METHODOLOGY

Mental health like physical health may be viewed as existing on a continuum from healthy living to chronic illness. Mental health is the successful performance of mental function, resulting in productive activities, fulfilling relationships with other people and the ability to adapt to change and to cope with adversity.

This study has been conducted to investigate the Mental Health in relation to Personality, Mood States and Depression. Beck Depression Inventory (BDI) has been used to measure the level of depression, NEO-FFI has been used to measure five factors, (Neuroticism, Extraversion and openness, Agreeableness and conscientiousness), ESQ eight state questionnaire has been used to measure eight dimensions of mood states. This chapter includes:

1. Description of sample
2. Brief description of tests
3. Procedure

SAMPLE

A Purposive sample of 180 male patients- (60 bypass surgery, 60 angiography and 60 angioplasty) age range 45 to 65 years from various hospitals, was selected for the present study.
MEASUREMENT DEVICES

The following measures were administered on the Male patients with informed consent and they were duly assured that the results so obtained would be kept confidential and would not be used for any other purpose extraneous to the present research:

- Beck Depression Scale (Beck, A.T. 1976)
- NEO Five Factor Inventory (McCrae & Costa, 1992)
- Eight state questionnaire (Cattell, 1976)

1. DEPRESSION

For measuring the severity of depression, it was decided to administer Beck Depression Inventory which is valid, reliable and standardized test for measuring depression.

The BDI is one of the most widely used tests for assessing the severity of depression when it was first published in 1961 it signaled a major shift in the view of depression which unit that time had been viewed in psychodynamic terms.

Aron beck considered the cognitive symptoms of depression rather than seeing it as a self destructive and inwardly displaced anger.

The BDI consist of 21 items self report questionnaire each item is designed to test the severity of a specific symptom.
- Items 1 to 14 consider psychological symptoms.
- Items 15 to 21 consider the more physical symptoms.

Each item is rated 0 to 3 and a cumulative total gives an indication of severity of depression.

**RELIABILITY OF BDI:**

Beck ET al. the test retest concordance was 0.93 which was significant at p< 0.01. It has high coefficient alpha (.80). Test is also high on split tests reliability (0.85).

**VALIDITY OF BDI:**

The BDI has concurrent validity in that it tends to agree with measure of depression, it is high on construct validity. It is able to differentiate depressed from non-depressed people.

**SCORING:**

A score of 0-13 would be considered minimal range

A score of 14-19 would indicate mild depression range

A score of 20-28 would indicate moderate depression range

A score of 29-63 would be considered severe depression range.

2. **Neo-Five Factor inventory**

For measuring personality, it was decided to administer NEO-FFI by Paul T. Costa & Robert R. McCrea which was published
in 1992, though the NEO Five-Factor Inventory (NEO-FFI) is a shortened version of the NEO PI-R, designed to give quick, reliable and valid measures of the five domains of adult personality. The 60 items are rated on a five point scale. The NEO-FFI has a grade six reading level.

**Detailed Interpretation: Facets of N, E, O, A, and C**

The NEO-FFI is a questionnaire measure of the major domains of personality traits. This inventory provides global measures for each of the Five Factor Model of personality characteristics, which in turn consists of six more specific measures. The structure of this assessment instrument let examine facet scores in detail and in a distinctive way to see how these factors are presented in a particular person:

- **Neuroticism**

This individual is perceived as being anxious, generally apprehensive. Sometimes she feels frustrated, irritable, and angry at other (especially when she can see obvious lack of candidness), but she has the periods of unhappiness more often rather that most people experience. (It might usually happen after failures). She does not feel embarrassed or shy when dealing with strangers; she can be described as being good at controlling her impulses and desires and can handle stress much better than most people.
• **Extraversion**

This person is rated as being average in her level of warmth to others. The distinctive feature within this domain is her standing on the Gregariousness and Assertiveness facets. She likes socializing and being very assertive prefers to express her individuality in the group of People. This individual is described as having low levels of personal energy for activity. Excitement, stimulation, and thrills have little appeal to her but she experiences as much joy and happiness as most people (she might dislike movies and books full of events that exhibit adrenaline outflow, as in our lives there are other things that could make us excited).

• **Openness**

This individual is described as being highly open. She has an average level of imagination and creativity. She is responsive to beauty as found in music, art, poetry, or nature on the average level as most people, albeit her feelings and emotional reactions are varied and might be important the her. It means that this person is average in aesthetics. She sometimes enjoys new and different activities and has a high need for variety in her life. She is very interested in intellectual challenges and in new ideas and perspectives.
• **Agreeableness**

According to the score on this level, the individual is considered to be frank, but average in straightforwardness. It might be difficult for this person to betray or manipulate others. She has a high opinion about human nature and is reasonably considerate of others and responsive to request for help. Sometimes she is skeptical and prone to think critically, these abilities could be helpful for accurate analysis in scientific disciplines. Although she holds her own point of views in conflicts with others, she is also willing to forgive and forget.

• **Conscientiousness**

This individual is highly efficient and generally sensible-rational in making decisions. She is neat, follows the rules of punctuality, and 'Well-organized. She is reasonably dependable and reliable in fulfilling her obligations (it is possible that one of favorable proverbs she is Using to discipline others is "humans have not only rights, but obligations too"). She has very strong feelings of obligations as before close people but also before others. She is highly self-disciplined person (this premise might present an obstacle for excitement and stimulation seeking), and she is always persistent in fulfilling tasks. Being a perfectionist by nature, achievements are highly important for individual. Competence is important for her to base her judgments of others. She is reasonably cautious and thinks over things before
acting. Her accomplishments and achievements give her grater satisfaction with life.

- **Reliability & Validity**

The NEO-FFI scales show correlations of .75 to .89 with the NEW-FFI validimax factors. Internal consistency values range from .74 to .89.

**Scoring**

Materials required for hand scoring include a NEO-FFI test manual, one Form-S reusable test booklet, one answer sheet, one Form-S profile sheet and one feedback sheet per respondent.

**Use of NEO- Five Factor Inventory**

The NEO-FFI can help you understand your client's basic emotional, interpersonal, experiential, attitudinal, and motivational styles. It can also help you quickly develop rapport with your client, provide meaningful feedback and insight that will help your client develop a greater self-understanding, enable you to anticipate the course of therapy, and help you select the optimal treatment based on your client's personality. All NEO-FFI scoring profiles have a combined gender profile grid for plotting T scores, thereby supplementing the Existing male and female grids. These enhancements to the NEO-FFI, coupled with the self-report information from the NEO-FFI
Form-S, gave you the necessary tools you need to create and carry out comprehensive treatment plans.

3. **Eight state questionnaire:**

For measuring mood states, it was decided to administer 8SQ. The eight state questionnaire was designed specifically for measuring eight important emotional states and moods (cattell, 1972; Barton, cat tell, & Conner, 1972; Barton, catell and curran, 1973:curran, in press). The theoretical importance of measuring emotional states lies in the fact that any predictions of how a person will act or how will perform depends on his present state as on his usual trait. An alert individual of average intelligence may perform better on an intellectual task than a tired genius.

Form A of the 8SQ contains 96 items, 12 of which measure each state. The test may be administered individually or in a group. The test was conducted to be used with adults and adolescents of 16 years of age or above.

**Description of the States Measured by the 8SQ**

**Anxiety** - worried, easily rattled, tense, easily annoyed

**Stress** - feeling a lot of pressure, unable to take time off and relax, feeling hectic, experience great strain.

**Depression** - unhappy, disagreeable, disappointed
Regression  -  confused, unorganized, unable to concentrate

Fatigue  -  exhausted, no energy, sluggish, tired needing rest, below par in performance

Guilt  -  regretful, concerned about own misdeeds, unkind, dissatisfied with self

Extraversion  -  sociable, outgoing, talkative, enthusiastic

Arousal  -  alert, excited, stimulated

Reliability and validity of 8SQ

Internal consistency value ranges from .58 to .96.

APPLICABILITY AND SCOPE:

The purpose of the 8SQ is to present a multi state battery of the widest spectrum possible at the present state of research the 8SQ can be used to assess an individual's or group's emotional reactions to different environmental conditions.
Research development:

The development of the 8SQ, form 1968 to its present form, was coordinated by Curran and Cattell, although many others assisted in the research development. The present form are based on the results of over ten separate analytical studies (Cattell & Rhymer, 1974, Cattell & Luborsky, 1950, Cattell & Williams, 1953, Cattell & Scheier, 1961, Cattell 1973). A large item pool was generated and numerous item analyses were conducted in order to select maximally valid items. The 8SQ has been designed to include the best defined eight among them.

SCORING:

Each item is scored 3, 2, 1 or 0. The high scoring direction is indicated by the letter a or d. If the letter is a, the a response is scored 3, the b response is scored 2 and the c response is scored 1. If the letter is d, the d response is scored 3, the c response is scored 2 and the b response is scored 1. Hand scoring is accomplished easily and rapidly with a key. The answer appears as pencil marks in the boxes on the given answer sheet. Simply fit the key over the answer sheet and count the marks visible through the holes for each factor, allowing either a 3, 2, 1 as indicated by the number printed above the hole. Add these scores and enter the total in the space indicated at the bottom of the sheet.
PROCEDURE

After deciding about all the tools and making all the necessary arrangements, the research investigations were conducted in the following manner:

Testing sessions were conducted in the room setting with adequate facilities and proper arrangements in various hospitals of Jaipur, Rajasthan. The sample of 180 male patients was administered BDI (Beck depression inventory), NEO-FFI (Neo Five Factor Inventory), 8SQ (Eight State Questionnaire). Tests were randomly administered all the three tests in different sequences. The investigator went to their rooms, rapport was established and subjects were told that some tests are going to be administered to them for measuring after effect of surgery. The instructions were also read out loud to them. The difficulties were cleared. No time limit was imposed upon them but they were requested to work as fast as possible. The tests were administered strictly according to the instructions and administration procedures mentioned in respective manuals of the tests. While administering test, strict supervision was enforced with a view to see that subjects do not discuss or seek help from others while taking tests, in a day only one session of testing was conducted with a view to avoid the fatigue effect. All three tests were administered after the sufficient interval. The doubts and queries faced by subjects were clarified and the
time limit given in their respective manuals were followed. Necessary clarifications sought were always provided.

Tests were scored by using separate scoring keys or guides. Total scores were obtained (5 from NEO FFI, 8 from 8sq, 4 from BDI). in this way all the tests were administered to the subjects, and biographical data was also collected from them.

All the 180 patients were again tested on BDI, NEO-FIVE, and 8SQ. after 3 months and 6 months gap for post test 2 and post test 3.

STATISTICAL ANALYSIS

Descriptive Group Statistics (Means and Standard Deviations) of all the groups were computed. To compare all the groups T-test is applied and Anova Test is applied to see the significance difference between (Experimental and Control group) Bypass Surgery and Angiography and Angioplasty group.

Data was analyzed using SPSS (version 12.0) statistical program.

A P value of <0.01 was considered statically significant.