CHAPTER 5

DISCUSSION

Depression affects the quality of life for cancer patients by disrupting everyday activities, interfering with relationships and the ability to relax. According to Wood, J (2012) around 50 percent of breast cancer survivors are depressed. It was found that meditation techniques help the breast cancer survivors to improve their emotional and physical well-being.

This chapter deals with the detailed discussion on the findings of the study interpreted from the statistical analysis. The findings are discussed in relation to the objectives, need for the study, related literature of the study and conceptual framework.

Characteristics of the study sample

Women with minimal, mild, moderate level of depression and their quality of life were selected for the study. The major focus of the intervention was to promote their emotional wellbeing and reduction of the level of depression. Those women, who had severe depression were excluded from the study because they were directed to the consultants.

Descriptive analysis of demographic variables (Table 3) showed that in the study group, majority of them 70 (46.7%) and in the control group, 72(48%) were in the age group of 51-60 years and 17(11.3%) in the study group and 8(5.3%) in the control group belonged to the age group of 21-30 years. According to American Cancer Society, Surveillance Research, (2011) ninety-five percent of new cases
occurred in women who were 40 years of age or older. The present study showed majority of the samples falling in the age group of 40 - 60 years.

Regarding residence, in the study group 77(51.3%) and 78(52%) in the control group were residing in urban area. 73(48.7%) in the study group, and 72(48%) in the control group were living in rural area.

The educational status showed that 45 (30%) women in the study group and 40(26.7%) in the control group had primary level of education and 3(2%) in the study group and 12(8%) in the control group were non-literate.

107(71.3%) in the study group and 108(72%) in the control group were married and 6(4%) in the study group and 7(4.7%) in the control group were unmarried or separated. Kelli Miller, (2009) stated that married people have more favorable cancer survival rates than unmarried patients (Overall 5-year cancer survival rates: 63.3%). This present study showed that both the groups have a higher percentage cancer survival rates in the marital status than other subcategories.

The occupational status showed that 99(66%) in the study group and 106(70.75) in the control group belonged to the homemaker category and 11(7.3%) in the study group and 9(6.0) in the control group were professionals.

With regard to religion majority in the study group 113(75.3%) and in the control group 114(76%) were Hindus and 14(9.3%) of both the study and the control group were Muslims.
Regarding family income, 65(43.3%) belonged to upper class in the study group and 67(44.7%) belonged to lower income group in the control group. In the study group, 13(8.7%) had middle class income and 32(21.3%) in the control group had lower middle income.

In the types of family, 129 (86%) in the study group and 128 (85.3%) in the control group belonged to the joint family system. The nuclear family system was followed by 21(14%) in the study group and 22(14.7%) in the control group. Distribution of clinical variables among women with breast cancer subjected to mastectomy (Table 4) projected the duration of illness. 78(52%) in the study group and 88(58.7%) in the control group were suffering from illness for the past six months and 32(21.3%) in the study group and 27(18%) in the control group were suffering from illness for more than one year.

In the stages of illness, the study group showed 62(41.3%) in the category of stage II cancer and 30(20%) belonged to stage I cancer. In the control group, 87(58%) were in stage II and 28(18.7%) were in the stage IIIa.

The types of treatment showed that in the study group 56(37.3%) had chemotherapy and radiation and 8(5.3%) had radiation treatment. In the control group, 64(42.7%) received chemotherapy and radiation and 5(3.3%) received radiation.

**The first objective of the study was to evaluate the effectiveness of meditation on depression among women with breast cancer subjected to mastectomy.**

This study showed (Table 5) that, in the pretest 20 (13.4 %) women in the study group and 5 (3.3%) in the control group had minimal depression. 77(51.3 %) had mild depression in the study group whereas, the control group showed 69 (46 %).
53 (35.3 %) had moderate depression in the study group and in the control group 76 (50.7 %) exhibited moderate depression. There was no significant difference between the groups which was depicted through chi square so, the homogeneity between the groups was maintained; the chi square value was 4.54 with p value of 0.103.

Comparison of posttest I in the study group had 73 (48.7% ) showing minimal depression and control group had 13 (8.7 %) with minimal depression. A mild depression was seen in 59 (39.3 %) in the study group and 85 (56.7 %) in the control group. Moderate level of depression was seen in 18 (12 %) in the study group and 52 (34.7 %) in the control group. The groups had a significant difference exhibited by chi square value of 63.069 with p=0.000.

Comparison of posttest II level of depression showed that 102 (68 %) in the study group and 15 (10 %) in control group had minimal depression. Mild depression was seen in 43 (28.7 %) in the study group and 76 (50.7 %) in the control group. A moderate level of depression was seen in 5 (3.3 %) in the study group and 59 (39.3%) in the control group. The groups had significant difference exhibited by chi square value of 119.406 with p=0.000.

Slovacek, Slovackova, Slanska, Petera and Priester.,(2010) found in their study that women with breast cancer had severe depression in five of all 25 subjects, the moderate depression in 10 of all 25 subjects, and the mild depression in 10 of all 25 subjects.

The present study (Table 7) revealed that in pretest the mean depression of the study group was 18.03 with SD 4.19 and in the control group the mean value was 19.23 with SD of 3.44. The independent ‘t’ test value was 1.93 which was statistically not significant. In posttest I and II depression score between the study
and the control group a significant reduction in depression existed at the level of $p<0.001$.

The study (Table 8) interpreted that in the pretest level of depression of the women with breast cancer subjected to mastectomy in the study group, the mean score in the pretest was 18.03 and in posttest I was 14.23. There was a significant reduction in the posttest I mean score of depression than the pretest at the level of $P <0.001$. The mean score of the pretest 18.03, when compared with posttest II mean 11.12, showed a significant reduction of depression in the posttest II. Comparison of posttest I with II revealed that there was a significant difference in the mean score in both the levels of assessment at $p<0.001$.

The study (Table 9) projected the mean score of depression in the control group during pretest as 19.23 and posttest I mean as 18.1. There was a significant difference in the level of depression between pretest and posttest I among women subjected to mastectomy at the level of $P <0.001$. When the pretest was compared with posttest II a significant difference was seen between the assessments. Comparison of posttest I and II showed an absence of significant difference between the assessments.

The present study (Table 10) depicted that in pretest to posttest I the mean difference was 3.79 with SD of 4.53 in the study group and in the control group the mean difference was 1.22 with SD of 3.79. In the pretest to posttest II in the study group the mean difference was 6.91 with SD of 4.32 and in the control group the mean difference was 1.03 with the SD of 4.84. There was a high significant reduction in the mean difference on the level of depression between the study and the control group at the level of $p< 0.001$. 
Table 11 revealed the repeated measures ANOVA of depression among women with breast cancer subjected to mastectomy. In the pretest, the mean depression was 18.03, in posttest I the mean depression was 14.23 and in posttest II the mean was 11.12. So there was a reduction in the level of depression among the study group in pretest, posttest I and II which was highly significant at p<0.001, whereas in the control group, it was moderately significant between pretest, posttest I and II at p<0.01.

The second objective of the study was to determine the effectiveness of meditation on QoL among women with breast cancer subjected to mastectomy.

The present study (Table 6) denotes the QoL among women with breast cancer subjected to mastectomy between the study and the control groups. 116 (77.3%) in the study group and 143 (95.3%) in the control group had an average QoL. 34 (22.7%) in the study group and 7 (4.7%) in the control group had poor QoL. The groups had no significant difference as shown by chi square value of 4.62 with p=0.099. Thus homogeneity between the groups was maintained.

Similarly, Reichand, Chevallier and Lesur (2008) conducted a study on depression, QoL and breast cancer. The study concluded that breast cancer survivors reported a higher prevalence of mild to moderate depression with lower quality of life in all areas except for family functioning. Treatment of depression in breast cancer women improved their QoL and thereby increased longevity.

The present study (Table 12) depicted that in the study group, the overall QoL mean in the pretest was 173.99 and posttest I was 250.54. There was a significant improvement in QoL mean in the posttest I than the pretest mean at the level of  P <0.001. When the pretest mean was 173.99 and the posttest II mean was
there was a significant improvement in QoL mean of the posttest II than pretest’s mean at the level of p<0.001. The comparison between the posttest I mean of 250.54 and posttest II mean of 280.71 showed a significant improvement in QoL at p<0.001.

The study findings (Table 13) exhibited that the comparison of pretest, posttest I and posttest II mean score of overall QoL of women with breast cancer subjected to mastectomy. In the control group the pretest QoL mean was 185.92 and the posttest I mean was 186.71. There was no significant difference in the QoL mean in the pretest and the posttest I. Pretest mean QoL was 185.92 and the posttest II mean was 188.26. The posttest I mean was 186.71 and posttest II mean was 188.26. There was no significant difference between pretest, posttest I and II in overall QoL.

The present study (Table 14) revealed that the comparison of QoL in physical wellbeing of the study and the control groups. Majority of the subjects scored average QoL 128 (85.3%) and 5(3.3%) had a good QoL in the study group. In the control group 131 (87.3%) had average QoL and 19 (12.7%) had poor QoL. There was no difference between the study and the control groups on the QoL in the physical wellbeing during the pretest.

In the physical wellbeing of the study group, 114(76%) had scored good QoL and 36(24%) had scored average. In the control group majority of them scored average 125(83.3%) and 6(4%) scored poor. There was a significant difference between the study and the control groups during posttest I on QoL in the physical wellbeing at P <0.001. In the study group 98(65.3%) had scored good QoL in the posttest II and 11 (7.3%) had scored of an average QoL. In the control group in posttest II 134 (89.3%) had scored an average QoL and 3 (2%) had scored a good QoL. There was a
significant difference in physical wellbeing of the QoL between the study and the control groups during posttest II at $p < 0.001$.

This study (Table 15) depicted the QoL in psychological well being. In the study group 125 (83.3%) had scored poor QoL and 25 (16.7%) had scored average QoL. In the control group 96 (64%) had average QoL and 54 (36%) had poor QoL. There was no significant difference in psychological well being between the study and the control groups during pretest. In posttest I, in the study group 112 (74.7%) had shown good QoL and 2 (1.3%) had scored poor QoL. Majority of the subjects 82 (54.7%) scored average QoL and 4 (2.7%) had good QoL. There was a significant difference in the psychological wellbeing between the study and the control groups during the posttest I at $p<0.001$. Posttest II showed that in the psychological wellbeing of the study group 98 (65.3%) had good QoL. 41 (27.3%) had very good QoL and 1 (0.7%) had poor QoL. In the control group 78 (52%) scored poor QoL and 1 (0.7%) had good QoL. There was a significant difference in QoL of psychological wellbeing between the study and the control groups during post test II at the level of $P < 0.001$.

The present study (Table 16) projected that the QoL in social wellbeing. In the study group 121 (80.7%) scored average QoL and 23 (15.3%) scored poor QoL. In the control group 120 (80%) had average and 30 (20%) had poor QoL. There was no significant difference in QoL of social wellbeing between the study and the control groups during the pretest. In posttest I, the QoL in the social wellbeing of the study group showed that 103 (68.7%) were in good QoL and 47 (31.3%) were in average QoL. In the control group 114 (76%) had average QoL and 36 (24%) had poor QoL. There was a significant difference in the social wellbeing among women subjected to mastectomy during the posttest I at $P < 0.001$. In posttest II the social wellbeing of the study group showed that 87 (58%) had found good QoL 41 (27.3%) had very good
QoL and 22(14.4%) had average QoL. In the control group, 133(88.77 %) had average QoL and 3 (2%) had good QoL . There was a significant difference in the social well being between the study and the control groups during the posttest II at p<0.001.

The study findings (Table 17) revealed that the QoL in spiritual well being of the study group.137 (91.3%) had an average QoL and 4(2.7%) had poor QoL. In the control group 137(91.3%) had average QoL and 13(8.7%) had poor QoL. There was no significant difference in QoL of the spiritual wellbeing between the study and the control groups during the pretest. The spiritual wellbeing of the study group revealed a good QoL in 111(74%) and an average QoL in 39(26%). In the control group 113(75.3%) had average QoL and 15(10%) had poor QoL. There was a significant difference in the spiritual wellbeing between the study and the control groups during posttest I at the level of P < 0.001. The QoL in the spiritual well being of the study group 92(61.3%) had scored a good QoL, 41(27.3%) had a very good QoL. In the control group 140(93.3%) had an average QoL and 7 ( 4.7%) had poor QoL. There was a significant difference in the spiritual wellbeing between the study and control group during the posttest II at P <0.001.

The present study (Table 18) showed that in the pretest, the mean was 173.99 with SD 18.87 in the study group and in the control group mean was 185.92 with SD 14.85. There was no significant difference between the study and the control groups during pretest. In the study group, posttest I mean was 250.54 with SD 30.35 and in the control group the mean was 186.71 with SD 24.19. Posttest II mean was 280.71 with SD 35.74 in the study group and in the control group, the mean was 188.26 with SD 24.12. There was a significant improvement in QoL after practising meditation during posttest I and II at p < 0.001.
The study findings (Table 19) showed that in the study group during pretest to posttest I the mean was 76.55 with SD 32.39 and in the control group the mean was 0.79 with SD 25.49. There was a highly significant improvement in QoL in both the groups at p< 0.001. During pretest to posttest II the study group mean value was 106.73 with SD 34.70 and in the control group the mean was 2.34 with SD 30.92. There was a highly significant improvement in QoL in both the groups at p< 0.001 during pretest to posttest II.

The study findings (Table 20, 21 & 22) showed the QoL in the study group on various domains, of physical wellbeing the mean was 38.47, the psychological wellbeing mean was 60.58, the social wellbeing mean was 38.10 and spiritual wellbeing mean was 36.70 during pretest. In the control group, the physical wellbeing mean was 41.24, psychological wellbeing mean was 68.58, social wellbeing mean was 37.52 and spiritual wellbeing mean was 38.58 in the pretest. There was no significant difference between the study and the control group on the QoL on various domains during the pretest. The QoL in the study group, the physical well being mean was 51.88, psychological wellbeing mean was 101.81, social wellbeing mean was 50.75 and spiritual wellbeing mean was 46.09 in posttest I. In the control group, the physical wellbeing mean was 41.55, psychological wellbeing mean was 70.12, social wellbeing mean was 38.07 and spiritual wellbeing mean was 36.88 in posttest I. There was a significant difference in QoL on various domains between the study and the control groups during post test I at the level of p<0.001. The QoL on various domains in the study group, the physical wellbeing mean was 57.701, psychological wellbeing mean was 114.23, social wellbeing mean was 56.87 and spiritual wellbeing mean was 51.91 in the posttest II. The control group QoL of the physical wellbeing mean was 41.40 , psychological wellbeing mean 68.38, social wellbeing mean was 40.39 and the
spiritual wellbeing mean was 38.09 in the posttest II. There was a significant difference between the study and the control groups of QoL on various domains during the posttest II at the level of p<0.001.

The present study (Table 23, 23, 24 & 25) revealed the QoL on various domains of the study group. In the physical wellbeing mean difference was 13.41, psychological wellbeing mean difference was 41.23, social wellbeing mean difference was 12.65 and spiritual wellbeing mean difference was 9.39. There was a significant difference in QoL of the study group between the pretest and posttest I after the meditation practice at p<0.001. In the control group the QoL in the physical wellbeing mean difference was 0.31, psychological wellbeing mean difference was 1.54, social wellbeing mean difference was 0.55 and the spiritual wellbeing mean difference was -1.70. There was no significant difference in the QoL of the control group between the pretest and posttest I. The QoL on various domains in the study group had physical wellbeing mean difference as 19.23, psychological wellbeing mean difference as 53.65, social wellbeing mean difference as 18.77 and the spiritual wellbeing mean difference as 15.21. There was a significant difference in QoL of the study group between pretest and posttest II after the meditation practice at p<0.001. Whereas in the control group the physical wellbeing mean difference was 0.16, psychological wellbeing mean difference was -0.26, social wellbeing mean difference was 2.87 and the spiritual mean difference was -0.49. There was no significant difference in the QoL of the control group between pretest and posttest II. The QoL on various domains in the study group had physical wellbeing mean difference as 5.82, psychological wellbeing mean difference as 12.42, social wellbeing mean difference as 6.12 and the spiritual wellbeing mean difference as
There was a significant difference in QoL of the study group between posttest I and posttest II after the meditation practice at p<0.001. In the control group the physical wellbeing mean difference was 0.15, psychological wellbeing mean difference was 1.80, social wellbeing mean difference was 2.31 and the spiritual mean difference was 1.55. There was no significant difference in the QoL of the control group between posttest I and posttest II.

Table – 26 The repeated measures ANOVA of QoL among women with breast cancer subjected to mastectomy shown in the Table 24 showed an improvement in QoL among the study group when compared with the control group at the level of p<0.001.

The present study (Table 27) showed the meditation performance among women with breast cancer subjected to mastectomy in the study group. 100% of the participants followed core guidelines in both posttest I & II. 61% participants in posttest I and 82% in posttest II followed core and pre requisite guidelines. 39% participants in posttest I and 18% participants in posttest II followed core and not the pre-requisite guidelines.

As per Michael Speca, Linda E. Carlson Eileen Goodey, and Maureen Angen, (2000), there was an overall reduction in Total Mood Disturbance of about 65%, with a 31% reduction in Stress symptoms after practicing meditation.

The study findings (Table 28, 29 & 30) showed that in the period of illness ranging from six months to one year, a decrease in depression in posttest I mean percentage was (53.93) than in the pretest mean percentage (70.54%). Regarding the stages of cancer, stage IIIa depicted that the women with breast cancer had a high level of depression mean percentage (73.71) in pretest than in the posttest I
mean percentage (54.80). In the types of treatment, the combination of chemotherapy and radiation denoted that the pretest mean percentage (75.64) was higher than the posttest I mean percentage (55.74). There was a highly significant difference between the level of depression and clinical variables (p<0.001) in the pretest. In the posttest I, there was a highly significant difference between the level of depression and types of treatment (p<0.001) and mild significant difference in depression and stages of cancer (p<0.05). The period of illness ranging from six months to one year showed that pretest mean percentage (70.54) was higher than posttest II mean percentage (43.30). Regarding the stages of cancer, stage IIIa of the breast cancer had a high level of depression mean percentage (73.71) in pretest than posttest II mean percentage (43.60). In the types of treatment, the combination of chemotherapy and radiation denoted that there was a decrease in posttest II mean percentage (44.00) level of depression than the pretest mean percentage (75.64). There was a highly significant difference between the level of depression and the clinical variables (p<0.001) in the pretest. In the posttest II there was a highly significant difference in the level of depression and types of treatment (p<0.001) and moderately significant difference in depression and stages of cancer (p<0.01). The period of illness ranging from six months to one year showed that posttest I mean percentage (53.93) was higher than posttest II mean percentage (43.30). Regarding the stages of cancer, stage IIIa of the breast cancer had a high level of depression mean percentage (54.80) in posttest I than posttest II mean percentage (43.66). In the types of treatment, the combination of chemotherapy and radiation denoted that there was a decrease in posttest II mean percentage (44.00) in the level of depression than the posttest I mean percentage (55.74). There was a highly significant difference in the level of depression and types of treatment (p<0.001) and mild significant difference in depression and stages of cancer (p<0.05).
A study conducted by Loizzo J.J. (2010) assessed the effect of a contemplative self healing program on QoL in women with breast cancer and gynaecologic cancers. The study findings suggested that a contemplative self healing program could be effective and would significantly improve QoL and reduce distress and disability among female breast and gynaecologic cancer survivors.

This study (Table 31, 33 & 35) depicted that in the period of illness, the range more than one year showed improvement in QoL of posttest I mean percentage (63.79) than pretest mean percentage (42.59). Regarding the stages of cancer, stage I depicted that the women with breast cancer had low QoL mean percentage (46.67) in pretest than posttest I mean percentage (63.21). Among types of treatment, none denoted that the pretest mean percentage (46.79) was lower than the posttest I mean percentage (64.66). There was a highly significant difference between the QoL and clinical variables (p<0.001) in the pretest whereas there was no significant difference between QoL and clinical variables in posttest I. The period of illness, below six months showed that pretest QoL mean percentage (44.94) was lower than posttest II mean percentage (70.41). Regarding the stages of cancer, stage I showed that the women with breast cancer had low QoL mean percentage (46.67) in pretest than posttest II mean percentage (73.50). In types of treatment, none denoted that there was an increase in posttest II mean percentage (73.35) QoL than pretest mean percentage (46.79). There was a highly significant difference between the QoL and clinical variables (p<0.001) in the pretest whereas in posttest II, there was a mildly significant
difference between QoL and period of illness, stages of cancer (p<0.05) and was moderately significant in types of treatment p < 0.01.

The period of illness in the range of above one year showed that posttest I QoL mean percentage (63.79) was higher than posttest II mean percentage (73.04). Regarding the stages of cancer, stage I of the breast cancer had low QoL mean percentage (63.21) in posttest I than posttest II mean percentage (73.50). In types of treatment, none denoted that there was an improvement in QoL in posttest II mean percentage (73.35) than posttest I mean percentage (64.66.). There was no significant difference between the QoL and clinical variables in the posttest I. In posttest II, there was a mildly significant difference between QoL and period of illness, stages of cancer at (p<0.05) and moderately significant difference in types of treatment at p < 0.01.

The third objective of the study was to identify the relationship between depression and QoL among women with breast cancer subjected to mastectomy.

Table 34 shows the correlation between depression and QoL among women with breast cancer in the study group. There was a strong negative correlation between depression and QoL during posttest I (r = -0.848) and II (r = -0.875) in the study group which was statistically significant at p < 0.001. There was a moderately negative correlation between depression and QoL during posttest I (r = -0.466) and II(r = -0.606) in the control group which was significant at p < 0.001.

A similar study done by Sekwon Jang, Joann Ackler, Len Braitman, and William Tester, (2012) concluded that there was a strong correlation between major depression and quality of life among cancer patients (r = -0.75).
The present study (Table 35 and 36) showed the correlation between QoL on various domains and depression among women with breast cancer in the study group. There was a strong negative correlation between QoL on various domains and depression during pretest, (Physical $r = -0.677$, Psychological $r = -0.536$, Social $r = -0.527$ and Spiritual $r = -0.541$) posttest I (Physical $r = -0.851$, Psychological $r = -0.838$, Social $r = -0.690$ and Spiritual $r = -0.691$) and II (Physical $r = -0.873$, Psychological $r = -0.873$, Social $r = -0.827$ and Spiritual $r = -0.724$) in the study group which was statistically significant at $p < 0.001$.

The correlation between QoL on various domains and depression among women with breast cancer in the control group. There was no correlation between the variables during pretest and there was a strong negative correlation between QoL on various domains and depression during posttest I (Physical $r = -0.336$, Psychological $r = -0.383$, Social $r = -0.353$ and Spiritual $r = -0.448$) and II (Physical $r = -0.336$, Psychological $r = -0.383$, Social $r = -0.353$ and Spiritual $r = -0.448$) in the control group which was statistically significant at $p < 0.001$.

The study findings (Table 37 and 38) showed the correlation between meditation performance and depression among women with breast cancer in the study group. There was a strong negative correlation between meditation performance and depression during posttest I and II in the study group which was statistically significant at $p < 0.001$. The correlation between meditation performance and QoL among women with breast cancer in the study group showed there was a strong positive correlation between meditation performance and QoL during posttest I and II which was statistically significant at $p < 0.001$. 
The fourth objective of the study was to associate the selected background variables with depression and QoL among women with breast cancer subjected to mastectomy.

The present study (Table 40 and 41) showed the association between family income of women with breast cancer subjected to mastectomy and posttest I depression in the study group at p<0.05. There was an association between the age and family income with the level of depression in the study group among women with breast cancer subjected to mastectomy during posttest II at p < 0.05 than the other variables. Table 37 depicted that there was no association between selected background variables and pretest depression among women with breast cancer subjected to mastectomy in the study group.

The study findings (Table 42 and 44) showed an association between the residence and occupation with QoL in the study group among women with breast cancer subjected to mastectomy during pretest at p < 0.05 except other variables. There was an association between QoL and family income of women subjected to mastectomy at the level of p<0.01. Table 41 revealed that there was no association between posttest I QoL and background variables of the women with breast cancer subjected to mastectomy in the study group.

The findings (Table 45, 46 and 47 types of treatment and pretest depression among women with breast cancer subjected to mastectomy in the study group at p<0.001. Table 44 projected the absence of any association between period of illness and posttest I depression. There was an association between stages of cancer and depression at p<0.05. There was an association between types of treatment among women with breast cancer subjected to mastectomy and depression in the study group during posttest I at p<0.001. Table 45 showed that there was no
association between the period of illness, stages of cancer and posttest II depression. There was an association between types of treatment among women with breast cancer subjected to mastectomy and depression in the study group during posttest II at p<0.001.

The study findings (Table 48, 49 and 50) projected the presence of an association between period of illness, stages of cancer, types of treatment and pretest QoL among women with breast cancer subjected to mastectomy in the study group at p<0.001. There was no association between the period of illness, stages of cancer, types of treatment and posttest I QoL among women with breast cancer subjected to mastectomy and depression in the study group. Table 48 revealed the presence of an association between the period of illness, stages of cancer and posttest II QoL at p<0.05. There was an association between types of treatment among women with breast cancer subjected to mastectomy and QoL in the study group during posttest II at p<0.01.

The present study (Table 51, 52 and 53) elicited the comparison between the level of depression and period of illness in the study group during pretest, posttest I and posttest II. There was an association between level of depression and period of illness in the study group during pretest at p<0.05. There was no significant difference between period of illness and level of depression in the study group during posttest I and II. The comparison between the level of depression and stages of cancer in the study group during pretest, posttest I and posttest II showed an association between the level of depression and stages of cancer at the level of p<0.001 in the pretest and p<0.05 in the posttest I whereas it was not significant in posttest II.
The study findings (Table 54, 55 and 56) showed the comparison between QoL and period of illness in the study group during pretest, posttest I and posttest II. There was a significant association in pretest between the QoL and the period of illness at the level of p <0.01. The comparison between QoL and stages of cancer of the study group during pretest, posttest I and posttest II showed the absence of any association between the QoL and the stages of cancer in pretest, posttest I and posttest II. The comparison between QoL and types of treatment of the study group during pretest, posttest I and posttest II depicted an association between the QoL and types of treatment in pretest at the level of p <0.001.

The present study (Table 57, 58 and 59) depicted that the multiple regression combination of the eight background variables as small linear relationship to depression, \( R^2 \) value = 5.6 %. An estimated 5.6 % of variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. Residence was mildly related to depression and it has got a positive gradient. Gradient for age, educational status, marital status, occupation, religion, income and type of family were negative. The multiple regression combination of the eight background variables had small linear relationship to the posttest I, \( R^2 \) value= 3.1 %. An estimated 3.1% of variance of the background variables can be accounted for the multiple regression on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. The background variables exhibited no significant influence on depression. The multiple regression combination of the eight background variables had small linear relationship to the posttest I, \( R^2 \) value= 6.1 %. An estimated 6.1 % of variance of the background variables can be accounted for the multiple regression on predictors- age, residence, educational status, marital
status, occupation, religion, income, type of family. The background variables exhibited no significant influence on depression.

The present study findings (Table 60, 61 and 62) showed that the multiple regression combination of the eight background variables had small linear relationship to the pretest, \( R^2 \) value = 5.1 %. An estimated 5.1 % variance of the background variables can be accounted for the multiple regression on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. The background variables exhibited no significant influence on depression in control group. The multiple regression combination of the eight background variables has moderate linear relationship to the depression, \( R^2 \) value = 11.3 %. An estimated 11.3 % variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. Educational status and occupation were strongly related to depression and it has a positive gradient. Gradient for age, residence, marital status, religion, income and type of family were negative in the control group. The multiple regression combination of the eight background variables as small linear relationship to the depression was \( R^2 \) value = 7.1 %. An estimated 7.1 % of variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. Educational status was mildly related to depression and it has got a positive gradient. Gradient for age, residence, marital status, occupation, religion, income and type of family were negative in the control group.

The present study (Table 63, 64 ad 65) depicted that the multiple regression combination of the eight background variables as small linear relationship to the
QoL, $R^2$ value = 7.9%. An estimated 7.9% of variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. Residence was mildly related to QoL and it has got a positive gradient. Gradient for age, educational status, marital status, occupation, religion, income and type of family were negative. The multiple regression combination of the eight background variables had small linear relationship to the posttest I, $R^2$ value = 1.7%. An estimated 1.7% of variance of the background variables can be accounted for the multiple regression on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. The background variables exhibited no significant influence on QoL in study group. The multiple regression combination of the eight background variables had small linear relationship to the posttest II, $R^2$ value = 4.8%. An estimated 4.8% of variance of the background variables can be accounted for the multiple regression on predictors- age, residence, educational status, marital status, occupation, religion, income and type of family. The background variables exhibited no significant influence on QoL in the study group.

The study findings of the present study (Table 66, 67 and 68) exhibited that the multiple regression combination of the eight background variables has moderate linear relationship to the QoL, $R^2$ value = 5.2%. An estimated 5.2% of variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, family income and type of family. Residence and family income were mildly related to QoL and it has got a positive gradient. Gradient for age, educational status, marital status, occupation, religion, and type of family were negative in the control group. The multiple regression combination of the eight background variables has strong
linear relationship to the QoL, $R^2$ value = 8.8 %. An estimated 8.8 % of variance of the background variables can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, family income and type of family. Family income was strongly related to QoL and it has got a positive gradient. Gradient for age, residence, educational status, marital status, occupation, religion, and type of family were negative in the control group. The multiple regression combination of the eight background variables has strong linear relationship to the QoL, $R^2$ value = 8.7 %. An estimated 8.7 % variance of the background variable can be accounted for multiple regression combination on predictors- age, residence, educational status, marital status, occupation, religion, family income and type of family. Family income was strongly related to QoL and it has got a positive gradient. Gradient for age, residence, educational status, marital status, occupation, religion, and type of family were negative in the control group.

Two null hypotheses were formulated for the study. The first hypothesis states that there is no significant difference in the depression among women with breast cancer who participate in the meditation than those who do not.

The study outcome measurement with independent ‘t’ test values of BDI scores were highly significant with $p < 0.001$ as revealed in table 5 and 8. Meditation has made a difference in decreasing the level of depression among participants of study group. Hence the study rejects the first hypothesis.

The second hypothesis states that there is no significant difference in the QoL among women with breast cancer who participate in the meditation than those who do not.
The QoL showed a high significance at the level of p < 0.001. Meditation has made a difference in the improvement of QoL in the study group. Hence the study rejects hypothesis two.

This infers that the regular practice of meditation has a definite effect on the reduction of depression and improved quality of life. Hence the study supports, and rejects the null hypothesis.

**Strength of the study**

The study was throughout a challenging process. On one to one basis the meditation was taught with the help of video and it was enacted by the sample under supervision of researcher and also performance was assessed during the first and third month’s interval.

The study samples were fairly large in number (N=300), so the study results can be generalized to women with breast cancer subjected to mastectomy.

Telephonic reinforcement was given every fortnight for the study group to improve their adherence to meditation practice and also the performance dairy maintenance at home setting.

The meditation was scheduled to their convenience, which included both mind and body interventions. The literature provided and substantiated that the complementary therapies are commonly used as the intervention.

The video teaching on meditation to the women was perceived as one of the effective methods to relax their mind and improve their life style to cope up with challenging scenario.
Limitation of the study

The limitation faced by researcher during the study period was

The participants were limited to women with breast cancer subjected to mastectomy admitted in SRMC and CIA (WIA).

The duration of the post assessment was limited to three months period.

Subjective experiences of depression and QoL have been utilized to grade their level of depression and QoL.