned the same. The researcher paid thanks to the subjects for their kind co-operation. Thus, the responses from all the 120 subjects were obtained by following same procedure.

Since, this study was planned to obtained the scores on depression among B.P. patients, the depression scale was also administered to the subject. By following the method of administration, instructions and scoring, the whole data were collected from all 120 B.P. patients in the present study.

**ANALYSIS OF DATA**

Three way analysis of variance is applied to analyses data. Duncan's new multiple range test is also employed to find out to mean group comparisons or significant inter group differences.