CHAPTER VI

SUMMARY, CONCLUSION, RECOMMENDATIONS
AND IMPLICATIONS

6.1 SUMMARY

The purpose of the present study was to assess the effectiveness of a nurse executed epilepsy education program on Knowledge, Self management and Quality of Life among patients with epilepsy.

The objectives of the study were to

1. evaluate the effectiveness of a nurse executed Epilepsy Education Program on Knowledge among patients with epilepsy.

2. assess the effectiveness of a nurse executed Epilepsy Education Program on Self management among patients with epilepsy

3. determine the effectiveness of a nurse executed Epilepsy Education Program on Quality of Life among patients with epilepsy.

Based on the objectives the alternative hypothesis formulated by the researcher were

1. There is a significant difference in the Knowledge among patients with epilepsy who participate in the nurse executed epilepsy education program than those who do not.
2. There is a significant difference in the Self-management among patients with epilepsy who participate in the nurse executed epilepsy education program than those who do not.

3. There is a significant difference in the Quality of Life among the patients with epilepsy who participate in the nurse executed epilepsy education program than those who do not.

The review of literature done to support the current study were under the following aspects as

Knowledge of epilepsy, Self management in epilepsy, Quality of Life in epilepsy and the effect of an educational intervention on the Knowledge, Self management and Quality of Life in epilepsy.

The conceptual framework for the current study is based on the Wilson and Cleary’s model of patient outcomes in Health Related Quality of Life.

The evaluative research approach was used. A randomized controlled trial was done among PWE attending the neurology OPD of Sri Ramachandra Hospital among 350 PWE, 175 PWE in the study group and 175 in the control group respectively. The pretest was conducted on the first day on knowledge, self management and Quality of Life following which the study group received the EEP and the EIB on the 15th day and the control group received the routine care, Standardized scales were used to determine the knowledge (Epilepsy Knowledge Scale, EKS) self-management (Epilepsy Self management Scale, ESMS) and Quality of Life (QoLIE31 and a monthly Seizure dairy) after obtaining formal permission for their use. The study
group received two reinforcements one on the 45th day and one on the 135th day. The posttest I that was conducted on the 90th day for both the study and control groups. The posttest II was conducted on the 180th day for both the groups and the control group received the epilepsy education and the EIB at the end of the study. During posttest II 169 and 167 PWE responded to the study and control groups respectively.

6.2 FINDINGS OF THE STUDY

Background variables

The PWE in the study and control groups were homogenous for all variables except residence, dependence on caregiver and type of epilepsy. In order to rule out the differences that may be caused due to the type of epilepsy a chi-square test and ANOVA were done.

Knowledge

1. The study group showed a significant increase in knowledge from 11.64 in the pretest to 12.80 at posttest I and 13.29 at posttest II and there was a statistical significance at p = 0.0005.

2. The level of knowledge of the study group showed that at posttest II 3 (1.8%) had inadequate knowledge, 127 (75.1%) moderately adequate knowledge and 39 (23.1%) had adequate knowledge.
Self-management

1. The study group showed a significant improvement from pretest to posttest II in subscale scores of IM, SeM and LM (1.39 to 2.48, 2.48 to 4.11, 1.59 to 2.82) as compared to MM and SM (4.62 to 4.71, 4.73 to 4.82). The improvement for all subscale scores were found to be statistically significant at p = 0.0005, the mean score for SM was the same for both the groups 4.82 study group and 4.80 for control group which was the highest obtainable mean. Within groups comparison showed that the study group had significant improvement for all subscale scores in self-management from pretest to posttest I and II, which was found to be significant at p = 0.0005.

2. The control group had significantly higher mean scores for all subscale scores at pretest as compared to the study group but the increase in the scores were very minimal or did not show any change between the pretest to posttest II: IM, MM, SM, SeM, LM (1.43 to 1.55, 4.61 to 4.53, 4.83 to 4.80, 4.04 to 4.03, 2.35 to 2.38). Within groups comparison showed that the control group did not show any improvement between pretest and posttest I for IM and LM, there was no significance for SeM from pretest (4.04) to posttest I (4.03) and to posttest II (4.03), and between posttest I and posttest II there was no change for SM 4.80 which was the highest from the pretest.

3. The overall Self-management scores showed that the study group had increased from 2.97 at pretest, 3.39 at posttest I to 3.79 at posttest II and the mean difference was .420 between pretest and posttest I, .825 pretest to
posttest II and .405 between posttest I and II, which was statistically significant at p = 0.0005.

4. The overall self-management scores showed that the control group had minimal difference from 3.46 at pretest, 3.42 posttest I to 3.46 at posttest II and the mean difference was .034 between pretest and posttest I, .005 pretest to posttest II and .039 between posttest I to posttest II, which was statistically significant at p = 0.0005.

5. The repeated measures of the overall self-management for the study group and control group showed that there was a significant improvement for the study group and it was statistically significant at p = 0.0005.

Quality of Life

1. The study group showed significant improvement from pretest to posttest II in different components of QoL as SW, QoL, EW, EF, CF, ME, SF and TQoL (42.09 to 60.37, 42.10 to 56.36, 38.05 to 58.56, 45.79 to 62.31, 40.05 to 59.15, 45.89 to 60.61, 40.65 to 56.05, 37.67 to 62.09). The highest mean difference for the study group between pretest and posttest II was found for TQoL, EW, CF, SW (24.426, 20.657, 19.077, and 18.195).

2. The control group showed minimal or no improvement from pretest to posttest II in the different components of QoL as SW, QoL, CF, ME, SF (41.71 to 42.16, 42.06 to 41.02, 40.71 to 38.54, 45.86 to 45.74, 41.20 to 39.86) there was a decrease in EW, EF and the TQoL (37.96 to 31.41, 45.72 to 39.90, 37.37 to 34.39). The highest mean difference for the control
group between pretest and posttest II was found for EW and EF (6.497, 5.796)
the lowest mean difference was for SW, ME, QoL and SF (.323, .422, 1.120,
1.359).

3. Comparison of the Quality of Life between the study and control groups
identified that there was a significant improvement for all the components of
QoL for the study group and it was significant at p= 0.0005.

4. Comparison of the TQoL at pretest showed that there was no difference
between the two groups but at posttest I and at posttest II there was a
significant difference in the TQoL between the study (51.30±6.171,
62.09±6.271)and control groups (33.86±4.415, 34.39±5.542) and it was
significant at p = 0.0005.

5. The repeated measures between the study group and control group showed
significance for all components of QoL. It was statistically significant for all
the components at p = 0.0005.

**Seizure frequency**

1. The baseline seizure frequency for the study group and the control group did
not show any significant difference between the groups.

2. At posttest I the control group showed lesser seizure frequency (Nil: 35, one:
97, two: 34, three: 2, four:1) and the study group showed (Nil:3, one:121,
two:44, three: 3, four:0) which was statistically significant at p = 0.0005.
3. At posttest II the study group showed lesser seizure frequency (Nil: 108, one: 56, two: 5, three: 0, four: 0) and the control group showed (Nil: 76, one: 75, two: 14, three: 1, four: 1) which was statistically significant at \( p=0.006 \).

**Correlation**

**Quality of Life with Knowledge**

There was a positive correlation between the TQoL and knowledge for both the study group at pretest, posttest I and posttest II \((r= .521, .375, .180)\); and for the control group \((r= .437, .163, .202)\) significant at \( p<0.001 \).

**Quality of Life with Self-management**

There was a positive correlation between the TQoL and Self-management for both the study group at pretest, posttest I and posttest II \((r= .222, .481, .466)\); and for the control group \((r= .437, .217, .170)\) significant at \( p<0.001 \).

**Self-management with Knowledge**

There was a positive correlation between the self-management and knowledge for both the study group at pretest, posttest I and posttest II \((r= .196, .411, .504)\); and for the control group \((r= .366, .368, .341)\) significant at \( p<0.001 \).
Association

Quality of Life and seizure frequency

There was a significant association between the QoL and seizure frequency for the study group at posttest II (p = 0.028) and for the control group (p = 0.0005).

Level of knowledge and education

There was a significant association between the level of knowledge and education for the study group at posttest II (p = 0.0005) and for the control group (p = 0.0005).

Level of knowledge and occupation

There was a significant association between the level of knowledge and occupation for the study group at pretest (p = 0.034).

Level of knowledge and income

There was a significant association between the level of knowledge and income at pretest, posttest I and posttest II for the study group and control groups. For the study group at posttest II it was (p=0.0005), and for the control group (p = 0.0005).

Level of knowledge with the type of epilepsy

There was no significant difference in the level of knowledge and the type of epilepsy as focal, generalized and unclassified both in the study and control groups at pretest, posttest I and posttest II.
Self-management with the type of epilepsy

There was no significant difference in the self-management with the type of epilepsy at pretest, posttest I for both the groups but in the posttest II there was a significance at \( p = 0.040 \) for self-management and type of epilepsy for the control group indicating a better self-management for the focal and unclassified types of epilepsy as compared to the generalized epilepsy.

Quality of Life with the type of epilepsy

There was no significant difference between the Quality of Life and type of epilepsy at pretest, posttest I and II for both the groups.

Quality of Life with selected demographic variables

There was no significant association between the education, occupation, income and the Quality of Life for both the groups.

6.3 CONCLUSION

PWE have varied information and support needs throughout their life span. Nursing personnel are in a position to disseminate the right information at the right time due to the accessibility and ability to spare time for the PWE. In India the physician to patient ratio does not enable that adequate time be given for clarifying the doubts of each patient. PWE need information for better self-management and thereby promote an improvement in the Quality of Life.

The current study identified that PWE who had inadequate knowledge had improved to moderately adequate knowledge.
The self-management scale scores revealed that the study group had improved in all components from pretest to posttest II, significantly in information management, safety management, seizure management and lifestyle management. The medication management remained quite high for both the groups.

The overall self-management had increased for the study group from 2.97 at pretest to 3.79 at posttest II. The control group self-management was 3.46 at pretest and at posttest II it was 3.46.

The Total Quality of Life was the same for both the groups at pretest 37.67 for study group and 37.46 for the control group. At posttest II the study group showed the TQoL at 62.09 and the control group TQoL was 34.39.

The seizure frequency had decreased for control group at posttest I and at posttest II the study group showed lesser seizure frequency.

The conceptual framework provided meaning to the patient outcomes in health related Quality of Life as functional status, and appropriate use of social and psychological supports to promote knowledge, self-management and Quality of Life. The main effects were seen on aspects as emotional well-being and seizure worry though there were significant differences in almost all components of QoL.

The Epilepsy Education Program was found to be effective in enhancing Knowledge, Self-management and Quality of Life among patients with epilepsy.

6.4 RECOMMENDATIONS

The current study has laid the ground work for further research on
6.5 IMPLICATIONS

6.5.1 Nursing practice

Nursing service personnel needs to identify the information needs of PWE and provide specific patient education and counseling.

Group sessions can be arranged for PWE to interact with the nurse and with one another to reduce fear and stigma of the condition.
The epilepsy information booklet prepared for the current study can be used to educate both the inpatients and outpatients with epilepsy to improve their self-management and Quality of Life.

Nurses need to encourage family members to foster independence and sense of worth among PWE.

Enabling the identification of adverse effects of medications and their prompt reporting for further care can be encouraged among PWE.

6.5.2 Nursing education

Nursing care of patients with epilepsy is an integral part of the nursing curriculum for the B.Sc Nursing third year students.

Nursing students should be encouraged in the first aid and emergency management of PWE.

Nursing students need to be aware of the common AED’s, their effects and the free availability so as to channelize patients to use the free AEDs.

Nursing students can impart the importance of iron and calcium rich food to PWE to prevent osteoporosis and anemia at the hospital and community levels.

6.5.3 Nursing administration

The nursing administration should plan on observing the National Epilepsy Day with special emphasis on education of the nature of epilepsy and its management both for the public, caregivers and the patients with epilepsy.
Policy can be developed to implement epilepsy education on a routine basis to the patients at Neurology OPD and to their caregivers.

The nursing administrators should plan and organize, school health programmes to educate the children about epilepsy thereby reduce stigma and unwarranted fears of epilepsy.

Patient and community education need to be organized to dispel the myths associated with epilepsy.

6.5.4 Nursing research

The research findings can be implemented at the local level.

The research findings should be disseminated at conference or as posters to improve scientific knowledge among nurses.

There should be an emphasis to identify outcomes of epilepsy education to women and children with epilepsy and their caregivers.

Further research may be carried out with programmes on epilepsy, inorder to improve the QoL of PWE.

Effectiveness of support groups can be determined so that they can be further enhanced.

The nursing personnel are in a position to improve the knowledge and well-being of PWE hence they should use the available resources to enhance the QoL of PWE.