CHAPTER 4

RESULTS AND INTERPRETATION

4.1. Results

The aim of the research study was to understand the impact of gratitude therapy and compassion focused therapy as an intervention and determine their effectiveness in helping individuals cope with body dysphoria. The main focus rested on exposing the participants to Gratitude and Compassion Focused therapeutic interventions to help them cope with body dysphoria (negative body image). The impact of the interventions on body dysphoria in participants was studied. In addition, difference in body dysphoria between obese and non-obese participants was also studied.

Thus the analysis of results was done under the following sections:

4.1.1. Impact of gratitude therapy and compassion focused therapy in deteriorating body dysphoria among college students in Goa.

4.1.2. Difference in the impact of gratitude therapy and compassion focused therapy in reducing body dysphoria among college students in Goa.

4.1.3. Body dysphoria among obese and non-obese college students in Goa.

4.1.1. Impact of gratitude therapy and compassion focused therapy in deteriorating body dysphoria among college students in Goa.

Positive thinking serves as a determinant factor in helping participants cope with body dysphoria. It was assumed in hypotheses 1, 1.1 and, 1.2 that after the exposure of the therapeutic interventions (compassion focused therapy and gratitude
therapy), there would be a significant difference in pre and post-intervention scores of body dysphoria of the college students in Goa. Hypothesis 1.3 was also formulated to study the difference in the pre and post scores of control group where no therapy was exposed. The results below show the difference between pre- and post-treatment outcomes of the therapeutic interventions on body dysphoria among college students in Goa.

**Ha₁:** There will be a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from gratitude therapy group, compassion focused therapy group and control group.

### Table 4.01

**Mean and Standard Deviation for Body Dysphoria Scores of Gratitude Therapy, Compassion Focused Therapy and Control Group**

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT</td>
<td>Pre- treatment</td>
<td>60</td>
<td>56.79</td>
<td>3.70</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>38.71</td>
<td>3.75</td>
</tr>
<tr>
<td>CFT</td>
<td>Pre- treatment</td>
<td>60</td>
<td>56.29</td>
<td>4.38</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>35.03</td>
<td>2.41</td>
</tr>
<tr>
<td>CG</td>
<td>Pre- treatment</td>
<td>60</td>
<td>50.07</td>
<td>9.84</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>49.93</td>
<td>10.25</td>
</tr>
</tbody>
</table>

*Note: GT = Gratitude Therapy, CFT = Compassion Focused Therapy, CG = Control Group*
Scores displayed on Figure 4.01 validate hypothesis 1 wherein the expected outcome was that therapeutic interventions would have an impact on body dysphoria among college students in Goa and as assumed there is a significant difference in pre-intervention and post-intervention scores of body dysphoria among college students from gratitude therapy group and compassion focused therapy group (Table 4.01).
**Ha\textsubscript{1.1}:** There will be a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from gratitude therapy group

**Table 4.02**

Mean, Standard Deviation, Mean Difference and t-value for Body Dysphoria Scores of Gratitude Therapy Group

(Pre- and Post-Treatment Scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT</td>
<td>Pre- treatment</td>
<td>60</td>
<td>56.79</td>
<td>3.70</td>
<td>18.08</td>
<td>63.04***</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>38.71</td>
<td>3.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

**Figure 4.02**

Bar Graph for the Mean and Standard Deviation for Body Dysphoria Scores of the Gratitude Therapy Group
Table 4.02 reveals that there is a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from gratitude therapy group. The pre-test mean scores on body dysphoria has decreased from 56.79 (above average) to a post-test mean score of 38.71 (below average) with a mean difference of 18.08, which was found to be very highly significant ($t=63.04$; $P<0.001$). The above results indicate that the exposure of the gratitude therapeutic intervention helped to decrease the body dysphoria level among college students. These results supported hypothesis 1.1 indicating a definite decrease in body dysphoria. As shown in Figure 4.02, the post exposure scores are lower than the pre exposure scores.

**Ha$_{1.2}$:** There will be a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from compassion focused therapy group

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFT</td>
<td>Pre- treatment</td>
<td>60</td>
<td>56.29</td>
<td>4.38</td>
<td>21.26</td>
<td>57.31***</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>35.03</td>
<td>2.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***$P<0.001$; very highly significant
As indicated in Table 4.03, the pre-test mean scores on body dysphoria has significantly decreased from 56.29 (above average) to a post-test mean score of 35.03 (below average) with a mean difference of 21.26. Thus the scores obtained reveal that the difference between the pre- and post- test is very highly significant (t=57.31; P<0.001). These results support hypothesis 1.2 wherein the Compassion focused therapeutic intervention has led to a decrease in body dysphoria among college students. Figure 4.03 depicts that the post-exposure scores are lower than the pre-exposure scores.

**Ha1.3:** There will be a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from control group
Table 4.04

Mean, Standard Deviation, Mean Difference and t-value for Body Dysphoria

Scores of Control Group

(Pre- and Post-Treatment Scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>Pre-treatment</td>
<td>60</td>
<td>50.07</td>
<td>9.84</td>
<td>0.14</td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td>Post-treatment</td>
<td>60</td>
<td>49.93</td>
<td>10.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.04

Bar Graph for the Mean and Standard Deviation for Body Dysphoria Scores of the Control Group
As indicated in Table 4.04, the pre-test mean scores on body dysphoria has decreased from 50.07 (above average) to a post-test mean score of 49.93 (above average) with a mean difference of 0.14. Thus the scores obtained reveal that the difference between the pre- and post- test is not significant. (t=0.57; P>0.05). These results do not support hypothesis 1.3 wherein there was no decrease in body dysphoria among college students in absence of therapy exposure. Figure 4.04 depicts that the post-exposure scores and the pre-exposure scores are almost the same with an insignificant difference of 0.14.

4.1.2. Difference in the impact of gratitude therapy and compassion focused therapy in reducing body dysphoria among college students in Goa.

It was assumed in Hypotheses 2, 2.1, 2.2 and, 2.3 that there would be a significant difference in the post scores of body dysphoria among the three groups (gratitude therapy group, compassion-focused therapy group and control group). The result below shows the difference between the post-treatment outcomes among the three groups.

\textbf{Ha2:} There will be a significant difference in the post-intervention scores of body dysphoria among college students from gratitude therapy group, compassion-focused therapy group and control group.
Gratitude and Compassion Focused Therapy: A Treat to Body Dysphoria among College Students in Goa

Table 4.05

Univariate ‘F’ ratio for Body Dysphoria Scores of Gratitude Therapy, Compassion Focused and Control Groups

(Post -Treatment Scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>16033.423</td>
<td>2</td>
<td>8016.71</td>
<td>756.81***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1874.905</td>
<td>177</td>
<td>10.593</td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

Figure 4.05

Line Graph for the Sum of Squares and Mean Squares for Body Dysphoria of the Gratitude, Compassion Focused Therapy and Control Groups
An observation of Table 4.05 reveals the F-ratio for body dysphoria scores (post-treatment) of Gratitude Therapy, Compassion Focused and Control Groups (756.81) is very highly significant (P<0.001) thus validating hypothesis 2 wherein the expected outcome was that there would be a difference in the impact on body dysphoria among college students caused by the therapeutic interventions. The obtained mean square between groups is 8016.71 and within groups is 10.593. Figure 4.05 displays the difference in sum of squares and mean squares amongst the three groups.

**Ha2.1:** There will be a significant difference in the post-intervention scores of body dysphoria among college students from gratitude therapy group and compassion-focused therapy group.

**Table 4.06**

**Mean, Standard Deviation, Mean Difference and ‘S’ value for Body Dysphoria Scores of Gratitude Therapy and Compassion Focused Therapy Groups (Post Treatment Scores)**

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>S-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT</td>
<td>Post-treatment</td>
<td>60</td>
<td>45.25</td>
<td>3.76</td>
<td>3.68</td>
<td>6.19***</td>
</tr>
<tr>
<td>CFT</td>
<td>Post-treatment</td>
<td>60</td>
<td>41.57</td>
<td>2.42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant***
The scores in Table 4.06, reveal that the post-test mean scores of students who received Gratitude therapeutic intervention is 45.25 (below average) and the students who received Compassion focused therapy have a post-test mean score of 41.57 (below average). The difference between the means obtained of the two groups is 3.68 indicating a very high significant difference (S=6.19; P<0.001). As shown in Figure 4.06, the Compassion focused therapy had a better impact in lowering body dysphoria as compared to Gratitude therapy.

**Ha2.2**: There will be a significant difference in the in post-intervention scores of body dysphoria among college students from gratitude therapy group and control group.
Table 4.07

Mean, Standard Deviation, Mean Difference and ‘S’ value for Body Dysphoria Scores of Gratitude Therapy and Control Groups (Post Treatment Scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>S-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT</td>
<td>Post-treatment</td>
<td>60</td>
<td>45.25</td>
<td>3.76</td>
<td>17.92</td>
<td>30.16***</td>
</tr>
<tr>
<td>CG</td>
<td>Post-treatment</td>
<td>60</td>
<td>63.18</td>
<td>3.43</td>
<td>4.07</td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

Table 4.07, reveals that the post-test mean scores of students who received Gratitude therapeutic intervention is 45.25 (below average) and the post-test mean scores of the group of students who received no treatment (control group) is 63.18 (above average) with a mean difference of 17.92. The scores indicate a very high significant difference (S=30.16; P<0.001). As shown in Figure 4.07, the level of body
dysphoria of students who received Gratitude therapy is lower as compared to students who did not receive any treatment.

**Ha_{2.3}:** There will be a significant difference in the in post-intervention scores of body dysphoria among college students from compassion-focused therapy group and control group.

**Table 4.08**

**Mean, Standard Deviation, Mean Difference and ‘S’ value for Body Dysphoria of Compassion Focused Therapy and Control Groups**

(Post Treatment Scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Body Dysphoria</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>S-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFT</td>
<td>Post-treatment</td>
<td>60</td>
<td>41.57</td>
<td>2.42</td>
<td>21.61</td>
<td>36.38***</td>
</tr>
<tr>
<td>CG</td>
<td>Post-treatment</td>
<td>60</td>
<td>63.18</td>
<td>3.43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

**Figure 4.08**

Bar Graph for the Mean and Standard Deviation Post-therapeutic scores for Body Dysphoria of the Compassion Focused Therapy and Control Groups
An observation of the post-test mean scores in Table 4.08, reveal that the students who received Compassion focused therapeutic intervention have a mean score of 41.57 (below average) and the students who received no treatment (control group) have a mean score of 63.18 (above average) with a mean difference of 21.61. The scores indicate a very high significant difference (S=36.38; P<0.001). Figure 4.08 depicts that body dysphoria is lower in students who received Compassion focused therapy as compared to students who did not receive any treatment.

4.1.3. Body dysphoria among obese and non-obese college students in Goa.

A constant preoccupation with one’s body image or constant brooding about how one looks as compared to those around, increases body dysphoria. As weight is the most common factor associated with body image and the desire to lose weight is highly correlated with poor body image, it was assumed in Hypotheses 3, 3.1, 3.2, that there will be significant difference in the scores of body dysphoria among non-obese and obese students. And as females tend to be more concerned with their weights and physical appearance (figure), hypotheses 3.3 and, 3.4 was formulated to study gender difference in body dysphoria.

Ha₃: There will be a significant difference in the scores of body dysphoria among obese and non-obese students in Goa.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dysphoria</td>
<td>Obese students</td>
<td>90</td>
<td>58.79</td>
<td>3.65</td>
<td>4.45</td>
<td>9.68***</td>
</tr>
<tr>
<td></td>
<td>Non-obese students</td>
<td>90</td>
<td>54.34</td>
<td>2.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant
Table 4.09, reports that the mean score of body dysphoria is high among obese students (58.79) as compared to non-obese students (54.34) with a mean difference of 4.45. The obtained mean scores indicate that there is a significant difference between obese and non-obese students (t=9.68; P<0.001).

Scores displayed in Figure 4.09 validate hypothesis 3 wherein the expected outcome was that there would be a difference in body dysphoria among obese and non-obese college students. Obese students did score higher as compared to non-obese students. And as assumed there is a significant difference in the scores of body dysphoria among obese and non-obese students in Goa.
**Ha3.1:** There will be a significant difference in the scores of body dysphoria among obese male and non-obese male college students in Goa.

**Table 4.10**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dysphoria</td>
<td>Obese Males</td>
<td>45</td>
<td>56.16</td>
<td>2.65</td>
<td>3.78</td>
<td>8.47***</td>
</tr>
<tr>
<td></td>
<td>Non-obese Males</td>
<td>45</td>
<td>52.38</td>
<td>1.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

In Table 4.10, when comparing body dysphoria between obese and non-obese male students, the mean score of 56.16 (above average) is higher in obese males than in non-obese males who have a mean score of 52.38 (above average). The mean difference between the two groups is 3.78 with a t-value of 8.47 (P<0.001), which is very highly significant. And from the scores obtained, it can be stated that there is a
significant difference in the scores of body dysphoria among obese male and non-obese male college students in Goa. As shown in Figure 4.10, obese male college students have scored higher in body dysphoria than the non-obese college students in Goa.

**Ha3.2**: There will be a significant difference in the scores of body dysphoria among obese female and non-obese female college students in Goa.

**Table 4.11**

*Mean, Standard Deviation, Mean Difference and t-value for Body Dysphoria*

*Scores of Obese Female and Non-obese Female College Students*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dysphoria</td>
<td>Obese females</td>
<td>45</td>
<td>61.43</td>
<td>2.40</td>
<td>5.13</td>
<td>12.57***</td>
</tr>
<tr>
<td></td>
<td>Non-obese females</td>
<td>45</td>
<td>56.30</td>
<td>1.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

**Figure 4.11**

*Bar Graph for the Mean and Standard Deviation for Body Dysphoria scores of the Obese and Non-obese Female College Students*
Table 4.11, shows a mean difference of 5.13 between obese female students and non-obese female students. As assumed that will be a significant difference in the scores of body dysphoria among obese female and non-obese female college students in Goa, Table 4.11 reveals that the mean score of obese females is 61.43 (above average) which is higher than that of non-obese female students who obtained a mean score of 56.30 (above average). And from the scores obtained, it can be stated that there is a significant difference in the scores of body dysphoria among obese female and non-obese female college students in Goa (t=12.57; P<0.001). Figure 4.10 depicts that body dysphoria is higher in obese female college students as compare to the non-obese female college students.

**Ha3.3:** There will be a significant difference in the scores of body dysphoria among obese male and obese female college students in Goa.

**Table 4.12**

**Mean, Standard Deviation, Mean Difference and t-value for Body Dysphoria Scores of Obese Male and Obese Female College Students**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dysphoria</td>
<td>Obese males</td>
<td>45</td>
<td>56.16</td>
<td>2.65</td>
<td>-5.27</td>
<td>9.90***</td>
</tr>
<tr>
<td></td>
<td>Obese females</td>
<td>45</td>
<td>61.43</td>
<td>2.40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant**
Table 4.12 displays a mean difference of 5.27 revealing that the mean score of body dysphoria is 61.43 (above average) in obese female students which is comparatively higher than the mean score of 56.16 (above average) in obese male students. These findings indicate that there is a significant difference between obese male college students and obese female college students \( (t=9.90; P<0.001) \). Figure 4.12 displays the gender difference in body dysphoria.

**Ha3.4:** There will be a significant difference in the scores of body dysphoria among non-obese male and non-obese female college students in Goa.
Table 4.13

Mean, Standard Deviation, Mean Difference and t-value for Body Dysphoria

Scores of Non-obese Male and Non-obese Female College Students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dysphoria</td>
<td>Non-obese males</td>
<td>45</td>
<td>52.38</td>
<td>1.41</td>
<td>3.92</td>
<td>13.63***</td>
</tr>
<tr>
<td></td>
<td>Non-obese females</td>
<td>45</td>
<td>56.30</td>
<td>1.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<0.001; very highly significant

Table 4.13 presents the difference in body dysphoria in non-obese male and non-obese female students. An inspection of the scores displayed reveal that non-obese female college students scored higher in body dysphoria with a mean score of...
56.30 (above average) as compared to non-obese male college students who have a mean score of 52.38 (above average). Thus the mean difference obtained between the two groups is 3.92. As significant difference in the scores of body dysphoria among non-obese male and non-obese female college students in Goa was assumed, from the findings obtained it can be stated that the difference was very highly significant (t=13.63; P<0.001). Figure 4.13 displays a graphical representation of the scores obtained by the two groups.

In summary it can be stated that being positive plays an important role in the lives of the individuals. Students increasingly turn towards loving themselves and what they have. After the exposure of the interventions, students show a decrease in their level of body dysphoria. This in turn helps them to improve their psychological well-being, as they learn to love themselves. Consequently they are able to avoid and stop unhealthy diet patterns (skipping meals) and physical activities (overtime workouts in gyms). The exposure to gratitude therapy and compassion focused therapy develops in them the eye to see things clearly and as they are rather than being over critical.

A detailed discussion of the results is presented further.
4.2 Interpretation of Results

The research study conducted rested its primary focus on the Gratitude therapy and Compassion-focused therapeutic interventions and to ascertain the role of these interventions in curing body dysphoria among college students in Goa. The difference in the impact of these psychological interventions on body dysphoria, difference in body dysphoria scores among obese and non-obese students along with the area of location were also its objectives.

The four different parameters studied were as follows:

1. Difference in pre- and post-test scores of college students from the two therapeutic groups.

2. Difference in the post-intervention scores of college students from gratitude therapy group, compassion focused therapy group and control group.

3. Comparison of Body dysphoria among obese and non-obese college students in Goa.

The interpretation of results as grouped under different sub topics as follows.

4.2.1. Impact of gratitude therapy and compassion focused therapy in deteriorating body dysphoria among college students in Goa.

In hypothesis 1, counting blessings and loving one’s self unconditionally were assumed as predictors in decreasing body dysphoria after exposure to the therapeutic interventions (Gratitude Therapy and Compassion Focused Therapy). These results were confirmed in Table 4.01, 4.02 and, 4.03 respectively. Herein, 120 college students who were classified into two groups of 60 each scored significantly less in the post test administered. Participants expressed greater levels of contentment and
joy in their lives. They were, more positive, at peace and were able to accept themselves and others in totality. As body image is an important component of self-image, beginning in early childhood, body image affects emotions, thoughts, and behaviors in everyday life, and can, in particular, affect the most intimate of relationships (Cash and Pruzinsky, 2002). The cognitive-behavioral perspective proposed that body image develops from historical factors, such as past events, attributes, and experiences, which predisposes how people think, feel, and act in relations to their body (Cash, 2002). Better self-monitoring compliance predicted greater reductions in body-image dysphoria (Cash and Hrabosky, 2003). Research study by Butters and colleagues (1987) revealed that women who underwent cognitive-behavioral treatment (CBT) program successfully improved affective body image, weakened maladaptive body-image cognitions, and enhanced social self-esteem and feelings about physical fitness and sexuality as compared to those who did not undergo the program. Consequently, when clients were able to count their blessings and identify what they love about their body through the exposure of Gratitude and Compassion focused therapeutic interventions, they are able to endure, accept, and cope with body dysphoria. However as indicated in Table 4.04, no significance difference was observed in the pre- and post-intervention scores of students from control group as the participants were asked to carry on with their normal routine life styles.

It was anticipated in hypothesis 1.1, that there would be a difference in pre-intervention and post-intervention scores in body dysphoria among the participants. And as assumed, the results showed a significant improvement in body dysphoria as they showed a decrease on post-intervention evaluation (M=38.71) as compared to the pre-intervention mean score (M=56.79) (Refer Table 4.02). A significant ‘t’ value
(t=63.04; P<0.001) obtained indicated a positive impact of the Gratitude therapy on
the body dysphoria levels of the participants with body dysphoria. The students who
had scored 100 and above in the pre-test were considered in the study and it was
observed that the post-intervention body dysphoria scores ranged from 32 to 93. Prior
to intervention, in the general session held, participants had various issues to speak
about from complexion to height, body structure, and weight in which almost every
participant had more of negative issues to discuss about their body. After intervention,
which involved providing the college students with their own experiences which they
were grateful, helped them to focus on blessings they are already blessed with and
facilitated to cope with their life in positivism. Geraghty et al., (2010) conducted a
study to identify the predictors of attrition from a fully self directed intervention, and
to test whether an intervention to increase gratitude is an effective way to reduce body
dissatisfaction. The gratitude intervention was as effective as monitoring and
restructuring in reducing body dissatisfaction, and both interventions were
significantly more effective than the control condition.

As assumed in hypothesis1.2, that there would be a significant difference in
the pre-intervention and post-intervention scores of body dysphoria among college
students from compassion focused therapy group, the participants significantly scored
lower in the post test administered. The result findings showed a decrease in body
dysphoria on post-intervention evaluation (M=35.03) as compared to the pre-
intervention mean score (M=56.29) (Refer Table 4.03). A significant ‘t’ value
(t=57.31; P<0.001) obtained indicated a positive impact of the Compassion Focused
therapy on the body dysphoria levels of the participants with body dysphoria.
Participants pre-test scores ranged from 101 to 177 and the post-test scores drastically
decreased to a range from 27 to 71. While the other group had to write about their
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blessings, participants undergoing Compassion Focused therapy had to work with their emotional conflicts. In the post-test discussion held, the participants shared about how they would judge their body structure while comparing with celebrities and models. Most of the participants admitted that their whole living was defined in terms of their body structure and having poor attitude towards their body, they would avoid social gatherings and even avoid participating in college activities. After intervention, which involved providing the college students with a space to accept their feelings and writing what they loved about their body, compassion focused therapy provided the participants with a new pathway to look at themselves thus improving their body image.

As assumed in hypothesis 1.3, that there would be a significant difference in the pre-intervention and post-intervention scores of body dysphoria among college students from control group, the participants scored almost the same in the post test administered. The result findings showed no decrease in body dysphoria on post-intervention evaluation (M=49.93) as compared to the pre-intervention mean score (M=50.07) (Refer Table 4.04). The ‘t’ value (t=0.57; P>0.05) obtained indicated no change in body dysphoria levels of the participants with body dysphoria. While the other groups had to write about their blessings, work with their emotional conflicts, those in control group had nothing to do besides living their routines. In the post-test discussion held, the participants had nothing to say specifically positive about their body image and were still concerned about having perfect looks and figures.

As hypotheses 1, 1.1, 1.2 and 1.3 focused in studying the impact of therapeutic interventions on body dysphoria, the results did suggest that the interventions had a significant impact on participants there by reducing body dysphoria among
participants as there was no impact seen on participants from control group. Considering the results obtained, it can be stated that cognitive corrections can help in reducing health problems. This is because, when participants were asked to share their experiences in the post-intervention meet, the participants stated that they have given up on faulty eating habits, faulty physical workout patterns (excessive physical exercises) and faulty comparisons. As they had too many blessings to count and too many things to love about themselves, they believed in accepting in what they really are rather than adopting faulty ways to attain what the glamour world has to portray. The participants also stated that the world has to love them the way they are and that they don’t have to wear a mask of perfect figure to be loved and accepted. When interacting with the participants from the control group who received no treatment, no change was observed in their behavior or attitude towards their body image.

4.2.2. Difference in the impact of gratitude therapy and compassion focused therapy in reducing body dysphoria among college students in Goa.

The research study placed its emphasis on the role of being grateful to blessings received and being compassionate to one’s self in helping participants cope with body dysphoria and its aftermath. Hypotheses 2, 2.1, 2.2, and 2.3, assumed a significant difference in body dysphoria scores of college students from Gratitude therapy Group, Compassion Focused therapy Group and Control group. The results of the study have confirmed these hypotheses (See Table 4.05, 4.06, 4.07, and 4.08).

Hypothesis 2 proposed that there will be a significant difference in the post-intervention scores of body dysphoria among college students from gratitude therapy group, compassion-focused therapy group and control group. The result of the study supported the hypothesis (Refer to Table 4.05). The obtained F-ratios clearly showed
that the three groups that are the Gratitude therapy group, Compassion focused therapy group and the Control group differed significantly in the post scores obtained.

The results indicate that the interventions were effective in lowering body dysphoria. Further it can be stated that the attitude towards one’s self plays a very important role in defining body image. In the post-intervention interactive session, participants from the Control group had the same negative and complaining attitude as in the pre-intervention meeting towards their body structure (height, weight, complexion, physical built and body features).

Participants from the other two groups had a different outlook towards themselves. In the post-intervention session, the individuals who practiced Gratitude therapy reported that they had lots to appreciate about themselves (dimples, cute face, good height, and other body related features). Participants from the Compassion Focused therapy group explained that they would take up one aspect and generalize the same and thus the problem only seemed bigger and bigger. However, they claimed that through practice of Compassion Focused therapy, it was easier for them to look at the problem as a specific issue and when they had to write about what they loved about their body in a calm state of mind, they realized that they were beautiful than they ever thought.

As it was proposed in hypothesis 2.1, that there will be a significant difference in the post- intervention scores of participants from Gratitude therapy and Compassion Focused therapy Group, the scores of the two groups differed (See Table 4.06). Participants who practiced Gratitude therapy scored a mean of 45.25 with a mean difference of 3.68 to that of participants who were exposed to Compassion Focused therapy (M= 41.57). As anticipated, there was a significant difference in the post-intervention scores between the two groups (S=6.19; P<0.001).
Although both the therapies had an effective impact on the levels of body dysphoria of college students who practiced the therapies, Compassion Focused therapy appeared to be more effective. This could be because Compassion Focused Therapy involves activities that are designed to develop compassionate attributes and skills. People who are high in self-compassion treat themselves with kindness and concern when they experience negative events (Allen et al., 2010). In Compassion Focused therapy, the participants had an opportunity to actually see how they look at themselves. And this self observation must have helped them to look at the feelings as specific and not generalize on the whole. The participants were later asked to write as to what they love about their body and at the end of the intervention, most of the clients reported that they are special and unique. Participants in Compassion Focused therapy were able to confront and face their own feelings, where as participants from Gratitude therapy had to maintain a diary of what they are grateful about. Empirically, gratitude is a pleasant state and is linked with positive emotions, including contentment (Walker and Pitts, 1998), happiness, pride, and hope (Overwalle, Mervielde, and De Schuyter, 1995). Gratitude therapy involved counting of blessings thus nourishing positive thinking. Although both the therapies led participants to see things from a positive perspective, Compassion Focused therapy was more effective may be because the participants could identify and focus on the problem as specific.

Table 4.07 reported that the participants from the Gratitude therapy group scored lower (M=45.25) as compared Control group (M=63.18) in the post-intervention test administered. The significant ‘S’ value (S=30.16) indicated that Gratitude therapy used with the participants was significantly effective in terms of lowering their body dysphoria levels. During the course of the intervention program, the participants reported specific changes in their outlook towards their own body in the following manner:
Gratitude practice can be a catalyzing and relational healing force, often untapped in clinical practice (Emmons and Stern, 2013). Participants reported a tendency to increasingly focus on positive or good things (high intelligence, good parents and friends, wealth, complexion and other body features, and so on) rather than the negative and problematic thoughts. Counting blessings helped them experience the happiness from within and thus they are much more comfortable in situations which they could not face prior to the intervention (social attention). The participants stated that they have learnt to appreciate what they have and that practicing Gratitude therapy made them aware of the reality (blessings they are blessed with). In the post-intervention interactive session, the participants also expressed that Gratitude therapy has helped them begin their day on a positive note and that it is much easier for them to deal with any of their problems (weight, height, complexion and other body features) as they feel more motivated in changing things they can and accept those that are beyond their reach (specially height). However students who were not exposed to any intervention (Control group) did not report any change and in the post-intervention interactive session, they suggested to have a program in reducing weight and asked for figure maintaining tips.

Similar findings were reported by Emmons and McCullough (2003) in their experimental study of the effects of gratitude on well-being among college students. They were randomly placed into one of three conditions, (gratitude, hassles, or events), and reported that students in the grateful condition reported significantly greater life satisfaction, greater optimism for the upcoming week, fewer physical symptoms, and perhaps most surprisingly, exercised significantly more than students in either the events condition or the hassles condition. Froh and colleagues (2008) in their study examining the effects of counting blessings reported that students who
were told to be grateful were more excited about life and satisfied with school than the students who wrote about their hassles.

Table 4.08 reports that the participants from Compassion Focused therapy group showed a decrease in their body dysphoria levels (M=41.57) as compared to participants from Control group (M=63.18). A significant ‘S’ value (S=36.38; P<0.001) obtained indicated a positive impact of the Compassion Focused therapy on the body dysphoria levels of the participants with body dysphoria. Body dysphoria is feelings of sadness or an uncomfortable mood. Individuals suffering from dysphoria often tend to view themselves as being larger or smaller as compared to their real body image. The Compassion Focused therapy helped the participants to focus on the feelings related to their body image rather than complaining about their body structures. In the post-intervention interactive session, it was observed that one student who was short and over weighed remarked, “I am short and I know that I cannot work on my height, but I know I am huge and I am motivated to reduce it as I know I have a good figure except for my weight. So if I maintain a healthy diet and exercise physical work outs I will look good”. Apart from being felt motivated which is clearly evident in her statement, there is unmistakably also an acceptance of reality ‘as it is’ in the heart of this participant which comes from being aware of the specificity of the problem. Through the Compassion Focused therapy, this participant learnt to accept and deal with the problem effectively. Furthermore the participants who practiced Compassion Focused therapy reported that they no longer felt embarrassed of themselves in situations which they would prior to the intervention. As reported by the participants, practicing Compassion Focused therapy trained their minds to love and be compassionate towards themselves. Some participants also reported that it was not easy to accept themselves as they are, however daily practice
of being compassionate has now become part of their lives. Relevant research examined impact and moderators of a self-compassion intervention on the self-regulation of cigarette smoking and suggested that training one’s self to self-regulate from a self-compassionate stance might be especially effective for individuals who are able to visualize a compassionate image and whose personality and motivation would be expected to undermine the impact of traditional treatments (Kelly et al., 2010).

4.2.3. Body dysphoria among obese and non-obese college students in Goa.

The results of the findings supported hypothesis 3 wherein it was proposed that there will be a significant difference in the scores of body dysphoria among obese and non-obese students in Goa. Table 4.09 reports that obese students obtained a mean score of 58.79 than the non-obese students who obtained a mean score of 54.34. Although both the groups have scored above average in body dysphoria, the scores obtained indicate that obese participants have scored comparatively higher and this was further confirmed with the ‘t’ value obtained which was significant (t=9.68; P<0.001). Although various issues are involved in defining body dysphoria like height and complexion, weight is the most common and important issue that is used in defining one’s body image. In the pre-intervention interactive session when the participants were asked to write down the first thing that comes to their mind, most of the students wrote about weight. Almost every student wanted to lose weight even when they were not sure whether their weight is just perfect for their height and age. However, obese participants were more anxious about their appearance as indicated by the body dysphoria scores. Obese participants must have obtained high score in body dysphoria not only because of their physical appearance (weight) but also because of
other factors that could have led to negative attitude towards their own body image. Other factors could be comparing one’s self to that of others, constant passing of comments and negative attitude related to body figure (overweight) by one’s own friends and dear ones, non availability of pretty outfits for overweight (as mentioned by some of the participants), and also definition of perfect figure hyped by media. Research by Martin and Xavier (2010) shows that people feel more pressure from society to be thin after viewing advertisements featuring slim models as compared to advertisements that featured larger sized models. The Vanderbilt University article also reported that a 1999 study exposed 548 suburban American girls from fifth to 12th grade to fashion magazines. Sixty-nine percent of the girls were reportedly influenced by the “ideal” body image depicted in the photos, and 47 percent said they wanted to lose weight. Pressure from the above mentioned factors have a negative impact on one’s thinking especially when all efforts put in to have a perfect figure are in vain thus leading to body dysphoria. The clinical implications of a negative body image were observed by the research of Stunkard and Mendelson (1967). They concluded that: the body image disturbance takes the form of an overwhelming preoccupation with one’s obesity, often to the exclusion of any other personal characteristic. Similarly Rand and MacGregor (1991) in their study revealed that no patient in a sample who maintained an average loss of 45 kgs for at least 3 years would prefer being obese to being deaf, diabetic, or having heart disease. These research findings provide striking evidence on how body image dissatisfaction can accompany obesity.

As anticipated in hypothesis 3.1, there was a significant difference in the scores of body dysphoria among obese male and non-obese male college students in Goa (t=8.47; P<0.001). The obese males scored higher obtaining a mean score of
56.16 as compared to non-obese males with a mean score of 52.38 (See Table 4.10). Thus indicating that obesity or being overweight is the major appendage of body dysphoria. Research by McCabe and Ricciardelli (2004) suggest that body dysphoria is growing among men and that it has been associated with poor psychological adjustment, eating disorders, steroid use, exercise dependence, as well as other health behaviors. In the interactive session with the participants, it was observed that male students were concerned about their looks, physique and preferred macho type body figure. However obese males were more concerned in losing weight (but preferred macho figure) than any other features of their body as compared to non-obese male students. There is no much research conducted to study whether body dissatisfaction is present among males as commonly as in females. However Caccavale and colleagues (2012) through their study reported that overweight/obese boys had more body dissatisfaction compared to their normal/underweight peers, regardless of their social engagement.

Result findings in Table 4.11 reveal that obese females scored very high as compared to the non-obese female students. The mean difference was 5.13, where obese females obtained a mean score of 61.43 and non-obese female students obtained 56.30. The significant‘t’ value (t=12.57; P<0.001) indicated that obesity or being overweight does have a significant impact on the levels of body dysphoria. In the interactive session, similar to obese female students, the non-obese female students stated that slight gain of body weight is often negatively commented upon and thus they feel unaccepted and unwelcomed. However it was observed that obese female college students were more concerned in comparing themselves to others and often paid more attention to what others would say about them rather than appreciating what they have. This could be because of their actual physical
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appearance besides having negative attitude towards their body image. Research by Annis et al., (2004) revealed that overweight women reported more body dissatisfaction/distress, overweight preoccupation, and dysfunctional appearance investment, as well as more binge eating, lower social self-esteem, and less satisfaction with life as compared to never-overweight women. In another study titled ‘Assessment of body image dissatisfaction in obese women: specificity, severity, and clinical significance’, Sarwer, Wadden and Foster (1998), found that majority of obese women demonstrated body image dissatisfaction related to their obesity, and reported significantly more body image dissatisfaction than the non-obese women.

As proposed in hypothesis 3.3 that there will be a significant difference in the scores of body dysphoria amongst obese male and obese female college students in Goa, the findings did support the formulated hypothesis (See Table 4.12). The mean score obtained by obese male college was 56.16 which was lower than the mean score obtained by obese female students (61.43) with a significant ‘t’ value of 9.90 (P<0.001). This could be because society defines women as a small thin figure which is looked upon as delicate and fragile. However society expects men to be physically huge as men are a symbol of strength and are looked upon as ‘protectors’. In the interactive session, females reported that they are constantly reminded about their body structure by their near ones. They also stated that their parents or close relatives often compare their figures to that of their relatives who are on the thinner version. From the observations obtained, it can be also concluded that constant comparison or weight related nagging could be one of the contributors towards high body dysphoria. Male obese students on the other hand were reluctant in expressing their views as according to them body related issues are confusing and hence sometimes they prefer not to pay attention to the same. Some of the male obese students stated that whenever
they express their view of losing weight or maintaining a good physique, their parents especially fathers and other male relatives would comment that as girlish behavior. The observations made in the interactive session with the students do indicate that societal pressure is one of the contributors towards body dysphoria.

Studies using non-clinical populations indicate that obese persons, especially women, report a more negative body image than persons of normal body weight (Brodie and Slade, 1988; Cash, 1990; Cash, 1994a; Wadden, Foster, Stunkard, and Linowitz, 1988). Makara-Studzińska and Zaborska (2008) through their presentation of literature review of the mutual relationship between obesity and body image revealed that obesity is becoming a worldwide problem that causes not only medical consequences but also disturbances in psychosocial functioning. Further they also highlighted that contemporary culture stigmatizes obese persons, which increases the probability of them internalizing negative information about themselves, and can cause obese persons feel psychologically discomforted about their physical appearance. Research has clearly shown that obese persons are dissatisfied with their body and remain dissatisfied even after having lost weight. Obese persons more often tend to overestimate than underestimate their body size.

Hypothesis 3.4 proposed that there will be a significant difference in the scores of body dysphoria among non-obese male and non-obese female college students in Goa. Table 4.13 reported that the non-obese male college students scored lower (M=52.38) as compared to non-female college students (M=56.30) in test administered. The significant ‘t’ value (t=13.63) indicated that non-obese female college students had higher body dysphoria as compared to non-obese male college students.
Women are judged much more than men, on the basis of their appearances (Fallon, 1990; Jackson, 1992) and so body image or figure is severely handicapped to women. In the interactive session with the non-obese female students it was observed that most of them admired celebrities and often compared themselves with the T.V. models thus engaging in faulty eating habits and exercises. However it was observed that non-obese male students were also concerned about their looks but did not show much concern. As female students admired the zero size concept and complained about everybody feature, male non-obese students reported a very few like height, developing muscles and a very few reported other minor issues like complexion.
4.3 Highlights

The research study revealed the following facts about Body dysphoria and Therapeutic Interventions, Difference in the Impact of Therapeutic Interventions, Body dysphoria in Obese and Non-obese Students.

4.3.1. Body dysphoria and Therapeutic Interventions

- Therapeutic interventions have shown a positive impact on body dysphoria as compared to control group.
- Gratitude therapy has shown a very high significant impact on body dysphoria of college students.
- Compassion-focused therapy has shown a very high significant impact on body dysphoria of college students.
- In control group, no significant difference was obtained in the pre- and post-intervention scores of body dysphoria among college students.

4.3.2. Difference in the Impact of Therapeutic Interventions

- Very high significant difference is obtained in the post scores of the three groups that is Gratitude therapy group, Compassion-focused therapy group and Control Group.
- Gratitude Therapy has shown very high significant impact in decreasing body dysphoria among participants.
- Compassion Focused Therapy is distinctly effective in improving body image of students.
- Compassion Focused Therapy has shown significantly higher impact in treating body dysphoria than Gratitude Therapy.
4.3.3. **Body dysphoria in Obese and Non-obese Students**

- Obese students have shown significantly very high body dysphoria than the Non-obese students.

- Obese male students have shown significantly very high body dysphoria than the non-obese male students.

- Obese female students have shown significantly very high body dysphoria than the non-obese female students.

- Obese female students have shown significantly higher negative body image (body dysphoria) than male students.

- Non-obese female participants have shown significantly higher negative body image (body dysphoria) than non-obese male participants.