CHAPTER-3
METHODOLOGY

GENERAL

The aim of the present study was to find out the psycho-social correlates of subjective well-being among convicts. To know the impact of various demographic variables, data pertaining to their profile concerning their family environment, education, married life, employment was collected and studied in relation to their subjective well-being as social variables. Personality and self-esteem were the other two variables studied as the psychological correlates. Henceforth, to find out the relationship between various social and psychological variables with subjective well-being, data was collected and then analysed.

Keeping the objectives of the study in mind, the descriptive method of research was employed for the present study. This method helps in explaining the effect of one variable upon another. In this, the researcher collects data in order to answer questions about the current status of the subject or topic of study. Descriptive research, also known as statistical research, describes data and characteristics about the population or phenomenon being studied. Descriptive research answers the questions who, what, where, when, "why" and how?

3.1 RESEARCH TOOLS

For every type of research, we require certain devices to gather information or facts regarding sample population or to explore new fields, which act as “means”, and are known as research tools. The selection of suitable tools, for collecting different kinds of information, is of vital importance for a successful research. They act as key factors to determine the success of any
research endeavor. Formal instruments for collecting data, to study preferences, attitudes, practices, concerns, or interests of a sample were used in the present work.

In the present study, following tools were selected and used by the investigator:

- Subjective Well-being Inventory (SUBI) by Nagpal and Sell, (1985)
- The NEO Five Factor Personality Inventory by McCrae and Costa (1989)
- Personal Information Datasheet

3.1.1 Subjective Well-being Inventory (SUBI)

Subjective Well-being has been reported as a composite measure of independent feelings about a variety of life concerns, in addition to an overall feeling about life in positive and negative terms, i.e., general well-being and ill-being. Not surprisingly, general well-being in its positive affect and, to a somewhat lesser degree, in its negative affect appears to be stable over time to an extent that they can probably be called personality traits. The Subjective Well-being Scale (Nagpal and Sell, 1985) was used to measure subjective well-being of the population of convicts. It has 40 items. This scale has high inter-rater reliability, inter-scores reliability, and test-retest reliability. The scale had been found to be highly significant and satisfactory in validity.

The Subjective Well-being Inventory (SUBI) is designed to measure feelings of well-being or ill-being as experienced by an individual, or a group of individuals in various day-to-day life concerns. The Inventory measures 11 factorial dimensions, viz.

1. General well-being-positive affect
2. Expectation-achievement Congruence
3. Confidence in coping
4. Transcendence
(5) Family group support
(6) Social support
(7) Primary group concern
(8) Inadequate mental mastery
(9) Perceived ill-health
(10) Deficiency in social contacts
(11) General well-being-negative affect.

The SUBI can be scored by attributing the values 3, 2 and 1 to response categories of the positive items, and 1, 2 and 3 to the negative items. The minimum and maximum scores that can thus be obtained are 40 and 120, respectively. The total score can be interpreted summarily in the light of three broad score ranges: 40-60, 61-80 and 81-120 to have an overall picture of well-being status. The mean score on normal adult Indian samples is 90.8 with standard deviation of 9.2.

The sample for this study consists of prisoners. A specimen copy of the test booklet and scoring key are provided in Appendix I.

3.1.2 The NEO Five-Factor Personality Inventory

The NEO Five-Factor Inventory (NEO-FFI) is most widely used instrument to assess personality on five dimensions namely Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. This inventory has a number of versions like 240, 180, 96 or 60 items inventory. However, the most applicable, to the study carried out, is the 60 items inventory, with least number of responses, within a 5-point scale and the same is described as below.

Neuroticism (N): The most pervasive domain of personality scale contrasts adjustment or emotional stability with maladjustment or neuroticism. The general tendency to experience negative effects such as fear, sadness, embarrassment, anger, guilt and disgust is the core of
the neuroticism domain. However, neuroticism includes something more than susceptibility to psychological distress. Perhaps, because disruptive emotions interfere with adaptation, men and women high in neuroticism are also prone to have irrational ideas, to be less able to control their impulses, and to cope more poorly than others with stress. The individuals who score low on neuroticism are emotionally stable. They are usually calm, even-tempered, and relaxed, and are able to face stressful situations without becoming upset or rattled.

**Extraversion (E):** This dimension of personality assesses quantity and intensity of interpersonal interaction, activity level, need for stimulation, and capacity for joy. The person who scores higher on this dimension of scale tends to be sociable, active, talkative, person-oriented, optimistic, fun-loving, affectionate in contrast to the one who scores low, who are reserved, sober, un-exuberant, aloof, task-oriented, retiring and quiet.

**Openness (O):** Openness dimension of personality assesses proactive seeking and appreciation of experience for its own sake; toleration for and exploration of the unfamiliar. The person who scores higher on the scale are curious, having broad interests, creative, original, imaginative, untraditional in contrast to the one who scores low on the scale, and who tends to be conventional, down-to-earth, with narrow interests, un-artistic and un-analytical.

**Agreeableness (A):** Agreeableness is primarily that dimension of personality which assesses the quality of one’s interpersonal orientation along a continuum from passion to antagonism in thoughts, feelings and actions. An individual who scores high on the agreeableness scale is expected to be a soft-hearted, good-natured, trusting, helpful, forgiving, gullible, and straightforward in contrast the one who scores low on this scale, and who tends to be cynical, rude, suspicious, uncooperative, vengeful, ruthless, irritable and manipulative.

**Conscientiousness (C):** Conscientiousness scale assesses the individual’s degree of organisation, persistence and motivation in goal directed behaviour. An individual scoring
high on this scale is expected to be organised, hardworking, reliable, punctual, self-disciplined, scrupulous, neat, ambitious, persevering as compared to the one who scores low, and who tends to be aimless, unreliable, lazy, careless, lax, weak-willed, negligent and hedonistic.

The NEO-FFI was developed as a short form of the NEO-PI. Although new norms have been provided, the instrument itself is unchanged. Item selection for the NEO-FFI uses the validimax factors (McCrae and Costa, 1989) from the NEO-PI as the criteria. The sample of 983 men and 986 women were administered with NEO-PI (Costa and McCrae, 1988) to provide data for item selection. All 180 items were factored, and the five principal components were extracted. The validimax method was then employed to rotate the item factors to maximise convergent and discriminant validity with the NEO-PI validimax factors.

For each domain, the 12-items having the highest positive or negative loading on the corresponding factor were selected as preliminary NEO-FFI items. After these items were examined, about 10 substitutions were made to diversify item content, eliminate items with joint loadings, and ensure that no more than two-thirds of the items on any scale were keyed in the same direction as a control for acquiescent responding. The item wise distribution in the inventory is given in Table 3.1(a) and the perceived responses are given in Table 3.1(b)

**Table 3.1(a): Item Wise Distribution in NEO-FFI**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism</td>
<td>1*,6,11,16*,21,26,31*,36,41,46*,51,56</td>
</tr>
<tr>
<td>Extraversion</td>
<td>2,7,12*,17,22,27*,32,37,42*,47,52,57*</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>4,9*,14*,19,24*,29*,34,39*,44*,49,54*,59*</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>5,10,15*,20,25,30*,35,40,45*,50,55*,60</td>
</tr>
</tbody>
</table>

* Negative Statements
The subject is required to respond to each statement on a 5-point scale from strongly disagree to strongly agree.

**Table 3.1(b) Perceived Responses in NEO-FFI**

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>SA</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

**a) Reliability:** The reliability of the NEO-FFI had been established by evaluating the Cronbach’s-alpha reliability coefficients. The values of the coefficient are 0.90, 0.78, 0.76, 0.86 and 0.90 for the dimensions of neuroticism, extraversion, openness, agreeableness and conscientiousness, respectively. These values are high enough (0.76 and more) to reflect on the reliability of the inventory.

**b) Validity:** As subsets of NEO PI-R domain scales, NEO-FFI scales carry with them some portion of the demonstrated validity of the full scales. The coefficient of correlation of NEO-FFI with NEO PI-R domain (single peer rating) are given in Table 3.2.

**Table 3.2: Correlations of NEO-FFI with Validity Criteria NEO-PI-R Domains, Single Peer Ratings (N=250)**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>NEO-FFI Form S scales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>0.36**</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-0.05</td>
</tr>
<tr>
<td>Openness</td>
<td>0.10</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-0.07</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.15*</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01.
These coefficients of correlation reflect on the positive and significant relationship between two measures, thereby giving an evidence of both convergent and discriminant validity. The specimen copy of the test booklet are provided as Appendix II

c) **Interpretation of test scores:** One common way to interpret test scores is to compare them to the scores of other people who have already undergone a test. The other people who have taken the test are called a normative sample. The developers of the NEO had given the test to a large sample of adults of all ages in the United States. The following allows us to compare our scores to that normative sample.

- **N:** If you scored below 13 you are low (and below 6 very low) on N. If you scored above 21 you are high (and above 29 very high) on N. Otherwise, you scored in the average range.

- **E:** If you scored below 24 you are low (and below 18 very low) on E. If you scored above 30 you are high (and above 36 very high) on E. Otherwise, you scored in the average range.

- **O:** If you scored below 23 you are low (and below 18 very low) on O. If you scored above 30 you are high (and above 36 very high) on O. Otherwise, you scored in the average range.

- **A:** If you scored below 29 you are low (and below 24 very low) on A. If you scored above 35 you are high (and above 40 very high) on A. Otherwise, you scored in the average range.

- **C:** If you scored below 30 you are low (and below 25 very low) on C. If you scored above 37 you are high (and above 43 very high) on C. Otherwise, you scored in the average range.
3.1.3 Coopersmith Self-Esteem Inventory (SEI)

The Coopersmith Self-Esteem Inventory (SEI) was developed by Coopersmith (1981) for the purpose of assessing attitude towards oneself in general (global), and in specific (situational) contexts, namely peers, parents, school and personal interests. This attitude toward self had been referred to as self-esteem. The SEI (Adult Form) is a 25-item instrument designed to measure the evaluations that a person makes and generally maintains about himself or herself. This measure of attitudes towards the self in social, academic, family and personal areas of experiences which indicate the extent to which a person believes himself/herself competent, successful, significant and worthy. These items are in the form of generally favourable (positive) or unfavourable (negative) statements about the “self.” The respondent responds “Like Me” or Unlike Me” to each item on the form. For each item, if the responder gives that is a positive view of himself or herself, four (4) points are awarded. The higher the score, the higher is the suggested self-esteem of the responder. The basis for scores is a totally favourable (positive) self-esteem score of 100 and a totally unfavourable (negative) score of zero (0). The total score can be interpreted summarily in the light of three broad score ranges: 86-100 (High Self-Esteem), 72-85 (Medium Self-Esteem) and 69 & below (low Self-Esteem) to have an overall picture of respondents self-esteem.

The SEI examines attitudes toward an individual’s “self” in four areas: 1) Social Self-Peers; 2) Home-Parents; 3) School-Academic; and 4) General-Self. However, it is scored as a single global self-esteem score. Thus, the global self-esteem score obtained by the respondent encompasses the situational factor.

The adult form of the Self-esteem Inventory has been designed to be used with persons aged sixteen and above. The Cronbach’s-alpha reliability coefficients have been reported to range from 0.78 to 0.85 for different groups and in terms of age sample, it was 0.80 for the younger ones and 0.81 for older ones, thereby, showing internal consistency of the inventory. The
construct validity of the inventory along with concurrent and factorial validity had been established. The mean normative score is 70 with standard deviation (SD) of 11 (Coopersmith, 1981). The specimen copy of the test booklet and scoring key are given in Appendix III.

3.1.4 Personal Datasheet

The personal information sheet included general details of convicts like nature of crime, time period of sentence, information about family, marital status, educational and employment status of self and other family members, their financial status and monthly income. The specimen copy of personal datasheet is given in Appendix IV.

3.2 SAMPLING AND DATA COLLECTION

After selection of research tools, the researcher personally visited Patiala Central jail and contacted Sh. K.S. Sandhu, Deputy Superintendent (Jails) to seek permission for data collection and made him aware about the purpose of study after giving him the brief overview regarding study in hand. He was assured that the information taken from convicts would be kept confidential and used only for the research purposes. The instructions given in various manuals and test booklets were strictly adhered to while getting the responses filled up from convicts.

3.3 SCORING OF TOOLS

The scoring of different research tools was done in the following manner:

3.3.1 Subjective Well-being Inventory (SUBI)

This was a questionnaire, which relates as to how one feels about some aspects of life. Out of a total of 40 questions, 19 are positive ones and 21 are negative ones. There are 3 responses
with 1, 2, 3 numbers for each question. The respondent may answer them by clicking the number which seems to represent his/her feelings in the best possible manner. In case of any confusion, the respondents may choose the category closest to what they think. The scores may be directly entered on the answer sheets by attributing the values 3, 2 and 1 to response categories of the positive items, and 1, 2 and 3 to the negative items. Accordingly, a subject’s total score was found out and assessed.

3.3.2 The NEO Five-Factor Personality Inventory

In NEO-FFI, there are five dimensions, namely neuroticism, extraversion, openness, agreeableness and conscientiousness. The scoring is done dimension wise. The numerical value of 0, 1, 2, 3 and 4 are given to positively worded statements for response pattern ranging from “Strongly Disagree to Strongly Agree”. In case of negatively worded statements the scoring is reversed i.e. 4, 3, 2, 1 and 0 for response pattern ranging from “Strongly Disagree to Strongly Agree”. Thus, scores ranging from 0-48 were obtained in each of the dimensions.

3.3.3 Coopersmith Self-Esteem Inventory (SEI)

This inventory contained 25 questions having statements that describe ones feelings related to self-esteem. These items are in the form of generally favourable (positive) or unfavourable (negative) statements about the “self.” The respondent responded by ticking “Like Me” or “Unlike Me” to each item on the form. For positive statements, numerical values of 4 and 0 are given to “Like Me” or “Unlike Me” respectively. In case negative statements, the scores are reversed i.e. 0 for “Like Me” and 4 for “Unlike Me”.

3.3.4 Personal datasheet

Researcher developed a personal datasheet for convicts to seek the information regarding social variables like age: young (25 to 35 years) vs. old (35 to 50 years), sex: male vs. female, type of family: joint vs. nuclear, size of family: small (up to 5 members) vs. large family
(more than 5 members), marital status: married vs. unmarried, divorcée, and widow, educational status: literates vs. illiterate and employment status: employed vs. unemployed.

3.4 STATISTICAL TREATMENT OF DATA

After scoring the research tools as per standard procedures, the obtained scores by the subjects were statistically treated. Percentage analysis, descriptive statistics, t-test and regression analysis was used to analyse the data in the present study.

To prepare a socio-demographic profile of the convicts, percentage analysis was carried out on the data regarding social parameters of convicts collected in a personal datasheet.

Descriptive statistics was applied to draw frequency distributions for subjective well-being, five factors of personality and self-esteem pattern of convicts in order to explain these variables.

To find out the differences between subjective well-being among convicts in relation to their personality dimensions, t-value for high and low mean values of personality dimensions i.e. neuroticism, extraversion, openness to experience, agreeableness and conscientiousness on the subjective well-being among convicts were computed.

To study the effect of self-esteem upon subjective well-being among convicts, mean and SDs along with t-value testing the significance of self-esteem on subjective well-being among convicts was calculated.

Mean and standard deviation values, to test significance of means, of various social parameters on subjective well-being were computed. Significance of t-value was checked at 0.01 and 0.05 level of significance.

In order to find out the predictors of subjective well-being among convicts, correlational analysis with psychological variables was carried out, and, subsequently, stepwise regression analysis was done, keeping self-esteem as independent variable with subjective well-being as
dependent variable. The values of coefficient of multiple correlation (R) determining the total effect of contributing factors ($R^2$ and adjusted $R^2$) along with variance in predictors of subjective well-being of convicts were calculated.