Appendix

APPENDIX

Appendix I: Quality of life questionnaire — respondent self-report version

interview ; Respondent self-report version

| These questions ask about how you have been feeling in the past week. | These questions ask how you handle making decisions, dealing with conflict, asserting yourself, etc |
| pleasant and unpleasant feelings of several different kinds are covered. | |
| the markings are as follows | |
| all the time _4 | |
| often _3 | |
| several times _2 | |
| none of the time _1 | |
| questions were as follows | |
| In the past week, how often have you felt very restless, unable to sit still, or fidgety? | In the last week, how did you find shopping, paying bills, preparing meals, and generally looking after your basic necessities? |
| very easy _4 | |
| fairly easy _3 | |
| rather difficult _2 | |
| very difficult _1 | |
| And how enjoyable was it? | |
| very enjoyable _4 | |
| fairly enjoyable _3 | |
| fairly unpleasant _2 | |
| very unpleasant _1 | |
| In the past week, how often did you go out socially? | |
| more than 3 times _4 | |
| 2 or 3 times _3 | |
| once _2 | |
| never _1 | |
| When you receive broken merchandise, poor service, or are overcharged, how hard is it for you to complain to the store, dealer or company? | |
| can't do it at all _4 | |
| very hard _3 | |
| a little hard _2 | |
| not hard at all _1 | |
| When you want to join a conversation (e.g., at a party) how hesitant do you feel about doing | |
| |
felt that life was going just about right for you?
in the past week, how often have you felt mixed-up or confused?
in the past week, how often have you felt tense (uptight)?
in the past week, how often have you felt good about decisions you've made?
in the past week, how often have you had trouble sleeping?
in the past week, how often have you felt like you've spent a worthwhile day?
in the past week, how often have you had trouble with poor appetite, or inability to eat?
in the past week, how often have you felt serene and calm?
in the past week, how often have you found yourself really looking forward to things?
in the past week, how often have you had trouble with fatigue?

These questions ask about your living situation, eating, income, transportation, and medical care. The purpose is to see if these needs are met to at least a minimum level of satisfaction.

<table>
<thead>
<tr>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

How satisfied are you with your home -- its state of repair, amount of room, furnishing, warmth, lighting, etc?
How satisfied are you with your home, considering the amount of privacy, your neighbors, security, etc?

How often do you put off making important decisions until it is too late?
always | often | occasionally | never
4 | 3 | 2 | 1

When you are treated unfairly by someone you know well, a family member or close friend, how difficult is it for you to tell them so?

<table>
<thead>
<tr>
<th>Can't do it at all</th>
<th>Very hesitant</th>
<th>Slightly hesitant</th>
<th>Not at all hesitant</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

How confident are you in the decisions you make for yourself (what to buy, where to live, what to do, etc.)?

<table>
<thead>
<tr>
<th>Quite confident</th>
<th>Some confidence</th>
<th>Little confidence</th>
<th>No confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

How adequate is your present income for your present needs?

How satisfied are you with your home, considering the amount of privacy, your neighbors, security, etc?
How are you worried about your future income covering the things you must have?
Can you get around town as you need for work, shopping, medical appointments, visiting, etc?

<table>
<thead>
<tr>
<th>Can't get around at all</th>
<th>With much difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
### Medical Care

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last month, have you needed medical care?</td>
<td>no=0 (n/a)</td>
</tr>
<tr>
<td>if yes, did you have difficulty getting medical care?</td>
<td>yes=2</td>
</tr>
<tr>
<td>no=1</td>
<td></td>
</tr>
<tr>
<td>n/a=0</td>
<td></td>
</tr>
<tr>
<td>Do you have a regular or family doctor?</td>
<td>yes=2</td>
</tr>
<tr>
<td>no=1</td>
<td></td>
</tr>
<tr>
<td>Do you have medical insurance?</td>
<td>yes=2</td>
</tr>
<tr>
<td>no=1</td>
<td></td>
</tr>
<tr>
<td>Do you know where to get emergency medical help?</td>
<td>yes=2</td>
</tr>
<tr>
<td>no=1</td>
<td></td>
</tr>
</tbody>
</table>

### Social Interaction

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everybody has unpleasant feelings sometimes we wake up depressed, get upset or frustrated or frightened. These questions ask how much difficulty you have had recently in handling these unpleasant feelings.</td>
<td>great difficulty=3</td>
</tr>
<tr>
<td>some difficulty=2</td>
<td></td>
</tr>
<tr>
<td>no difficulty=1</td>
<td></td>
</tr>
<tr>
<td>na=0</td>
<td></td>
</tr>
</tbody>
</table>

### Emotional Difficulty

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much difficulty have you had handling feelings of depression recently?</td>
<td></td>
</tr>
<tr>
<td>How much difficulty have you had handling being upset recently?</td>
<td></td>
</tr>
<tr>
<td>How much difficulty have you had handling frustration recently?</td>
<td></td>
</tr>
<tr>
<td>How much difficulty have you had handling being frightened or shaken up recently?</td>
<td></td>
</tr>
</tbody>
</table>

### Social Activities

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past week, how many times have you spoken with neighbors?</td>
<td>more than 3 times=4</td>
</tr>
<tr>
<td>2 or 3 times=3</td>
<td></td>
</tr>
<tr>
<td>once=2</td>
<td></td>
</tr>
<tr>
<td>never=1</td>
<td></td>
</tr>
<tr>
<td>In the last week, how often have you spoken with people you saw at work or School or other daily activities?</td>
<td>more than 3 times=4</td>
</tr>
<tr>
<td>2 or 3 times=3</td>
<td></td>
</tr>
<tr>
<td>once=2</td>
<td></td>
</tr>
<tr>
<td>never=1</td>
<td></td>
</tr>
<tr>
<td>Do you feel that people avoid you?</td>
<td></td>
</tr>
</tbody>
</table>
**Appendix**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you feel that people are unkind to you?</td>
<td>all the time __4</td>
</tr>
<tr>
<td></td>
<td>often __3</td>
</tr>
<tr>
<td></td>
<td>occasionally __2</td>
</tr>
<tr>
<td></td>
<td>never __1</td>
</tr>
</tbody>
</table>

*These questions ask how you have been getting along with your family recently.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How comfortable do you feel being around people in general?</td>
<td>very uncomfortable __4</td>
</tr>
<tr>
<td></td>
<td>uncomfortable __3</td>
</tr>
<tr>
<td></td>
<td>comfortable __2</td>
</tr>
<tr>
<td></td>
<td>very comfortable __1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last week, how often did you get to places where you could meet new people?</td>
<td>every day __4</td>
</tr>
<tr>
<td></td>
<td>several times __3</td>
</tr>
<tr>
<td></td>
<td>once __2</td>
</tr>
<tr>
<td></td>
<td>not at all __1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>These questions ask about your family and friends, as you see them now</td>
<td>There are some things we share with family and friends, some things we can count on them for</td>
</tr>
<tr>
<td>What is your marital situation now?</td>
<td>When something nice happens to you, do you want to share the experience with your family?</td>
</tr>
<tr>
<td>married __6</td>
<td>always __4</td>
</tr>
<tr>
<td>separated __4</td>
<td>often __3</td>
</tr>
<tr>
<td>divorced __3</td>
<td>sometimes __2</td>
</tr>
<tr>
<td>widowed __2</td>
<td>never __1</td>
</tr>
</tbody>
</table>

*In the last week, how often have you gotten very angry with your spouse?*  
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>every day __4</td>
<td>always __4</td>
</tr>
<tr>
<td>often __3</td>
<td>often __3</td>
</tr>
<tr>
<td>once or twice __2</td>
<td>sometimes __2</td>
</tr>
<tr>
<td>never __1</td>
<td>never __1</td>
</tr>
</tbody>
</table>

*In the last week, how often did you go out of your way to be nice to your spouse?*  
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>all the time __4</td>
<td>a great deal __4</td>
</tr>
<tr>
<td>often __3</td>
<td></td>
</tr>
<tr>
<td>occasionally __2</td>
<td></td>
</tr>
<tr>
<td>never __1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>When something nice happens to you, do you want to share the experience with your friends?</td>
<td>always __4</td>
</tr>
<tr>
<td></td>
<td>often __3</td>
</tr>
<tr>
<td></td>
<td>sometimes __2</td>
</tr>
<tr>
<td></td>
<td>never __1</td>
</tr>
</tbody>
</table>

*How much would your family be of help and support if you were sick, or moving, or having any other kind of problem?*  
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a great deal __4</td>
</tr>
</tbody>
</table>
Appendix

<table>
<thead>
<tr>
<th>Never</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last month, how much have you enjoyed your spouse's company?</td>
<td></td>
</tr>
<tr>
<td>a great deal</td>
<td>a little</td>
</tr>
<tr>
<td>quite a bit</td>
<td>not at all</td>
</tr>
</tbody>
</table>

| How well have you been getting along with your spouse recently? |
| very well | well | poorly | very poorly |

| How much would your friends be of help and support to you if you were sick, or moving, or having any other kind of problem? |
| a great deal | a lot | a little | none |

| How serious are any emotional problems you may have which would make it hard for you to find a job? |
| very good | good | poor | very poor |

| These questions concern looking for a job. Even if you are not looking for a job, the questions ask about how you would feel |
| How much have you kept up with your share of the housework (cleaning, laundry, errands)? |
| completely done | quite well | fairly well | not at all |

| How much of the household money |
| more than 3 | 2 or 3 | one | none |

Please name some of the ways you know for finding a job. |
| more than 3 | 2 or 3 | one | none |
management (paying the bills, budgeting) do you do?
- all ___4
- most ___3
- a little ___2
- none ___1

How much of the shopping for the household do you do (groceries, furnishings, supplies)?
- all ___4
- most ___3
- a little ___2
- none ___1

In the last month, how much time did you spend fixing or changing things connected with your car or home (repairs, redecorating, remodeling, yard work)?
- several days ___4
- a day or so ___3
- an hour or so ___2
- none ___1

About how many hours per day do you usually spend preparing meals?
- more than 3 ___4
- 1 to 3 hours ___3
- an hour or less ___2
- none ___1

These questions ask about your work on the job

<table>
<thead>
<tr>
<th>Work Hours</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time (35+hours)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Part-time (17-34 hours)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Irregularly (&lt;16 hours)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

These questions ask about some of the ways you spend your time when you are not working at home, on the job, or in school

<table>
<thead>
<tr>
<th>Time Spent</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20+ hours</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8-20 hours</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1-7 hours</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

In the last week, how much time did you spend actively participating in Recreation or sports?

<table>
<thead>
<tr>
<th>Time Spent</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last week, how much time did you spend on your hobbies, creative work?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How comfortable do you feel going out to look for a job?
- Completely ___4
- Quite ___3
- Fairly ___2
- Not at all ___1

How comfortable do you feel working with co-workers?
- Not at all comfortable ___4
- Fairly ___3
- Quite ___2
- Completely ___1

How hard is it for you to stick to a job when it becomes unpleasant or boring or stressful?
- Can't do it at all ___4
- Very hard ___3
- A little hard ___2
- Not at all hard ___1

If you had a chance to get more job training, how willing would you be to get it?
- Not interested ___4
- Slightly willing ___3
- Fairly willing ___2
- Very willing ___1

How comfortable do you feel about looking for a job?
- Completely ___4
- Pretty serious ___3
- Slightly serious ___2
- Not at all serious ___1

How comfortable do you feel about preparing meals?
- Completely ___4
- Very serious ___3
- Slightly serious ___2
- Not at all serious ___1

<table>
<thead>
<tr>
<th>Work Hours</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time (35+hours)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Part-time (17-34 hours)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Irregularly (&lt;16 hours)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

In the last week, how much time did you spend actively participating in Recreation or sports?

<table>
<thead>
<tr>
<th>Time Spent</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last week, how much time did you spend on your hobbies, creative work?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These questions ask about some of the ways you spend your time when you are not working at home, on the job, or in school

<table>
<thead>
<tr>
<th>Time Spent</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20+ hours</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8-20 hours</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1-7 hours</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
In the last month, how much time did you miss from work?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>several days</td>
<td>4</td>
</tr>
<tr>
<td>a day or two</td>
<td>3</td>
</tr>
<tr>
<td>a little</td>
<td>2</td>
</tr>
<tr>
<td>none</td>
<td>1</td>
</tr>
</tbody>
</table>

In the last month, how much difficulty did you have doing your work?

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a great deal</td>
<td>4</td>
</tr>
<tr>
<td>quite a bit</td>
<td>3</td>
</tr>
<tr>
<td>an hour or so</td>
<td>2</td>
</tr>
<tr>
<td>none</td>
<td>1</td>
</tr>
</tbody>
</table>

How did you feel about the quality of work you did recently?

<table>
<thead>
<tr>
<th>Quality</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good</td>
<td>4</td>
</tr>
<tr>
<td>good</td>
<td>3</td>
</tr>
<tr>
<td>bad</td>
<td>2</td>
</tr>
<tr>
<td>very bad</td>
<td>1</td>
</tr>
</tbody>
</table>

How much conflict have you had with people while you were working recently?

<table>
<thead>
<tr>
<th>Conflict</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>a great deal</td>
<td>4</td>
</tr>
<tr>
<td>quite a bit</td>
<td>3</td>
</tr>
<tr>
<td>a little</td>
<td>2</td>
</tr>
<tr>
<td>none</td>
<td>1</td>
</tr>
</tbody>
</table>

How interesting is your work?

<table>
<thead>
<tr>
<th>Interesing</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>very interesting</td>
<td>4</td>
</tr>
<tr>
<td>moderately interesting</td>
<td>3</td>
</tr>
<tr>
<td>slightly interesting</td>
<td>2</td>
</tr>
<tr>
<td>it's boring</td>
<td>1</td>
</tr>
</tbody>
</table>

In general, how much do you like your job?

<table>
<thead>
<tr>
<th>Like</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>really like it</td>
<td>4</td>
</tr>
<tr>
<td>like it</td>
<td>3</td>
</tr>
<tr>
<td>don't like it</td>
<td>2</td>
</tr>
<tr>
<td>hate it</td>
<td>1</td>
</tr>
</tbody>
</table>

In the last month, how many times did people complain about your work?

<table>
<thead>
<tr>
<th>Complain</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>more than 3 times</td>
<td>4</td>
</tr>
<tr>
<td>2 or 3 times</td>
<td>3</td>
</tr>
<tr>
<td>once</td>
<td>2</td>
</tr>
<tr>
<td>not at all</td>
<td>1</td>
</tr>
</tbody>
</table>
In the past month, how many times did people say good things about your work?
more than 3 times __4
2 or 3 times __3
once __2
not at all __1

<table>
<thead>
<tr>
<th>People sometimes have problems with using alcohol. The following questions ask about problems you may have had with alcohol in the last month</th>
<th>People sometimes have problems with the use of drugs or medications. The following questions ask about problems you may have had with drugs in the last month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you had problems controlling your drinking?</td>
<td>Have you had problems controlling your use of drugs?</td>
</tr>
<tr>
<td>Problems controlling your behavior because of drinking?</td>
<td>Problems controlling your behavior because of drug use?</td>
</tr>
<tr>
<td>Problems with feelings like guilt, anger or depression because of drinking?</td>
<td>Problems with feelings like guilt, anger or depression because of drugs?</td>
</tr>
<tr>
<td>Problems with your health because of drinking?</td>
<td>Problems with your health because of drug use?</td>
</tr>
<tr>
<td>Problems with your parents because of your drinking?</td>
<td>Problems with your parents because of your drug use?</td>
</tr>
<tr>
<td>Problems with your friends because of your drinking?</td>
<td>Problems with your friends because of your drug use?</td>
</tr>
<tr>
<td>Problems with your spouse because of your drinking?</td>
<td>Problems with your spouse because of your drug use?</td>
</tr>
<tr>
<td>Problems with your children because of your drinking?</td>
<td>Problems with your children because of your drug use?</td>
</tr>
<tr>
<td>Problems with your job or school because of drinking?</td>
<td>Problems with your job or school because of drug use?</td>
</tr>
<tr>
<td>Problems with any other activities because of drinking?</td>
<td>Problems with any other activities because of drug use?</td>
</tr>
</tbody>
</table>
Appendix II: GENERAL QUESTIONNAIRE
Latha Rajendra Kumar
This study will be conducted after getting the informed consent from the subjects.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Name</td>
</tr>
<tr>
<td>2.</td>
<td>Age</td>
</tr>
<tr>
<td>3.</td>
<td>Sex*</td>
</tr>
<tr>
<td>4.</td>
<td>Height / Weight² (BMI)</td>
</tr>
<tr>
<td>5.</td>
<td>Waist / Hip ratio</td>
</tr>
<tr>
<td>6.</td>
<td>Occupation</td>
</tr>
<tr>
<td>7.</td>
<td>Marital status Married / Separated / Divorced</td>
</tr>
<tr>
<td>8.</td>
<td>Number of children</td>
</tr>
<tr>
<td>9.</td>
<td>Alcoholic habits*</td>
</tr>
<tr>
<td></td>
<td>A Type of drink: Rum / Brandy / Whisky / Gin / Vodka / Others</td>
</tr>
<tr>
<td></td>
<td>B Number of years of consuming alcohol</td>
</tr>
<tr>
<td></td>
<td>C Quantity ml</td>
</tr>
<tr>
<td></td>
<td>D No. of times in a week</td>
</tr>
<tr>
<td>10.</td>
<td>Other addictions smoking / drugs / tobacco</td>
</tr>
<tr>
<td>11.</td>
<td>If they have undergone treatment</td>
</tr>
<tr>
<td>12.</td>
<td>If yes medication / counselling</td>
</tr>
<tr>
<td>13.</td>
<td>If so, is there a relapse</td>
</tr>
<tr>
<td>14.</td>
<td>Have they undergone counselling in rehabilitation center</td>
</tr>
<tr>
<td>15.</td>
<td>Any history of chest pain / breathlessness / edema</td>
</tr>
<tr>
<td>16.</td>
<td>Physical fitness questionnaire Physically fit yes / no.</td>
</tr>
<tr>
<td>17.</td>
<td>Visual reaction time</td>
</tr>
<tr>
<td>18.</td>
<td>Auditory reaction time</td>
</tr>
<tr>
<td>19.</td>
<td>GSR value-k ohms 1 2 3</td>
</tr>
<tr>
<td>20.</td>
<td>Harvard step test</td>
</tr>
<tr>
<td>21.</td>
<td>Hand dynamometer reading*</td>
</tr>
<tr>
<td></td>
<td>Right kg/m²</td>
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<tr>
<td></td>
<td>Left kg/m²</td>
</tr>
<tr>
<td>22.</td>
<td>Muscle endurance seconds</td>
</tr>
</tbody>
</table>

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Appendix III: STEP TEST QUESTIONNAIRE, SCREENING QUESTIONNAIRE

1. Has a doctor ever said you have heart trouble? Yes no
2. Have you ever had angina pectoris or sharp pain or heavy pressure in your chest as a result of exercise, walking, or other physical activity such as climbing a flight of stairs (note: this does not include the normal out of breath feeling that results from normal activity)? Yes no
3. Do you experience any sharp pain or extreme tightness in your chest when you are hit with a cold blast of air? Yes no
4. Have you ever experienced rapid heart action or palpitations? Yes no
5. Have you ever had a real or suspected heart attack, coronary occlusion, myocardial infarction, coronary insufficiency, or thrombosis? Yes no
6. Have you ever had rheumatic fever? Yes no
7. Do you have diabetes, high blood pressure, or sugar in your urine? Yes no
8. Do you or anyone in your family have high blood pressure, or hypertension yes no
9. Has more than one blood relative (parent, brother, sister, first cousin) had a heart attack or coronary artery disease before the age of 60? Yes no
10. Have you ever taken any medication to lower your blood pressure? Yes no
11. Have you ever taken medications or been on a special diet to lower your cholesterol level? Yes no
12. Have you ever taken digitalis, quinine, or any other drug for your heart? Yes no
13. Have you ever taken nitroglycerin or any other tablets for chest pain—tablets that you take by placing under your tongue? Yes no
14. Have you ever had a resting of stress electrocardiogram that was a normal Yes no

Appendix IV: The revised children’s manifest anxiety scale (RCMAS)

“What I think and feel”

Read each question carefully. Put a circle around the word yes if you think it is true about you. Put a circle around the word no if you think it is not true about you.

1. I have trouble making up my mind Yes / no
2. I get nervous when things do not go the right way for me. Yes / no
3. Others seem to do things easier than I can Yes / no
4. I like everyone I know Yes / no
5. Often I have trouble getting my breath Yes / no
6. I worry a lot of the time Yes / no
7. I am afraid of a lot of things. Yes / no
8. I am always kind Yes / no
9. I get mad easily Yes / no
10. I worry about what my parents will say to me Yes / no
11. I feel that others do not like the way I do things Yes / no
12. I always have good manners Yes / no
13. It is hard for me to get to sleep at night. Yes / no
14. I worry about what other people think about me Yes / no

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Appendix

15 I feel alone even when there are people with me  Yes / no
16 I am always good  Yes / no
17 Often I feel sick in the stomach.  Yes / no
18. My feelings get hurt easily  Yes / no
19 My hands feel sweaty  Yes / no
20 I am always nice to everyone  Yes / no
21 I am tired a lot  Yes / no
22 I worry about what is going to happen.  Yes / no
23 Other children are happier than I am  Yes / no
24 I tell the truth every single time.  Yes / no
25. I have bad dreams  Yes / no
26 My feelings get hurt easily when I am fussed at  Yes / no
27 I feel someone will tell me I do things the wrong way  Yes / no
28 I never get angry  Yes / no
29 I wake up scared some of the time  Yes / no
30 I worry when I go to bed at night  Yes / no
31 It is hard for me to keep my mind on my schoolwork  Yes / no
32 I never say things that I shouldn’t  Yes / no
33 I wriggle in my seat a lot.  Yes / no
34 I am nervous  Yes / no
35 A lot of people are against me  Yes / no
36 I never lie  Yes / no
37 I often worry about something bad happening to me.  Yes / no

The revised children’s manifest anxiety scale was developed by Reynolds and Richmond (1978) to assess “the degree and quality of anxiety experienced by children and adolescents” (Gerald and Reynolds, 1999, p 323)

Appendix V: Informed consent

(According to each chapter and the test carried out, the procedure explained in the informed consent varies. Given below is the complete version which is edited for each experimental procedure).

You are invited to participate in a study of certain physiological parameters. We hope to learn more about the effects of chronic alcohol consumption on various body systems and organs. You are selected as a possible participant in this study because you have been consuming alcohol for a number of years and are now in Vailankanni rehabilitation ward.

If you decide to participate, I will be conducting the following tests:

1. Questionnaires are given for completion. It is your voluntary choice to complete and submit them.
2. Harvard’s step test involves climbing a bench and exercising. This is to assess your heart’s efficiency.
3. To test your muscle strength and endurance, you need to press tightly on a hand dynamometer. Walk test involves your ability to walk comfortably as long as possible.
4. Your ECG will be recorded in supine/lying down positions. The variations in your ECG will be studied when you do deep breathing, standing, sitting.
positions and during blowing into a manometer Trial and demonstrations will be done before the actual recordings There are non-invasive procedures and there are no risks involved

5 GSR- This simple non-invasive procedure involved placing of 2 electrodes on your palm and measurement of your skin resistance It indirectly measures your stress there are no risks involved

6 Reaction time- which involves your responding to a light source or an auditory click. It is non-invasive procedure Demonstration and trial will precede the actual experiment There are no risks involved and you can have an opportunity to be aware of the quickness by which you react to a stimulus

7 Blood will be drawn to estimate the presence of anemia There may be minimum discomfort or inconveniences during these procedures.

8 Blood will be drawn to estimate C - reactive protein in your serum. There may be minimum discomfort or inconveniences during these procedures.

9 Pranayama yoga- simple yoga techniques will be taught to you early in the morning Before and after these Pranayama sessions, GSR measurements will be done as a non-invasive procedure. There are no risks involved. These Pranayama breathing exercises may help you in relieving your stress

10 For children procedure explained to parent and questionnaire given to parent

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only you’re your permission

Your decision whether to or not to participate will not be prejudice your future relation with the institution If you decide to participate, you are free to discontinue participation at any time without prejudice

if you have any question, please do not hesitate to contact us if you have any additional questions later, please contact Dr Latha at 0824-2432235 and I will be happy to answer your queries.

You will be offered a copy of this form to keep

You are making a decision whether or not to participate. Your signature indicates that you have read the information provided above and have decided to participate. You may withdraw at any time without penalty or loss of benefits to which you may be entitled after signing this form should you choose to discontinue participation in this study

-----------------------------------------------

Signature ___________________________________ date

-----------------------------------------------

Signature of parent (if necessary)

-----------------------------------------------

Signature of investigator
Appendix VI: CAGE QUESTIONNAIRE

Please note: This test will only be scored correctly if you answer each one of the questions.

Please check the one response to each item that best describes how you have felt and behaved over your whole life.

1. Have you ever felt you should cut down on your drinking?
   - Yes
   - No

2. Have people annoyed you by criticizing your drinking?
   - Yes
   - No

3. Have you ever felt bad or guilty about your drinking?
   - Yes
   - No

4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?
   - Yes
   - No

The following represents the 22 questions that make up the MAST.

Please answer YES or NO to the following questions:

1. Do you feel you are a normal drinker? ("normal" - drink as much or less than most other people) YES or NO
2. Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening? YES or NO
3. Does any near relative or close friend ever worry or complain about your drinking? YES or NO
4. Can you stop drinking without difficulty after one or two drinks? YES or NO
5. Do you ever feel guilty about your drinking? YES or NO
6. Have you ever attended a meeting of Alcoholics Anonymous (AA)? YES or NO
7. Have you ever gotten into physical fights when drinking? YES or NO
Appendix

8 Has drinking ever created problems between you and a near relative or close friend? YES or NO
9 Has any family member or close friend gone to anyone for help about your drinking? YES or NO
10 Have you ever lost friends because of your drinking? YES or NO
11. Have you ever gotten into trouble at work because of drinking? YES or NO
12 Have you ever lost a job because of drinking? YES or NO
13. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking? YES or NO
14. Do you drink before noon fairly often? YES or NO
15 Have you ever been told you have liver trouble such as cirrhosis? YES or NO
16 After heavy drinking have you ever had delirium tremens (D T's), severe shaking, visual or auditory (hearing) hallucinations? YES or NO
17 Have you ever gone to anyone for help about your drinking? YES or NO
18. Have you ever been hospitalized because of drinking? YES or NO
19. Has your drinking ever resulted in your being hospitalized in a psychiatric ward? YES or NO
20. Have you ever gone to any doctor, social worker, clergyman or mental health clinic for help with any emotional problem in which drinking was part of the problem? YES or NO
21 Have you been arrested more than once for driving under the influence of alcohol? YES or NO
22. Have you ever been arrested, even for a few hours because of other behavior while drinking? (If Yes, how many times ________) YES or NO

Scoring

Please score one point if you answered the following
1. No, 2 Yes, 3 Yes, 4 No, 5 Yes, 6 Yes, 7 through 22 Yes

Add up the scores and compare to the following score card
- 0 - 2 = No apparent problem
- 3 - 5 = Early or middle problem drinker
- 6 or more = Problem drinker
Appendix

Appendix VII: AUDIT questionnaire: screen for alcohol misuse

Please circle the answer that is correct for you

1. How often do you have a drink containing alcohol?
   □ Never
   □ Monthly or less
   □ 2-4 times a month
   □ 2-3 times a week
   □ 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?
   □ 1 or 2
   □ 3 or 4
   □ 5 or 6
   □ 7 to 9
   □ 10 or more

3. How often do you have six or more drinks on one occasion?
   □ Never
   □ Less than monthly
   □ Monthly
   □ Weekly
   □ Daily or almost daily

4. During the past year, how often have you found that you were not able to stop drinking once you had started?
   □ Never
   □ Less than monthly
   □ Monthly
   □ Weekly
   □ Daily or almost daily

5. During the past year, how often have you failed to do what was normally expected of you because of drinking?
   □ Never
   □ Less than monthly
   □ Monthly
   □ Weekly
   □ Daily or almost daily

6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?
   □ Never
   □ Less than monthly
   □ Monthly
   □ Weekly
   □ Daily or almost daily
Appendix

7 During the past year, how often have you had a feeling of guilt or remorse after drinking?
□ Never
□ Less than monthly
□ Monthly
□ Weekly
□ Daily or almost daily

8 During the past year, have you been unable to remember what happened the night before because you had been drinking?
□ Never
□ Less than monthly
□ Monthly
□ Weekly
□ Daily or almost daily

9 Have you or someone else been injured as a result of your drinking?
□ No
□ Yes, but not in the past year
□ Yes, during the past year

10 Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?
□ No
□ Yes, but not in the past year
□ Yes, during the past year

Scoring the audit
Scores for each question range from 0 to 4, with the first response for each question (eg never) scoring 0, the second (eg less than monthly) scoring 1, the third (eg monthly) scoring 2, the fourth (eg weekly) scoring 3, and the last response (eg. Daily or almost daily) scoring 4. For questions 9 and 10, which only have three responses, the scoring is 0, 2 and 4 (from left to right).

A score of 8 or more is associated with harmful or hazardous drinking, a score of 13 or more in women, and 15 or more in men, is likely to indicate alcohol dependence

Appendix VIII: SADD QUESTIONNAIRE
Alcohol Dépendance Data Questionnaire (SADD)

INSTRUCTIONS: The following questions cover a wide range of topics to do with drinking. Please read each question carefully but do not think too much about its exact meaning. Think about your MOST RECENT drinking habits and answer each question by placing a tick (□) under the MOST APPROPRIATE heading. If you have any difficulties ASK FOR HELP.
Appendix

Never Sometimes Often Always

1. Do you find difficulty in getting the thought of drinking out of your mind? □ 0 □ 1 □ 2 □ 3
2. Is getting drunk more important than your next meal? □ 0 □ 1 □ 2 □ 3
3. Do you plan your day around when and where you can drink? □ 0 □ 1 □ 2 □ 3
4. Do you drink in the morning, afternoon and evening? □ 0 □ 1 □ 2 □ 3
5. Do you drink for the effect of alcohol without caring what the drink is? □ 0 □ 1 □ 2 □ 3
6. Do you drink as much as you want irrespective of what you are doing the next day? □ 0 □ 1 □ 2 □ 3
7. Given that many problems might be caused by alcohol do you still drink too much? □ 0 □ 1 □ 2 □ 3
8. Do you know that you won’t be able to stop drinking once you start? □ 0 □ 1 □ 2 □ 3
9. Do you try to control your drinking by giving it up completely for days or weeks at a time? □ 0 □ 1 □ 2 □ 3
10. The morning after a heavy drinking session do you need your first drink to get yourself going? □ 0 □ 1 □ 2 □ 3
11. The morning after a heavy drinking session do you wake up with a definite shakiness of your hands? □ 0 □ 1 □ 2 □ 3
12. After a heavy drinking session do you wake up and retch or vomit? □ 0 □ 1 □ 2 □ 3
13. The morning after a heavy drinking session do you go out of your way to avoid people? □ 0 □ 1 □ 2 □ 3
14. After a heavy drinking session do you see frightening things that later you realize were imaginary? □ 0 □ 1 □ 2 □ 3
15. Do you go drinking and the next day find you have forgotten what happened the night before? □ 0 □ 1 □ 2 □ 3

Scoring: The 15 items summed for a total score that can range from 0 to 45. Scale totals are interpreted as follows: 1-9 low dependence, 10-19 medium dependence, and 20 or greater high dependence.
APPENDIX I (KANNADA)

A

• ಸಮಾನ ಅವಶ್ಯಕತೆಯ ಕೆಲಸು ಮೇಲೆ ಬಿಡುವ (restless) ವ್ಯಾಪಕವಾಗಿ ವಿಸ್ತರಿಸಿದನೆ, ಕಡೆಗೆಯ ಸ್ಪಷ್ಟವಾಗಿ?

• ಸಾಮ್ಯತೆಯ ಅವಶ್ಯಕತೆಯಲ್ಲಿ (ಮೇಲೆ ಬಿಡುವ) ವ್ಯಾಪಕವಾಗಿ ಪ್ರತ್ಯೇಕಿಸಿದನೆ ಕಡೆಗೆಯ ಸ್ಪಷ್ಟವಾಗಿ?

• ಸಮಾನ ಅವಶ್ಯಕತೆಯ ಮೇಲೆ ಪ್ರತ್ಯೇಕಿಸಿದನೆ ವ್ಯಾಪಕವಾಗಿ ವಿಸ್ತರಿಸಿದನೆ, ಕಡೆಗೆ ಸ್ಪಷ್ಟವಾಗಿ?

• ಸಮಾನ ಅವಶ್ಯಕತೆಯ ಮೇಲೆ ಸ್ಪಷ್ಟವಾಗಿ ವ್ಯಾಪಕವಾಗಿ ವಿಸ್ತರಿಸಿದನೆ, ಕಡೆಗೆ ಸ್ಪಷ್ಟವಾಗಿ?
♦ Is your frustration (contextual) overwhelming? Make sure you address the underlying issues.

♦ Are you feeling pressured / overwhelmed by the activities or tasks you are undertaking? Make sure you prioritize and manage your time effectively.

♦ Are you overcoming challenges? Are you focusing on the solutions rather than the problems? Make sure you maintain a positive and proactive mindset.

B

♦ Have you recently engaged in (shopping) activities recently? Consider what you need, why you need it, and whether it aligns with your goals and values.

♦ Have you recently attended / participated in activities recently? Consider the benefits and drawbacks of these activities and how they contribute to your overall well-being.

♦ Have you recently engaged in (confidence-building) activities? Are you taking steps to build your self-esteem and confidence? Make sure you celebrate your accomplishments and recognize your progress.

♦ Have you recently attended / participated in activities that align with your values and goals? Consider how these activities contribute to your personal and professional development.

♦ Have you recently engaged in (social) activities that align with your interests and values? Make sure you maintain a balance between socializing and focusing on your personal growth.

♦ Have you recently attended / participated in activities that contribute to your overall health and well-being? Make sure you prioritize self-care and maintain a healthy lifestyle.

♦ Have you recently engaged in (confidence) activities that align with your values and goals? Make sure you maintain a positive and proactive mindset.

♦ Have you recently attended / participated in activities that contribute to your personal and professional development? Consider how these activities contribute to your overall well-being.

♦ Have you recently engaged in (confidence-building) activities that align with your values and goals? Make sure you maintain a positive and proactive mindset.

♦ Have you recently attended / participated in activities that contribute to your personal and professional development? Consider how these activities contribute to your overall well-being.

♦ Have you recently engaged in (confidence) activities that align with your values and goals? Make sure you maintain a positive and proactive mindset.
♦ ವಿಶ್ಲೇಷಿಸಿ, ಎಂದೆಂದು ಜೋಡಿಸುವ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ ಅನುಗುಣದಲ್ಲಿ?
♦ ಜೊತೆಗೆ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
♦ ಅನುಗುಣದಲ್ಲಿ ಅಥಾನದ ಸಂಸ್ಥೆಯ ಸೂಚಿಯಲ್ಲಿ?
A. ಅರ್ಧಭಾಗ ಅಂಶ
B. ಅರ್ಧಭಾಗಾರ ಅಂಶದಲ್ಲಿ ನಾಣ್ಯಹಿತಶಾಳ
C. ಅಂದಿನ ಸರ್ವಸ್ಥ
D. ಅಂದಿನ ಅಂಶ ಹಾಗೂ ಅಂದಿನ ಸಮಾಧಾನ

10. ಧ್ವನಿಯಾತ್ಮಕ ಅಂಶ ಭರವಿಸಿರುವ ನಿತ್ಯಾಶ್ವನ / ಸಂಗ್ರಹಾಂಶ / ಸಂಶೋಧನಾ ಯತ್ನ.

11. ಸಂಸ್ಕೃತಿಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗವತ್ತ

12. ಸೃತಾಂತರ.

13. ಸಂಸ್ಕೃತಿಯ ಗರಿಷ್ಠ ಅಂಶ, ಅಂದಿನ ಸಮಾಧಾನ

14. ಸೃತಾಂತರದ ಅಂಶ ಹಾಗೂ ಸಂಶೋಧನೆಯ ಸರ್ವಾಂಗವತ್ತ

15. ಸೃತಾಂತರದ ಅಂಶ ಭರವಿಸಿರುವ ನಿತ್ಯಾಶ್ವನ / ಸಂಗ್ರಹಾಂಶ / ಸಂಶೋಧನಾ ಯತ್ನ.

16. ಸಂಸ್ಕೃತಿಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗವತ್ತ.

17. ಸಂಸ್ಕೃತಿಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗವತ್ತ.

18. ಸಂಸ್ಕೃತಿಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗ

19. ಸಂಶೋಧನೆಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗ

20. ಅಣುಮಾನ ಪ್ರತಿಲಭವಾಗುವ ಸಂಖ್ಯಾ 1 2 3

21. ಸಂಶೋಧನೆಯ ಗರಿಷ್ಠ ಸರ್ವಾಂಗವತ್ತ.
Appendix III

1. When/how should the patient be monitored during the procedure?

2. Can the procedure be stopped at any time? If so, how many times can the procedure be stopped?

3. What monitoring equipment is used? What is the frequency of monitoring?

4. How quickly can the procedure be stopped if the patient's condition changes?

5. What is the procedure's success rate? Is it affected by any factors?

6. 

7. When should the patient be monitored post-procedure? How long should the monitoring continue?

8. How long should the patient be monitored post-procedure if there is a complication?

9. How long should the patient be monitored post-procedure if the procedure is 60 minutes or longer? What are the reasons for the extended monitoring?

10. How can the patient's condition be maintained during the procedure?

11. How should the patient be monitored during the procedure? What is the frequency of monitoring?

12. How should the patient be monitored post-procedure? What are the factors affecting the monitoring frequency?
Appendix IV

1. skewed, &d dsJ<33, ddd m333£>doi> $<Jr( cgL£&3<&d ssftsdocbrfo,

2. &/3edr&, dddo dosdco -£do c33£>doi> $<Jr( cgL£&3<&d ssftsdocbrfo,

Appendix IV

1. skewed, &d dsJ<33, ddd m333£>doi> $<Jr( cgL£&3<&d ssftsdocbrfo,

2. &/3edr&, dddo dosdco -£do c33£>doi> $<Jr( cgL£&3<&d ssftsdocbrfo,
18.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
19.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
20.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
21.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು.
22.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
23.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
24.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
25.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು.
26.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
27.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
28.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
29.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
30.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು.
31.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
32.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
33.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು.
34.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
35.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
36.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
37.ಸನ್ನದ ಮೇಲೆಗೆಂಪು ಮತ್ತು ದಿನಾಂಕ ನುಡಿ ವೃತ್ತಾಕಾರದೆಂದು
Appendix V

1. Describe the type of data collected and how it was analyzed.

2. Explain the methods used for data collection.

3. Discuss the limitations of the study.

4. Summarize the findings of the study.

5. Interpret the implications of the results.

6. Suggest avenues for future research.

7. Acknowledge any contributions to the study.

8. Conclude with an overall summary of the study's objectives.
CLARIFICATION FOR EXAMINERS QUESTIONS

STUDY ON AUTONOMIC REACTIVITY, PHYSICAL FITNESS AND ANEMIA IN ALCOHOLICS

The entire study should have been done on the same subjects.
The sample size should have been increased in consultation with the statistician
- Has been done

The test should have been done before the initiation of counseling and periodically after the initiation of the counseling:
The periodical testing after counseling couldn't be done as 1 Human subject cannot perform over and over again some of the parameters are strenuous (like walk test, Harvard's step test and continuous ECG recordings) and such stressful parameters were not advisable to be done on alcoholics who are trying to recover from their drinking habits and when they have a tight schedule of activities which include investigation, counseling, resting, reading and other indoor activities. 2. Moreover after counseling values of only some parameters showed changes (like GSR) which have been highlighted and those parameters with long standing effects on heart cannot be changed As the study evolved and it was getting unraveled that chronic changes on heart were showing no changes in values, it was understood that the periodical testing may not reveal any thing of significance In chronic alcoholics, only further damage can be prevented by abstinence, counseling and yoga.

Appropriate statistical analysis should have been performed.
We have redone analysis using ANOVA in 3 groups. Group 1 Control, Group 2 Chronic Alcoholics, Group 3: Alcoholics after counseling.

Appropriate tests should have been applied with the latest methodology.
The reliability and validity of manual method of HRV has been added in the chapter. The Institute has no facility to buy the HRV software Moreover, the chronic alcoholics in Vailankanni Ward are under strict monitoring No permission will be granted to them to move out of the ward under any circumstance before they are discharged. Hence they cannot be shifted to near by hospital for computerized recording of HRV. Since the manual method is well suited and easy, cost effective and reproducible, we decided to do the manual method of recording.
All related parameter should have been discussed together to increase the significance and validity of the study.
   Has been discussed together in the revised thesis.

Relevant references have to be discussed at appropriate places.
   Has been incorporated (Throughout thesis).

Minor: care should be taken regarding the tense of the thesis which keeps changing.
   Has been looked into and taken care of

OVER ALL
The study has lot of relevance and applicability
However the communication of the candidate should be improved with appropriate reference and statistical tests
Suggest revision

CORRECTIONS AND SUGGESTIONS IN THE THESIS
Introduction:
Pg 4: The way the Introduction has been written can be improved. Appropriate references added at various places like the uses of alcoholic section...Page 3
   Has been incorporated (Page 3,4,5,9, 10)

Pg 5: Basics of alcoholic metabolism
   Has been incorporated (Page 3).

Pg8: References for the effects of alcohol on brain.
   Has been incorporated (Page 6).

Pg 9: References for Effects of alcohol on the muscles
Has been added in review of literature.
   Has been incorporated (Page 8)

Pg 12: Special concern of women- no reference has been cited.
   Has been incorporated (Page 17).
Alcohol and diabetes

It is possible for alcohol to cause diabetes (though most cases of diabetes are not caused by alcohol). Alcohol abuse is the cause of 80% of cases of chronic pancreatitis and around 1 in 3 people with chronic pancreatitis develop diabetes.

Type 2 can be due to overweight or unfit but also normal weight, normally adults, can get type 2. They are different conditions but are treated similarly. Type 1 sufferers automatically need insulin injections or via a pump and type 2 only sometimes need extra insulin, other times it is dealt with by diet and/or tablets. Type 2 is even more strongly linked to genetics and family history than type 1 diabetes. A family history of type 2 diabetes and obesity are the main risk factors in type 2 diabetes.

DM in alcoholic pancreatitis:

The most direct mechanism by which alcohol can cause diabetes is through creatic destruction (Shimizu, Most cases of acute alcoholic pancreatitis seems to be associated with the development of chronic alcoholic pancreatitis (Skinazi et al, 1995).

Among patients with chronic alcoholic pancreatitis, about half have raised glucose concentration and about three quarters have abnormal oral glucose tolerance tests (Andrea Rambaldi et al., 1995). Unlike patients with type 2 diabetes, patients with chronic alcoholic pancreatitis do not have raised insulin release after an oral GTT and the impaired insulin secretion due to a loss of beta cell mass in the pancreas. Further more such patients often demonstrate insulin resistance (Cavallini and Frulloni, 2001).

DM in alcoholic cirrhosis:

Insulin is subjected to a high first pass metabolism in the normal liver, with about 50% being extracted (Nygren et al., 1985). With decreasing liver function and increasing intra hepatic and extra hepatic portal-systemic shunting of cirrhosis, the fractional hepatic extraction of insulin is significantly decreased to about 13% (Nygren et al., 1985).

Accordingly cirrhotic patients have about six times higher peripheral fasting insulin concentration than normal controls (Kruszynska et al., 1998). This hyperinsulinemia is found irrespective of the development of diabetes. Despite the hyperinsulinemia, the blood glucose concentration is generally higher than normal after glucose loading, implying
decreased insulin sensitivity in alcoholic cirrhosis (Yadav et al., 2007). Moreover alcoholic cirrhotics display changes in maximum insulin secretory capacity rather than altered beta cell sensitivity to glucose (Kruszynska et al., 1998). Compared to normal controls, non-diabetic alcoholic cirrhotics have significantly increased maximum insulin secretion, where as diabetic alcoholic cirrhotics demonstrate impaired maximum insulin secretion.

In conclusion, glucose intolerance in alcoholic cirrhotics results from impaired insulin secretion and insulin resistance.

The rationale behind the study- Pg 17.
This is the important part of the thesis which gives the relevance of the study. However, it has not been given due importance with substantiating references. These parameters have also not been discussed with relevant literature in the earlier sections. Hence the relevance of the study has not been brought out by the candidate herself.

This part has been redone with extensive literature search. An entire chapter has been added on Review of literature.

Why the work was chosen

As Alcoholism is an age old problem and it has vast scope. The alcoholics may be acute or chronic drinkers. The chronic drinkers manifest many symptoms and many of the patients want to quit drinking. In our study we wanted to demonstrate some of the harmful effects of chronic alcoholism and look at the usefulness of counseling and yoga on these parameters. Since cardiovascular parameters include those dealing with heart (cardiac efficiency) and the vascular system (anemia), these were chosen. Physical fitness closely affects the heart and blood parameters. Some inflammatory markers like C reactive protein are altered in cardiac inefficiency.

The justification of doing C-reactive protein is not given / clear

The correlation between cardiac efficiency and CRP was chosen as indicator of cardiac inefficiency and inflammatory markers and the make the study integrated. CRP was hence selected as an indicator of cardiac dysfunction in chronic alcoholics.
Objectives: Pg 18

There are too many objectives. I suggest the objectives could be grouped as a single primary objective and a few secondary objectives rather than taking in terms of each and every parameter.

Has been incorporated (Page 57)

The main objective of this study was to assess the impact of chronic alcoholics on selected physiological parameters (general health, certain autonomic parameters and hematological parameters) and seeing the effect of counseling and yoga on these parameters without any medication. The groups of patients taking medication were not selected because the effect of medication like sedatives and anti craving drugs would 1. Make it difficult to conduct the experiments and do the recording procedures) and also 2. The effect of the drugs would cause variations on the parameters.

For this purpose we have carried out the research work in the following lines:

WORK PLAN:

1. To look for pre and post counseling/yoga changes in the following physiological parameters.
2. To look for correlation between these parameters.

General Health:
- Impact of chronic alcoholism on physical fitness and cardiac efficiency.
- Consequence of chronic alcoholism on skeletal muscle strength and endurance.

Autonomic Parameters
- Comparison of heart rate variability (HRV) in normal subjects and chronic alcoholics.
- Quantification of stress in chronic alcoholics using galvanic skin response (GSR).
- Relation between GSR and HRV.

Physiological (including Hematological and biochemical parameters)
- Demonstration of reaction time in usefulness for counseling
- Estimation of C-reactive protein in the serum of chronic alcoholics.
- Existing type of anemia in chronic alcoholics.

Additional work
- Determination of anxiety in children of alcoholics (these alcoholics are different from those in the main part of the study).
While talking about chronic alcohol consumption - the basal status of the subject could have been given - Liver function test and based on the LFT that could have been subgrouped.

Fig 1.2- Pg 21
The graph shows the heterogeneity in the study population. I wonder how the author has grouped of them as one single group with too many confounders like their age, duration of alcohol consumption, occupation etc - all of which have a major impact on all the parameters studied.

The graph depicted in page 21 is the group which has not been used for the study. It was a pre study data as has been mentioned below the graph in the old thesis. Since confusion has arisen, this data is removed and LFT details have been added in the Material and Method section.

Chapter 2
Pg 30 - Through out the study the author claims that the “novelty in the study” - the author herself accepts that a particular parameter has been done in other countries (however these references are not being discussed in detail anywhere) and she is doing it in Indian population as there are no such study. I feel there should be much more concrete way of putting it to say the necessity of the study.

The parameters were done before and after counseling and yoga, as suggested by the examiner to increase the validity of the study. The review of Literature has been added as a separate Chapter to justify the study undertaken.

Pg 31 para 4 ...the line starting with......... Since there is paucity of information..... the studies on other population should have been discussed

Pg 31: Physical fitness, cardiac efficiency, muscle strength and muscle endurance are common parameters which denote the well being of an individual. Hence these parameters when compared before and after counseling and yoga will unravel the possible changes that can be reverted in chronic alcoholics in order to improve their standard of living.

Sample size---too small
All the parameter should have been done on the same subject and compared effectively by appropriate sub grouping them to give an effective conclusion.

The sample of 135 was considered appropriate by the statistician. We couldn’t increase the sample size further as the chronic alcoholics were going in for withdrawal symptoms and hence could not be researched on. The IRB (Institutional Review Board) and ethical committee also felt it was sufficient for the research project.

Selection of subject has been incorporated (Page 60).

Consent form: was it prepared in regional language- not attached in the annexure. Was the consent form prepared for the healthy normal subjects also?

Attached in the appendix. Yes the consent for healthy subjects who couldn’t understand English was translated into Kannada.

Pg 33: Borgs’ scale- as it is a subjective – not clear who scored this- the subject or the examiner

The examiner scores this on the basis of the exertion observed and reported by the patients and the examiner enters the value.

Harvard’s step test- did all the subjects show recovery heart rate within 3.5 min.

No, some patients took longer (5 minutes) to get their recovery heart rate, but only the average heart rate of the first 3.5 minutes were taken for calculation (Page 71).

Pg 34: Efficiency index – its based on which reference

Ghai CL, 1999 (Page 71)

Statistical Analysis – (applicable through out the thesis)

- Duration of alcohol consumption and age of the subject should have been taken into account.

2 way ANOVA was conducted taking duration of alcohol consumption and age of the subjects as independent variables (cause) and the parameters as dependent variables (effect). No significant changes were revealed. The probable reason could be that a patient may be drinking for 15 years and another for 20 years. The amount of alcohol consumed by the 20 year long drinker may be less. The exact amount of alcohol consumed couldn’t be determined exactly, as the patient’s mental status was unstable. The relatives of the patients also couldn’t exactly give any particular amount of alcohol consumed.
Regarding duration of alcohol consumption, all chapters in the old thesis have included chronic alcoholics who are drinking for more than 10 years except for the anemia chapter which included drinkers 5-10 years, and 10 years or more.

For the present revised thesis, it was deemed best to classify and divide the groups of alcoholics before and after counseling as suggested by the examiner and in consultation with the statistician. The Liver Function Test has been used for classification.

**How long were the subjects abstained from consumption of alcohol? Were they initiated into any treatment during the period of the study?**

All the patients who were admitted were brought by their relatives. It is rare to see patient coming on voluntary basis. The patients are allowed to rest the first day without any medication and were on constant observation by the paramedical staff. Only vitamins are started on day 2 of admission. All the experiments were conducted in first 2 days on the patients weren't on any medication. Some patients who developed withdrawal symptoms and delirium tremens and sedatives (benzodiazepines) were started after psychiatric and medical opinion (if necessary). Such patients were not selected for the study. Of these few patients were given Naltrexone (Pharmacological name. Naltrexone) an anti craving drug if withdrawal symptoms were severe. Such patients were also not selected for the study and hence don't come under perview.

Counseling and yoga was started from Day 2 on patients who were stable and oriented and who had no withdrawal symptoms. Counseling of 1 hour duration was given every day. The other activities for the alcoholics included indoor games like carom, chess, reading books from library.

Though we did study the effect of counseling on various parameters on some patients, we chose not to highlight the results as many were not significant. Now we have increased the patients as suggested by the examiner to 135. Since Delirium tremens and other withdrawal symptoms pose a problem for many chronic alcoholics, we couldn’t increase the number of subjects further.

The patients were discharged after 4 weeks.

**When were these tests time- time of the day, time of their last food consumption**

Test times were from 8 30 am except for biochemical parameters like C Reactive protein, it was early in the morning at 6 30 am. The breakfast time of the inmate alcoholics
were 7:30 am to 8 am. Lunch served at 12:30 to 1 noon. They have a coffee break at 4:30 pm and dinner at 7:30 pm.

**THE PARAMETERS WERE DONE AS FOLLOWING**

<table>
<thead>
<tr>
<th>Days of hospitalization</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 0</td>
<td>At time of admission</td>
<td>Admission and Blood sample for SGOT, SGPT, Questionnaire and subject selection.</td>
</tr>
<tr>
<td>Day 1</td>
<td>6:30 am</td>
<td>Fasting blood for (CRP and Erythrocyte Indices)</td>
</tr>
<tr>
<td>Day 1</td>
<td>8:30 am to 12 noon</td>
<td>Physical fitness, Autonomic parameters (HRV, GSR and CPT), Reaction time</td>
</tr>
<tr>
<td></td>
<td>3pm</td>
<td>Orientation and teaching yoga</td>
</tr>
<tr>
<td>Day 2 to Day 12</td>
<td>6:30 am to 8:00 am</td>
<td>GSR before and after Pranayama (Yoga)</td>
</tr>
<tr>
<td></td>
<td>3pm to 4pm</td>
<td>Counseling</td>
</tr>
</tbody>
</table>

The yoga and counseling were started as early as possible as the main objective was to hopefully alleviate any withdrawal symptom which may occur. During the process of conducting yoga sessions and counseling, few patients who developed withdrawal symptoms were left out of the study.

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 19 to 29</td>
<td>6:30 am to 8:00 am</td>
<td>GSR before and after Pranayama (Yoga)</td>
</tr>
<tr>
<td>Day 28</td>
<td>6:30 am</td>
<td>CRP and Erythrocyte Indices</td>
</tr>
<tr>
<td>Day 29</td>
<td>8:30 am to 12 noon</td>
<td>Physical fitness, Autonomic parameters (HRV, GSR and CPT), Reaction time</td>
</tr>
</tbody>
</table>

- **Standard deviation of the graph**—"T" should have been used— which is the accepted scientific version and not as slab of different color
- **The 3D graphs are not easy to read the Y axis and 2D graph would have been more clear**

All the graphs have been redone according to the examiners suggestion. The accepted scientific version has been used for standard deviation. All graphs have been presented as 2D graphs.
A similar study abroad has shown......which country, which population was it, its not mentioned.


Para 3: There is too much of extrapolation

Limitation: Author claims that the alcoholics were grouped as less than 5 years and more than 15 years. However it’s not shown in the result section or in the materials and method section.

I have mentioned that the study could have been done onto further sub groups like less than 5 years and more than 15 years Hence it is mentioned under limitation.

Pg 41:

Implication of the study:

This could have gone to end of the study instead of giving at the end of every section

There need not be too much of generalization made in this section- it would deal if the author is more realistic in putting the implication.

Chapter 3

Pg 46 and 47

Autonomic functions tests are numerous-only a few tests have been taken.

Justification for doing HRV

Tests for autonomic parameters (Page 41):

1. Cardio vagal tests
   
   Heart rate variation to deep breathing, valsalva ratio, 30 15 ratio

2. Adrenergic tests

   Beat to beat BP response (cold pressor test), GSR, blood pressure response to tilt-up test.

3. Sudomotor tests

   QSART- Quantitative Sudomotor Axon Reflex Test, thermoregulatory sweat test.

In tilt up test, the patients who have history of syncope are chosen. Since very few patients (only 2) reported with syncope, this parameter couldn’t be studied. The Sudomotor tests are
far too advanced and are used as confirmatory tests. Hence they couldn’t be done. QSART is done only for testing small C- fiber activity linked with sweat glands and they are generally done in patients with neuropathy. But for future studies if the necessary software are available, they will be taken for study. Thus cardio vagal and one of the adrenergic tests were taken for the study.

Also since our study comprised of many parameters other than autonomic nervous system, the Ethical committee recommended most important tests as the patients were very drunk during admission and their co-operation would become difficult if long hours and battery of tests have to be performed on the same individual. Ethically also it was not possible to stress the patients long. The patients were admitted for only 4 weeks and had a rigorous routine and their availability for research activities was restricted. Other than investigations, they had meticulous social and counseling activities throughout the week.

My major concern is that the heart rate variability has been taken as the major parameter is done manually when there is simple software that does it automatically.

The reliability and validity of manual method of HRV has been added in the chapter. The Institute has no facility to buy the HRV software. Moreover, the chronic alcoholics in Vailankanni Ward are under strict monitoring. No permission will be granted to me to shift or move the patients out of the ward under any circumstance before they are discharged. Hence they cannot be shifted to near by hospital for computerized recording of HRV. Since the manual method is well suited and easy, cost effective and reproducible, we decided to do the manual method of recording.

The author claims taking mean RR value—it was mean of how many RR value when the heart rate was recorded for 5 minutes duration.

3 RR intervals were taken (Reference for this is added)

Appropriate references are missing at most of the places (Para 4)
Page 52 and 53

The authors could have discussed this with HRV done by earlier workers and correlated with the present study.

The references have been added on page 43, 55.
Chapter 4:
Pg 59:
Para 3: Author claims that alcoholics and GSR is a novel method to measure the sympathetic activity. However in the same page para 4 the author says studies conducted in alcoholics on GSR- so what is novel in the present study.

The novelty of GSR: This novel way of testing GSR before and after Harvard’s step test thus not only quantifies stress but it also helps to detect the extent of sympathetic damage by the chronic alcoholics.

Pg 62: Its ideal all values are given mean +/- SD
Has been done

Pg 66
Para 1 number of studies to test sympathetic nervous and HPA axis......but only one reference is cited.
Has been incorporated (Page 111,112).


- Spratt, Aimee L McRae, Steven D. LaRowe, Mary Ann Timmerman, Himanshu Upadhyaya, Kathleen T Brady, PTSD and the HPA axis: Differences in response to the cold pressor task among individuals with child vs adult trauma *Psychoneuroendocrinology*, Volume 31, Issue 4, May 2006, Pages 501-509

- Elizabeth J Santa Ana, Michael E Saladin, Sudie E. Back, Angela E. Waldrop, Eve G.

- El-sheikh, M Mize, J. Buckhalt, J. Sympathetic, parasympathetic, and HPA activity in response to family stress: deleterious and protective effects on children


Rationale of doing CPT- no reference cited here.

Has been incorporated (Page 46)

In chronic alcoholics there is sympathetic over activity. CPT measures the vasoconstriction occurring. In chronic alcoholics there is severe vasoconstriction occurring and hence there is a rise in BP more than in normal subjects. The possible mechanism of
higher blood pressure in drinkers, therefore, can be explained by increased activity of the sympathoadrenal system.

Brady et al., 2006 reported HPA axis reactivity to the cold pressor task (CPT) was enhanced among individuals with alcohol dependence. Bannan et al. 1984, Clark and Friedman, 1985 have reported that alcohol withdrawal may be accompanied by hyperactivity of the sympathetic nervous system and the adrenal glands, resulting in elevated levels of such hormones as renin, cortisol, aldosterone, and epinephrine. However, elevated blood concentrations of only two of them—cortisol (Bannan et al., 1984) and epinephrine (Clark and Friedman, 1985) have been reported. Hypertension associated with alcohol withdrawal: assessment of mechanisms and complications has been related to hypertension during withdrawal and even these associations are not strong. Those who had transitory hypertension during detoxification manifested an exaggerated blood pressure response to stress, when compared with those who were non-hypertensive (Clark and Friedman, 1985). The elevated blood pressure observed during alcohol withdrawal has been related to the severity of withdrawal symptoms, estimates of recent alcohol use, and biochemical markers of alcohol use (Beevers et al., 1982)

The cold pressor test/task (CPT) is a coldwater immersion task that has been used in a number of studies to test sympathetic nervous and HPA activity (Brady et al., 2006). Chronic alcohol consumption is also associated with abnormalities in HPA axis function Increased ACTH or cortisol secretion is typically seen during acute alcohol withdrawal. This study was taken as an extension of measurement of sympathetic activity in chronic alcoholics.

Rationale for doing CPT: Since chronic alcoholics are known to have autonomic disturbances, this study sought to address the gap in the research literature concerning CPT and alcohol dependence by investigating the response to a classic physical test task. The subjective stress response to a cold-water immersion task, the cold pressor task (CPT) was to be studied in men with alcohol dependence and a control group.

Materials and methods: was BP and immersion of the hand done on the same hand-clarity needed.

The immersion of the hand was done on the opposite side of recording blood pressure. Appropriate reference has been added.
CPT should have been compared with hormonal assay to ascertain the findings, rather than extrapolation- or the discussion should have modified.

The discussion has been modified with references.

Stress is an experience common to all of us. The perception or expectation of environmental or physical changes activates the sympathetic nervous system and the hypothalamus–pituitary–adrenal (HPA) axis, the two major stress systems of the body. For decades, research has employed challenge tests to study stress and its effects on health, cognition and emotion in a laboratory setting. One of the most frequently used stress protocols in humans is the cold-pressor test (CPT) in which participants immerse their hand for a few minutes into ice water (first described by Hines and Brown, 1932). The CPT elicits profound activation of the sympathetic nervous system expressed for example as increased skin conductance (Buchanan et al., 2006) and elevated blood pressure (al’ Absi et al., 2002). However, the CPT is less capable to provoke the HPA axis. Several authors found only moderate increases in cortisol, the most important glucocorticoid in humans that indicates HPA axis activation, in response to the CPT (al’ Absi et al., 2002; Gluck et al., 2004), others obtained no cortisol elevation at all (McRae et al., 2006, Duncko et al., 2007). Stress effects are multi-faceted, with numerous neuromodulator and hormonal effects on different neural and peripheral systems. However, cortisol has been identified as a key stress component mediating stress effects on cognitive functioning and emotional processing (Enekson et al., 2003). Thus, the lack of cortisol responses to the CPT reduces the value of the CPT as a tool in stress research.

According to a recent meta-analysis, profound activation of the HPA axis reflected in large cortisol elevations is associated with tasks that contain social-evaluative elements (Dickerson and Kemeny, 2004), such as the Trier Social Stress Test (TSST; Kirschbaum et al., 1993) in which participants have to deliver a free speech and perform a mental arithmetic task in front of a camera and an audience.

It is recognized that the cold pressor test increases muscle sympathetic nerve activity (MSNA) and blood pressure (Calhoun, 1993, Jones, 1996; Victor et al., 1987). The increase in MSNA likely contributes to the increase in blood pressure. Thus it may be that baroreceptor inhibition of MSNA is overridden during the cold pressor test (Victor et al., 1987). However, Fagius et al. (1989) previously speculated that baroreflexes remain functional during a cold pressor test because MSNA still showed cardiac-rhythmicity during the test.
The mechanism for an increase in baroreflex sensitivity of MSNA during the cold pressor test is not clear (Jian et al., 2002). Sympathetic excitation during hand immersion in cold water occurs only when skin temperature falls to levels that produce a sensation of intense pain (Kregel et al., 1992). Fagius et al. (1989) reported a weak but statistically significantly correlation between the rating of perceived pain and the increase in MSNA during 1-min immersion of a hand in 2°C water. Pain induced with several methods is capable of elevating MSNA (Schobel et al., 1996), and the increase in MSNA during the cold pressor test may be driven by painful sensation induced with ice water (Kregel et al., 1992).

**Pg 71**

Autonomic function test and alcohol have been discussed in number of reported studies. However they have not been cited extensively or discussed appropriately in this section.

Autonomic parameters in alcoholics:

Autonomic parameters in alcoholics have been studied and reported by many authors:

- Atypical autonomic regulation in perpetrators of violent domestic abuse (Umhau et al., 2002)
- Autonomic neuropathy in patients with hepatic cirrhosis (Bajaj et al., 2003)
- Stress response dampening indexed by cortisol in subjects at risk for alcoholism (Croissant and Olbrich, 2004)
- Erectile dysfunction as a sentinel symptom of cardiovascular autonomic neuropathy in heavy drinkers (Ravaglia et al., 2004)
- Parameters of the functional and morphological status of the upper digestive tract in alcohol-dependent male patients with depression and alexithymia in the context of autonomic nervous system activity (Swiatkowski et al., 2004)
- Sleep deprivation potentiates activation of cardiovascular and catecholamine responses in abstinent alcoholics (Irwin and Ziegler, 2005)
- Is there a relationship between somatic and autonomic neuropathies in chronic alcoholics (Nicolosi et al., 2005)
- Rapid adaptation of pancreatic exocrine function to short-term alcohol feeding in rats (Deng et al., 2005)
- Effects on rat sympathoadrenal activity during "abstinence" (Rasmussen et al., 2006)
- Association between nocturnal vagal tone and sleep depth, sleep quality, and fatigue in alcohol dependence (Irwin et al., 2006)
- Alcohol use, urinary cortisol, and heart rate variability in apparently healthy men: Evidence for impaired inhibitory control of the HPA axis in heavy drinkers (Thayer et al., 2006)
- The effect of naltrexone and acamprosate on cue-induced craving, autonomic nervous system and neuroendocrine reactions to alcohol-related cues in alcoholics (Ooteman et al., 2007)
- SSR abnormalities in chronic alcoholics (Nazhil et al., 2007)
- Autonomic activation associated with ethanol self-administration in adult female rats (Bell et al., 2008)
- Illicit alcohol
consumption and neuropathy – a preliminary study in Sri Lanka (Ferdmandis and De Silva, 2008), Correlation between the SERT binding densities in hypothalamus and amygdala in Cloninger type 1 and 2 alcoholics (Storvik et al., 2008); Ethanol acutely stimulates islet blood flow, amplifies insulin secretion, and induces hypoglycemia via nitric oxide and vagally mediated mechanisms (Huang and Sjoholm, 2008), Rats in acute withdrawal from ethanol exhibit left ventricular systolic dysfunction and cardiac sympathovagal balance shift (Liu et al., 2009).

Ralf Demmel et al., 2000 has done pupillometric studies, noise-induced stress and autonomic reactivity in male alcoholics. Neuropathic studies by Barter and Tanner, 1987 have reported altered BP recordings. Mortality in alcoholics with autonomic neuropathy has been worked on by Johnson and Robinson, 1988. Agelink et al., 1998 has reported on improved autonomic neurocardial balance in short term abstinent alcoholics treated with acamprosate.

Autonomic dysfunction in long standing group of alcoholics has been reported by Esko Matikainen et al., 1986. Hirsch et al., 1993 has reported recovery of repatory sinus arrhythmia in detoxified alcoholic subjects. Autonomic neuropathy has been reported by various authors (Roser Monforte et al., 1985; Tan et al., 1985; Low et al., 1985; Jaume Villalta, 1989, Thuluvath and Triger, 1989) Tan et al., 1985 have reported that recovery of alcoholic vagal neuropathy is possible following prolonged abstinence in alcoholics. Frank Schneider et al., 2001 have worked on the subcortical correlates of craving in recently abstinent alcoholic patients using olfactory stimuli.

The effects of illicit alcohol consumption in Sri Lanka (Ferdmandis and De Silva, 2008), autonomic dysfunctions in schizophrenia (Karl-Jurgen Bar et al., 2009), small fiber neuropathy (Singer et al., 2004), Role of epsilon in painful alcoholic neuropathy (Olayinka et al., 2000), hyperactive responses in children of alcoholics (Socorro Rodríguez Holguín, 1998), cerebellar shrinkage in ethanol toxicity (Nicolás and Fernández-Solà, 2000) are some of the studies available on conducting literature search on alcoholics and autonomic nervous system dysfunctions.

Chapter 5
Pg 80
Measurement of reaction time- reference cited in line 2 could be changed for appropriateness.

Reference has been removed.
Chapter 9
Yoga and stress in alcoholics
Though reference has been cited _ I feel they have not been appropriately discussed with relevance to this study
  Discussion has been changed.

Pg 125
Anuloma Viloma Pranayama and stress, no reference has been studied
  No reference is available on the effect of anuloma viloma pranayama on stress. Ours is first kind of study. But similar works on other kinds of pranayama and yoga have been cited

Pg 130
Reference for the methodology (para 1). Who was the trainer?
  The trainer was a yoga teacher who regularly visits the alcoholics and Vailankanni ward
  Jain N, Srivastava RD and Singhal A. The effects of right and left nostril breathing on cardio-pulmonary and autonomic parameters. Ind J of Physio Pharmacol 2005, 49 469-474
  Shannahoff-Khalsa DS, Kennedy B. The effects of unilateral forced nostril breathing on the heart. Int J Neurosci 1993, 73.47-60

Para 2, line 6- where did the students suddenly come into the study.
The error has been rectified.
Statistical analysis: the author should have done a two way ANOVA with time and duration of exposure to alcohol or duration of treatment taken into consideration. This could have given more value to the study.

Only in Chapter concerning anemia, the years of drinking has been considered as the parameter was limited to hematology and did not involve stressful activities and also because it did consume much time of alcoholics who had a packed schedule of daily routines. Since the patients who were tested for blood were 253, it was possible for sub classification for that chapter alone in the old thesis.

For the remaining chapters there were lesser patients admitted in the category of drinking 5 years or less For the category of drinking more than 10 years, sub classification resulted in insignificant statistical numbers and hence was not recommended by the statistician

Page 136 and 137
Discussion: could be improved.
Discussion has been redone.

Chapter 10
Summary
At least in this section the author could have dealt with all the parameters together instead of such water tight sealing between each of the parameters.
Though the author has some of the parameters—they could have been discussed in an integrated fashion instead of sub dividing them as water tight compartments. Some of the parameters are interrelated.
If all theses parameters were done on the same subjects-sub grouped them appropriately, and then compared with the control, correlated with all the parameters studied, the results would have been well integrated and added value to the study. Each phase looks like independent study with no correlation between each. This pulls down the value of the study.

The summary table discusses the parameters in a single table Modifications have been done to avoid the water tight sealing.

Dr. ಎಂ Ph. 0824-2432235 ನಗರ ತನ್ನ ಶಾಲಾಗಳ ಬೆಳವಣಿಗೆ

ಮತ್ತು ತನ್ನ ತಂತ್ರಣೆಗಳ ಮರಣಕಾರೀಯತೆ.