Chapter - 4

ANALYSIS AND INTERPRETATION OF RESULTS
This chapter presents the analysis and interpretation of data collected to determine the effect of laughter yoga on selected psycho physiological variables among the elderly clients residing in old age homes of Kottayam district. “Analysis is the process of organizing and synthesizing data so as to answer research questions and test hypotheses”. (Pilot 2012) This will help to translate the collected data into an interpretable form so that the proposed relationship of variables addressed in the research problem could be tested.

The data has been analysed and interpreted in the light of the objectives and hypothesis of the study.

Organization of the study findings

Section 1: Description of baseline variables of the elderly clients residing in old age homes of Kottayam district.

Section 2: Assessment of Skewness and kurtosis and Tests of normality for the psychological variables

Section 3: Assessment of the pre test level of selected psychological variables among the elderly.

Section 4: Post test assessments of the effect of laughter yoga on selected psychological variables among the elderly clients.

Section 5: Pre and Post test assessment of physiological variables.

Section 6: Association between selected baseline variables and psychological study variables.
Section 1

This section deals with the description of socio demographic variables of the elderly clients living in old age homes of Kottayam District.

Table 1.1

*Distribution of sample based on age, gender and religion N= 153*

**Age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 70</td>
<td>66</td>
<td>43.1</td>
<td>43.1</td>
<td>43.1</td>
</tr>
<tr>
<td>70 to 80</td>
<td>43</td>
<td>28.1</td>
<td>28.1</td>
<td>71.2</td>
</tr>
<tr>
<td>80 and Above</td>
<td>44</td>
<td>28.8</td>
<td>28.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>64</td>
<td>41.8</td>
<td>41.8</td>
<td>41.8</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
<td>58.2</td>
<td>58.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Religion**

<table>
<thead>
<tr>
<th>Religion</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>63</td>
<td>41.2</td>
<td>41.2</td>
<td>41.2</td>
</tr>
<tr>
<td>Muslim</td>
<td>1</td>
<td>.7</td>
<td>.7</td>
<td>41.8</td>
</tr>
<tr>
<td>Christian</td>
<td>89</td>
<td>58.2</td>
<td>58.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>
43.1% of participants were between the age group of 60 to 70 years. 58.2 percent of the participants were females. 58.2 percent of participants were Christians.

**Table 1.2**  
*Distribution of sample according to educational status*

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>94</td>
<td>61.4</td>
<td>61.4</td>
<td>61.4</td>
</tr>
<tr>
<td>Upto SSLC</td>
<td>18</td>
<td>11.8</td>
<td>11.8</td>
<td>73.2</td>
</tr>
<tr>
<td>HSE</td>
<td>5</td>
<td>3.3</td>
<td>3.3</td>
<td>76.5</td>
</tr>
<tr>
<td>Graduation</td>
<td>3</td>
<td>2.0</td>
<td>2.0</td>
<td>78.4</td>
</tr>
<tr>
<td>PG</td>
<td>3</td>
<td>2.0</td>
<td>2.0</td>
<td>80.4</td>
</tr>
<tr>
<td>Illiterate</td>
<td>30</td>
<td>19.6</td>
<td>19.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

61.4 percent people were just literate who could read and write and their level of education was less than SSLC. 19.6 percent were illiterate.
Table 1.3

*Distribution of subjects based on previous occupation*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Experimental group N=91</th>
<th>Control group N=62</th>
<th>Total N=153</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>2. Farmer</td>
<td>07</td>
<td>7.69</td>
<td>03</td>
</tr>
<tr>
<td>3. Office/Other jobs</td>
<td>08</td>
<td>8.79</td>
<td>08</td>
</tr>
<tr>
<td>4. Shops/business</td>
<td>02</td>
<td>2.20</td>
<td>04</td>
</tr>
<tr>
<td>5. House wife</td>
<td>29</td>
<td>31.87</td>
<td>11</td>
</tr>
<tr>
<td>6. House maid</td>
<td>06</td>
<td>6.60</td>
<td>09</td>
</tr>
<tr>
<td>7. No job</td>
<td>10</td>
<td>10.98</td>
<td>03</td>
</tr>
<tr>
<td>8. Gospel Service</td>
<td>05</td>
<td>5.50</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>91</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

Table 1.4

*Distribution of sample based on marital status*

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>51</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>Married</td>
<td>14</td>
<td>9.2</td>
<td>9.2</td>
<td>42.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>9</td>
<td>5.9</td>
<td>5.9</td>
<td>48.4</td>
</tr>
<tr>
<td>Widowed</td>
<td>63</td>
<td>41.17</td>
<td>41.17</td>
<td>89.58</td>
</tr>
<tr>
<td>Separated</td>
<td>16</td>
<td>10.5</td>
<td>10.5</td>
<td>100.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>153</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 1.5

*Distribution of sample based on number of children*

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>78</td>
<td>51.0</td>
<td>51.0</td>
<td>51.0</td>
</tr>
<tr>
<td>1.00</td>
<td>17</td>
<td>11.1</td>
<td>11.1</td>
<td>62.1</td>
</tr>
<tr>
<td>2.00</td>
<td>17</td>
<td>11.1</td>
<td>11.1</td>
<td>73.2</td>
</tr>
<tr>
<td>3.00</td>
<td>15</td>
<td>9.8</td>
<td>9.8</td>
<td>83.0</td>
</tr>
<tr>
<td>4.00</td>
<td>10</td>
<td>6.5</td>
<td>6.5</td>
<td>89.5</td>
</tr>
<tr>
<td>5.00</td>
<td>8</td>
<td>5.2</td>
<td>5.2</td>
<td>94.8</td>
</tr>
<tr>
<td>6.00</td>
<td>4</td>
<td>2.6</td>
<td>2.6</td>
<td>97.4</td>
</tr>
<tr>
<td>7.00</td>
<td>3</td>
<td>2.0</td>
<td>2.0</td>
<td>99.3</td>
</tr>
<tr>
<td>9.00</td>
<td>1</td>
<td>.7</td>
<td>.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

41.17 percent of subjects were widowed and 33.3 percent were single (never married) Out of married people (excluding the single) 51.0 percent had no children

Table 1.6

*Distribution of subjects based on employment status of children*

<table>
<thead>
<tr>
<th>Employment status</th>
<th>N=75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>1. Working abroad</td>
<td>03</td>
</tr>
<tr>
<td>2. Working in Kerala</td>
<td>67</td>
</tr>
<tr>
<td>3. Working in another state</td>
<td>03</td>
</tr>
<tr>
<td>4. Unemployed</td>
<td>02</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
</tr>
</tbody>
</table>
### Table 1.7

**Distribution of sample based on nature of admission and duration of stay in the old age home  \( N=153 \)**

**Nature of Admission**

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>66</td>
<td>43.1</td>
<td>43.1</td>
<td>43.1</td>
</tr>
<tr>
<td>Forced by Children</td>
<td>13</td>
<td>8.5</td>
<td>8.5</td>
<td>51.6</td>
</tr>
<tr>
<td>Placed by Relatives or Others</td>
<td>74</td>
<td>48.4</td>
<td>48.4</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Duration of Stay**

<table>
<thead>
<tr>
<th>Duration of Stay</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one year</td>
<td>36</td>
<td>23.5</td>
<td>23.7</td>
<td>23.7</td>
</tr>
<tr>
<td>1-2 Years</td>
<td>25</td>
<td>16.3</td>
<td>16.4</td>
<td>40.1</td>
</tr>
<tr>
<td>2-3 Years</td>
<td>12</td>
<td>7.8</td>
<td>7.9</td>
<td>48.0</td>
</tr>
<tr>
<td>3-4 Years</td>
<td>9</td>
<td>5.9</td>
<td>5.9</td>
<td>53.9</td>
</tr>
<tr>
<td>More than four years</td>
<td>70</td>
<td>45.8</td>
<td>46.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>152</strong></td>
<td><strong>99.3</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>1</td>
<td>.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

43.1 percent of subjects had voluntary admission to old age home where as remaining people were placed by others (children, relatives or other people). 46 percent of the subjects were staying in the old age home for more than four years.
Table 1.8

*Distribution of subjects based on Source of income*

<table>
<thead>
<tr>
<th>Source of income</th>
<th>Experimental group N=91</th>
<th>Control group N=62</th>
<th>Total N=153</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Dependent on old age home.</td>
<td>80</td>
<td>87.90</td>
<td>44</td>
</tr>
<tr>
<td>1+ own income</td>
<td>01</td>
<td>1.11</td>
<td>04</td>
</tr>
<tr>
<td>1+ support from children</td>
<td>04</td>
<td>4.40</td>
<td>04</td>
</tr>
<tr>
<td>1+ support from relative</td>
<td>04</td>
<td>4.40</td>
<td>03</td>
</tr>
<tr>
<td>1+ old age pension.</td>
<td>02</td>
<td>2.1</td>
<td>07</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

Table 1.9

*Distribution of sample based on chronic diseases and physical dependence  N=153*

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>123</td>
<td>80.4</td>
<td>80.4</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>19.6</td>
<td>19.6</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Physical Dependence**

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>121</td>
<td>79.1</td>
<td>79.1</td>
</tr>
<tr>
<td>Partially Independent</td>
<td>26</td>
<td>17.0</td>
<td>17.0</td>
</tr>
<tr>
<td>Uses assistive devices</td>
<td>6</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>
80.4 percent of the subjects were suffering from chronic illnesses. 79.1 percent of the subjects were independent physically.

**Table 1.10**

_Distribution of sample based on history of illness._

<table>
<thead>
<tr>
<th>Types of illness</th>
<th>Experimental Group N=91</th>
<th>Control Group N=62</th>
<th>Total N=153</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>f</td>
</tr>
<tr>
<td>I. Medical illness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Hypertension</td>
<td>45</td>
<td>49.45</td>
<td>28</td>
</tr>
<tr>
<td>2. Post CAD</td>
<td>06</td>
<td>6.59</td>
<td>0.2</td>
</tr>
<tr>
<td>3. Post CVA</td>
<td>02</td>
<td>2.20</td>
<td>0.3</td>
</tr>
<tr>
<td>5. Asthma</td>
<td>15</td>
<td>16.48</td>
<td>12</td>
</tr>
<tr>
<td>6. Peptic ulcer</td>
<td>14</td>
<td>4.40</td>
<td>04</td>
</tr>
<tr>
<td>7. Other Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(hypotension, hyperlipidaemia, TB, Silicosis, gastritis)</td>
<td>16</td>
<td>17.58</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td><strong>117.58</strong></td>
<td><strong>114.43</strong></td>
<td><strong>116.31</strong></td>
</tr>
</tbody>
</table>

II. Surgical Illness

|                                  |           |            |   |   |   |   |
| 1. Haemorrhoids                 | 0.3       | 3.30       | 0.7 | 11.29 | 10 | 6.54 |
| 2. Hernia (repaired)            | Nil       | -          | 0.4 | 6.45 | 0.4 | 2.61 |

III. Psychiatric illness

|                                  |           |            |   |   |   |   |
| 1. Depression                   | 0.4       | 4.40       | 0.2 | 3.23 | 0.6 | 3.92 |
| 2. Alcohol and Substance abuse  | 0.5       | 5.49       | 11 | 17.74 | 16 | 10.46 |
| 3. Schizophrenia                | Nil       | -          | 0.1 | 1.61 | 1.1 | 0.65 |
As shown in the table major health problems were hypertension, Diabetes mellitus, Impaired vision, Asthma, arthritis and other complaints of pain.

Table 1.11

<table>
<thead>
<tr>
<th>Distribution of sample based on reported number of health problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>a) No illness</td>
</tr>
<tr>
<td>b) One chronic health problem</td>
</tr>
<tr>
<td>c) Multiple health problems</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
As shown in the table only 3.92% of subjects reported that they have no illness. 69.94% of subjects had multiple health problems.

**Table 1.12**

*Distribution of sample based on number of visitors N=153*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>98</td>
<td>64.10</td>
</tr>
<tr>
<td>2</td>
<td>49</td>
<td>32.00</td>
</tr>
<tr>
<td>3</td>
<td>06</td>
<td>3.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>153</td>
<td>100.00</td>
</tr>
</tbody>
</table>

As shown in the table majority of the sample had no visitors.

**Table 1.13**

*Comparison of experimental and control group on selected baseline variables using Mann-Whitney test.*

**Ranks**

<table>
<thead>
<tr>
<th></th>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>62</td>
<td>82.02</td>
<td>5085.00</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>73.58</td>
<td>6696.00</td>
</tr>
<tr>
<td>Gender</td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>62</td>
<td>76.71</td>
<td>4756.00</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>77.20</td>
<td>7025.00</td>
</tr>
<tr>
<td>Religion</td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>62</td>
<td>71.49</td>
<td>4432.50</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>80.75</td>
<td>7348.50</td>
</tr>
<tr>
<td>Education</td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Analysis and Interpretation of Results

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Control</th>
<th>62</th>
<th>77.40</th>
<th>4799.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>76.73</td>
<td>6982.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Children</td>
<td>Control</td>
<td>62</td>
<td>78.28</td>
<td>4853.50</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>76.13</td>
<td>6927.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of Admission</td>
<td>Control</td>
<td>62</td>
<td>84.81</td>
<td>5258.50</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>71.68</td>
<td>6522.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of Stay</td>
<td>Control</td>
<td>62</td>
<td>76.60</td>
<td>4749.00</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>90</td>
<td>76.43</td>
<td>6879.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Disease</td>
<td>Control</td>
<td>62</td>
<td>81.74</td>
<td>5068.00</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>73.77</td>
<td>6713.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Dependence</td>
<td>Control</td>
<td>61</td>
<td>76.32</td>
<td>4655.50</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>91</td>
<td>76.62</td>
<td>6972.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Test Statistics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Religion</th>
<th>Education</th>
<th>Marital Status</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2510.000</td>
<td>2803.000</td>
<td>2479.500</td>
<td>2796.000</td>
</tr>
<tr>
<td>Z</td>
<td>-1.353</td>
<td>-.078</td>
<td>-1.457</td>
<td>-.098</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.176</td>
<td>.938</td>
<td>.145</td>
<td>.922</td>
</tr>
</tbody>
</table>
Analysis and Interpretation of Results

Test Statistics\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Nature of Admission</th>
<th>Duration of Stay</th>
<th>Chronic Disease</th>
<th>Physical Dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2336.500</td>
<td>2784.000</td>
<td>2527.000</td>
<td>2764.500</td>
</tr>
<tr>
<td>Z</td>
<td>-2.006</td>
<td>-.024</td>
<td>-1.589</td>
<td>-.058</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.045</td>
<td>.981</td>
<td>.112</td>
<td>.954</td>
</tr>
</tbody>
</table>

\(^a\) Grouping Variable: Category

Comparison on selected baseline variables for the control group and experimental group shows that the groups were similar except on Nature of admission to old age home (\(z= -2.006\) and \(p= .045\)).

Section 2

This section deals with the calculation of skewness and kurtosis of the psychological variables and tests for normality of the data.

Table 2.1

<table>
<thead>
<tr>
<th></th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Std.Error</td>
</tr>
<tr>
<td>PGCMS-T-0</td>
<td>0.482</td>
<td>0.196</td>
</tr>
<tr>
<td>HRS-T-0</td>
<td>0.173</td>
<td>0.196</td>
</tr>
<tr>
<td>GDS-T-0</td>
<td>-0.116</td>
<td>0.196</td>
</tr>
<tr>
<td>WHO-T-0</td>
<td>0.118</td>
<td>0.196</td>
</tr>
</tbody>
</table>

As shown in the table the sample is skewed in its distribution
Table 2.2

Tests of normality for the psychological variables

Tests of Normality N=153

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov – Smirnov test</th>
<th>Shapiro – Wilks test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>WH-T-0</td>
<td>0.087</td>
<td>153</td>
</tr>
<tr>
<td>GDS-T-0</td>
<td>0.087</td>
<td>153</td>
</tr>
<tr>
<td>PHS-T-0</td>
<td>0.134</td>
<td>153</td>
</tr>
<tr>
<td>HRS-T-0</td>
<td>0.094</td>
<td>153</td>
</tr>
</tbody>
</table>

As shown in the table the sample is not normal in its distribution.

Section 3

This section deals with the pre test values of the psychological variables (morale, depression and subjective well-being) and the physiological variables.

Table 3.1

Between group comparison of pre test values of morale, depression and subjective well-being

Test Statistics\textsuperscript{a}

<table>
<thead>
<tr>
<th></th>
<th>PGS_S_0</th>
<th>GDS_S_0</th>
<th>HRS_S_0</th>
<th>WHO_S_0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2401.000</td>
<td>2159.000</td>
<td>2145.000</td>
<td>2491.000</td>
</tr>
<tr>
<td>z</td>
<td>-1.963</td>
<td>-2.621</td>
<td>-2.600</td>
<td>-1.450</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.050</td>
<td>.009</td>
<td>.009</td>
<td>.147</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Grouping Variable: Category

As shown in the table the experimental and control group are similar only in subjective well-being.
Section 4

Table 4.1

*Within group comparison of experimental group on Morale (using Friedman test) between 5 Time points (N=77)*

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGS_S_0</td>
<td>2.62</td>
</tr>
<tr>
<td>PGS_S_2</td>
<td>3.14</td>
</tr>
<tr>
<td>PGS_S_4</td>
<td>2.68</td>
</tr>
<tr>
<td>PGS_S_6</td>
<td>3.03</td>
</tr>
<tr>
<td>PGS_S_8</td>
<td>3.53</td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th>N</th>
<th>77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>30.218</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.0001</td>
</tr>
</tbody>
</table>

a. Friedman Test

Table 4.1 shows the mean rank of morale of the experimental group from pre-test to post tests for 2nd, 4th, 6th and 8th weeks (N=77). ($\chi^2 = 30.218$, df = 4, p=.0001). Since the $\chi^2$ value is more than the tabled value null hypothesis is rejected. This shows an improved morale of the elderly who underwent laughter yoga.
Table 4.2

Within group comparison of control group on morale between 5 time points by Friedman Test (N=61).

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGS_S_0</td>
<td>3.03</td>
</tr>
<tr>
<td>PGS_S_2</td>
<td>2.91</td>
</tr>
<tr>
<td>PGS_S_4</td>
<td>3.07</td>
</tr>
<tr>
<td>PGS_S_6</td>
<td>2.99</td>
</tr>
<tr>
<td>PGS_S_8</td>
<td>2.99</td>
</tr>
</tbody>
</table>

a. Category = Control

Test Statistics a,b

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>61</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>3.520</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>0.475</td>
</tr>
</tbody>
</table>

a. Category = Control
b. Friedman Test

Table 4.2 shows the mean rank of morale of the control group from pre test to 4 post tests. (N=61) ($\chi^2 = 3.520$, df=4, p=.475). The calculated $\chi^2$ value is less than the tabled value and hence null hypothesis is not rejected. The result is not statistically significant. This provides evidence that there was no change in Morale among the control group.
Table 4.3

Comparison of control and experimental group on morale between 5 time points using Mann-Whitney Test

### Ranks

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGS_S_0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>70.23</td>
<td>4354.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>91</td>
<td>81.62</td>
<td>7427.00</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGS_S_2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>59.54</td>
<td>3691.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>85.28</td>
<td>7334.50</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGS_S_4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>66.45</td>
<td>4053.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>84</td>
<td>77.76</td>
<td>6531.50</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGS_S_6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>60.54</td>
<td>3693.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>82</td>
<td>80.52</td>
<td>6603.00</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGS_S_8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>51.94</td>
<td>3168.5</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>83.41</td>
<td>6422.5</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Test Statistics<sup>a</sup>

<table>
<thead>
<tr>
<th></th>
<th>PGS_S_0</th>
<th>PGS_S_2</th>
<th>PGS_S_4</th>
<th>PGS_S_6</th>
<th>PGS_S_8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2401.000</td>
<td>1738.500</td>
<td>2162.500</td>
<td>1802.000</td>
<td>1277.500</td>
</tr>
<tr>
<td>Z</td>
<td>-1.963</td>
<td>-4.195</td>
<td>-1.963</td>
<td>-3.358</td>
<td>-5.068</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.050</td>
<td>.000</td>
<td>.050</td>
<td>.001</td>
<td>.000</td>
</tr>
</tbody>
</table>

<sup>a</sup> Grouping Variable: Category
Table 4.3 Null hypothesis is rejected for the post tests which means a change in morale for the experimental group after laughter yoga.

**Table 4.4**

*Within group comparison of experimental group on depression (using Friedman test) between 5 time points (N = 77).*

<table>
<thead>
<tr>
<th>Ranks(^a)</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS_S_0</td>
<td>3.57</td>
</tr>
<tr>
<td>GDS_S_2</td>
<td>2.90</td>
</tr>
<tr>
<td>GDS_S_4</td>
<td>3.10</td>
</tr>
<tr>
<td>GDS_S_6</td>
<td>2.93</td>
</tr>
<tr>
<td>GDS_S_8</td>
<td>2.50</td>
</tr>
</tbody>
</table>

\(^a\) Category = Experimental

<table>
<thead>
<tr>
<th>Test Statistics(^{a,b})</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Chi-Square</td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
</tr>
</tbody>
</table>

\(^a\) Category = Experimental

\(^b\) Friedman Test

Table 4.4 shows the within group comparison of experimental group on Geriatric Depression Scale \(\chi^2 = 38.099, \text{ df} = 4, p=.0001\). Chi-square value is more than the tabled value and so Null hypothesis is rejected. The mean ranks show a reduction compared to the pre test. But by week four the mean rank is more than that
of 2\textsuperscript{nd} week but less than the pre test value. Further follow ups shows a decrease in value from which we can infer that laughter yoga group had their depression levels reduced.

**Table 4.5**

*Within group comparison of control group on depression between 5 time points by Friedman test on depression (by GDS)*

<table>
<thead>
<tr>
<th>Ranks ( ^a )</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS_S_0</td>
<td>2.80</td>
</tr>
<tr>
<td>GDS_S_2</td>
<td>2.98</td>
</tr>
<tr>
<td>GDS_S_4</td>
<td>2.96</td>
</tr>
<tr>
<td>GDS_S_6</td>
<td>3.01</td>
</tr>
<tr>
<td>GDS_S_8</td>
<td>3.25</td>
</tr>
</tbody>
</table>

\( ^a \) Category = Control

**Test Statistics\(^{a,b} \)**

<table>
<thead>
<tr>
<th>N</th>
<th>61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>17.191</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.002</td>
</tr>
</tbody>
</table>

\( ^a \) Category = Control

\( ^b \) Friedman Test

Table 4.5 shows within group comparison of Geriatric Depression scores for the control group. Compared to pre test mean rank post tests show increase in depression \( (\chi^2 = 17.191, \text{df} = 4, p=.002) \) Null hypothesis is rejected.
**Table 4.6**  
*Between group comparison of depression (GDS score) using Mann-Whitney test*

### Ranks

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS_S_0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>87.68</td>
<td>5436.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>91</td>
<td>69.73</td>
<td>6345.00</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDS_S_2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>97.77</td>
<td>6062.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>57.72</td>
<td>4964.00</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDS_S_4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>92.59</td>
<td>5648.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>84</td>
<td>58.77</td>
<td>4937.00</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDS_S_6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>95.58</td>
<td>5830.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>82</td>
<td>54.46</td>
<td>4465.50</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDS_S_8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>97.42</td>
<td>5942.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>47.38</td>
<td>3648.50</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>GDS_S_0</th>
<th>GDS_S_2</th>
<th>GDS_S_4</th>
<th>GDS_S_6</th>
<th>GDS_S_8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2159.00</td>
<td>1223.00</td>
<td>1367.00</td>
<td>1062.50</td>
<td>645.50</td>
</tr>
<tr>
<td>z</td>
<td>-2.621</td>
<td>-5.957</td>
<td>-5.111</td>
<td>-6.262</td>
<td>-7.780</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.009</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

*a. Grouping Variable: Category*

Table 4.6 presents results of between group comparisons on GDS scores.
Table 4.7

*Within group comparison of experimental group between 5 time points on Hamilton Rating Scale for depression using Friedman test. (N=77)*

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS_S_0</td>
<td>3.71</td>
</tr>
<tr>
<td>HRS_S_2</td>
<td>3.14</td>
</tr>
<tr>
<td>HRS_S_4</td>
<td>3.14</td>
</tr>
<tr>
<td>HRS_S_6</td>
<td>2.75</td>
</tr>
<tr>
<td>HRS_S_8</td>
<td>2.25</td>
</tr>
</tbody>
</table>

a. Category = Experimental

<table>
<thead>
<tr>
<th>Test Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>77</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>62.290</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.0001</td>
</tr>
</tbody>
</table>

a. Category = Experimental
b. Friedman Test

Table 4.7 presents the experimental groups analysis from pre test to post tests. $\chi^2 = 62.290$, df = 4, p = .0001 showing a decrease in depression scores from pre test. There was no difference between week 2 and week 4 though it is less than pre test value. In week 6 and 8 there is further decrease in depression scores. Therefore the null hypothesis is rejected.
Table 4.8

Within group comparison of control group between 5 time points on Hamilton Rating Scale for depression using Friedman test  N=61

<table>
<thead>
<tr>
<th>Ranks(a)</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS_S_0</td>
<td>2.84</td>
</tr>
<tr>
<td>HRS_S_2</td>
<td>2.96</td>
</tr>
<tr>
<td>HRS_S_4</td>
<td>2.98</td>
</tr>
<tr>
<td>HRS_S_6</td>
<td>3.21</td>
</tr>
<tr>
<td>HRS_S_8</td>
<td>3.02</td>
</tr>
</tbody>
</table>

\(a\). Category = Control

Test Statistics\(a,b\)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>61</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>5.879</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.208</td>
</tr>
</tbody>
</table>

\(a\). Category = Control
\(b\). Friedman Test

Table 4.8 shows the within group Hamilton scores for the control group. There was not much difference up to 4\(^{\text{th}}\) week. But in 6\(^{\text{th}}\) week and 8\(^{\text{th}}\) week the depression scores seems higher compared to pre test. The \(\chi^2 = 5.879,\) df = 4, \(p = .208\). There was no difference in level of depression for the control group subjects from pre test to post tests.
### Table 4.9

**Between group comparisons of control group and experimental group on depression (based on HRS) during 5 time points using Man-Whitney test**

#### Ranks

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>62</td>
<td>87.90</td>
<td>5450.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>91</td>
<td>69.57</td>
<td>6331.00</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>96.00</td>
<td>5952.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>59.00</td>
<td>5074.00</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>92.95</td>
<td>5670.00</td>
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<tr>
<td>Experimental</td>
<td>84</td>
<td>58.51</td>
<td>4915.00</td>
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<tr>
<td>Total</td>
<td>145</td>
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<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>98.11</td>
<td>5985.00</td>
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<tr>
<td>Experimental</td>
<td>82</td>
<td>52.57</td>
<td>4311.00</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>96.05</td>
<td>5859.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>48.47</td>
<td>3732.00</td>
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</tr>
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#### Test Statistics

<table>
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<tr>
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<th>HRS_S_2</th>
<th>HRS_S_4</th>
<th>HRS_S_6</th>
<th>HRS_S_8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2145.00</td>
<td>1333.00</td>
<td>1345.00</td>
<td>908.00</td>
<td>729.00</td>
</tr>
<tr>
<td>Z</td>
<td>-2.600</td>
<td>-5.355</td>
<td>-5.037</td>
<td>-6.758</td>
<td>-7.341</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.009</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Category

Between groups comparison on scores of Hamilton Depression Rating Scale is presented in Table 4.9. Null hypothesis is rejected.
Table 4.10

*Within group comparison of experimental group – WHO well-being Index N=77*

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO_S_0</td>
<td>2.18</td>
</tr>
<tr>
<td>WHO_S_2</td>
<td>3.05</td>
</tr>
<tr>
<td>WHO_S_4</td>
<td>3.05</td>
</tr>
<tr>
<td>WHO_S_6</td>
<td>3.31</td>
</tr>
<tr>
<td>WHO_S_8</td>
<td>3.41</td>
</tr>
</tbody>
</table>

*a. Category = Experimental*

**Test Statistics**

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<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>77</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>75.731</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

*a. Category = Experimental  
 b. Friedman Test*

The experimental group’s comparison between pre-test and the post tests (Table 4.10) shows an improvement in well being scores from pre test to post-tests ($\chi^2 = 75.731$, df= 4, p= .000). The null hypothesis is rejected.
The control groups showed a decrease in well-being from pre-test to post tests during 6th and 8th weeks. $\chi^2 = 9.565$, df=4, p=.048) and the null hypothesis is rejected (Table 4.11)
Table 4.12

*Between group comparison of experimental group and control group on subjective well-being (WHO – well-being Index) using Mann-Whitney test*

### Ranks

<table>
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<tr>
<th>Category</th>
<th>N</th>
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<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO_S_0</td>
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<td></td>
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<tr>
<td>Control</td>
<td>62</td>
<td>71.68</td>
<td>4444.00</td>
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<tr>
<td>Experimental</td>
<td>91</td>
<td>80.63</td>
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<td></td>
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<td></td>
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<tr>
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<td>62</td>
<td>54.18</td>
<td>3359.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>89.15</td>
<td>7667.00</td>
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<tr>
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<td>148</td>
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<tr>
<td>WHO_S_4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>52.89</td>
<td>3226.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>84</td>
<td>87.60</td>
<td>7358.50</td>
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<td>145</td>
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<td></td>
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<td>45.58</td>
<td>2780.50</td>
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<td>82</td>
<td>91.65</td>
<td>7515.50</td>
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<td>Total</td>
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<tr>
<td>WHO_S_8</td>
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<tr>
<td>Control</td>
<td>61</td>
<td>42.34</td>
<td>2582.50</td>
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<td>77</td>
<td>91.02</td>
<td>7008.50</td>
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### Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>WHO_S_0</th>
<th>WHO_S_2</th>
<th>WHO_S_4</th>
<th>WHO_S_6</th>
<th>WHO_S_8</th>
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</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2491.000</td>
<td>1406.000</td>
<td>1335.500</td>
<td>889.500</td>
<td>691.500</td>
</tr>
<tr>
<td>Z</td>
<td>-1.450</td>
<td>-5.730</td>
<td>-5.732</td>
<td>-7.806</td>
<td>-8.464</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.147</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Category

Table 4.12 shows that there was no difference in subjective well-being between the control and experimental group during pre-test. \( z = -1.450, p = .147 \). Difference in subjective well-being is observed from 2\textsuperscript{nd} to 8\textsuperscript{th} week and the null hypothesis is rejected.
Figure 1 *Percentage distribution of scores on PGS Control group*

Figure 2 *Percentage distribution of scores on PGS Experimental group*
Figure 3 Percentage distribution of scores on GDS Control group

Figure 4 Percentage distribution of scores on GDS Experimental group
**Figure 5** Percentage distribution of scores on HRS Control group

**Figure 6** Percentage distribution of scores on HRS Experimental group
Figure 7 Percentage distribution of scores on WHO Well Being Index Scores: Control group

Figure 8 Percentage distribution of scores on WHO Well Being Index Scores: Experimental group
Section 5
Pre and Post test assessment of physiological variables.

Table 5.1
*Between group comparison of Respiratory Rate*

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>RR_St_0_S</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>78.81</td>
<td>4886.00</td>
</tr>
<tr>
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<td>86</td>
<td>71.40</td>
<td>6140.00</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
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<tr>
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<td>76.17</td>
<td>4722.50</td>
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<tr>
<td>Experimental</td>
<td>86</td>
<td>73.30</td>
<td>6303.50</td>
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<td></td>
</tr>
<tr>
<td>RR_St_4_S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>72.03</td>
<td>4394.00</td>
</tr>
<tr>
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<td>84</td>
<td>73.70</td>
<td>6191.00</td>
</tr>
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<tr>
<td>Control</td>
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<td>74.53</td>
<td>4546.50</td>
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<tr>
<td>Experimental</td>
<td>82</td>
<td>70.12</td>
<td>5749.50</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
</tr>
<tr>
<td>RR_St_8_S</td>
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<td></td>
<td></td>
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<tr>
<td>Control</td>
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<td>62.41</td>
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<td>Experimental</td>
<td>77</td>
<td>75.12</td>
<td>5784.00</td>
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**Test Statistics**

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<tr>
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<th>RR_St_0_S</th>
<th>RR_St_2_S</th>
<th>RR_St_4_S</th>
<th>RR_St_6_S</th>
<th>RR_St_8_S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2399.00</td>
<td>2562.50</td>
<td>2503.00</td>
<td>2346.50</td>
<td>1916.00</td>
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<td>$z$</td>
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<td>-.269</td>
<td>-.782</td>
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</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.259</td>
<td>.651</td>
<td>.788</td>
<td>.434</td>
<td>.035</td>
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</table>

a. Grouping Variable: Category

Table 5.1 shows positive changes in respiratory rate in experimental group than the control group. Null hypothesis is rejected since there is significant difference at 8th week.
Table 5.2

**Within group comparison of Respiratory Rate**

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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<td>2.88</td>
</tr>
<tr>
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</tr>
<tr>
<td>RR_St_4_S</td>
<td>2.95</td>
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<td>RR_St_6_S</td>
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<tr>
<td>RR_St_8_S</td>
<td>2.77</td>
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<tr>
<td>Experimental</td>
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<tr>
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<td>RR_St_8_S</td>
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**Test Statistics**

<table>
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<tr>
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<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
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<td>9.041</td>
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<td>.060</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>10.063</td>
<td>4</td>
<td>.039</td>
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</table>

Table 5.2 shows no significant within group difference for the control group but a significant within group difference is seen in the experimental group in Respiratory Rate.
Table 5.3

*Between group comparison of Resting Heart Rate*

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
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<tr>
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</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>72.34</td>
<td>4485.00</td>
</tr>
<tr>
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<td>86</td>
<td>76.06</td>
<td>6541.00</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>67.89</td>
<td>4209.00</td>
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<td>79.27</td>
<td>6817.00</td>
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</tr>
<tr>
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<td>70.02</td>
<td>4271.00</td>
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<td>75.17</td>
<td>6314.00</td>
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**Test Statistics**

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<tr>
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<th>HR_St_4_S</th>
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<tr>
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<td>2380.00</td>
<td>2414.00</td>
<td>2273.500</td>
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<tr>
<td>Z</td>
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<td>-2.809</td>
<td>-1.472</td>
<td>-.769</td>
<td>-.685</td>
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<tr>
<td>Asymp. Sig. (2-tailed)</td>
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<td>.005</td>
<td>.141</td>
<td>.442</td>
<td>.493</td>
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</table>

a. Grouping Variable: Category

Table 5.3 shows that resting heart rate did not show statistically significant change in experimental and control group except for the second week. Since the resting heart rate did not show statistically significant difference between the pre-test to post-tests the null hypothesis is accepted.
Table 5.4
Within group comparison of Resting Heart Rate

<table>
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<th>Category</th>
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</thead>
<tbody>
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<tr>
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</tr>
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</tr>
<tr>
<td>HR_St_6_S</td>
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<td>HR_St_8_S</td>
<td>3.04</td>
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Test Statistics\(^a\)

<table>
<thead>
<tr>
<th>Control</th>
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<tbody>
<tr>
<td>N</td>
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<td></td>
</tr>
<tr>
<td>Chi-Square</td>
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<tr>
<td>df</td>
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</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.013</td>
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<table>
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<tr>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
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</tr>
</tbody>
</table>

\(^a\) Friedman Test

Control group showed within group changes in heart rate overtime where as experimental group did not show statistically significant change in resting heart rate
Table 5.5

*Between group comparison of Peripheral skin temperature*

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST_St_0_S</td>
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<td></td>
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<tr>
<td>Control</td>
<td>62</td>
<td>77.56</td>
<td>4809.00</td>
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<tr>
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<td>86</td>
<td>72.29</td>
<td>6217.00</td>
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<td>Total</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ST_St_2_S</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>79.02</td>
<td>4899.50</td>
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<tr>
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<td>86</td>
<td>71.24</td>
<td>6126.50</td>
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<tr>
<td>ST_St_4_S</td>
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<tr>
<td>Control</td>
<td>61</td>
<td>71.32</td>
<td>4350.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>84</td>
<td>74.22</td>
<td>6234.50</td>
</tr>
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<td>Total</td>
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<td></td>
</tr>
<tr>
<td>ST_St_6_S</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>3958.50</td>
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<td>77.29</td>
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<td>78.32</td>
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<td>Experimental</td>
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<td>62.51</td>
<td>4813.50</td>
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**Test Statistics**

<table>
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<tr>
<th></th>
<th>ST_St_0_S</th>
<th>ST_St_2_S</th>
<th>ST_St_4_S</th>
<th>ST_St_6_S</th>
<th>ST_St_8_S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2476.000</td>
<td>2385.500</td>
<td>2459.500</td>
<td>2067.500</td>
<td>1810.500</td>
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<tr>
<td>Z</td>
<td>-.808</td>
<td>-1.178</td>
<td>-.446</td>
<td>-1.944</td>
<td>-2.521</td>
</tr>
<tr>
<td>Asymp. Sig.(2-tailed)</td>
<td>.419</td>
<td>.239</td>
<td>.656</td>
<td>.052</td>
<td>.012</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Category

Table 5.5 shows a difference in peripheral skin temperature between the experimental group and the control group after the 8th week of Laughter Yoga. The experimental group subjects experienced a decrease in skin temperature after the laughter yoga. \( z = -2.521, p = .012 \) Therefore the null hypothesis is rejected.
Table 5.6
*Within group comparison of Peripheral Skin temperature Ranks*

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>ST_St_0_S</td>
<td>3.33</td>
</tr>
<tr>
<td>ST_St_2_S</td>
<td>3.30</td>
</tr>
<tr>
<td>ST_St_4_S</td>
<td>2.70</td>
</tr>
<tr>
<td>ST_St_6_S</td>
<td>2.64</td>
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<tr>
<td>ST_St_8_S</td>
<td>3.02</td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
</tr>
<tr>
<td>ST_St_0_S</td>
<td>3.20</td>
</tr>
<tr>
<td>ST_St_2_S</td>
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<tr>
<td>ST_St_4_S</td>
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</tr>
<tr>
<td>ST_St_6_S</td>
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</tr>
<tr>
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<td>2.66</td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Chi-Square</td>
<td>16.214</td>
<td></td>
</tr>
<tr>
<td>df</td>
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<td></td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Chi-Square</td>
<td>9.176</td>
<td></td>
</tr>
<tr>
<td>df</td>
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<td></td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.057</td>
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</tr>
</tbody>
</table>

*a. Friedman Test*

Table shows change in skin temperature among the control group. The experimental groups’ within group changes are not statistically significant.
### Table 5.7

**Between group comparison of Oxygen saturation**

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPO2_St_2_S</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>74.13</td>
<td>4596.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>74.77</td>
<td>6430.00</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPO2_St_4_S</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>72.57</td>
<td>4426.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>84</td>
<td>73.32</td>
<td>6158.50</td>
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<tr>
<td>Total</td>
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<td></td>
</tr>
<tr>
<td><strong>SPO2_St_6_S</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>73.89</td>
<td>4507.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>82</td>
<td>70.60</td>
<td>5789.00</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPO2_St_8_S</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>72.25</td>
<td>4407.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>67.32</td>
<td>5183.50</td>
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</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>SPO2_St_2_S</th>
<th>SPO2_St_4_S</th>
<th>SPO2_St_6_S</th>
<th>SPO2_St_8_S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2643.00</td>
<td>2535.500</td>
<td>2386.000</td>
<td>2180.500</td>
</tr>
<tr>
<td>Z</td>
<td>-.318</td>
<td>-.231</td>
<td>-.942</td>
<td>-1.603</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.750</td>
<td>.817</td>
<td>.346</td>
<td>.109</td>
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</tbody>
</table>

Table 5.7 shows no statistically significant difference between the experimental group and control group regarding Oxygen saturation. Therefore the null hypothesis is accepted.
Table 5.8

Within group comparison of Oxygen saturation

Ranks

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
</tr>
<tr>
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<td>3.01</td>
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<tr>
<td>SPO2_St_2_S</td>
<td>3.04</td>
</tr>
<tr>
<td>SPO2_St_4_S</td>
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<tr>
<td>SPO2_St_6_S</td>
<td>2.96</td>
</tr>
<tr>
<td>SPO2_St_8_S</td>
<td>3.05</td>
</tr>
<tr>
<td>Experimental</td>
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</tr>
<tr>
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<td>3.03</td>
</tr>
<tr>
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<tr>
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<td>2.99</td>
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<td>SPO2_St_6_S</td>
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<tr>
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</table>

Test Statistics\(^a\)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
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<tr>
<td>df</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-Square</td>
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<tr>
<td>Asymp. Sig.</td>
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</tr>
</tbody>
</table>

\(^a\) Friedman Test

The values in table shows no statistically significant difference in within group for oxygen saturation from pre-test to post-test for both groups. Trend shows an improvement for the experimental group.
Table 5.9

*Between group comparison of Blood Pressure values*

**Ranks**

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
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<tbody>
<tr>
<td><strong>P_St_0_S</strong></td>
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<td>72.34</td>
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<td>82</td>
<td>67.56</td>
<td>5540.00</td>
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<td></td>
</tr>
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<td><strong>P_St_2_S</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>70.18</td>
<td>4351.00</td>
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<td>6675.00</td>
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</tr>
<tr>
<td><strong>P_St_4_S</strong></td>
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<td>66.48</td>
<td>4055.00</td>
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<tr>
<td>Experimental</td>
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<td>77.74</td>
<td>6530.00</td>
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<tr>
<td><strong>P_St_6_S</strong></td>
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</tr>
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<td>Control</td>
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<td>64.60</td>
<td>3940.50</td>
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<td>82</td>
<td>77.51</td>
<td>6355.50</td>
</tr>
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<td></td>
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<tr>
<td><strong>P_St_8_S</strong></td>
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<td></td>
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<tr>
<td>Control</td>
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<td>3643.00</td>
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<tr>
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<td>77</td>
<td>77.25</td>
<td>5948.00</td>
</tr>
<tr>
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</tbody>
</table>

**Test Statistics**

<table>
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<tr>
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<th>P_St_2_S</th>
<th>P_St_4_S</th>
<th>P_St_6_S</th>
<th>P_St_8_S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2137.000</td>
<td>2398.000</td>
<td>2164.000</td>
<td>2049.500</td>
<td>1752.000</td>
</tr>
<tr>
<td>Z</td>
<td>-.909</td>
<td>-1.306</td>
<td>-2.156</td>
<td>-2.451</td>
<td>-3.197</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.364</td>
<td>.191</td>
<td>.031</td>
<td>.014</td>
<td>.001</td>
</tr>
</tbody>
</table>

*a. Grouping Variable: Category*

Table 5.9 shows no significant difference in Blood pressure between the experimental group and control group during pre test and also during the 2nd week. But mean rank of week 4, 6, and 8 weeks and the p values show a gradual change in
Blood pressure (BP becoming stable) among the experimental group. Therefore the null hypothesis is rejected.

**Table 5.10**

*Within group comparison of Blood Pressure values*

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>P_St_0_S</td>
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<tr>
<td></td>
<td>P_St_2_S</td>
</tr>
<tr>
<td></td>
<td>P_St_4_S</td>
</tr>
<tr>
<td></td>
<td>P_St_6_S</td>
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<td>P_St_8_S</td>
</tr>
<tr>
<td>Experimental</td>
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</tr>
<tr>
<td></td>
<td>P_St_2_S</td>
</tr>
<tr>
<td></td>
<td>P_St_4_S</td>
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<td></td>
<td>P_St_6_S</td>
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<tr>
<td></td>
<td>P_St_8_S</td>
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**Test Statistics**¹

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.296</td>
</tr>
<tr>
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<td>77</td>
<td>6.069</td>
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<td>.194</td>
</tr>
</tbody>
</table>

¹. Friedman Test

No statistically significant within group difference in experimental and control group. But trend shows a favourable change in the experimental group.
### Table 5.11

**Between group comparison of ECG**

**Ranks**

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
<tr>
<td>Control</td>
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<td>72.92</td>
<td>4521.00</td>
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<tr>
<td>Experimental</td>
<td>83</td>
<td>73.06</td>
<td>6064.00</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
</tr>
<tr>
<td>ECG_St_2_S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>62</td>
<td>71.67</td>
<td>4443.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>86</td>
<td>76.54</td>
<td>6582.50</td>
</tr>
<tr>
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</tr>
<tr>
<td>ECG_St_4_S</td>
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<tr>
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<td>70.14</td>
<td>4278.50</td>
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<tr>
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<td>74.23</td>
<td>6161.50</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECG_St_6_S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>70.44</td>
<td>4297.00</td>
</tr>
<tr>
<td>Experimental</td>
<td>81</td>
<td>72.30</td>
<td>5856.00</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECG_St_8_S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>67.98</td>
<td>4146.50</td>
</tr>
<tr>
<td>Experimental</td>
<td>77</td>
<td>70.71</td>
<td>5444.50</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Statistics&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG_St_0_S</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
</tr>
<tr>
<td>Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Grouping Variable: Category
Table 5.11 presents no significant difference in the ECG recordings of the control group and experimental group. The trend shows improvement in the experimental group. The null hypothesis is not rejected.

Table 5.12

*Within group comparison of ECG*

**Ranks**

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control</strong></td>
<td></td>
</tr>
<tr>
<td>ECG_St_0_S</td>
<td>3.03</td>
</tr>
<tr>
<td>ECG_St_2_S</td>
<td>2.91</td>
</tr>
<tr>
<td>ECG_St_4_S</td>
<td>2.99</td>
</tr>
<tr>
<td>ECG_St_6_S</td>
<td>3.03</td>
</tr>
<tr>
<td>ECG_St_8_S</td>
<td>3.03</td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
</tr>
<tr>
<td>ECG_St_0_S</td>
<td>2.93</td>
</tr>
<tr>
<td>ECG_St_2_S</td>
<td>3.00</td>
</tr>
<tr>
<td>ECG_St_4_S</td>
<td>3.03</td>
</tr>
<tr>
<td>ECG_St_6_S</td>
<td>2.97</td>
</tr>
<tr>
<td>ECG_St_8_S</td>
<td>3.06</td>
</tr>
</tbody>
</table>

**Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control</strong></td>
<td>61</td>
<td>5.231</td>
<td>4</td>
<td>.264</td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td>77</td>
<td>5.103</td>
<td>4</td>
<td>.277</td>
</tr>
</tbody>
</table>

*a. Friedman Test*
There is no statistically significant within group difference between the experimental and control group

**Section 6**

**Association between selected baseline variables and psychological study variables**

**Table 6.1.1**

*Association between Age and PGS scores*

<table>
<thead>
<tr>
<th>Crosstab</th>
<th>PGS_S_0</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
</tr>
<tr>
<td>Less than 70</td>
<td>Count</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>63.6%</td>
<td>15.2%</td>
</tr>
<tr>
<td>70 to 80</td>
<td>Count</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>69.8%</td>
<td>14.0%</td>
</tr>
<tr>
<td>80 and Above</td>
<td>Count</td>
<td>37</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>84.1%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>109</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>71.2%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.532&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.877</td>
<td>4</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.722</td>
<td>1</td>
</tr>
</tbody>
</table>

N of Valid Cases | 153 |

---

<sup>a</sup> 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.34.
Table 6.1.1 shows that there is no association between age and morale of the subjects.

**Table 6.1.2**

**Association between Age and GDS scores**

<table>
<thead>
<tr>
<th>Age</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Less than 70</td>
<td>Count</td>
<td>21</td>
<td>28</td>
<td>17</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>31.8%</td>
<td>42.4%</td>
<td>25.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>70 to 80</td>
<td>Count</td>
<td>13</td>
<td>11</td>
<td>19</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>30.2%</td>
<td>25.6%</td>
<td>44.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>80 and Above</td>
<td>Count</td>
<td>6</td>
<td>16</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>13.6%</td>
<td>36.4%</td>
<td>50.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.493&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.033</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.243</td>
<td>4</td>
<td>.024</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7.571</td>
<td>1</td>
<td>.006</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.24.

Table 6.1.2 presents association between age and depression (GDS score).
### Table 6.1.3

*Association between Age and HRS Scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Age</th>
<th>HRS_S_0</th>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Depressed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 70</td>
<td>21</td>
<td>45</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>% within Age</td>
<td>31.8%</td>
<td>68.2%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>70 to 80</td>
<td>9</td>
<td>34</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>% within Age</td>
<td>20.9%</td>
<td>79.1%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>80 and Above</td>
<td>5</td>
<td>39</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>% within Age</td>
<td>11.4%</td>
<td>88.6%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>118</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>% within Age</td>
<td>22.9%</td>
<td>77.1%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.389</td>
<td>2</td>
<td>.041</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.716</td>
<td>2</td>
<td>.035</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>6.340</td>
<td>1</td>
<td>.012</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6.1.3 shows that as age increases depression also increases.
Table 6.1.4

**Association between Age and WHO Well Being Index Score**

Crosstab

<table>
<thead>
<tr>
<th>Age</th>
<th>WHO_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
</tr>
<tr>
<td>Less than 70</td>
<td>Count 33</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>% within Age 50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>70 to 80</td>
<td>Count 29</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>% within Age 67.4%</td>
<td>32.6%</td>
</tr>
<tr>
<td>80 and Above</td>
<td>Count 31</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>% within Age 70.5%</td>
<td>29.5%</td>
</tr>
<tr>
<td>Total</td>
<td>Count 93</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>% within Age 60.8%</td>
<td>39.2%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.746</td>
<td>2</td>
<td>.057</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.754</td>
<td>2</td>
<td>.056</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>5.045</td>
<td>1</td>
<td>.025</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.86.

Table 6.1.4 shows no significant association between age and subjective well being $\chi^2 = 5.746$ df = 2, p = .05) 60.8% of subjects reported poor well being.
Table 6.2.1

*Association between gender and PGS scores*

**Crosstab**

<table>
<thead>
<tr>
<th></th>
<th>PGS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>% within Gender</td>
<td>Count</td>
<td>% within Gender</td>
<td>Count</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51</td>
<td>79.7%</td>
<td>7</td>
<td>10.9%</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>58</td>
<td>65.2%</td>
<td>12</td>
<td>13.5%</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>71.2%</td>
<td>19</td>
<td>12.4%</td>
<td>25</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.562a</td>
<td>2</td>
<td>.102</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.781</td>
<td>2</td>
<td>.092</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>4.519</td>
<td>1</td>
<td>.034</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.95.

Table 6.2.1 shows there is no significant association between gender and morale.
Table 6.2.2

Association between gender and GDS scores

Crosstab

<table>
<thead>
<tr>
<th></th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Count</td>
<td>11</td>
<td>20</td>
<td>33</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>17.2%</td>
<td>31.3%</td>
<td>51.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>29</td>
<td>35</td>
<td>25</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>32.6%</td>
<td>39.3%</td>
<td>28.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.462⁴</td>
<td>2</td>
<td>.009</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.545</td>
<td>2</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear Associ</td>
<td>8.917</td>
<td>1</td>
<td>.003</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.73.

Table 6.2.2 shows significant association between gender and depression.

Severe depression was proportionately high among males.
### Table 6.2.3

*Association between gender and HRS Scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Gender</th>
<th>HRS_S_0</th>
<th>Normal</th>
<th>Mildly Depressed</th>
<th>Moderately Depressed</th>
<th>Severely Depressed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Count</td>
<td>14</td>
<td>7</td>
<td>13</td>
<td>30</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>21.9%</td>
<td>10.9%</td>
<td>20.3%</td>
<td>46.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>21</td>
<td>27</td>
<td>24</td>
<td>17</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>23.6%</td>
<td>30.3%</td>
<td>27.0%</td>
<td>19.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>34</td>
<td>37</td>
<td>47</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>22.9%</td>
<td>22.2%</td>
<td>24.2%</td>
<td>30.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>16.383</td>
<td>3</td>
<td>.001</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>16.829</td>
<td>3</td>
<td>.001</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7.257</td>
<td>1</td>
<td>.007</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.22.*

Table 6.2.3 also shows a proportionately high percentage of severe depression in males using Hamilton rating scale for depression.
Table 6.2.4

Association between gender and WHO Well Being Index Score

<table>
<thead>
<tr>
<th></th>
<th>WHO_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>14</td>
</tr>
<tr>
<td>% within Gender</td>
<td>78.1%</td>
<td>21.9%</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>46</td>
</tr>
<tr>
<td>% within Gender</td>
<td>48.3%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>60</td>
</tr>
<tr>
<td>% within Gender</td>
<td>60.8%</td>
<td>39.2%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>13.879a</td>
<td>1</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction</td>
<td>12.657</td>
<td>1</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.409</td>
<td>1</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td></td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>13.788</td>
<td>1</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.10.

b. Computed only for a 2x2 table

Table 6.2.4 shows significant association between gender and subjective well being. Male subjects are having poor well-being compared to females.
Table 6.3.1
Association between religion and PGS scores
Crosstab

<table>
<thead>
<tr>
<th>Religion</th>
<th>Count</th>
<th>PGS_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
</tr>
<tr>
<td>Hindu</td>
<td></td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>79.4%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Muslim</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Christian</td>
<td></td>
<td>58</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>65.2%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>109</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>71.2%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.774a</td>
<td>4</td>
<td>.311</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.239</td>
<td>4</td>
<td>.264</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.354</td>
<td>1</td>
<td>.037</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .12.

Table 6.3.1 shows no association between religion and morale
Table 6.3.2  
**Association between religion and GDS scores**

Crosstab

<table>
<thead>
<tr>
<th>Religion</th>
<th>Count (GDS_S_0)</th>
<th><strong>Total</strong></th>
<th>Count</th>
<th>% within Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td></td>
<td></td>
<td>63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>12</td>
<td>19.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild Depression</td>
<td>24</td>
<td>38.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severe Depression</td>
<td>27</td>
<td>42.9%</td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td></td>
<td>1</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild Depression</td>
<td>0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severe Depression</td>
<td>0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td></td>
<td>89</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>27</td>
<td>30.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild Depression</td>
<td>31</td>
<td>34.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severe Depression</td>
<td>31</td>
<td>34.8%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>153</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>40</td>
<td>26.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mild Depression</td>
<td>55</td>
<td>35.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severe Depression</td>
<td>58</td>
<td>37.9%</td>
<td></td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.378(^a)</td>
<td>4</td>
<td>.251</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.322</td>
<td>4</td>
<td>.256</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.123</td>
<td>1</td>
<td>.145</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) 3 cells (33.3%) have expected count less than 5. The minimum expected count is .26.

Table 6.3.2 shows no association between religion and depression.
### Table 6.3.3

**Association between religion and HRS Scores**

**Crosstab**

<table>
<thead>
<tr>
<th>Religion</th>
<th>HRS_S_0</th>
<th>Count</th>
<th>% within Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>Normal</td>
<td>11</td>
<td>17.5%</td>
</tr>
<tr>
<td></td>
<td>Mildly Depressed</td>
<td>12</td>
<td>19.0%</td>
</tr>
<tr>
<td></td>
<td>Moderately Depressed</td>
<td>14</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td>Severely Depressed</td>
<td>26</td>
<td>41.3%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>63</td>
<td>100.0%</td>
</tr>
<tr>
<td>Muslim</td>
<td>Count</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td>Christian</td>
<td>Count</td>
<td>24</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>21</td>
<td>23.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>25.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>23.6%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>89</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>34</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
<td>24.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47</td>
<td>30.7%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.275a</td>
<td>6</td>
<td>.159</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.738</td>
<td>6</td>
<td>.189</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.738</td>
<td>1</td>
<td>.030</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .22.*

Table 6.3.3 shows no association between religion and HRS scores
Table 6.3.4

Association between religion and WHO Well Being Index Score

Crosstab

<table>
<thead>
<tr>
<th>Religion</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
<td>Total</td>
</tr>
<tr>
<td>Hindu</td>
<td>Count</td>
<td>38</td>
<td>25</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>60.3%</td>
<td>39.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Muslim</td>
<td>Count</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>100.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Christian</td>
<td>Count</td>
<td>54</td>
<td>35</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>60.7%</td>
<td>39.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>60</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Religion</td>
<td>60.8%</td>
<td>39.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.651a</td>
<td>2</td>
<td>.722</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.002</td>
<td>2</td>
<td>.606</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>.001</td>
<td>1</td>
<td>.974</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .39.

Table 6.3.4 shows no association between religion and subjective well-being
Table 6.4.1

**Association between Education and PGS scores**

**Crosstab**

<table>
<thead>
<tr>
<th>Education</th>
<th>PGS_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
</tr>
<tr>
<td><strong>Literate</strong></td>
<td>Count: 65</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within Education: 69.1%</td>
<td>12.8%</td>
</tr>
<tr>
<td><strong>Upto SSLC</strong></td>
<td>Count: 13</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Education: 72.2%</td>
<td>5.6%</td>
</tr>
<tr>
<td><strong>HSE</strong></td>
<td>Count: 5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Education: 100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Graduation</strong></td>
<td>Count: 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Education: 33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td><strong>PG</strong></td>
<td>Count: 2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Education: 66.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Illiterate</strong></td>
<td>Count: 23</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% within Education: 76.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count: 109</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>% within Education: 71.2%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.708</td>
<td>10</td>
<td>.560</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.608</td>
<td>10</td>
<td>.389</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.006</td>
<td>1</td>
<td>.316</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 13 cells (72.2%) have expected count less than 5. The minimum expected count is .37.

Table 6.4.1 shows no association between Education and scores on morale.
Table 6.4.2

Association between *Education* and *GDS scores*

Crosstab

<table>
<thead>
<tr>
<th>Education</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>Count</td>
<td>26</td>
<td>31</td>
<td>37</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>27.7%</td>
<td>33.0%</td>
<td>39.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Upto SSLC</td>
<td>Count</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>33.3%</td>
<td>27.8%</td>
<td>38.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>HSE</td>
<td>Count</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>0.0%</td>
<td>40.0%</td>
<td>60.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Graduation</td>
<td>Count</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>PG</td>
<td>Count</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Illiterate</td>
<td>Count</td>
<td>6</td>
<td>15</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>20.0%</td>
<td>50.0%</td>
<td>30.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.773&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10</td>
<td>.834</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.875</td>
<td>10</td>
<td>.737</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.005</td>
<td>1</td>
<td>.942</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* a. 10 cells (55.6%) have expected count less than 5. The minimum expected count is .78.

Table 6.4.2 shows no association between Education and scores on GDS
Table 6.4.3

Association between Education and HRS Scores

Crosstab

<table>
<thead>
<tr>
<th>Education</th>
<th>HRS_S_0</th>
<th>Count</th>
<th>% within Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>22</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>23.4%</td>
<td>24.5%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Upto SSLC</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>33.3%</td>
<td>16.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td>HSE</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>20.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Graduation</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>PG</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>33.3%</td>
<td>0.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Illiterate</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>16.7%</td>
<td>20.0%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>22.9%</td>
<td>22.2%</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>13.194(^a)</td>
<td>15</td>
<td>.587</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.591</td>
<td>15</td>
<td>.410</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.414</td>
<td>1</td>
<td>.520</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) 15 cells (62.5%) have expected count less than 5. The minimum expected count is .67.

Table 6.4.3 also shows no association between level Education and depression scores on HRS
Table 6.4.4

*Association between Education and WHO Well Being Index Score*

Crosstab

<table>
<thead>
<tr>
<th>Education Level</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>Count</td>
<td>59</td>
<td>35</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>62.8%</td>
<td>37.2%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Upto SSLC</td>
<td>Count</td>
<td>12</td>
<td>6</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>66.7%</td>
<td>33.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>HSE</td>
<td>Count</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>80.0%</td>
<td>20.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Graduation</td>
<td>Count</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PG</td>
<td>Count</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>66.7%</td>
<td>33.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>Count</td>
<td>15</td>
<td>15</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>50.0%</td>
<td>50.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>60</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Education</td>
<td>60.8%</td>
<td>39.2%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.646</td>
<td>5</td>
<td>.601</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.668</td>
<td>5</td>
<td>.598</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.544</td>
<td>1</td>
<td>.214</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is 1.18.

Table 6.4.3 shows no association between level Education and subjective well-being
Table 6.5.1

Association between marital status and PGS scores

Crosstab

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Count</th>
<th>Low Score on Morale</th>
<th>Mid Score on Morale</th>
<th>High Score on Morale</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>30</td>
<td>11</td>
<td>10</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>58.8%</td>
<td>21.6%</td>
<td>19.6%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>85.7%</td>
<td>7.1%</td>
<td>7.1%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>66.7%</td>
<td>22.2%</td>
<td>11.1%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>49</td>
<td>3</td>
<td>11</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>77.8%</td>
<td>4.8%</td>
<td>17.5%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>75.0%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>19</td>
<td>25</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>71.2%</td>
<td>12.4%</td>
<td>16.3%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.776*</td>
<td>8</td>
<td>.215</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.235</td>
<td>8</td>
<td>.189</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.736</td>
<td>1</td>
<td>.188</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 6 cells (40.0%) have expected count less than 5. The minimum expected count is 1.12.

Table 6.5.1 shows no association between marital status and morale
Table 6.5.2

Association between marital status and GDS scores

Crosstab

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>20</td>
<td>22</td>
<td>9</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>39.2%</td>
<td>43.1%</td>
<td>17.6%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>0.0%</td>
<td>35.7%</td>
<td>64.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>22.2%</td>
<td>44.4%</td>
<td>33.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>14</td>
<td>19</td>
<td>30</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>22.2%</td>
<td>30.2%</td>
<td>47.6%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>25.0%</td>
<td>31.3%</td>
<td>43.8%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>% within Marital Status</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>18.878(^a)</td>
<td>8</td>
<td>.016</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.904</td>
<td>8</td>
<td>.003</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>6.506</td>
<td>1</td>
<td>.011</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) 5 cells (33.3\%) have expected count less than 5. The minimum expected count is 2.35.

As shown in the table there is association between marital status and depression.
Table 6.5.3

Association between marital status and HRS Scores

Crosstab

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>HRS_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mildly Depressed</td>
</tr>
<tr>
<td>Single</td>
<td>Count</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>35.3%</td>
</tr>
<tr>
<td>Married</td>
<td>Count</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>14.3%</td>
</tr>
<tr>
<td>Divorced</td>
<td>Count</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>22.2%</td>
</tr>
<tr>
<td>Widowed</td>
<td>Count</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>19.0%</td>
</tr>
<tr>
<td>Separated</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>6.3%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>22.9%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>27.319a</td>
<td>12</td>
<td>.007</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>29.642</td>
<td>12</td>
<td>.003</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>6.528</td>
<td>1</td>
<td>.011</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is 2.00.

As shown in the table 6.5.3 there is association between marital status and scores on HRS. Married people seems to be more depressed.
Table 6.5.4

Association between marital status and WHO Well Being Index Score

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>26</td>
<td>25</td>
<td>51</td>
</tr>
<tr>
<td>Single</td>
<td>Count</td>
<td>26</td>
<td>25</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>51.0%</td>
<td>49.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Married</td>
<td>Count</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>92.9%</td>
<td>7.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Divorced</td>
<td>Count</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>66.7%</td>
<td>33.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Widowed</td>
<td>Count</td>
<td>37</td>
<td>26</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>58.7%</td>
<td>41.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Separated</td>
<td>Count</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>68.8%</td>
<td>31.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>60</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Marital Status</td>
<td>60.8%</td>
<td>39.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.766a</td>
<td>4</td>
<td>.067</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.305</td>
<td>4</td>
<td>.036</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.557</td>
<td>1</td>
<td>.455</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 3.53.

As shown in the table 6.5.4 there is association between marital status and subjective well-being. Likelihood Ratio shows poor subject well-being among married elderly.
Table 6.6.1

*Association between number of children and PGS scores*

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>16.634a</td>
<td>16</td>
<td>.410</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.497</td>
<td>16</td>
<td>.489</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.055</td>
<td>1</td>
<td>.080</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 19 cells (70.4%) have expected count less than 5. The minimum expected count is .12.

As shown in the table 6.6.1 there is no association between number of children and status of morale.

Table 6.6.2

*Association between number of children and GDS scores*

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>20.241a</td>
<td>16</td>
<td>.210</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>23.474</td>
<td>16</td>
<td>.102</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>9.711</td>
<td>1</td>
<td>.002</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 18 cells (66.7%) have expected count less than 5. The minimum expected count is .26.

As shown in the table 6.6.2 there is no association between number of children and depression as measured by GDS scores.
Table 6.6.3

Association between number of children and HRS Scores

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>30.402a</td>
<td>24</td>
<td>.172</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>35.472</td>
<td>24</td>
<td>.062</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.892</td>
<td>1</td>
<td>.049</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 30 cells (83.3%) have expected count less than 5. The minimum expected count is .22.

As shown in the table 6.6.3 there is no association between number of children and score on HRS.

Table 6.6.4

Association between number of children and WHO Well Being Index Score

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.060a</td>
<td>8</td>
<td>.751</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.782</td>
<td>8</td>
<td>.560</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.462</td>
<td>1</td>
<td>.497</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 9 cells (50.0%) have expected count less than 5. The minimum expected count is .39.

As shown in the table 6.6.4 there is no association between number of children and subjective well-being.
Table 6.7.1

**Association between Nature of admission and PGS scores**

**Crosstab**

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>PGS_S_0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
<td>Total</td>
</tr>
<tr>
<td>Voluntary</td>
<td>Count 36</td>
<td>10</td>
<td>20</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>% within Nature of Admission</td>
<td>54.5%</td>
<td>15.2%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Forced by Children</td>
<td>Count 13</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>% within Nature of Admission</td>
<td>100.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Placed by Relatives or Others</td>
<td>Count 60</td>
<td>9</td>
<td>5</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>% within Nature of Admission</td>
<td>81.1%</td>
<td>12.2%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count 109</td>
<td>19</td>
<td>25</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Nature of Admission</td>
<td>71.2%</td>
<td>12.4%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.271a</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>24.592</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>14.841</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is 1.61.

As shown in the table 6.7.1 there is association between nature of admission and morale
Table 6.7.2

Association between Nature of admission and GDS scores

Crosstab

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>Count</th>
<th>GDS_S_0</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
</tr>
<tr>
<td>Voluntary</td>
<td></td>
<td>25</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37.9%</td>
<td>31.8%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Forced by Children</td>
<td></td>
<td>0</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.0%</td>
<td>23.1%</td>
<td>76.9%</td>
</tr>
<tr>
<td>Placed by Relatives</td>
<td></td>
<td>15</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>or Others</td>
<td></td>
<td>20.3%</td>
<td>41.9%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>40</td>
<td>55</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>15.718</td>
<td>4</td>
<td>.003</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>17.699</td>
<td>4</td>
<td>.001</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.305</td>
<td>1</td>
<td>.069</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 3.40.

As shown in the table 6.7.2 there is association between nature of admission and depression.
Table 6.7.3

*Association between Nature of admission and HRS Scores*

Crosstab

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>Voluntary</th>
<th>Forced by Children</th>
<th>Placed by Relatives or Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Count</td>
<td>Count</td>
</tr>
<tr>
<td>Normal</td>
<td>20</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Mildly Depressed</td>
<td>16</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Moderately Depressed</td>
<td>13</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Severely Depressed</td>
<td>17</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>13</td>
<td>74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>% within Nature of Admission</th>
<th>% within Nature of Admission</th>
<th>% within Nature of Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>30.3%</td>
<td>0.0%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Forced by Children</td>
<td>24.2%</td>
<td>7.7%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Placed by Relatives</td>
<td>19.7%</td>
<td>15.4%</td>
<td>29.7%</td>
</tr>
<tr>
<td>or Others</td>
<td>25.8%</td>
<td>76.9%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.958a</td>
<td>6</td>
<td>.006</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>18.601</td>
<td>6</td>
<td>.005</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.223</td>
<td>1</td>
<td>.269</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 2.89.

As shown in the table 6.7.3 there is association between nature of admission and scores on HRSD.
Table 6.7.4
Association between Nature of admission and WHO Well Being Index Score

Crosstab

<table>
<thead>
<tr>
<th>Nature of Admission</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
<td>Poor</td>
<td>Good</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Well</td>
<td>Well</td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>35</td>
<td>31</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Nature</td>
<td>53.0%</td>
<td>47.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>of Admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forced by Children</td>
<td>11</td>
<td>2</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Nature</td>
<td>84.6%</td>
<td>15.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>of Admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placed by Relatives or Others</td>
<td>47</td>
<td>27</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Nature</td>
<td>63.5%</td>
<td>36.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>of Admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>60</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Nature</td>
<td>60.8%</td>
<td>39.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>of Admission</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.993a</td>
<td>2</td>
<td>.082</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.401</td>
<td>2</td>
<td>.067</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.521</td>
<td>1</td>
<td>.217</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in the table 6.7.4 there is no association between nature of admission and subjective well-being.

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.10.
As shown in the table 6.8.1 there is association between duration of stay and morale.
# Table 6.8.2

**Association between Duration of stay and GDS scores**

<table>
<thead>
<tr>
<th>Duration of Stay</th>
<th>Count</th>
<th>GDS_S_0</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
</tr>
<tr>
<td>Less than one year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>16.7%</td>
<td>33.3%</td>
<td>50.0%</td>
</tr>
<tr>
<td>1-2 Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>20.0%</td>
<td>32.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>2-3 Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>50.0%</td>
<td>16.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>3-4 Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>22.2%</td>
<td>33.3%</td>
<td>44.4%</td>
</tr>
<tr>
<td>More than four years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>21</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>30.0%</td>
<td>41.4%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>54</td>
<td>58</td>
</tr>
<tr>
<td>% within Duration of Stay</td>
<td>26.3%</td>
<td>35.5%</td>
<td>38.2%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.475</td>
<td>8</td>
<td>.233</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.410</td>
<td>8</td>
<td>.237</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.940</td>
<td>1</td>
<td>.026</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is 2.37.

As shown in the table 6.8.2 there is no association between duration of stay and depression.
Table 6.8.3

*Association between Duration of stay and HRS Scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Duration of Stay</th>
<th>Normal</th>
<th>Mildly Depressed</th>
<th>Moderately Depressed</th>
<th>Severely Depressed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one year</td>
<td>Count</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>22.2%</td>
<td>19.4%</td>
<td>25.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>1-2 Years</td>
<td>Count</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>16.0%</td>
<td>24.0%</td>
<td>12.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>2-3 Years</td>
<td>Count</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>33.3%</td>
<td>33.3%</td>
<td>8.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>3-4 Years</td>
<td>Count</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>22.2%</td>
<td>0.0%</td>
<td>33.3%</td>
<td>44.4%</td>
</tr>
<tr>
<td>More than four years</td>
<td>Count</td>
<td>17</td>
<td>17</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>24.3%</td>
<td>24.3%</td>
<td>28.6%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>34</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>% within Duration of Stay</td>
<td>23.0%</td>
<td>22.4%</td>
<td>23.7%</td>
<td>30.9%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.379a</td>
<td>12</td>
<td>.416</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.691</td>
<td>12</td>
<td>.259</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.207</td>
<td>1</td>
<td>.272</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is 2.01.

As shown in the table 6.8.3 there is no association between duration of stay and scores on HRSD.
### Table 6.8.4

**Association between Duration of stay and WHO Well Being Index Score**

**Crosstab**

<table>
<thead>
<tr>
<th>Duration of Stay</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>% within Duration of Stay</td>
<td>Count</td>
<td>% within Duration of Stay</td>
<td>Count</td>
<td>% within Duration of Stay</td>
</tr>
<tr>
<td>Less than one year</td>
<td>25</td>
<td>69.4%</td>
<td>11</td>
<td>36</td>
<td>69.4%</td>
<td>30.6%</td>
</tr>
<tr>
<td>1-2 Years</td>
<td>18</td>
<td>72.0%</td>
<td>7</td>
<td>25</td>
<td>72.0%</td>
<td>28.0%</td>
</tr>
<tr>
<td>2-3 Years</td>
<td>6</td>
<td>50.0%</td>
<td>6</td>
<td>12</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>3-4 Years</td>
<td>5</td>
<td>55.6%</td>
<td>4</td>
<td>9</td>
<td>55.6%</td>
<td>44.4%</td>
</tr>
<tr>
<td>More than four years</td>
<td>38</td>
<td>54.3%</td>
<td>32</td>
<td>70</td>
<td>54.3%</td>
<td>45.7%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>60.5%</td>
<td>60</td>
<td>152</td>
<td>60.5%</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.367</td>
<td>4</td>
<td>.359</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.439</td>
<td>4</td>
<td>.350</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.224</td>
<td>1</td>
<td>.073</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.55.*

As shown in the table 6.8.4 there is no association between duration of stay and subjective well-being.
Table 6.9.1  
*Association between chronic diseases and PGS scores*

Crosstab

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>PGS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
<td>Total</td>
</tr>
<tr>
<td>Yes</td>
<td>Count</td>
<td>88</td>
<td>14</td>
<td>21</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>71.5%</td>
<td>11.4%</td>
<td>17.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>No</td>
<td>Count</td>
<td>21</td>
<td>5</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>70.0%</td>
<td>16.7%</td>
<td>13.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>109</td>
<td>19</td>
<td>25</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>71.2%</td>
<td>12.4%</td>
<td>16.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests  

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.757a</td>
<td>2</td>
<td>.685</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.728</td>
<td>2</td>
<td>.695</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.020</td>
<td>1</td>
<td>.887</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.73.

As shown in the table 6.9.1 there is no association between chronic diseases and morale.
Table 6.9.2  
*Association between chronic diseases and GDS scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Count</td>
<td>31</td>
<td>47</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>25.2%</td>
<td>38.2%</td>
<td>36.6%</td>
</tr>
<tr>
<td>No</td>
<td>Count</td>
<td>9</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>30.0%</td>
<td>26.7%</td>
<td>43.3%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.396a</td>
<td>2</td>
<td>.498</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.447</td>
<td>2</td>
<td>.485</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.015</td>
<td>1</td>
<td>.904</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.84.

As shown in the table 6.9.2 there is no association between chronic diseases and depression.
Table 6.9.3

Association between chronic diseases and HRS Scores

Crosstab

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>Normal</th>
<th>Mildly Depressed</th>
<th>Moderately Depressed</th>
<th>Severely Depressed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Count</td>
<td>29</td>
<td>27</td>
<td>30</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>23.6%</td>
<td>22.0%</td>
<td>24.4%</td>
<td>30.1%</td>
</tr>
<tr>
<td>No</td>
<td>Count</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>20.0%</td>
<td>23.3%</td>
<td>23.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>34</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>22.9%</td>
<td>22.2%</td>
<td>24.2%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.250a</td>
<td>3</td>
<td>.969</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.253</td>
<td>3</td>
<td>.969</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>.149</td>
<td>1</td>
<td>.699</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.67.

As shown in the table 6.9.3 there is no association between chronic diseases and scores on HRSD.
Table 6.9.4

*Association between chronic diseases and WHO Well Being Index Score*

Crosstab

<table>
<thead>
<tr>
<th>Chronic Disease</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
</tr>
<tr>
<td></td>
<td></td>
<td>77</td>
<td>46</td>
</tr>
<tr>
<td>Yes</td>
<td>% within Chronic Disease</td>
<td>62.6%</td>
<td>37.4%</td>
</tr>
<tr>
<td>% within Chronic Disease</td>
<td>114</td>
<td>39.2%</td>
<td>153</td>
</tr>
<tr>
<td>No</td>
<td>Count</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>53.3%</td>
<td>46.7%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>% within Chronic Disease</td>
<td>60.8%</td>
<td>39.2%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.869a</td>
<td>1</td>
<td>.351</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correctionb</td>
<td>.524</td>
<td>1</td>
<td>.469</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.857</td>
<td>1</td>
<td>.354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td>.406</td>
<td>.233</td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.863</td>
<td>1</td>
<td>.353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.76.

b. Computed only for a 2x2 table

As shown in the table 6.9.4 there is no association between chronic diseases and subjective well-being.
### Table 6.10.1

*Association between physical dependence and PGS scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Physical Dependence</th>
<th>PGS_S_0</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>82</td>
<td>14</td>
<td>24</td>
<td>120</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>68.3%</td>
<td>11.7%</td>
<td>20.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>24</td>
<td>2</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>92.3%</td>
<td>7.7%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Partly Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>33.3%</td>
<td>50.0%</td>
<td>16.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Uses assistive devices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>108</td>
<td>19</td>
<td>25</td>
<td>152</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>71.1%</td>
<td>12.5%</td>
<td>16.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>15.474&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.004</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>16.992</td>
<td>4</td>
<td>.002</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.172</td>
<td>1</td>
<td>.279</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 5 cells (55.6%) have expected count less than 5. The minimum expected count is .75.

As shown in the table 6.10.1 there is significant association between physical dependence and morale.
As shown in the table 6.10.2 there is significant association between physical dependence and depression.

Table 6.10.2

*Association between physical dependence and GDS scores*

**Crosstab**

<table>
<thead>
<tr>
<th>Physical Dependence</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td>Count</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>37</td>
<td>41</td>
<td>42</td>
<td>120</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>30.8%</td>
<td>34.2%</td>
<td>35.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Partially Independent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>11</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>3.8%</td>
<td>42.3%</td>
<td>53.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Uses assertive devices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>33.3%</td>
<td>50.0%</td>
<td>16.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>57</td>
<td>152</td>
</tr>
<tr>
<td>% within Physical Dependence</td>
<td>26.3%</td>
<td>36.2%</td>
<td>37.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.499&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.050</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>12.211</td>
<td>4</td>
<td>.016</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.786</td>
<td>1</td>
<td>.181</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.58.
Table 6.10.3
Association between physical dependence and HRS Scores
Crosstab

<table>
<thead>
<tr>
<th>Physical Dependence</th>
<th></th>
<th>HRS_S_0</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Normal</td>
<td>Mildly Depressed</td>
<td>Moderately Depressed</td>
<td>Severely Depressed</td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>Count</td>
<td>33</td>
<td>25</td>
<td>27</td>
<td>35</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>27.5%</td>
<td>20.8%</td>
<td>22.5%</td>
<td>29.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Partially Independent</td>
<td>Count</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>3.8%</td>
<td>19.2%</td>
<td>30.8%</td>
<td>46.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Uses arsitive devices</td>
<td>Count</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>16.7%</td>
<td>66.7%</td>
<td>16.7%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>34</td>
<td>36</td>
<td>47</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>23.0%</td>
<td>22.4%</td>
<td>23.7%</td>
<td>30.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>15.479*a</td>
<td>6</td>
<td>.017</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>17.402</td>
<td>6</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.982</td>
<td>1</td>
<td>.322</td>
</tr>
</tbody>
</table>

N of Valid Cases: 152

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.34.

As shown in the table 6.10.3 there is significant association between physical dependence and scores on HRSD.
Table 6.10.4

Association between physical dependence and WHO Well Being Index Score

Crosstab

<table>
<thead>
<tr>
<th>Physical Dependence</th>
<th>WHO_S_0</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor Well Being</td>
<td>Good Well Being</td>
<td>Total</td>
</tr>
<tr>
<td>Independent</td>
<td>Count</td>
<td>75</td>
<td>45</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>62.5%</td>
<td>37.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Partially Independent</td>
<td>Count</td>
<td>16</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>61.5%</td>
<td>38.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Uses arsitive devices</td>
<td>Count</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>16.7%</td>
<td>83.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>92</td>
<td>60</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>% within Physical Dependence</td>
<td>60.5%</td>
<td>39.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.038*</td>
<td>2</td>
<td>.081</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.101</td>
<td>2</td>
<td>.078</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.567</td>
<td>1</td>
<td>.109</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.37.

As shown in the table 6.10.4 there is no association between physical dependence and subjective well-being.
Table 6.11.1

Association between visitors and PGS scores

Crosstab

<table>
<thead>
<tr>
<th>Visitors</th>
<th>PGS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Score on Morale</td>
<td>Mid Score on Morale</td>
<td>High Score on Morale</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Visitors</td>
<td>75</td>
<td>10</td>
<td>13</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>% within Visitors</td>
<td>76.5%</td>
<td>10.2%</td>
<td>13.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Very rare visitors</td>
<td>31</td>
<td>7</td>
<td>11</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>% within Visitors</td>
<td>63.3%</td>
<td>14.3%</td>
<td>22.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Regular visitors</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>% within Visitors</td>
<td>50.0%</td>
<td>33.3%</td>
<td>16.7%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>19</td>
<td>25</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>% within Visitors</td>
<td>71.2%</td>
<td>12.4%</td>
<td>16.3%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.527a</td>
<td>4</td>
<td>.237</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.846</td>
<td>4</td>
<td>.303</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.200</td>
<td>1</td>
<td>.074</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .75.

As shown in the table 6.11.1 there is no association between number of visitors and morale.
Table 6.11.2

Association between visitors and GDS scores

Crosstab

<table>
<thead>
<tr>
<th>Visitors</th>
<th>GDS_S_0</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mild Depression</td>
<td>Severe Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Visitors</td>
<td>Count</td>
<td>23</td>
<td>37</td>
<td>38</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>23.5%</td>
<td>37.8%</td>
<td>38.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Very rare visitors</td>
<td>Count</td>
<td>15</td>
<td>15</td>
<td>19</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>30.6%</td>
<td>30.6%</td>
<td>38.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Regular visitors</td>
<td>Count</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>33.3%</td>
<td>50.0%</td>
<td>16.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>40</td>
<td>55</td>
<td>58</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>26.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.311a</td>
<td>4</td>
<td>.679</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.466</td>
<td>4</td>
<td>.651</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.873</td>
<td>1</td>
<td>.350</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.57.

As shown in the table 6.11.2 there is no association between number of visitors and depression.
Table 6.11.3

Association between visitors and HRS Score

Crosstab

<table>
<thead>
<tr>
<th>Visitors</th>
<th>HRS_S_0</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Mildly Depressed</td>
<td>Moderately Depressed</td>
<td>Severe Depressed</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>No Visitors</td>
<td>Count</td>
<td>20</td>
<td>16</td>
<td>26</td>
<td>36</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>20.4%</td>
<td>16.3%</td>
<td>26.5%</td>
<td>36.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Very rare visitors</td>
<td>Count</td>
<td>13</td>
<td>16</td>
<td>10</td>
<td>10</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>26.5%</td>
<td>32.7%</td>
<td>20.4%</td>
<td>20.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Regular visitors</td>
<td>Count</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>33.3%</td>
<td>33.3%</td>
<td>16.7%</td>
<td>16.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>35</td>
<td>34</td>
<td>37</td>
<td>47</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>% within Visitors</td>
<td>22.9%</td>
<td>22.2%</td>
<td>24.2%</td>
<td>30.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.987&lt;sup&gt;a&lt;/sup&gt;</td>
<td>6</td>
<td>.174</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.019</td>
<td>6</td>
<td>.173</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>5.807</td>
<td>1</td>
<td>.016</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.33.

As shown in the table 6.11.3 there is no association between number of visitors and scores on HRSD.
Table 6.11.4

Association between visitors and WHO Well Being Index Score

Crosstab

<table>
<thead>
<tr>
<th>Visitors</th>
<th>WHO_S_0</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor Well</td>
<td>Good Well</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being</td>
<td>Being</td>
<td></td>
</tr>
<tr>
<td>No Visitors</td>
<td>Count</td>
<td>64</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>65.3%</td>
<td>34.7%</td>
</tr>
<tr>
<td></td>
<td>Visitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very rare visitors</td>
<td>Count</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>53.1%</td>
<td>46.9%</td>
</tr>
<tr>
<td></td>
<td>Visitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular visitors</td>
<td>Count</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td></td>
<td>Visitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>93</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>60.8%</td>
<td>39.2%</td>
</tr>
<tr>
<td></td>
<td>Visitors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.359a</td>
<td>2</td>
<td>.307</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.343</td>
<td>2</td>
<td>.310</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>2.208</td>
<td>1</td>
<td>.137</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>153</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.35.

As shown in the table 6.11.4 there is no association between number of visitors and subjective well-being.

Summary

This chapter has presented the results with interpretation. Discussion of results is given in chapter 5.