Chapter – III

METHODOLOGY
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In every scientific research methodology plays a leading role. A scientific research programme has to be systematic, controlled, empirical and critical investigation of hypothetical proposition, about the presumed relationship among different variables. It involves systematic and sound procedures in order to achieve objectivity in the results. Scientific precision and reliability of results in any study largely depends upon the efficacy and suitability of the strategy adopted for investigation.

Thus in carrying out any research, it is necessary to carefully adopt appropriate research design, selecting standardized tools, choosing appropriate sampling, understanding sound procedures for collecting data, tabulating them and analyzing the data by running suitable statistics.

The present endeavor aims to study hope and resilience as related to psychological well-being among HIV positive. To meet these objectives the following methodology was adopted.

Research Design

Research design is the detailed blueprint used to guide a research study towards its objectives. A research design provides the framework to use as a guide in collecting and analyzing data. Types of research design are dependent on many different factors including the nature of research problem, field of research depth of required detail and its objectives.

The current research is casual research. As the name indicates, causal design investigates the cause and effect relationship between two or more variables. This design measures the extent of relationship between the variables. Casual research
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designs attempts to specify the nature of functional relationship between two or more
variables. In the present study psychological well-being is dependent variable and
hope and resilience are independent variables. The study aims to find out the
relationship between hope, resilience and psychological well-being.

Participants

A sample of 160 people was chosen through non probability convenient
sampling. Of these 80 people were HIV positive patients and the remaining 80 people
were HIV negative people. The sample of HIV patients were selected from Jawaharlal
Nehru Medical College (JNMC) Aligarh and sample of HIV negative people were
drawn from general population (2008).

The sample of HIV patients consisted of 50 males and 30 females and sample
of HIV negative people consisted of 37 males and 43 females. The upper age limit of
the sample was 60 years. The general information (demographic information) of HIV
patients is that 52.5% of them belonged to joint family while 47.5% belonged to
nuclear family. In case of HIV negative people 42.5% had joint family system and
57.5% belonged to nuclear family. In case of area of living 38.75% HIV patients
belonged to rural area and 61.25% belonged to urban area whereas 10% of HIV
negative people live in rural area and 90% in urban area. As far as education profile is
concerned it was found that 63.75% of HIV patients got their primary and secondary
education, 12.5% did their graduation and higher studies and 19% of them were
uneducated. In case HIV negative people 23.75% were primary and secondary
educated and 76.25% of them did higher studies (i.e. masters, PhD).
The break-up of the sample is as given below:

\[ N = 160 \]

- HIV Patients \( N = 80 \)
  - Females \( N = 30 \)
  - Males \( N = 50 \)

- Normal People \( N = 80 \)
  - Females \( N = 43 \)
  - Males \( N = 37 \)

There was no attempt to restrict the sample to a particular severity of the diagnostic category as long as the subjects met the following inclusion/exclusion criteria:

**INCLUSION CRITERIA**

- Diagnosed cases.
- Individuals aged more than 17 years.
- Individuals who were co-operative for the interview.

**EXCLUSION CRITERIA**

- Individuals aged less than 18 years.
- Individuals who were not co-operative for the interview.

**Tools**

In the present study the researcher used the following tools to measure the hope, resilience and psychological well-being of HIV positive patients and HIV negative people.
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- Adult Hope Scale
- Resilience Scale
- Psychological well-being Scale (PWB Questionnaire).

Demographic information sheet

Demographic information about name, age, gender, education, family system and area of living were obtained along with questionnaires.

Adult Hope Scale

Hope scale developed by Snyder (Snyder et al., 1991) was used to measure hope. This scale measures the disposition of hope. Specifically, hope is defined as a cognitive set that is compromised of a reciprocally derived sense of successful (1) agency (goal-directed determination) and (2) pathways (planning to ways to meet goals). Based on this definition, an individual differences measure of hope is developed. It assessed two hypothesized major domains of hope i.e. the agency and the pathways. It consisted of 12 items, of 12 items 4 items are distracters (3, 5, 7 and 11) and not used for scoring. The pathways subscale score is the sum of items, 1, 4, 6 & 8 the agency subscale is the sum of items 2, 9, 10 & 12. Hope is the sum of the 4 pathways and 4 agency items. Though in their originally studies, authors used to 4-point response continuum, but to encourage more diversity in scores in more recent studies they have used the following 8-point likert scale.

1 = Definitely false, 2 = Mostly false, 3 = Somewhat false, 4 = Slightly false, 5 = Slightly true, 6 = Somewhat true, 7 = Mostly true, 8 = Definitely true.

Scores using the 4-point continuum can range from a low of 8 to a high of 32. For the 8-point continuum, scores can range from a low of 8 to a high of 64. Internal
reliability for the total scale ranged from alpha .74 to .84, for the agency subscale it range from .71 to .76 and for the pathway subscale it ranges from 0.63 to 0.8.

Convergent and discriminant validity were documented, along with evidence suggesting that hope scale scores augmented the prediction of goal related activities and coping strategies beyond other self-report measures. Construct validitional support was provided in regard to predicted goal-setting behaviors; moreover, the hypothesized goal appraisal processes that accompany the various levels of hope were corroborated.

**Resilience Scale**

To measure resilience, the Resilience Scale was used. The Resilience Scale (RS), originally created by Waglind and Young (1993) is a 25 items scale of Likert type with possible scores range from 25 to 175 the higher the score, the stronger resilience.

The 25 items RS measures the degree of individual resilience, which is considered a positive personality characteristic that enhances individual adaptation.

Waglind and Young (1993) drew from the literature on resilience to arrive at five components as the basis for developing their instrument. Following are the five components.

1. Equanimity i.e. a balanced perspective of one’s life and experiences,

2. Perseverance i.e. persistence despite adversity or discouragement,

3. Self-Reliance i.e. belief in oneself and one’s capabilities,

4. Meaningfulness i.e. realization that life has purpose, and

5. Existential Aloneness i.e. realization that each person’s life path is unique.

Although items are identified with factors, only the total score is used in results reported by Wagnild and Young (1993).
All the items were scored on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), with possible scores of 25 to 175. As per the norms, total score above 146 indicated strong or high resilience while below 121 indicated weak or low resilience.

Wagnild and Young (1993) reported internal consistency reliabilities for the instrument ranging from .76 to .91 from several of their prior studies. Test retest reliabilities ranged from .67 to .84. Correlations with other instruments included measures of morale (.54, .43, and .28), Life satisfaction (.59 and .30), Perceived stress (-.67 and -.32), Symptoms of stress (-.24), depression (-.36) and self esteem (.57). For this study the internal consistency (alpha) was found to be .75.

**Psychological Well-Being Scale**

In the present study Psychological Well-Being Scale developed by Bhogle and Prakash (1995) was used. The instrument seems to be most suitable as it contains the items which provide the general information about the psychological well-being of the respondents.

The authors of the scale have taken all the empirical steps in the developing of Psychological Well-Being Scale. The items were pooled on the basis of existing methods of assessing psychological well-being and literature review. The scale contains 28 items measuring satisfaction in the four areas of life-marriage, peer comparison, social support and health. When put on test, PSW questionnaire (Bhogle & Prakash, 1993) shows an internal consistency of 0.84 and split half coefficient of 0.91, in retest using the same questionnaire after three months 0.72 correlation was observed. The questionnaire had high correlation of 0.62 with subjective well-being questionnaire of Nagpal & Sell (1985) and 0.48 with general well-being questionnaire of Verma and Verma (1989).
Procedure

In the present study the data for HIV positive patients were collected from the JNMC, Jawaharlal Nehru Medical College, Aligarh. Since it was a very sensitive issue the researcher firstly sought permission from Head of the Department (Medicine, Medical College) and assured him the secrecy of the information collected from the patients would be strictly adhered to. After that the patients were approached a good rapport was established with them and were explained the purpose of the study and how the results of the study would be used. When the questionnaires were distributed to the subjects great care was taken to remove any misconceptions regarding the proposed study. Further subjects were assured of the confidentiality of their responses and were requested to extend their cooperation. For making the scales much easier to understand the instructions were invariably explained to the subjects. For the HIV negative people data were collected from normal population.

Statistical Analysis

Scientific explanation of any finding is not possible unless some statistical treatments have been given to the data obtained. Statistics provide very clean picture of the results only in the form of its numerical results. Therefore, statistical treatment to the data obtained is inevitably necessary to become sure about the reliability pattern of the results of research problems. Investigations in behavioral sciences classify the nature of relation between behavioral sciences, seek to examine the relationship between various independent variable and the relevant dependent variable.

The choice of statistical analysis is related to the types of data and the design of study. The following statistical analyses were used to analyze the data.
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- Correlation
- t-test
- Regression

1. Correlation was used to find out the relationship between independent variables and dependent variable. Pearson product moment coefficient of correlation is the most widely used method for measuring the degree of relationship between two variables. In this study Pearson product moment correlation was applied for determining the relationship between hope, resilience and psychological well-being.

2. t-test was used to find out significant difference between gender groups, type of family, area of living, education, and age. Inter group comparisons were conducted by applying t-test.

3. Regression analysis is considered to the most useful technique because it ascertains the influence of several independent variables on the dependent one. In the present study there are two independent variables i.e. hope and resilience and one dependent variable i.e. psychological well-being. Through this technique the researcher intends to determine the significant predictors of criterion or dependent variables. Thus regression analysis was used by the investigator.