CHAPTER- 3
METHODOLOGY

3.1 Introduction
3.2 Statement of the Problem
3.3 Objectives
3.4 Hypotheses
3.5 Sample
3.6 Variables
3.7 Tools
3.8 Procedure
3.9 Statistical Analysis
CHAPTER 3
METHODOLOGY

3.1 Introduction

In present research an attempt has been made to study mental stress, depression and suicidal tendency among educated unemployed youth with regards to their gender, area of residence and categories. The main objectives of the research, hypotheses, sample, variables under study, tools used for data collection, procedure and techniques of statistical analysis have been discussed in this chapter.

3.2 Problem of the Study

“A study of Mental Stress, Depression and Suicidal Tendency among Educated Un-employed Male and Female Youth”

3.3 Objectives of The Study:

The major objectives of the present research were as under

1. To compare male educated unemployed and female educated unemployed youth with regard to stress.
2. To compare urban educated unemployed and rural educated unemployed youth with regard to stress.
3. To compare educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regard to stress.
4. To study interaction effect between gender and area of residence of educated unemployed youth with regards to stress.
5. To study interaction effect between gender and category of educated unemployed youth with regards to stress.
6. To study interaction effect between area of residence and category of educated unemployed youth with regards to stress.
7. To study interaction effect among gender, area of residence and category of educated unemployed youth with regards to stress.
8. To compare male educated unemployed and female educated unemployed youth with regard to depression.
9. To compare urban educated unemployed and rural educated unemployed youth with regard to depression.
10. To compare educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regard to depression.
11. To study interaction effect between gender and area of residence of educated unemployed youth with regards to depression.
12. To study interaction effect between gender and category of educated unemployed youth with regards to depression.
13. To study interaction effect between area of residence and category of educated unemployed youth with regards to depression.
14. To study interaction effect between gender, area of residence and category of educated unemployed youth with regards to depression.
15. To compare male educated unemployed and female educated unemployed youth with regard to suicidal tendency.
16. To compare urban educated unemployed and rural educated unemployed youth with regard to suicidal tendency.
17. To compare educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regard to suicidal tendency.
18. To study interaction effect between gender and area of residence of educated unemployed youth with regards to suicidal tendency.
19. To study interaction effect between gender and category of educated unemployed youth with regards to suicidal tendency.
20. To study interaction effect between area of residence and category of educated unemployed youth with regards to suicidal tendency.
21. To study interaction effect between gender, area of residence and category of educated unemployed youth with regards to suicidal tendency.

22. To find out correlation between stress and Depression, Stress and suicidal tendency as well as Depression and suicidal tendency of groups of youth.

3.4 Hypotheses

The major hypotheses of the present research were as under

1. There will be no significant deference between male educated unemployed and female educated unemployed youth with regard to stress.

2. There will be no significant deference between urban educated unemployed and rural educated unemployed youth with regard to stress.

3. There will be no significant deference among educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regards to stress.

4. There will be no significant interaction effect between gender and area of residence of educated unemployed youth with regards to stress.

5. There will be no significant interaction effect between gender and category of educated unemployed youth with regards to stress.

6. There will be no significant interaction effect between area of residence and category of educated unemployed youth with regards to stress.

7. There will be no significant interaction effect between gender, area of residence and category of educated unemployed youth with regards to stress.
8. There will be no significant deference between male educated unemployed and female educated unemployed youth with regard to depression.

9. There will be no significant deference between urban educated unemployed and rural educated unemployed youth with regard to depression.

10. There will be no significant deference among educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regard to depression.

11. There will be no significant interaction effect between gender and area of residence of educated unemployed youth with regards to depression.

12. There will be no significant interaction effect between gender and category of educated unemployed youth with regards to depression.

13. There will be no significant interaction effect between area of residence and category of educated unemployed youth with regards to depression.

14. There will be no significant interaction effect between gender, area of residence and category of educated unemployed youth with regards to depression.

15. There will be no significant deference between male educated unemployed and female educated unemployed youth with regard to suicidal tendency.

16. There will be no significant deference between urban educated unemployed and rural educated unemployed youth with regard to suicidal tendency.

17. There will be no significant deference among educated unemployed youth of Open, OBC, Schedule Cast and Schedule Tribe category with regard to suicidal tendency.
18. There will be no significant interaction effect between gender and area of residence of educated unemployed youth with regards to suicidal tendency.

19. There will be no significant interaction effect between gender and category of educated unemployed youth with regards to suicidal tendency.

20. There will be no significant interaction effect between area of residence and category of educated unemployed youth with regards to suicidal tendency.

21. There will be no significant interaction effect between gender, area of residence and category of educated unemployed youth with regards to suicidal tendency.

22. There will be no significant correlation between stress and Depression, Stress and suicidal tendency as well as Depression and suicidal tendency of groups of youth.

### 3.5 Sample and Sampling Design

Sample of the present research was selected randomly from the various areas of Ahmadabad and Gandhinagar city of Gujarat state. Students those who have completed their graduation were included as Educated Unemployed youth in this research. The age range of the sample was 21 to 35 years. Total sample was categorized as under.

<table>
<thead>
<tr>
<th>Category</th>
<th>Educated Unemployed-Male (A1)</th>
<th>Educated Unemployed-Female (A2)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban (B1)</td>
<td>Rural (B2)</td>
<td>Urban(B1)</td>
</tr>
<tr>
<td>OPEN(C1)</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>OBC(C2)</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>SC (C3)</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>ST (C4)</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>
3.6 Variables:

The following variables were studied in present research work.

<table>
<thead>
<tr>
<th>Name of Variable</th>
<th>Nature of Variable</th>
<th>Number of Variable</th>
<th>Level of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Independent Variable</td>
<td>2</td>
<td>Male, Female</td>
</tr>
<tr>
<td>Area of Residence</td>
<td>Independent Variable</td>
<td>2</td>
<td>Urban, Rural</td>
</tr>
<tr>
<td>Category</td>
<td>Independent Variable</td>
<td>4</td>
<td>OPEN, OBC, SC, ST</td>
</tr>
<tr>
<td>Mental Stress</td>
<td>Dependent Variable</td>
<td></td>
<td>Scores on Stress Scale</td>
</tr>
<tr>
<td>Depression</td>
<td>Dependent Variable</td>
<td></td>
<td>Scores on Depression Inventory</td>
</tr>
<tr>
<td>Suicidal Tendency</td>
<td>Dependent Variable</td>
<td></td>
<td>Scores on Suicidal Tendency Scale</td>
</tr>
</tbody>
</table>

3.7 Tools:

In present research following tools were used for data collection.

1. Educated Unemployed Youth Stress Scale by Dr. D.J. Bhatt and R. K. Jarsaniya
2. Back Depression Inventory (BDI) by Aaron Temkin Beck
3. Suicidal Tendency Scale by Dr. D.J. Bhatt and Rasik Meghnathi.

3.7.1 Educated Unemployed Youth Stress Scale (EUEYSS) by Dr. D.J. Bhatt and R. K. Jarsaniya

The Area Covered in the Scale:

The present scale include five important areas which are relatively more prominent and found common in the literature. They are as follows:
1. Physical factor (A)
2. Mental factor (B)
3. Social factor (C)
4. Economical factor (D)
5. Incidental factor (E)

- **Applicability of the Scale:**

The scale was to be designed to use with the normal youths from 21 years old to 29 years old and male or female person. Therefore, it was decided to prepare the scale in regional language namely Gujarati Language for the Gujarati speaking population.

- **Types and number of items:**

The nature of stress is the multifaceted. The stress response (arousal) involves virtually every set of organs and tissues in your body.

Thoughts and feelings are clearly intertwined with these physiological Processes. Anxiety and depression, for example, are not only feelings but also inseparable mental-physiological stages. Body influences mind, and mind influences body. Behaviour often is an outward expression of stress – for example, short –temperedness, fast talking, accidents, and harried movement. All these aspects are the characteristics of educated unemployed youths. With this line of thought, it was decided to develop a Likert type -3- point scale with response alternates: Always, sometimes, and Hardly. It was also decided to have more or 60 items i.e. the twelve for each stress factor also.

- **Method of Combining Dimensions:**

Again, it was also decided to use simple summation method for combining different dimensions of educated unemployed youths stress.

Thus, this tool gives two types of scores. One is each factor wise and secondly total stress score which is considered hare as the stress score of the subjects.
• **Selection of the items:**

The items were constructed by reviewing existing literature and general attitude of people (including educated unemployed youths) towards unemployment. Item selection followed a three step procedure. In the first step, the initial pool of 60 items was selected on the basis of pilot survey of educated unemployed youths. In the second step, these items are given to subject experts for their comments and suggestions and 7 items were deleted and final version remained with 53 items. On the third step, empirical item analyses were performed to check the psychometric properties items analyses were performed with 53 items. On the third step, empirical item analyses were performed to check the psychometric properties of these 53 items. Instructions for administration and scoring procedure were finalized. The scale, being a self administering instrument, was administered to 150 educated unemployed youths with a view to check the usefulness of the items in terms of their content areas and also in selecting the items which are of diagnostic value.

• **Item Analysis:**

Item – total correlation is one of the techniques to measure the validity of the items. The criterion for selecting the item on the basis of item-total correlation was set at 0.30 an item-total correlation >0.25 was established as acceptable and one item whose item-total correlation was less than 0.25 was deleted. Item analysis of the 53 items using Karl Pearson correlation procedure yielded 40 items with significant coefficient of correlation ranging from 0.25 to 0.61. All the r-values were highly significant at 0.01 level. Therefore, in the final version 40 items were retained and other 13 items were deleted. Mostly items of the scale were positively with negative meaning whereas the items No. 15 and 17 were positively worded. All these items were scored “3,2 and 1” depending on
the direction of the items. The sum of these values indicates the stress score. The total score varied from 40 to 120 showing lowest stress score to highest stress score for the subject, similarly, it shows factor-wise score also.

- **Administration:**
  
  The EUEYSS is a self-administering instrument. The respondents are requested to read the instruction carefully and ask the tester if there is any difficulty in understanding the instruction. It is emphasized that no item should be imported and there is nothing “RIGHT” or “WRONG” about these items. It is also assured that responses will be kept strictly confidential and will be used only for research purpose. There is no time limit for the EUEYSS. However, it takes about fifteen minutes to complete it.

- **Response Mode:**
  
  Three response categories are provided for each item: Always, Sometimes and Hardly. The subjects are requested to tick marked your correct answer for all the items.

- **Scoring Technique:**
  
  The scoring technique is based on the Likert-type scale. All these items were scored “3, 2, and 1” depending on the direction of the statement. The sum of these values shows the stress score. The total score varied from 08 to 242 showing lowest stress score to highest stress for each factor of the subject. A high score on the factor of stress scale shows extremely high stressful position while low score suggests extremely low stressful situation.

- **Normative Sample:**
  
  For the purpose of standardization the EUEYSS was given to a group of 960 male and female youths. The stratified random sampling technique was applies to choose the sample from the population. The said
A stratified random sample was taken from two Districts (Rajkot and Junagadh) of Saurashtra region including both areas rural and urban. The age of the subject ranged from 21 to 29 years. The average number of the respondents generally belonged to middle socio-economic status. As whole, all the subjects are educated but they are unemployed male and female youths. Their education level was Graduate (B.A.), B.Ed. and Post-graduate (M.A.) or both at the item of data collection.

- **Result Interpretation:**

  THE mean, median, mode and S.D. for the sample are given in Table. The distribution seems to be slightly positively skewness.

  **Showing Mean, Median, Mode and S.D. for EUEYSS (N=960)**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.64</td>
<td>76.75</td>
<td>79.57</td>
<td>12.91</td>
</tr>
</tbody>
</table>

  **Showing Skewness, Kurtosis and S.E. for EUEYSS**

  (N=960)

<table>
<thead>
<tr>
<th>Indices</th>
<th>Value</th>
<th>S.E.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skewness</td>
<td>0.068</td>
<td>0.115</td>
<td>NS</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.253</td>
<td>0.158</td>
<td>NS</td>
</tr>
</tbody>
</table>

  The skewness and Kurtosis for the sample are found to be 0.068 and 0.253 respectively.

  For the normal curve formula (25) gives Ku=0.263. If ku is greater than 0.263 the distribution is platy Kurtic. If less than 0.263 the distribution is lepto Kurtic. Calculating the Kurtosis of the distribution of 960 subjects. We obtain Ku=0.253 therefore it was slightly lepto kurtic. Since the S.E. of confidence it is interpreted that the sample does not differ from normality (MCNemer, 1962).
- **Reliability:**

Before discussion of reliability, we clarify the concept of standardization. According to Anastasi and Urbina, Suzanna (2004), standardization implies uniformity of procedure in administering and scoring the test; the scores obtained by different individuals are to be comparable, testing condition must obviously be the same for all.

Cronbach explained that a standardized test is one in which the procedure, apparatus and scoring have been fixed, so that precisely the same test can be given at different times and places. Keeping these facts in mind, the following methods are adopted for reliability of the scale. Co-efficient of reliability was determined by two methods namely (1) split-half and (2) Test-retest method. The following tables suggest the reliability co-efficient of correlation by different method.

- **Reliability of Educated unemployed Youths stress scale**
  
  (N=960)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Method</th>
<th>N</th>
<th>‘r’ value</th>
<th>Index of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Split-Half Method (Spearman-Brown formula)</td>
<td>960</td>
<td>0.90**</td>
<td>0.95</td>
</tr>
<tr>
<td>2</td>
<td>Test-retest Method</td>
<td>160</td>
<td>0.86**</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Time interval 4 weeks for test-retest method

**r value is significant at 0.01 level.

Besides this, depending upon the five factors split-half and test-retest reliability were found out. Information regarding this is given in Table:
- EUEYEE’S Factors split-Half reliability

(N=960)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factor</th>
<th>N</th>
<th>‘r’ value</th>
<th>Index of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physical factor</td>
<td>960</td>
<td>0.72**</td>
<td>0.84</td>
</tr>
<tr>
<td>2</td>
<td>Mental Factor</td>
<td>960</td>
<td>0.69**</td>
<td>0.83</td>
</tr>
<tr>
<td>3</td>
<td>Social Factor</td>
<td>960</td>
<td>0.70**</td>
<td>0.84</td>
</tr>
<tr>
<td>4</td>
<td>Economical Factor</td>
<td>960</td>
<td>0.65**</td>
<td>0.81</td>
</tr>
<tr>
<td>5</td>
<td>Incidental Factor</td>
<td>960</td>
<td>0.62</td>
<td>0.79</td>
</tr>
</tbody>
</table>

** r-value is significant at 0.01 level.

Table No.5 indicated the split-half reliability for Youths stress factor. It was concluded that the Youths Stress factors were highly reliable in term of internal consistency.

EUESS’S Factors Test-Retest Reliability

(N=160)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factor</th>
<th>N</th>
<th>‘r’ value</th>
<th>Index of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physical factor</td>
<td>160</td>
<td>0.68**</td>
<td>0.82</td>
</tr>
<tr>
<td>2</td>
<td>Mental Factor</td>
<td>160</td>
<td>0.62**</td>
<td>0.79</td>
</tr>
<tr>
<td>3</td>
<td>Social Factor</td>
<td>160</td>
<td>0.70**</td>
<td>0.84</td>
</tr>
<tr>
<td>4</td>
<td>Economical Factor</td>
<td>160</td>
<td>0.58**</td>
<td>0.76</td>
</tr>
<tr>
<td>5</td>
<td>Incidental Factor</td>
<td>160</td>
<td>0.56**</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Test-retest time interval=1 month (4 weeks)

**r-value is significant at 0.01 level.

The obtained r-value 0.68, 0.62, 0.70, 0.58 and 0.56 respectively have found to be significant at 0.01 percent level showing the Youths stress factors were reliable.
Validity:

Mainly two types of validity have been verified for the youths stress scale viz. content and contrast validity.

Content validity:

For appropriate selection of the items, preliminary from of the youths stress scale was administered on 150 subjects of both the sexes. Eight item having satisfactory ‘r’ values were selected for each factor of youths stress scale. Again, each item was observed for its content by the various experts and psychiatrists.

Contrast groups Validity:

This validity was estimated by adopting contrast groups. Contrast groups can be selected on the basis of any criterion such as Q3 and Q1. The method of contrasted groups is used quite commonly in the validation of the scale. Here, sex is considered for validity. The relevant data are produced in table.

**Contrasted group Validity of Stress Scale for Sex**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Source</th>
<th>Contrast Groups</th>
<th>Stress score</th>
<th>SED</th>
<th>t-value</th>
<th>Sig. level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Physical factor</td>
<td>High Q3 Low Q1</td>
<td>100</td>
<td>15.30</td>
<td>1.20</td>
<td>0.18</td>
</tr>
<tr>
<td>2</td>
<td>Mental Factor</td>
<td>High Q3 Low Q1</td>
<td>100</td>
<td>21.40</td>
<td>1.10</td>
<td>0.16</td>
</tr>
<tr>
<td>3</td>
<td>Social Factor</td>
<td>High Q3 Low Q1</td>
<td>100</td>
<td>18.10</td>
<td>1.07</td>
<td>0.15</td>
</tr>
<tr>
<td>4</td>
<td>Economical Factor</td>
<td>High Q3 Low Q1</td>
<td>100</td>
<td>20.30</td>
<td>1.07</td>
<td>0.15</td>
</tr>
<tr>
<td>5</td>
<td>Incidental Factor</td>
<td>High Q3 Low Q1</td>
<td>100</td>
<td>17.64</td>
<td>1.18</td>
<td>0.17</td>
</tr>
</tbody>
</table>
Table indicated that there was significant mean difference between the respondents high & low group and their stress score. The obtained t-values – 27.25, 30.16, 38.63,40.59, and 23.80 were highly significant at 0.01 percent level. Therefore, it can be said that high stress group mean was significantly higher than low stress group. On the basis of t-values, it is concluded that there is need for separate percentile norm for sex variable.

3.7.2 Back Depression Inventory (BDI)

The BDI is a self-administered 21 items self-report scale measuring supposed manifestations of depression. The BDI takes approximately 10 minutes to complete, although clients require a fifth-sixth reading age to adequately understand the questions Groth-Marnat, 1990.

- **Reliability:**

  Internal consistency for the BDI ranges from .73 to .92 with a mean of .86. (Beck, Steer, & Barbin, 1988). Similar reliabilities have been found for the 13-items short from (Groth-Marnat, 1990). The BDI demonstrates high internal consistency, with alpha coefficients of .86 and .81 for psychiatric and non-psychiatric populations, respectively (Beck et al., 1988).

  Split-half/Cronbach’s Alpha: The BDI has a split-half reliability coefficient of .93.

- **Test- Retest Reliability:**

  Beck et al., (1961) did not recommend conventional test-retest reliability for his original measures for the BDI (1961). Beck suggested that if the BDI was re-administered within a short interval then scores could be spuriously inflated due to memory factors. If the test was re-administered after a long interval then consistency would be lower due to the intensity of memory factors. If the test was re-administered after a long interval then consistency would be lower due to the intensity of
depression. Alternate test-retest reliability methods by Beck et al., (1961) found that regardless of whether the 2 tests were reissued at 2 or 6 weeks intervals the scores on the inventory tended to reflect changes in the clinical depth of depression. However, growth Marnat (1990) reported that re-test reliabilities ranged from .48 to .86, depending on the interval between re-testing and type population.

- **Alternate From reliability:**
  
  Correlation’s between the 21 items and 13-items short from have ranged from .89 to .97 indicating that the short from is an acceptable substitute for the long form? (Beck, Rial, & Rickels, 1974). However, readers are drawn to the possible “sins” of short form development.

  Criterion (or Predictive) Validity: The BDI has been able to discriminate the level of adjustment in seventh-garders.

- **Content Validity:**
  
  The content of the BDI was obtained by consensus from clinicians regarding symptoms of depressed patients. The revised BDI items are consistent with six of the nine DSM-III categories for the diagnosis of depression.

  Concurrent validity: Correlations with clinical rating of depression using the revised BDI range from .62 to .66. Clinical rating for Psychiatric patients are reported as high to moderate ranging from .55 to .96 Man r=.72. Groth-Marnat reported moderate correlations between the revised BDI and other scale measuring depression such as the Hamilton Psychiatric Rating Scale Depression (.73) and the Zung Self reported depression Scale (.76) and the MMPI depression scale (.76).

- **Construct Validity:**
  
  Groth-Marnat reported that controversy exists over whether the revised BDI is measuring state or trait variables. Furthermore, it has been suggested that the BDI is not specific to depression, in like the DASS.
- **Convergent and Discriminate Validity:**
  Discriminate analysis has found that the translate version of the revised BDI highly discriminates depressive symptoms in Spanish, Persian and Chinese speaking people. Groth Marnat reports that the revised BDI discriminates Psychiatric patients from non-psychiatric patients as well as relatively higher scores for patients with major depressive disorder compared to patients with dysthymic disorder. The revised BDI has also been used to discriminate loneliness, stress and self reported anxiety.

- **Interpreting the Beck Depression Inventory (Bdi-II)**
  Add up the score for each of the 21 questions by counting the number to the right of each question you marked. The highest possible total for the whole test would be sixty-three and the lowest possible score for the test would be zero. This would mean you circles zero on each question. You can evaluate your depression according to the Table below.

  **Total Score Levels of Depression**
  0-10 = These ups and downs are considered normal
  11-16 = Mild mood disturbance
  17-20 = Borderline clinical depression
  21-30 = Moderate depression
  31-40 = Severe depression
  over 40 = Extreme depression

  A Persistent Score of 17 or Above Indicates That You May Need Treatment.

- **3.7.3 Suicide Tendency Scale by Dr. D.J. Bhatt and Rasik Meghnath**
  - **Meaning of Suicidal Tendency:**
    The current definition of Suicidal activity includes much more than the obvious action undertaken by “A person who is aware that this action will lead to his or her own death” in this broader view; sociologist
consider self injury (crippling or maiming) unnecessary risk-talking, verbalized threat of self-harm, feeling of despair depression, and hopelessness, and thoughts of separation, departure, and relief, all as signs of personal despair and/or social alienation that may lead to a suicide attempt.

- **Construction of the Scale**

  **The Suicide Tendency Scale** can be used for any person those who 16 years age or above. This scale is developed and standardized by Rasik Meghnathi and Dilip Bhatt (2002).

  The items of the scale have been selected on the base of literature and judgment of experts all the items of the scale are presented in simple and brisk style.

  On the basis of available literature review and related existing tools, the preliminary scale of suicidal tendency was prepared which consist 80 items. The present scale is based on the book “Abnormal Psychology” 8th Edition, by Irwin, Barbara Sarson.

  These items are related with four modes of suicidal tendency, each mode has 10 items. STS modes and items described as under:

  a. **Personality Trait:** The items of this mode is related to feeling of restlessness, boredom, general lack of interest, vague fears and anxieties, disturbed sleep, self-hate etc.

  b. **Emotional Disturbances:** This mode is related to hopelessness, weakness, lake of interest, deprivation to intimate relationship, loneliness, short temperedness, disability to express feeling, disturbance in work etc.

  c. **Confictive thoughts:** It is concern with disappointed past experiences, insecurity, anxiety, avoiding responsibility, inferiority, complex, meaningless, guilt feeling, mental instability etc.
d. **Self-harm tendency**: These items are connected with death wishing behavior viz. carelessness, self-inflicted act, injury unnecessary risk taking, verbalized threat of self-harm, feelings of despair, and depression.

**Administration of Scale:**

The preliminary scale with 80 items of S.T.S. was administered on total Sample (N=140) selected items from various types of subjects groups which are students of 11th to T.Y. B.A. (N=70), Literate and literate persons (N=40), physically Handicapped (N=20). Suicidal Attempters(N=10). The data were analyzed according to scoring key and prepared a merit list of scoring subjects were divided into two groups viz. upper Level group (27%) were indicate High Scores and the Lower Level Group (27%) were indicated Low Scores. The Middle group was not considered in this process.

Finally the ten items of each of the four modes of STS have been selected on the basis of quotient of D.V. and D.I. 40 items were selected which was indicated 50% (or nearly about 50%) quotient of D.V. and D.I.

**Scoring Technique of the STS:**

All the 40 items of the scale are presented in simple and brisk style. Each of the 40 items has four alternate like as under bellow:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

The obtained scores for each of the four categories varied in between 10 to 40 High Scores in each category is indicated high potentiality of suicide tendency. Low scores are indicated lack of potentiality in suicidal tendency or low potentiality in suicidal tendency.
• **Reliability:**

For the established the reliability co-efficient, the scale was administered to 160 subjects both males and females belonging to Urban and Rural area of Surendranagar (Age range 16 to 30 years) the split-half reliability has been calculated by odd-even method. The correlation coefficient was 0.92 which indicated the S.T.S. is highly reliable. (Index of reliability was found 0.96).

The test-retest reliability of this scale has also been calculated by administration twice of this scale on a sample of 80 subjects the reliability coefficient was r. 0.83 (index of reliability was 0.91).

• **Validity:**

The validity of the scale has been calculated for the criterion validity. The scale was administrated to two groups Normal (N=40) and Abnormal (N=40) in Abnormal group has been comprised the patients of depression, suicidal attempters, schizophrenia and other Neurosis diagnosed b psychiatrics the abnormal group was indicated high scores of suicide tendency than normal group on the scale.

The t-test was applied for calculation of differences between above both groups there is significant differences between above both groups. The abnormal group was significantly higher than normal group in their Suicidal tendency.

Norms are remained to be established. The scale is prepared in Gujarati version for Gujarati speaking population.

**Score Interpretation:**

Score Classified to interpret as under

<table>
<thead>
<tr>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-40</td>
<td>Normal</td>
</tr>
<tr>
<td>41-80</td>
<td>Lower Tendency</td>
</tr>
<tr>
<td>81-120</td>
<td>Higher Tendency</td>
</tr>
<tr>
<td>121-160</td>
<td>Sevier Tendency of Suicide</td>
</tr>
</tbody>
</table>
3.8 Procedure:

After establishing rapport with each participant Educated Unemployed Youth Stress Scale, Back Depression Inventory (BDI) and Suicide Tendency Scale were administered in individual setting. After completing the data scoring of each response of each respondent was done by the scoring key of each tool.

3.9 Statistical Analysis:

To find out main and interaction effect of three independent variables such as gender, area of residence and category of educated unemployed youth on dependent variable such as scores of mental stress, depression and suicide tendency three way Analysis of Variance was used. To find out simple effect between any two groups of educated unemployed youth in relation to mental stress, depression and suicidal tendency LSD was used. More over to find out and Co-relation between mental stress and depression, mental stress and suicidal tendency, depression and suicidal tendency among educated unemployed youth Correlation the method of Carlperson Product Moment Correlation was used.