CHAPTER - 3

RESEARCH

METHODOLOGY
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CHAPTER - 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION:

From Natural science to Social and science research is a guide to give guidance to all the researchers in their field for going top on the field and helpful for development in their field. Research means ‘To search again’ for the help of research anyone can get right way or solution to understand their problems.

The nature of social research is scientific. When any researcher is finding anything for their research problem, he uses scientific aspect for it. He always believes to keep scientific aspect, objectivity, honesty, perfectness, pureness and freedom. There are some ethics for the scientific research and which is under:

1. To compare of variables in relation to research problem.
2. To know the relation of the variables in relation to research problem.
3. To find out the effect of variables in relation to research problem.
4. To keep control on some variables and check the effect of that kind of variables in relation to research problem.

Problem is not born from nothing but it is born form the curiosity of the person. The main objective of pure research is hypotheses, sampling, variables, Procedures of Data Collection, reliability and validity of tools, data analysis and statistical analysis etc. to planning of research in advance. For this type of planning is helpful to researcher for getting their goals.

3.2 PROBLEM STATEMENT:

Death Anxiety and Psychological Well-being among Cancer Patients

3.3 OBJECTIVES:

1. The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Gender.
The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Cancer Stages.

The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Age group.

The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Gender and Cancer Stages.

The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Gender and Age group.

The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Cancer Stages and Age group.

The purpose of the present study is the difference related to the Death Anxiety and Psychological Well Being among Cancer patients in relation to Gender, Cancer Stages and Age group.

3.4 HYPOTHESES:

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Gender.

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Cancer Stages.

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Age group.

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Gender and Cancer Stages.

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Gender and Age group.
There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Cancer Stages and Age group.

There is no significant difference between the score of Death Anxiety among Cancer patients in relation to Gender, Cancer Stages and Age group.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Gender.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Cancer Stages.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Age group.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Gender and Cancer Stages.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Gender and Age group.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Cancer Stages and Age group.

There is no significant difference between the score of Satisfaction among Cancer patients in relation to Gender, Cancer Stages and Age group.

There is no significant difference between the score of Efficiency among Cancer patients in relation to Gender.

There is no significant difference between the score of Efficiency among Cancer patients in relation to Cancer Stages.

There is no significant difference between the score of Efficiency among Cancer patients in relation to Age group.

There is no significant difference between the score of Efficiency among Cancer patients in relation to Gender and Cancer Stages.

There is no significant difference between the score of Efficiency among Cancer patients in relation to Gender and Age group.
(20) There is no significant difference between the score of Efficiency among Cancer patients in relation to Cancer Stages and Age group.

(21) There is no significant difference between the score of Efficiency among Cancer patients in relation to Gender, Cancer Stages and Age group.

(22) There is no significant difference between the score of Sociability among Cancer patients in relation to Gender.

(23) There is no significant difference between the score of Sociability among Cancer patients in relation to Cancer Stages.

(24) There is no significant difference between the score of Sociability among Cancer patients in relation to Age group.

(25) There is no significant difference between the score of Sociability among Cancer patients in relation to Gender and Cancer Stages.

(26) There is no significant difference between the score of Sociability among Cancer patients in relation to Gender and Age group.

(27) There is no significant difference between the score of Sociability among Cancer patients in relation to Cancer Stages and Age group.

(28) There is no significant difference between the score of Sociability among Cancer patients in relation to Gender, Cancer Stages and Age group.

(29) There is no significant difference between the score of Mental Health among Cancer patients in relation to Gender.

(30) There is no significant difference between the score of Mental Health among Cancer patients in relation to Cancer Stages.

(31) There is no significant difference between the score of Mental Health among Cancer patients in relation to Age group.

(32) There is no significant difference between the score of Mental Health among Cancer patients in relation to Gender and Cancer Stages.

(33) There is no significant difference between the score of Mental Health among Cancer patients in relation to Gender and Age group.

(108)
(34) There is no significant difference between the score of Mental Health among Cancer patients in relation to Cancer Stages and Age group.

(35) There is no significant difference between the score of Mental Health among Cancer patients in relation to Gender, Cancer Stages and Age group.

(36) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Gender.

(37) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Cancer Stages.

(38) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Age group.

(39) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Gender and Cancer Stages.

(40) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Gender and Age group.

(41) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Cancer Stages and Age group.

(42) There is no significant difference between the score of Interpersonal Relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

(43) There is no difference in correlation score between the Death Anxiety and Satisfaction among Cancer patients in relation to Gender, Cancer Stages and Age group.

(44) There is no difference in correlation score between the Death Anxiety and Efficiency among Cancer patients in relation to Gender, Cancer Stages and Age group.

(45) There is no difference in correlation score between the Death Anxiety and Sociability among Cancer patients in relation to Gender, Cancer Stages and Age group.
(46) There is no difference in correlation score between the Death Anxiety and Mental Health among Cancer patients in relation to Gender, Cancer Stages and Age group.

(47) There is no difference in correlation score between the Death Anxiety and Interpersonal relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

(48) There is no difference in correlation score between the Satisfaction and Efficiency among Cancer patients in relation to Gender, Cancer Stages and Age group.

(49) There is no difference in correlation score between the Satisfaction and Sociability among Cancer patients in relation to Gender, Cancer Stages and Age group.

(50) There is no difference in correlation score between the Satisfaction and Mental Health among Cancer patients in relation to Gender, Cancer Stages and Age group.

(51) There is no difference in correlation score between the Satisfaction and Interpersonal relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

(52) There is no difference in correlation score between the Efficiency and Sociability among Cancer patients in relation to Gender, Cancer Stages and Age group.

(53) There is no difference in correlation score between the Efficiency and Mental Health among Cancer patients in relation to Gender, Cancer Stages and Age group.

(54) There is no difference in correlation score between the Efficiency and Interpersonal relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

(55) There is no difference in correlation score between the Sociability and Mental Health among Cancer patients in relation to Gender, Cancer Stages and Age group.
(56) There is no difference in correlation score between the Sociability and Interpersonal relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

(57) There is no difference in correlation score between the Mental Health and Interpersonal relations among Cancer patients in relation to Gender, Cancer Stages and Age group.

3.5 VARIABLES:

In the proposed study two levels of Gender (Male and Female), two levels of Cancer stages (Initial Stage and Last Stage) and two levels of Age group (Up to 50 Years and More than 50 Years) will be taken as independent variables. The raw score of Death anxiety and Psychological well-being will be taken as dependent variables. In this study the independent & dependent variables has show in the below table:

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Variables</th>
<th>Types of Variables</th>
<th>Grade of Variables</th>
<th>Name of the level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>Independent</td>
<td>2</td>
<td>1. Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Female</td>
</tr>
<tr>
<td>2</td>
<td>Cancer Stages</td>
<td>Independent</td>
<td>2</td>
<td>1. Initial Stage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Last Stage</td>
</tr>
<tr>
<td>3</td>
<td>Age group</td>
<td>Independent</td>
<td>2</td>
<td>1. Up to 50 Years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. More than 50 Years</td>
</tr>
<tr>
<td>4</td>
<td>Death anxiety</td>
<td>Dependent</td>
<td>1</td>
<td>Death anxiety</td>
</tr>
<tr>
<td>5</td>
<td>Psychological</td>
<td>Dependent</td>
<td>5</td>
<td>1. Satisfaction</td>
</tr>
<tr>
<td></td>
<td>Well-being</td>
<td></td>
<td></td>
<td>2. Efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Sociability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Mental Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Interpersonal Relations</td>
</tr>
</tbody>
</table>

3.5.1 INDEPENDENT VARIABLES:

(1) Gender: (Male and Female)

(2) Cancer Stage: (Initial Stage and Last Stage)

(3) Age group: (Up to 50 Years and More than 50 Years)
3.5.2 DEPENDENT VARIABLES:
The score of Death Anxiety and Psychological well-being.

3.5.3 CONTROLLED VARIABLES:
(1) In the present study selection of samples is only from Cancer hospitals.
(2) In this study only Male cancer patients and Female cancer patients were taken.
(3) Limited samples were taken for this study.

3.6 RESEARCH DESIGN:
3.6.1 POPULATION:
In the present study to measure Death Anxiety and Psychological well-being among Cancer patients who were suffering from Cancer were randomly selected for the sample.

3.6.2 SELECTION OF SAMPLE:
In present study sample will be selected randomly. Researcher will take 200 Males and 200 Females. So total 400 Cancer patients from different hospitals will be selected for this study. Approximately 450 samples will be selected in each category for the research study. After disposing off incomplete and unclear details total of 400 samples will be selected for this study.

3.6.3 RESEARCH DESIGN:
In the present study Researcher will take 200 Males and 200 Females. For breakup of the sample of present study, Researcher can use 2x2x2 Research designs and which is under:

<table>
<thead>
<tr>
<th>Gender(A)</th>
<th>Male (A₁)</th>
<th>Female (A₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group (C)</td>
<td>Initial Stage (B₁)</td>
<td>Last Stage (B₂)</td>
</tr>
<tr>
<td>Up to 50 Years(C₁)</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>More than 50 Years (C₂)</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Gender: Male (A₁) and Female (A₂)
Cancer Stages: Initial Stage ($B_1$) and Last Stage ($B_2$)
Age Group: Up to 50 Years ($C_1$) and More than 50 Years ($C_2$)

3.7 TOOLS:

The main objective of the present study is a study Death Anxiety and Psychological well-being among Cancer patients. In the present study Researcher can use two questionnaires, (1) Death Anxiety scale, and (2) Psychological well-being Scale.

3.7.1 PERSONAL INFORMATION:

In the Personal Information of the present study Researcher can include normally Name, Sex, Qualification, Age, Religion, Type of Cancer, Area of residency, Experience, Monthly Income, Type of Family, Married or Unmarried, Category, etc. items included in Personal Information to measure Death Anxiety and Psychological well-being among Cancer patients.

3.7.2 DEATH ANXIETY SCALE:

In order to measure the Death Anxiety of the Cancer patients, “Death Anxiety scale” (1996) by Dr. K.D. Broota, Delhi University was used.

3.7.2.1 Scoring:

In this Scale 9,10,18,21, 23 and 25 for these items person choose their answer out of below “Strongly Agree, Agree, Little Agree, Little Disagree, Disagree and Strongly Disagree. The scoring for these items is 1,2,3,4,5 & 6 and for 1 to 8,11 to 17,19,20, 22, 24 and 26 for these items person choose their answer out of below “Strongly Agree, Agree, Little Agree, Little Disagree, Disagree and Strongly Disagree. The scoring for these items is 6,5,4,3,2 & 1 score is given.

3.7.2.2 Reliability and Validity:

The reliability of this scale is 0.78 and Validity is also very high.

3.7.3 PSYCHOLOGICAL WELL-BEING SCALE:

In order to measure the Psychological well-being of the Cancer patients. “Psychological well-being Scale” (2005) by D.S. Sisodhiya and Pooja Chaudhary was used.
The scale was developed by using likert technique. Suggestions were invited from the experts from different fields such as psychology, sociology, human development, family relations and psychiatry. The final form of scale was thus prepared comprising of 50 statements with a view to measures several aspects of well-being like satisfaction, Efficiency, Sociability, Mental Health and Interpersonal Relations. This scale is considered likely to be useful in a variety of research and applied settings such as a quality of life index, a mental health status appraisal and a measure of psychotherapy outcome evaluation and a social indicator of measuring population changes in sense of well-being over time.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Area</th>
<th>Item</th>
<th>Item wise Sr.no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Satisfaction</td>
<td>10</td>
<td>1 to 10</td>
</tr>
<tr>
<td>2</td>
<td>Efficiency</td>
<td>10</td>
<td>11 to 20</td>
</tr>
<tr>
<td>3</td>
<td>Sociability</td>
<td>10</td>
<td>21 to 30</td>
</tr>
<tr>
<td>4</td>
<td>Mental health</td>
<td>10</td>
<td>31 to 40</td>
</tr>
<tr>
<td>5</td>
<td>Interpersonal Relations</td>
<td>10</td>
<td>41 to 50</td>
</tr>
<tr>
<td></td>
<td>Total items</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

**Life Satisfaction** : The act of satisfying or the state of being satisfied, gratification of desire; contentment in possession and enjoyment, repose of mind resulting from compliance with its desires or demands.

**Efficiency** : The comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labour, etc.). The quality of being efficient or producing an effect or effects; efficient power; effectual agency.

**Sociability** : The relative tendency or disposition to be sociable or associate with one’s fellows. The quality or state of being sociable; also: the act or an instance of being sociable.

**Mental health** : Mental health is a term used to describe either a level of cognitive or emotional well-being or an absence of a disorder.

A person’s overall psychological and emotional condition. Good mental health is a state of well-being in which a person is able to cope
with everyday events, think clearly, be responsible, meet challenges and have good relationships with others.

**Interpersonal Relations**: An interpersonal relationship is an association between two or more people that may range from feeling to enduring. This association may be based on limerence, love and liking, regular business interaction, or some other type of social commitment.

3.7.3.1 **Reliability**: The reliability of the scale was determined by (a) test-retest method and (b) internal consistency method. The test-retest reliability was 0.87 and the consistency value for the scale is 0.90.

3.7.3.2 **Validity**: Besides face validity as all the items of the scale are concerned with the variable under focus, the scale has high content validity. The scale was validated against the external criteria and coefficient obtained was 0.94.

3.7.3.3 **Norms**: Norms for the scale are available for all the age groups. These norms should be regarded as reference point for interpreting well-being index scores. Norms are available for each of the five areas as well as for the entire scale.

An individual with score of 242-250 may be considered to have very high level of well-being. Score ranging from 217-242 represent high level of well-being. The scores from 83-217 would represent normal individuals with moderate well-being. The low score i.e. 58-83, would indicate people with low level of well-being where’s a score of 50-58 represents very low level of well-being. A person with lower level of psychological well-being needs counseling and psychotherapy. For each area, a score of 48-50 may be considered very high level of well-being. Score ranging from 43-48 represent high level of well-being. The scores from 16-43 would represent normal individuals with moderate well-being. The low score i.e. 12-16, would indicate people with low level of well-being wheres a score of 10-12 represents very low level of well-being.
3.7.3.4 Use of scale:

The psychological well-being scale appears to be a reliable and valid tool. It is easy and quick, shows high correlation with other related variables but is relatively independent of them also. It shows significant relationship with therapeutic intervention, hence can be used to evaluate outcome in such cases. It has high reliability and consistency; it is likely to prove a useful tool in all situations.

3.7.3.5 Scoring:

The scale consists of fifty statements are positive manner. 5 marks to strongly agree, 4 marks to agree, 3 marks to undecided, 2 marks to disagree and 1 mark to strongly disagree responses are assigned. The sum of marks is obtained for the entire scale. The higher the score more is the well-being.

3.8 PROCEDURES OF DATA COLLECTION:

For the Procedures of Data Collection of the study Researcher can get information about Cancer Patients and then Researcher meet to them directly and conversant with an importance of the present study. Than Researcher can give questionnaire to all the Cancer Patients who was suffering from cancer in different Cancer Hospitals of Gujarat State and data was collected.

3.9 PROCEDURES OF RESEARCH:

In procedures of research first in relation to main objective Researcher can select right questionnaire and after that Researcher can get information about Cancer Patients (Male and Female) and Researcher meet to them directly and conversant with an importance of the present study. In order to measure Death Anxiety “Death Anxiety Scale” and for Psychological well-being “Psychological well-being Scale” was used. All tests are in Hindi so at first Researcher can translate both test in Gujarati and Pilot study was done and then we measure the reliability and validity of test. Researcher visited many of Cancer Patients (Male and Female) who were suffering from cancer in different Cancer Hospitals of Gujarat State. There were Researcher meeting them directly.
and tests were given and data was collected. At last 200 Male Cancer Patients and 200 Female Cancer Patients who were suffering from cancer in different Cancer Hospitals of Gujarat State were selected finally.

3.10 STATISTICAL ANALYSIS:

After scoring of every test which is fill up by Cancer Patients Researcher can get raw scores and then by help of raw scores Researcher can complete data analysis. First Researcher checks which option which was selected by Cancer Patients and help of them Researcher can give a score to every sentence and at last Researcher get a raw score. Thus, in relation to main objective of the present study all the data was collected from the Male and Female Cancer Patients who was Suffering from cancer in different Cancer Hospitals of Gujarat State and then scoring was done for the help of manual of the questionnaire and at last for getting results Researcher can used 2x2x2 “F” test (ANOVA) method and Correlation (r) for statistical analysis of the present study.

In the next chapter-4 in relation to variables of the present study like Gender, Cancer Stages and Age group results and interpretation was given.