SAMPLE

A total of 300 subjects were used in the present study, in which, there were 178 females and 122 were males. Majority of the subjects were married and belongs to working community of different departments like education, health, telecommunication, and irrigation. All subjects were educated and selected randomly from the community. The age of the subjects ranged between 30 to 50 years. All the subjects belonged to the same culture and reported themselves to be in sound mental and physical condition who voluntarily consented to participate in the research program.

DESIGN

A single sample corelational, repeated measure multivariate design was used.

TOOLS

To study the concept of health and well-being and its different factors like general health, psychological health, satisfaction with life, subjective well-being, spirituality, happiness, depression a variety of tests are used. So, here is the detailed description of the tests used in the present research.

1 PGI Health Questionnaire N-1

For the present study PGI Health Questionnaire N-1 (PGI HQ N-1) by Verma, Wig and Prashad (1978) is used. PGI HQ N-1 precedes the development of a complete indigenous tool. It is based on the Cornell Medical Index Health Questionnaire and incorporates the characteristics as envisaged by Cattle (1965). It consists of 38 items divided into two parts A (physical distress), part B (psychological distress). Part A consists of 16 items while part B is having 22 items. The “test-retest” reliability and the “split half reliability” was found significantly high i.e. 0.88 and 0.86 respectively. Score is given to each marked item and total score obtained by summing all marked items. It operationalizes the frequency of psychosomatic symptoms.
2 Stroop Task

In the present research the stroop task is used to measure the cognitive interference. It is a standard paradigm of the stroop test which contain 5 cards, in which card 1 showing the patch of different colours, that is used for the familiarization of the colours to subject. Card 2 having some general words that are not related to colours. Card 3 showing the name of the colours written in the same ink, which helps the subject to rehearsal the name of the colours. Card 4 having the colours name written in the different colour, but the subject has to read only the name of the colour. Card 5 also contains the colour name written in incongruent ink and the subject has to identify the word and name it by colour. The cognitive interference was measured by subtracting the time taken by the subject in card 4 from time taken by the subject in card 5. The time was measured in seconds. More difference shows the higher cognitive interference.

3 The Bender Gastalt Test

To study the visual motor ability or the gastalt functioning of the S the Bender Gastalt Test by Pascal & Suttell is used. It is a composition of nine simple designs: each design is presented to the S to draw on a plain paper. These designs along with several other designs were originally used by Wertheimer (1923), in the studies of visual perception. Dr. Lauretta Bender selected only 9 designs from Wertheimer’s design and incorporated these into a test for clinical use. This test is used to estimate maturation, intelligence, psychological disturbances and the effect of injury to the cortex. and to follow the effects of convulsive therapy (Hutt, 1945; Lowenbach, 1944). Bender also provide a separate form for scoring each design. The scoring pattern for each design is different according to their type. It appreciates the overall index of organized psyche, i.e. integrity of psychological functioning.

4 Subjective Well-Being Inventory

To measure the SWB of the S the Subjective Well-Being Inventory by Sell & Nagpal, 1992 is used. This is a very comprehensive and robust instrument originally in English language for assessing positive indicators of health, including perception of well-being, happiness, life satisfaction, positive affect and feeling about social life. The SUBI
has been standardized on adult Indian population and had also been used previously in
researches by other researchers (Bhogle & Prakash, 1995).

Developing by stepwise ethnographic exploration process this inventory, initially
consisted of 130 items that were supposed to be measuring various areas of concern
possibilities related to or parts of well-being and ill-being. This item pool was subject to
statistical analysis and factor analysis. The result was a 40 item version that assesses the
SWB of the S’s on 11 factorial dimensions. A description of these 11 factors is given
below:

I) General Well-Being Positive Affect: This factor reflects feeling of
well-being arising out of an overall perception of life as
functioning smoothly and joyfully. These items reflect our
theoretical construct of positive affect only. In what we have called
it’s over all perspective (Nagpal & Sell, 1985).

II) Expectation-achievement Congruence: Item of this factor reflects
feelings of well-being generated by achieving successes and the
standard of living as per one’s exceptions or satisfaction. The
factors conforms our theoretical construct of expectation-
achievement harmony.

III) Confidence in Coping: This factor relates to perceived personality
strength, the ability to master critical or unexpected situation
without breakdown. The negative items of this construct have
formed an independent and non-correlated factor (inadequate
mental mastery).

IV) Transcendence: the items of this factor relate to life experiences
that are beyond to day-to-day material and rational existence. They
reflect feelings of SWB derive from the values of a spiritual
quality. The construct of rootedness, belongingness was fully
confirmed in this factor.

V) Family Group Support: This factor reflects positive feelings
derived from the perception of the wider family. (beyond the
primary group of spouse and children, as supportive, cohesive and emotionally attached.

VI) Social Support: In this factor two separate areas of feeling of security and density of social networks are merged that contains the items describing the social environment beyond the family and as supportive in general and in time of crisis.

VII) Primary Group Concern: This factor contains both positive and negative items regarding concern about the spouse and children.

VIII) Inadequate mental Mastery: items loading on this factor imply a sense of insufficient control over certain aspects of everyday life that are capable of disturbing mental equilibrium. This inadequate mastery is perceived as disturbing or reducing SWB.

IX) Perceived Ill-Health: On this dimension factors are related with the happiness and worries over health. On this dimension items are complaining about different aspects of health.

X) Deficiency in Social Contacts: the common features of the item constituting this factor are worries about being disliked and feeling of missing friends. There are the negative items from other constructs of density of social networks. The item with a positive tone from this theoretical construct has been split between the factors of social support and adequacy of social contacts.

XI) General Well-Being Negative Affect: Factor on this dimension reflects a generally depressed outlook on life. It does not include specific worries over family, health and like.

Scoring pattern is different for positive and negative items. Positive items were scored as 3, 2, and 1, but negative items were scored in reverse manner like 1, 2, and 3.

The scale was used to assess the overall subjective well being and hence, global score was used for each subject.
5 Satisfaction With Life scale (SWLS)

To assess the life satisfaction of the S's, the SWLS (Diener, Emmons, Larson & Griffin, 1985) is used. This scale is originally in English language and contains 5 items requiring a general evaluation of the respondent's life as a whole on a 7 point scale ranging from strongly disagree to strongly agree. So, the total score ranging from 5 to 35. Scores on SWLS can be interpreted in terms of absolute as well as relative life satisfaction. A score of 20 represents the neutral point on the scale, the point at which the S is about equally satisfied and dissatisfied.

Diener et al. (1985) reported that their scale had a test-retest reliability coefficient of .82 (over a two month period) and coefficient α is .87. Their factor analysis of the inter-item correlation matrix identified a single factor accounting for the 66% of the variance. Among the various available tests of life satisfaction, the SWLS is found to be brief, highly reliable and valid tool to tap life satisfaction.

6 Spirituality Index of Well-Being (SIWB)

The construct 'spirituality' has multiple interpretations in health care settings (George et al. 2000) which challenge the conceptual framework of any spirituality instrument. In this way to study the spirituality aspect of well-being (WB) the "Spirituality Index of Well-Being" by Timothy & Bruce, 2004 is used. It is designed to measure the effect of spirituality on WB. It is a 12 item scale requiring a general evaluation of the respondent's spirituality aspect on a 5 point scale ranging from 'strongly disagree' to 'strongly agree'. So, the total score may range from 12 to 60. In these 12 items, 6 items are from a self-efficacy domain and 6 items from a life-scheme domain. The scale has a coefficient α is .86 for the self-efficacy sub scale, .89 for the life-scheme sub scale and .91 for the whole scale. The test-retest reliability of the self-efficacy sub scale is .77, for the life-scheme sub scale is .89 and .79 for the whole scale. It shows very good reliability for the scale. The SIWB has significant and expected correlation with other quality of life instruments that measure WB or spirituality: Zung Depression Scale (r=.42), General Well-Being Scale (r=.64) and Spiritual Well-Being Scale (SWB) (r=.62). In the present scale all items are scored as 1, 2, 3, 4, 5 according to
the liking of the subject to that particular item. Higher the score lower the spirituality index of well being.

7 Oxford Happiness Questionnaire (OHQ)

The Oxford Happiness Inventory (OHI, Argyle, Martin and Crossland, 1989) was devised as a broad measure of personal happiness. The development of the scale has been found to behave consistently, and other workers have reported its use in the UK (Furnham & Brewin, 1990, Joseph & Lewis, 1998), in Spain (Sanchez, 1994) and in USA (Valiant, 1993). The OHI has also been used cross-culturally to compare students in Australia, Canada, UK and USA (Fransis, Brown, Lester & Phillip, 1998). But in the present study Oxford Happiness Questionnaire by Argyle & Hill, 2002 is used which consists of 29 items that can be answered on a six point scale ranging from “strongly agree” to “strongly disagree”. Scores of the OHQ indicates that higher the score more the happiness and low score indicates least happiness. The α-coefficient reliability of the OHQ is 0.91 and the inter-item correlation is -0.04 to 0.65. OHQ is a quick measure of happiness as compared to Oxford Happiness Inventory that takes more time.

8 Beck Depression Inventory-II (BDI-II)

During the last 35 years, the BDI has became one of the most widely accepted instrument for assessing the severity of the depression in diagnosing patient’s and for detecting possible depression in normal population (Archer, Maruish, Imhof & Piotrowski, 1991; Piotrowski & Keller, 1992; Piotrowski, Sherry & Keller, 1985). Two comprehensive reviews concerning the BDI applications and psychometric properties across abroad spectrum of both clinical and non-clinical population have reported its higher reliability regardless of clinical population (Beck, Steer & Garbin, 1988; Steer, Beck & Garrison, 1986).

The BDI-II by Beck & et.al. is a 21 item self reported instrument for measuring the severity of depression in adults and in adolescents aged 13 and older. The BDI-II was developed for the assessment of symptoms corresponding to the criteria for diagnosing depressive disorders listed in the American Psychiatric Association’s Diagnostic and Statistical Manual For Mental Disorders- Fourth Edition (DSM-IV,1994). The items of
the BDI-II were organized according to the severity of the context of the alternative statements, and each item rated on a four point scale ranging from 0-3 except item no. 16 and 18, these items contain seven options rated in order 0,1a,1b,2a,2b,3a,3b, to differentiate between increases and decreases in behavior or motivation. If a high rated option is chosen by the respondent, the presence of an increase or decrease in either symptom should be clinically noted for the diagnostic purpose. The original version was designed to be administered by trained interviewers, who read aloud the statements to the patients. Then the patient selected the statement in each item that seemed to fit best with their current moods. It took 10-15 minutes to administer and the scores are derived by summing the rating that the patient endorsed for each of 21 items. The total score for the whole inventory may be ranges from 0-63.

The 21 depressive symptoms in BDI-II were based on the verbal descriptions of patients and were not selected to reflect any particular theory of depression. The items are: 1) Sadness, 2) Pessimism, 3) Past Failure, 4) Loss of Pleasure, 5) Guilt Feeling, 6) Punishment Feeling, 7) Self-Dislike, 8) Self-Criticalness, 9) Suicidal Thoughts or Wishes, 10) Crying, 11) Agitation, 12) Loss of Interest, 13) Indecisiveness, 14) Worthlessness, 15) Loss of Energy, 16) Changes in Sleep-pattern, 17) Irritability, 18) Change in Appetite, 19) Concentration Difficulty, 20) Tiredness or Fatigue, 21) Loss of interest in sex.

The coefficient α reliability of the BDI-II for the outpatients was 0.92 and for the 120 college students was 0.93 and the test-retest reliability of the BDI-II was 0.92 which is significant at 0.01 level.

9 Self-Esteem Inventory (SEI)

The SEI is designed to measure evaluative attitudes towards the self in social, academic, family and personal areas of experience. Self-esteem refers to the evaluation of one makes and customarily maintains, of himself or herself i.e. over all self-esteem is an expression of approval or disapproval, indicating the extent to which a person believes himself or herself competent, successful, significant and worthy. In the present study Self-Esteem Inventory (SEI) by Coopersmith, 1981 is used that consists of 25 items answering in ‘Like Me’ and ‘Unlike Me’. It was developed in conjunction with extensive study of self-esteem in children (Coopersmith, 1967). The major basis for the study was
the widely held belief that self-esteem is significantly associated with personal satisfaction and effective functioning.

Bedein, Geagud & Zmud (1977) computed test-retest reliability for the 103 college students. The coefficient for the male was .080 and .82 for the females. On the basis of the studies conducted or reviewed by Coopersmith, it was found that SEI scores are significantly related to, creativity, academic achievement, resistance to group pressure, perceptual consistency (Coopersmith, 1967), perceived reciprocal liking (Simon & Bernstein, 1971), perceived popularity (Simon, 1972), general and test anxiety (Many, 1973), selection of difficult task (Goodstadt & Kipnes, 1971), effective communication between parents and youth (Matteson, 1974) and family adjustment (Matteson, 1974).

The SEI can be scored with scoring keys but if the keys are not available then the following rules should be followed for scoring SEI:-

1. Score negative item correct if they have been answered 'Unlike Me'
2. Score positive item correct if they have been answered 'Like Me'

Procedure:

In the present research the investigator introduced himself as the research scholar of Department of Psychology, M.D. University, Rohtak. Although all tests are paper and pencil test, so a set of all nine tests was prepared. Due to the length of all tests, the tests were divided into two groups and administered in two sessions. The S’s were selected on the basis of consent and availability. Before the administration of the test, rapport was established with the S and was informed and assured that the information given and the responses will kept confidential.

In the first session, Oxford Happiness Questionnaire, Self-Esteem Inventory, Subjective Well-Bing Inventory and Beck Depression Inventory-II were administered, and in the second session the remaining tests, Satisfaction With life Scale, Spirituality Index of Well-Being, PGI Health Questionnaire N1, cognitive interference task and The Bender Gestalt Test were administered. After the completion of the Session-I, there was a time gap of half an hour was given to the S for relax and reenergize for the Session-II.

Before starting the test administration the instructions regarding the each test were given to S. However, the instructions related to each test were printed before the test, but
some general instructions were given to S in the following manner, that “I am going to
give you a set of tests which contain different tests related to different aspects of your
life like, health, well-being, self-esteem, depression, happiness, life satisfaction,
spirituality, cognitive interference and organized psyche. These tests have been divided
into two groups and will be administered in two sessions. In the first session the first set
of tests containing Oxford Happiness Questionnaire, Beck Depression Inventory,
Subjective Well-Being Inventory, and Self-Esteem Inventory will be administered. In the
second session Satisfaction With Life Scale, Spirituality Index of Well-Being, PGI
Health Questionnaire N-1, Stroop Neuropsychological Screening Test and Bender Visual
Motor Gestalt Test will be administered. Considering the length of the tests a time gap of
half an hour will be provided to you to relax”.

After such instructions the actual work was started and S was provided the first
set of tests and the S completed it. After completion of the first set, the second set was
given to the S after a time period of half an hour. But in the second session two tests
cognitive interference task and Bender Visual Motor Gestalt were performance tests. So
the instructions regarding these tests were given to S. For, cognitive interference task, the
S was instructed as, “this is a performance test in which there are five cards containing
words and colour names and the instructions for each card are printed on the each card.
However, it is very simple, but if you have any kind of problem at any stage than you can
ask me any time”, and for Bender Visual Motor Gestalt, “this is a performance test which
contain nine simple designs. Each design will be shown you for 10 seconds and you have
to draw the same design on a blank sheet”. After completion of the actual work the
scoring was done.

**Operatioalization of the Variables**

In the present research nine variables were used, here the brief description of the
scores and their meaning of the respective variables.

1. The first variable i.e. psychosomatic symptoms check list, contains 38 items. The
   possible scores may be ranges from 0-38. The higher number of psychosomatic
   symptoms shows poor physical and psychological health.
2. The second variable, cognitive interference task contains 5 cards but the results obtained by subtracting the time taken by the subject in card four from time taken in card five. The time was measured in seconds. High difference showed more cognitive interference and vice-versa.

3. The third variable measures the organized psyche by Bender Gestalt Test, containing nine simple designs. High score on this variable depicts the disorganized psyche.

4. The fourth variable, subjective well being having 40 items scored at three point scale, so the possible score may be between 40-120. High score on this variable depicts higher subjective well being.

5. The fifth variable measures the satisfaction with life with five items and each item is scored at a seven point scale. So the total score may be 5-35. High score depict the greater satisfaction towards life.

6. The sixth variable measures the Spirituality Index of Well Being with 12 items. The items are scored at five point scale, so the possible score may lies between 12-60. The high score on this dimension suggest despirituality, and a low score shows high spirituality index of well being.

7. The seventh variable measures the happiness with 29 items scored at a six point scale. The possible score for this variable may be ranges from 29-174. High score shows greater happiness and low score contribute to lower happiness.

8. The eighth variable measures the depression level of the subject with 21 items scored at a three point scale. The total score for this variable may be ranges from 0-63. High score at this dimension shows high depression and vice-versa.

9. The ninth variable measures the self esteem with 25 items. Every correct answer was given a score of one. So the high score at this variable shows high level of self esteem.
Statistical Analysis

To meet the objectives the Pearson Correlation method and for the construct validation the Principal Component Factor Analysis with Varimax Rotation method was employed and results are presented in the following chapter.