METHODOLOGY

The Research Design
The Sample and Sampling Procedure
The Tools for Data Collection
Administration of the Tools
Consolidation of the Data
Statistical Techniques Used in the Study
4.1. THE RESEARCH DESIGN

The present research is descriptive type of research. Data are collected using interview and questionnaire method. The aim is to identify the various characteristics of the problem under study. It can reveal potential relationship between variables and a set background for more elaborate investigation. As Best and Khan (1992) have put it, “it is concerned with conditions or relationships that exist, opinions are held, processes that are going on, effects that are evident or trends that are developing.”

This research also uses correlational approach which focuses on assessing the relationship among naturally occurring variables. The goal in this type of research is to identify the predictive relationship between variables. The co-relational research method used in this study analyses the difference between the alcoholics who are abstinent and those who relapse, in certain psychological variables. The attempt is to assess the impact of these variables in favoring abstinence or controlling relapse.

An inherent limitation in correlational studies is that they do not make causal inferences. The researcher may be able to predict that subjects who score high in the variables studied are likely to be able to keep abstinent from alcohol. But this does not mean that it is these variables, which cause or determine abstinence.

The investigation also includes case studies. Four case studies are taken up for in-depth study. Case studies give concrete examples of the
influence of the variables in the actual life situations of the subject. The inclusion of the case studies gives a qualitative nature to the study.

4.2. THE SAMPLE AND SAMPLING PROCEDURE

4.2.1. The Population of the Study

The population of the study is the patients treated for alcohol use disorder. They are patients treated at de-addiction treatment centres aided by the Ministry of Social Justice and Empowerment under the Government of India.

The sample for the study is drawn from alcoholic patients treated at de-addiction treatment centres and associated at Alcoholics Anonymous groups. For clarity a brief explanation on de-addiction treatment centres and Alcoholics Anonymous groups is given before describing the sampling procedure.

4.2.2. De-addiction Treatment Centres

The ministry of Social Justice and Empowerment has the mandate of coordinating alcohol/drug demand reduction strategy of the Union Government. Under the scheme for prevention of alcoholism and substance abuse the non-governmental organizations have the responsibility for delivery of the services and the ministry bears 90 percent of the prescribed grant amount (95 percent for the North Eastern states, Sikkim and Jammu and Kashmir).
The ministry funds for:

- Drugs awareness and counseling centres.
- Treatment-cum-rehabilitation centres.
- De-addiction camps and workplace drug prevention programmes.

T.T. Ranganathan Clinical Research Foundation (T.T.K. Hospital) Chennai is entrusted with the task of tabulating and assessing the best practices and evolve common minimum guidelines.

Accordingly treatment cum-rehabilitation centres are to provide:

- Preventive education and awareness building
- Assessing and motivating the clients to take help
- Detoxification and medical care
- Psychological therapy
- Vocational rehabilitation
- After care and follow up

Both medical and psychological services are provided on an inpatient basis. After care and follow-up services are provided on an outpatient basis. Medical services are provided by the physician, psychiatrist and nurses and psychological services are provided by social worker, psychologist, and sociologist or a recovering person with a minimum of two years of sobriety.

Medical care to be provided in a detoxification centre includes:

- Detoxification to make the withdrawal period safe.
- Treatment for other related medical and psychiatric disorders that are within the scope of the centre.
Psychological services include:

- Assessing the problems related to addiction and motivating the addict to participate actively in the treatment.
- Individual counseling, group counselling, family counseling etc and Yoga.

Re-educative sessions on topics like the disease concept of alcoholism, addiction related damages, relapse, overcoming personality defects, methods to stay sober, self-help support group principles and HIV-AIDS, assertiveness, decision making, problem solving skills etc.

The centre is also expected to render vocational rehabilitation and after-care services. The recovering addict should be given a vision for resetting in the society. Vocational training is given to patients and those who have been dismissed due to addiction are helped to get back to prior employment.

After care/follow-up activities include counselling, relapse prevention programme, self-help programme, reaching out to patients through home visits etc.

De-addiction-cum rehabilitation centres carry out these activities through a team consisting of a project director, counsellors, medical officer, psychiatrist, general physician, nurses, ward boys, counsellors, social workers, psychologists, recovering addicts, yoga therapist and accountant.
4.2.3. Alcoholics Anonymous Groups

As mentioned in earlier in chapter 1, self-help groups of alcoholic patients, namely, Alcoholics Anonymous was started in 1935 in U.S.A. Subsequently such groups were started in other countries also. Patients who have undergone treatment and others who want quit drinking associate themselves to such groups and gather together on prefixed days.

Alcoholic Anonymous groups were started in India in 1957. The number of A.A. units increased by and large. Now we can find A.A. groups in every nook and corner of the country. Now there is organizational networking among different A.A. groups. There are different inter groups from one end of the state to the other. The various local A.A. units function as a cluster under the umbrella of each inter group.

4.2.4. The Sample

The sample consists of 150 subjects belonging to the following three groups.

4.2.4.1. Alcoholics Who are Abstinent

50 subjects are alcoholic patients who are abstinent. They were identified as alcohol use disorder patients or psychologically dependent on alcohol. They have undergone treatment in any of the de-addiction treatment centres assisted by Government of India. They have
completed more than one year since treatment and are abstinent for more than one year.

4.2.4.2. Alcoholics Who Have Relapsed

50 subjects are alcoholic patients who have relapsed. They were identified as alcohol use disorder patients or psychologically dependent on alcohol. They have undergone treatment in de-addiction treatment centres assisted by the Government of India. This group of subjects also have completed more than one year since treatment and have relapsed, i.e. indulged in drinking again.

4.2.4.3. Non-alcoholic Group

This group includes 50 non-alcoholic individuals. The subjects in this group were selected from the society with utmost care to ensure that they are comparable with those of other two groups in all respects other than the use of alcohol. It does not mean that they have never tasted alcohol in life. But they are not dependent on alcohol and other substances. In other aspects such as age, education, religion, family income, family size etc. care was taken that they are similar to the subjects in the other two groups. In their selection the investigator has used his discretion.

4.2.5. Inclusion and Exclusion Criteria

All the subjects of the study have completed 18 years. They were either professionally diagnosed or self-identified as having alcohol use
disorder or psychologically dependent on alcohol. Only those who have undergone treatment for alcohol use disorders and have completed more than 12 months after treatment are selected for study.

Patients with, different religious, educational and economical backgrounds are taken for study. All the subjects are male. Patients with co-morbid psychiatric disorder, organic brain syndrome or mental retardation are not included in the study. The patients participated in the study voluntarily.

4.2.6. Selection of Subjects

The first two groups (alcoholic patients who are abstinent and alcoholic patients who have relapsed) were selected from patients treated at four de-addiction treatment centres, namely, ADART De-addiction Treatment Centre Palai, Kottayam, Nirmal Nikethan De-addiction Treatment Centre, Thrippoonithura, Ernakulam, Unity Group De-addiction Treatment Centre, Perumbavoor, and Divine De-addiction Treatment Centre, Muringoor, Trichur. These de-addiction treatment centres are financially and technically assisted by Government of India. There are 20 such de-addiction treatment centres in Kerala. (Their list is given in the Appendix). There are numerous A.A. groups located in cities as well as villages. The local A.A. groups belong to the different inter groups which are stretched out in the state from one end to the other. Subjects for the study belong to the central districts of Kerala, namely, Kottayam, Alleppy, Ernakulam, Idukky, and Trichur. Since all these treatment centres function according to the directives and
guidelines given by the ministry there is no possibility for difference in the treatment strategy.

Patients who have completed one year after treatment were selected. Names of patients were excluded as per the exclusion criteria explained earlier. The list included only patients who have undergone the full course of three weeks’ duration and those who have no co-morbid psychiatric disorders. They were classified into patients who are abstinent and relapsed in consultation with the counselors and social workers. The veracity of this classification is ascertained when the test was administered.

From the list of patients 60 each subjects were preliminarily selected foreseeing the possibility of missing some of them during the course of the test. Subjects were selected in such a way that subjects of different economic, educational, religious, social, different family and marital status, rural and urban backgrounds are included in the sample. Addresses and phone numbers of the subjects were also collected. For administering the tests the patients were met in the various A.A. centres or at their houses, according to their convenience.
4.2.7. Classification of Subjects

The three groups of subjects were classified using various criteria as shown below:

Table 1

Classification of the Subjects: Age-Wise

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>35&amp; Below</th>
<th>36-40</th>
<th>41-44</th>
<th>45&amp; Above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>13</td>
<td>19</td>
<td>8</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>10</td>
<td>6</td>
<td>13</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-alcoholics</td>
<td>11</td>
<td>17</td>
<td>9</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34</td>
<td>42</td>
<td>30</td>
<td>44</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 1 shows that the age of the subjects varied from 24 to 60. Based on age the subjects in the three groups were categorized under four subgroups, namely, up to 35, between 36-40, 41-44 and 45 and above. There was no drastic difference between the groups of subjects in the distribution of age categories. The age categories of different groups of subjects were more or less evenly distributed.
Table 2

Classification of the Subjects: Religion-Wise

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Hindus</th>
<th>Christians</th>
<th>Muslims</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>14</td>
<td>31</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>12</td>
<td>34</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-alcoholics</td>
<td>15</td>
<td>31</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>41</td>
<td>96</td>
<td>13</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 2 shows that majority of subjects in the three groups belonged to Christian religion and very few belonged to Muslim religion.
Table 3

Classification of the Subjects: Education-Wise

Subjects were classified as per different educational levels such as: below SSLC, SSLC, Plus 2, Degree and Diploma.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Below SSLC</th>
<th>SSLC</th>
<th>Plus 2</th>
<th>DC &amp; Diploma</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>21</td>
<td>10</td>
<td>15</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>19</td>
<td>17</td>
<td>10</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non alcoholics</td>
<td>19</td>
<td>10</td>
<td>13</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59</td>
<td>37</td>
<td>38</td>
<td>16</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 3 shows that almost two third of the subjects had only the educational level of SSLC and only about 10 percent of the subjects had educational level of degree and diploma. This difference was maintained almost uniformly in all the three groups of subjects, namely, the relapsed, abstinent and non-alcoholic groups.
Table 4

Classification of the Subjects as per Marital Status

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Married</th>
<th>Unmarried</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>43</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>46</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-alcoholics</td>
<td>41</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>130</td>
<td>20</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 4 shows that 130 out of 150 subjects were married and only 20 were unmarried. There was no much difference between groups on the basis of marital status.
Table 5

Classification of the Subjects as per Separation from Spouse

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Separated</th>
<th>Not Separated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>6</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>5</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-Alcoholics</td>
<td>3</td>
<td>47</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td>136</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 5 shows that only 14 out of 150 subjects were separated from spouse. The relapsed group had more number of subjects who were separated from spouse.
Table 6

Classification of the Subjects as per Family Size

Subjects were classified as per family sizes of 3 members, 4, 5, 6 and 7.

<table>
<thead>
<tr>
<th>No</th>
<th>Subjects</th>
<th>3 Members</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>0</td>
<td>15</td>
<td>25</td>
<td>9</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>2</td>
<td>12</td>
<td>23</td>
<td>12</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-Alcoholics</td>
<td>1</td>
<td>16</td>
<td>24</td>
<td>9</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3</td>
<td>43</td>
<td>72</td>
<td>30</td>
<td>2</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 6 shows that almost the half of the subjects had a family size of 5 members. Most of the subjects belonged to families having 4, 5 or 6 members. Only 5 subjects had family size with 3 or 7 members. With regard to family size there was no much difference between groups.
Table 7

Classification of the Subjects: as per Family Income

Subjects were classified as per different levels of family monthly income such as: upto Rupees 3000, between Rs. 3000 and 4000, between Rs. 4000 and 5000, between Rs. 5000 and 6000 and above Rs. 6000.

<table>
<thead>
<tr>
<th>No</th>
<th>Subjects</th>
<th>Upto Rs. 3000</th>
<th>3000-4000</th>
<th>4000-5000</th>
<th>5000-6000</th>
<th>6000&amp; More</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>3</td>
<td>24</td>
<td>17</td>
<td>4</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>6</td>
<td>23</td>
<td>13</td>
<td>4</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-alcoholics</td>
<td>0</td>
<td>8</td>
<td>19</td>
<td>15</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9</td>
<td>55</td>
<td>49</td>
<td>23</td>
<td>14</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 7 shows that more than two third of the subjects had family monthly income between Rupees 3000 and 5000. Non-alcoholics are found to have more family income than the other groups of alcoholics.
Table 8

Classification of the Subjects as per Financial Debt

Subjects were classified as per having financial debt.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Having Debt</th>
<th>Having No Debt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>35</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>19</td>
<td>31</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-Alcoholics</td>
<td>17</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>71</td>
<td>79</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 8 shows that 35 out of 50 subjects in the group of alcoholics who have relapsed had financial debt. Financial debt was less in the other groups. There was only slight difference between abstinent alcoholics and non-alcoholics in having financial debt.
Table 9

Classification of the Subjects: As per the Age of First Drink

The subjects were classified as per different ranges of the age of first drink such as: upto 10, 11-14, 15-18, 19-22, and above 22.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Upto 10</th>
<th>11-14</th>
<th>15-18</th>
<th>19-22</th>
<th>Above 22</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>2</td>
<td>5</td>
<td>17</td>
<td>19</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>2</td>
<td>2</td>
<td>15</td>
<td>17</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-Alcoholics</td>
<td>0</td>
<td>5</td>
<td>24</td>
<td>20</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
<td>12</td>
<td>56</td>
<td>56</td>
<td>22</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 9 shows that most of the subjects in all the three groups had the age of first drink between the age of 15 and 22.
Table 10

Classification of the Subjects as per Father’s Alcoholism

<table>
<thead>
<tr>
<th>No.</th>
<th>Subjects</th>
<th>Father is Alcoholic</th>
<th>Father is not Alcoholic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Relapsed Alcoholics</td>
<td>42</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Abstinent Alcoholics</td>
<td>32</td>
<td>18</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Non-Alcoholics</td>
<td>12</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>86</td>
<td>64</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 10 shows that 74 out of 100 alcoholic subjects had alcoholic father. Only 12 out of 50 non-alcoholic subjects had alcoholic father. More number of relapsed alcoholics had alcoholic father than the other two groups.
4.3. THE TOOLS FOR DATA COLLECTION

The following tools were employed in the study:
1. Stress Tolerance Scale
2. Social Support Perception Scale
3. Alcoholics Anonymous Affiliation Scale
4. Spirituality Scale
5. General Data questionnaire

4.3.1. Stress Tolerance Scale

4.3.1.1. The Concept of Stress Tolerance

Stress Tolerance Scale was developed by Reshmy C.S. and Dr. H. Sam Sananda Raj (1999).

Stress is the wear and tear on the body one experiences as he/she adjusts to the continually changing environment. It is the internal response caused by the application of a stressor.

The severity of stress depends on the stressor’s characteristics and on the resources of the person facing stressful situations. These are called situational and personal characteristics. Thus a person who is sure of his/her capacities and feels confident and secure is less likely to experience than a person who is not.
An emotionally mature person can adjust to reasonable amount of stressful situations. If however a person is only marginally adjusted, the slightest frustration or pressure may be highly stressful.

Stress tolerance is a person’s ability to handle emotionally charged situations and to resist burnout in demanding environment. In other words it is the ability to withstand stress without becoming seriously impaired (Carson & Butcher, 1998).

There are certain physiological responses like headache, joint and muscle pain, upset of stomach etc. when a person is faced with stressful situations. By being sensitive to these different cues we can discover our stress tolerance level. However, there are standardized measures by which we can measure the level of stress scientifically.

4.3.1.2. Instructions Given to Subjects

Certain statements related to life experiences are given below. As far as you are concerned, all these may not be true. Yet you are requested to give your responses for all the statements thinking that you have to face these situations. You have to put a ‘✓’ mark on any of the five alternatives, namely, A, B, C, D or E so as to indicate the extent of your agreement with these statements. ‘A’ stands for strongly agree, ‘B’ for agree, ‘C’ for undecided, ‘D’ for disagree, and ‘E’ for strongly disagree. Please do not omit any item. Your response will be kept confidential and will be used for research purposes only.
4.3.1.3. Administration and Scoring

The present scale has 24 items with equal number of positive and negative items. Negative items are: 2, 4, 5, 6, 12, 14, 17, 18, 19, 22, 23 and 24. Others are positive.

The test can be administered individually or in groups. The subjects were asked to fill in the particulars in the answer sheet. There are five response choices corresponding to each item. Strongly agree (A) Agree (B) undecided (C) Disagree (D) and strongly disagree (E).

The subject’s response is made by marking a ‘✓’ mark against the answer. For positive items scores of 5, 4, 3, 2 and 1 are given for answers A, B, C, D and E respectively and for negative items scores of 1, 2, 3, 4 and 5 are given respectively. The scores of 24 items are added to get the total score.

4.3.1.4. Reliability and Validity

Split half reliability, correlating odd-even items, applying Carl Pearson’s Product Moment Formula is found to be 0.7. The reliability coefficient for the whole test using Spearman’s Brown Formula is calculated as 0.82. The values are significant at 0.01 level of significance.

The test has got a high degree of empirical or criterion related validity. When the test was correlated with the “Stress Tolerance Inventory” the correlation coefficient was found as 0.72.
4.3.2. Social Support Perception Scale

4.3.2.1. The Concept of Social Support Perception

Social Support Perception Scale was developed by Jose Thelakkatt and Dr. H. Sylaja (2005).

Social Support represents the positive area of interpersonal relationship. For a healthy human life individuals need concern, care and attention from others. It refers to the information leading an individual to believe that he is cared for, loved, esteemed and valued and that he belongs to a network of communications and mutual obligations (Coff, 1996).

Psychologists make distinction between received and perceived social support. Received social support means the actual support an individual receives. Perceived social support represents the subjective perception that social network members are available to provide social support. It is the perceived social support which is more psychologically important because social support is in fact support only if the person believes that it is available.

Social support has informational, emotional and instrumental components. It can be experienced in the form of information one receives when he is in confusion. It can be experienced in the form of emotional support at times of stress. It can be received in the form of materials in times of need.
Social support can have different sources. It may be provided by the family, friends and society to which the individuals belong. Each of these has its own significance as per the different circumstances.

The present scale taps the various dimensions of support an individual experiences as subjectively perceived by him or her.

### 4.3.2.2. Preparation of Items for the Draft Scale

Social Support Perception Scale construction was started with a review of literature regarding the concept of social support and its various dimensions. A set of 36 items were prepared covering the different aspects of social support. All the items were in the form of self-evaluative and/or self-descriptive statements. The items were prepared in such a way that there were positive and negative items and were arranged in a random order.

### 4.3.2.3. Instructions Given to the Subjects

The test materials of the social support perception scale (draft form) consisted of a questionnaire in which instructions and 36 items were printed with response choices. The following instructions were given to the subjects.

“Given below are a few statements regarding your relationship with family, friends and other people. Please note whether you agree or disagree with these statements. There are five response choices corresponding to each item, namely, A, B, C, D and E. ‘A’ denotes
“strongly agree”, ‘B’ denotes agree”, ‘C’ denotes “undecided”, ‘D’
denotes “disagree” and ‘E’ denotes “strongly disagree”. After reading
each statement you are requested to indicate your response by marking a
( ✓ ) sign against your response choice among the answers given. Please
do not leave any item. Your answers will be kept confidential and will
be used only for research purpose”.

The scale was administered to the subjects and after completion
the filled up sheets were collected, making sure that all the items were
answered.

4.3.2.4. The Scoring Procedure

For positive items scores of 5, 4, 3, 2 or 1 were given for
responses A, B, C, D, and E respectively. For negative items scores of
1,2,3,4 or 5 were given for responses A, B, C, D and E respectively. No
score is given if there were three or more omitted items. If there were
one or two omitted items only a score of 3 was given for each. The
scores of all the items were added to get the total scores. The sum of
scores of all the items in a subscale makes the total of a subscale. The
higher the score, the greater is the subject’s perception of social support.

4.3.2.4. Item Analysis and Item selection

A sample of 60 subjects was randomly chosen and the draft scale
was administered individually.
Item analysis was done according to the method proposed by Anastasi (1998). The response sheets were arranged in the ascending order on the basis of the total score. The top 20 response sheets were taken to form the higher group (H), the 20 response sheets with lowest scores formed the lower group (L) and the rest of the response sheets formed the middle group (M).

The number of respondents who marked choice responses for the items was counted for highest, middle and lower groups separately. The value of H+M+L and H-L were calculated for each item and presented in tables.

The difficulty index of an item was prepared according to the number of respondents who marked the keyed response. H+M+L is the difficulty index of an item. The discriminative power of an item was indicated by H-L. An Item was selected if it had high discriminative power and average difficulty index. The details of Item analysis and the items selected for each of the subsets of social support perception scale are presented in the Table 11.
Table 11

Details of Item Analysis for Social Support Perception Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>H</th>
<th>M</th>
<th>L</th>
<th>H+ M+L</th>
<th>H-L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td>48</td>
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</tr>
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<td>54</td>
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<td>19</td>
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<tr>
<td>11*</td>
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<tr>
<td>Item</td>
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<td>M</td>
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<td>H+ M+L</td>
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<tr>
<td>36*</td>
<td>17</td>
<td>13</td>
<td>11</td>
<td>41</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: *Indicates selected items.
4.3.2.5. The Final Scale

The Table 12 indicates that 8 items each were selected for each component of the scale. The items having high discriminative power and average difficulty level were selected for the final scale. The items thus selected were marked with the sign *. There is equal number of positive and negative items in each subsets of the scale.

4.3.2.6. Reliability

The reliability of social support perception scale was determined by test-retest method. The test was administered twice in a sample of 30 subjects (degree students) with an interval of one month between the two tests.

Correlation between the two sets of scores was obtained using Carl Pearson Product Moment Correlation. The correlation between the scores was 0.86, which was significant at 0.1 level.

4.3.2.7. Validity

The validity of the test was determined using Social Support Appraisals Scale (Vaux et al., 1986) as the external criterion. Correlation between the scores was found to be 0.84 indicating that the scale has moderate concurrent validity. There is wide similarity between the tests. Both the tests measure social support from family, friends and other people as perceived by the subjects. Social Support Perception Scale claims face validity and content validity also.
4.3.3. The Alcoholics Anonymous Affiliation Scale

4.3.3.1. The Concept Behind the Scale

The Alcoholics Anonymous Affiliation Scale was developed by Keith Humphreys and Colleagues (1998) at Stanford University School of Medicine, U.S.A. This scale represents the scientific attention to Alcoholics Anonymous which has sprung from the finding that A.A. has long been the most widely sought form of help for alcoholic problems in United States (Mc Cardy & Miller (ed.), 1993).

The authors of the present scale sensed the need of a reliable and valid measure of affiliation with A.A. On reviewing the available measures in the topic they found that they either lacked sufficient reliability or focused only on certain aspects of Alcoholic Anonymous.

To increase the clinical utility norms were developed on representative samples of treatment seekers in each health care sector (public, private-for-profit, and health maintenance organization). The scale established reliability and norms within different demographic groups and for a large sample of untreated people with alcohol problems.

This scale is an attempt to create a short and reliable A.A. Affiliation Scale that taps a range of A.A. experiences. It is short and it covers a range of A.A. experiences and is internally consistent across different demographic groups and treated and untreated subjects. It is an important variable to measure in many clinical and research activities.
The utility of the test has been studied in a sample of 927 treatment sectors and 674 untreated samples of community dwelling individuals with alcoholic problems. 61 percent of the treated participants were male, 63 percent were unemployed, 58 percent were Non-Hispanic Caucasian and mean age at intake was 38.7 years. The untreated sample was 60.7 percent males and 70.9 percent non-Hispanic Caucasian.

4.3.3.2. Reliability of the Scale

The scale had initially 19 items. By item analysis using Cronbach’s Internal Consistency Assessment Procedure a total of 10 items were dropped because of minimal variance or reduction of scale reliability.

The scale has excellent internal consistency (Cronbach’s a=0.85) in the treated sample and 0.84 in the untreated sample.

4.3.3.3. Validity of the Scale

The validity of the scale was determined using Alcoholics Anonymous Involvement (AAI) Scale as the external criterion. The Correlation between the scores was found to be 0.79.

The t tests indicated that A.A. affiliation is substantially higher for all important subgroups in the treatment sample than in the community sample. This supports the validity of the scale because prior research has found a significant, positive relationship between A.A.
Affiliation and a history of having sought external support to stop drinking (Emrick, Tonigan et al., 1993).

4.3.3.4. Scoring

If the answer is none for the first item, the score for the entire scale is ‘zero’ and the administration of the test is stopped. For items 1 and 2, a score of 0.25 each is given for an answer of less than 30; 0.50 for the answer between 30 to 90; 0.75 for 90 to 500 and 1.0 for over 500. For items 3 to 9 a score of ‘0’ for no answer and 1 for a ‘yes’ answer is to be given. Total score is the sum scores for all items. It can range from ‘0’ for no A.A. affiliation to ‘9’ for the highest possible affiliation.

4.3.3.5. Norms

Normative data for the members of the different demographic sub samples in both the treatment and community samples are given using analysis of variance. Other investigators using the scale can compare their data on different demographic and treatment populations.

4.3.4. The Spirituality Scale

4.3.4.1. The Concept of the Scale

This scale was developed by Sreekumar and Dr. Sam Sananda Raj (2002). The scale developers conceive spirituality as the personal, subjective side of religious experience. It included a broad focus on the immaterial features of life that are used to explain material life.
The scale was designed to measure spirituality of people belonging to Hindu, Christian and Islam and also other religions.

The draft scale with 45 items was administered to 300 subjects belonging to Hindu, Christian and Islam religions. They were subjected to item analysis using Mathew Item Analysis Table (Mathew, 1982). The final form includes 26 items. The P value of the items varied between 0.40 and 0.71 and Phi-coefficient varied between 0.29 and 0.78.

Item nos. 4, 5, 7, 10, 14, 16, 19, 20, 21, 22 and 26 are negative and others are positive items.

4.3.4.2. Administration and Scoring of the Scale

The subject is required to indicate how far he/she agrees or disagrees with the statements in the scale by putting a ‘✓’ mark on the choice response ranging from ‘A’ to ‘E’. The subjects are assured of confidentiality and that the data will be used only for research purposes.

‘A’ stands for strong agreement, ‘B’ for agreement, ‘C’ for indecisiveness, ‘D’ for disagreement and ‘E’ for strong disagreement. For the positive items scores of 5, 4, 3, 2 or 1 are given for responses of A, B, C, D, and E. For negative items a reverse-scoring process is followed. That is, scores of 1, 2, 3, 4 or 5 are given for responses of A, B, C, D, and E.
4.3.4.3. Reliability and Validity

The test was subjected to split-half reliability on a sample of 50 people selected by random and found to be reliable. The odd even correlation co-efficient using Product Moment Formula is 0.83. The reliability of the whole test is estimated to be 0.91 at 0.01 significance level using Spearman's Brown formula.

Criterion related validity of the scale was found by correlating with Mathew Materialism-Spiritualism Scale (Mathew, 1973). When the two tests were administered to a sample of 50 people, the correlation coefficient was found to be 0.89 at a significance level of 0.01.

4.3.5. General Data Questionnaire

Apart from the standardized scales a general data questionnaire was employed to collect personal bio data, socio demographic details of the subjects and those details related to alcoholic history and treatment and outcome. The researcher himself prepared the general data questionnaire. It has 16 items including:

a. Items regarding personal bio data like age, religious affiliation, marital status, educational qualification etc.

b. Family details like size of the family, whether separated from spouse etc.

c. Financial details like family income, financial debt etc.
d. Addiction history like, father’s addiction, if any, age of first abuse, present state etc.
e. Details regarding treatment and follow up.

For the comparison group, namely, the non-alcoholics, items from number 11 to 16 were avoided since they dealt with addiction and treatment details.

4.4. ADMINISTRATION OF THE TOOLS

Firstly the subjects were contacted through phone, or through the personnel of the treatment agency, members of the Alcoholics Anonymous groups or directly by the researcher himself. They were met either at the A.A. centres, the treatment centres, or at home according to their convenience.

After making rapport with the subject and the family members, the researcher introduced himself and about the study. The cooperation of the subject in the study was sought. The subjects were assured of confidentiality. They were informed that the information sought was for research purpose and that they will be kept confidential.

The order of administration of the tools was the following:
1. General Data Questionnaire
2. Stress Tolerance Scale
3. Social Support Perception Scale
4. Alcoholics Anonymous Affiliation Scale
5. Spirituality Scale
To the sample of subjects first the general data questionnaire was administered. The subjects were met individually or in groups as they were available. The subjects were asked to sit comfortably. After distributing the questionnaire forms to each subject and a pen was provided, the following instructions were given:

“Some personal matters related to you are required for research purpose. Required matters are listed in English and Malayalam. You are expected to read them carefully and answer them in an honest manner in the space provided.”

Clarifications were given, doubts were cleared and subjects were assured of confidentiality. When General Data Questionnaire was answered they were verified. Before proceeding to other tools, it was made sure that 50 patients who had marked to be abstinent for more than 1 year and 50 who had marked to be not abstinent had answered all the items of the General Data Questionnaire.

The subjects of the third group, namely, the non-alcoholics, were instructed to answer only the first 10 items of the General Data Questionnaire.

In a similar manner the other tools were administered. The test scale sheets were distributed. The subjects were asked to fill up their names, age, sex, educational qualifications etc. Instructions and clarifications were given and doubts, if any, were cleared. Confidentially was assured. Subjects were asked not to miss any item.
4.5. CONSOLIDATION OF THE DATA

Filled up test scale sheets were collected. They were examined with respect to completeness. Incomplete and unclearly marked sheets were given back to the subjects and got them completed on the spot.

The data sheets of each subject were clipped together. It was made sure that in all the groups of subjects there were 50 each of full sets of answered test sheets.

The response sheets were scored as per the directions given in the manuals. Coding of the data was done. A consolidated data sheet for the standardized scales has been prepared. A format table to consolidate and enter the values of the General Gata Questionnaire has also been specially prepared. The scores were calculated and were entered in the respective data sheets. The same has been used for analysis with the help of appropriate computer programme.

4.5. STATISTICAL TECHNIQUES USED IN THE STUDY.

For testing the hypotheses the present study uses the statistical measures and techniques such as, the t Test, the Pearson r, Analysis of Variance and Duncan’s Analysis.
4.5.1. The t Test

The statistical method of t test was used to determine the difference between two group means. The t test is used when two groups of subjects are involved. If in the t test the difference between the group means is found significant it would mean that the classification criteria is relevant and justified (Garrett, 1969).

4.5.2 The Pearson r

The present investigation is mainly a study of relationship between variables and difference between subjects with regard to certain variables. The best statistical technique for this is correlation. When change in the value of one variable is followed by change in the value of another variable these variables are said to be correlated. The correlation analysis attempts to determine the degree of relationship between variables.

Correlation Analysis helps to:
1. Find out whether a relation exists between two variables.
2. Measure the relationship and find out if it is significant.
3. Establish the cause-effect relationship.

Simple correlation studies the relationship between two variables; multiple correlation studies relationship between three or more variables and partial correlation studies the relationship between one dependant variable and one particular independent variable holding other variables constant.
The numerical measurement of the extent to which the correlation can be found between two or more variables is correlation coefficient. Coefficient of Correlation ranges from -1.00 through, 0.00, to 1.00, which indicates perfect negative correlation, no correlation and perfect positive correlation respectively.

Of the different methods of studying correlation, Carl Pearson’s Product Moment Coefficient of Correlation is the most widely used method (Garrett, 1969). This method is based on the assumption that the population being studied is normally distributed. It is essentially the ratio which expresses the extent to which changes in one variable are accompanied by changes in a second variable.

The correlations were interpreted according to the method of Garrett (1969) as described in the table given below:

Table 12

Garrett’s Table for Rating the Level of Correlation

<table>
<thead>
<tr>
<th>Range of Correlation</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 to ± 0.20</td>
<td>Indifferent or Negligible</td>
</tr>
<tr>
<td>0.20 to ± 0.40</td>
<td>Low or Slight</td>
</tr>
<tr>
<td>0.4 to ± 0.70</td>
<td>Substantial or Marked</td>
</tr>
<tr>
<td>0.70 to ± 1.00</td>
<td>High or Very High</td>
</tr>
</tbody>
</table>
4.5.3. Analysis of Variance

Through analysis of variance (ANOVA) group differences can be found out and the differences among various categories within each of these factors. One-way ANOVA is used when there is only one dimension for classification and several values for the classificatory dimension. Two-way ANOVA is used when there are two dimensions at the same time (Garrett, 1969).

The estimates of the population variations based on between group and within group are found. That is, it considers both the person’s position in the group and the amount of his deviation from the group mean. A ratio between these two is calculated. It is called ‘F’. The ‘F’ value is compared to the F-limits for given degrees of freedom (df). If the F value is more than the F-limit value there are significant differences among the sample means. The obtained ‘r’ is compared with the limits established using the standard error of ‘r’, which is calculated for 0.01 and 0.05 levels.

Analysis of Variance is used here to test the between-subject effects. Univariate Analysis of Variance is the statistical procedure involving only one dependent variable (Baker, 2002). ANOVA is used here to measure the relative effect of independent variables on each of the major variables.
4.5.4. Duncan’s Multiple Range Test

When more than two groups are involved after obtaining significant F-ratio further analysis is to be done to find out the groups which indicate significant indifferences. Duncan’s Multiple Range Test, (Walker, 1985), which is an appropriate procedure in this context, is used in the present study.

It is a Post Hoc Test (or Multiple Comparison Test) used to determine the significant differences between group means in an analysis of variance setting. It is based on the range statistic. Since this is a powerful test, the level of significance is fixed at 0.05 only.