Summary and Conclusions

A brief summary of the results of the investigation on “Impact of Health, Nutritional Education and Food Technological Practice on the nutritional status of women working in self help groups in Sivagangai”:

5.1.1. Socio-economic characteristics of SHG women

It was observed that among the total respondents a majority of 54.00 percent of SHG women were middle aged category and 26.00 percent were in the adult aged category and 20.00 percent were found to fall under old age category.

About 22.00 percent were illiterate, 24.00 percent had primary level, 28.00 percent middle school, 26.00 percent high school level education.

More than 48.00, 20.00 and 32.00 percent of the respondents belonged to Backward Community, Most backward and Scheduled Community respectively.

Among the selected families 70.00, 28.00 and 10.00 percent of the respondents belonged to Hindu, Christian and Muslim respectively. A Majority of 70.00 percent of the respondents were married 22.00 percent unmarried and 8.00 percent were found to be widows.
More than 28.00 percent of respondents, had their monthly income of below Rs.5000 followed by 68.00 percent who had between Rs.5001-10,000. 4.00 percent of them had above Rs.10,000 per month.

5.1.2. Food consumption pattern and nutrient intake of the SHG Women

5.1.2.1 Monthly expenditure pattern

Monthly expenditure pattern was assessed for the rural respondents and found that percentage of money spent by Low Income Group (LIG) for food was higher than the rest. For education and clothing, High Income Group (HIG) families spent, higher percentage of money than the rest. The data predicted that as the life pattern improved the expenditure decreased.

5.1.2.2. Percent monthly expenditure on major food items by various income groups

Percent monthly expenditure on major food items by various income groups were observed. The percentage of money spent for cereals and spices and condiments was decreased by the impact of nutrition education whereas expenditure on other food items was increased especially on green leafy vegetables, other vegetables, fruits, milk and milk products and egg and fleshy foods.
5.1.2.3. Food consumption pattern of SHG women

Rice was used as the main cereals by 100 percent of the respondents daily, while ragi was consumed by 10 and 90 percent of SHG women once in a week and occasionally respectively before exposure were 16, 46 and 38 percent respectively after exposure. Pulses were consumed by 30 percent of the respondents daily. Among total respondents, 68.00, 10.00, 20.00, 22.00, 40.00 and 16.00 percent of the SHG women consumed vegetables, fruits root vegetables, green leafy vegetables, milk and egg daily before education which were increased to 90, 80, 46, 90, 79 and 28 percent respectively after education.

5.1.2.4 Nutrient intake of SHG women

Dietary assessment was done for the selected SHG women by interview. The nutrients supplied through the diet were calculated separately and intake of various nutrients by the SHG women selected for the study had been assessed. The nutrient intake of the SHG women had received excess amount of calorie from their diet at all income groups before exposure which were regulated after exposure.

The quantum of food consumption was found to be higher in the high income group. In general the quantum of nutrient intake increased as the income level increases, the data on nutrient intake revealed that the SHG women of all
income groups had received an adequate calorie. Irrespective of the income, the selected subjects were received all the nutrients more than RDA (except riboflavin) through their daily diets after nutrition education.

5.1.2.5 Food beliefs and taboos

The food beliefs and taboos of SHG women belonging to various income groups selected for the study had been assessed. The data showed that LIG families were having more food beliefs and taboos than other groups. HIG families easily understood and adopted nutrition education. Jack fruit, cluster beans and chicken were believed as hot foods, and left over rice, curd, lime, orange and grapes as cold foods. Raw banana, cabbage, legumes and potatoes as gas producing foods, groundnut as bile producing foods, brinjal as food producing skin disease, papaya and pineapple as abortive foods, milk, old rice, starchy foods and fats as fats as foods responsible for chillness and starchy foods and animal foods as healthy foods were believed by SHG women.

5.2. Evaluation of Audio-Visual Aids

Based on the information collected on nutrition knowledge through first stage data collection, nutrition education was planned in three areas viz, balanced diet, health status and hygiene and sanitation. To evaluate the respondents on the areas mentioned different types of audio visual aids like video, audio, slide show,
charts, booklets and lessons were procured and used in front of the panel members of the Nutrition and Dietetics Department of Govt. Arts College for women, Sivagangai and their suggestions were incorporated for the effective training programme on balanced diet health status and hygiene and sanitation.

5.3. Execution of Nutrition Education

Suitable audio visual aids were used and participant’s responses during education were observed and noted. Respondents were interacting with much of interest during education. They had asked so many questions and had been cleared by the investigator during education.

5.4. Knowledge gain through Nutrition education

It was found that much of knowledge was gained in hygiene and sanitation (75.00%) followed by health status (58.35%) and balanced diet (42.57%).

With regard to distribution of respondents according to their knowledge gain majority fall into 70.00% followed by moderate (20.00%) and (10.00%) for balanced diet for health status, majority belonged to high level (48.00%) followed by moderate level (28.00%) and low level (24.00%) and also in hygiene and sanitation majority belonged to high level (50.00%) followed by moderate level (30.00%) and low level (20.00%)
5.5 Knowledge Retention of Nutrition education

The knowledge retention was more for health status (93.91%) followed by hygiene and sanitation (91.67%) and balanced diet (86.45%).

With regard to distribution of respondents according to their knowledge retention majority belonged to high level (62.00%) followed by moderate level (28.00%) and low level (10.00%) for balanced diet. For health status, majority belonged to high level (84.00%) followed by moderate level (12.00%) and low level (4.00%) and hygiene and sanitation, majority belonged to high level (66.00%) followed by moderate level 32.00% and low level (2.00%).

The results of statistical test indicated that there existed significant differences between the pre and post exposure knowledge levels of the participants on each of the selected subjects viz. health status and hygiene and sanitation indicating that the participants had gained knowledge from each exposed subjects.
5.6. Contribution of socio-economic factors towards knowledge gain and knowledge retention.

5.6.1. Socio-economic factors with knowledge gain

Correlation analysis revealed that education, community, type of family, size of family and annual income had a non-significant contribution towards knowledge gain on balanced diet, health status and hygiene and sanitation.

5.6.2. Socio-economic factors with knowledge retention

The correlation co-efficient of the socio-economic, factors like education, community, type of family, size of family and annual income of SHG women showed negative associations with knowledge retention on balanced diet, health status and hygiene and sanitation except community which had positive association with knowledge retention on hygiene and sanitation.

5.7. Anthropometric measurements of the SHG women

The mean heights of the SHG women in LIG and MIG were 148.22 ± 1.56 and 146.16 ± 1.68 cm respectively followed by 145.06 ± 1.49 cm for SHG women in HIG. The mean body weights of SHG women in three categories 46.9 ± 1.66, 49.36 ± 1.19 and 45.9 ± 1.4 kg. The mean BMI of the SHG women in three categories were slightly higher than the literature value. The skinfold thickness of the SHG women in categories I, II and III were 12.72 ± 0.5, 13.47 ±
0.49 and 12.5 ± 0.45 mm respectively. It was observed that the skinfold thickness values were slightly higher than the literature values. In these three categories weight, BMI and skinfold thickness were high in category II when compared to the categories I and III. Differences in anthropometric measurements between the categories were statistically not significant.

5.8. Clinical assessment of the SHG women

The SHG women suffering from angular stomatitis, bleeding gums and pale tongue were 6.6, 12.6 and 13.3 percent respectively followed by 12.6 and 30.6 percent having mottled and discoloured teeth and anemia respectively.

5.9. Biochemical examination

5.9.1. Hemoglobin

It was observed that only 14.00 percent of the SHG women had normal hemoglobin values, while 78 (12.00 + 29.34 + 36.66) percent of the SHG women suffered from varying degrees of anaemia. 29 percent of the SHG women were moderately anaemic and 12.00 percent were severely anaemic. Anaemic condition was high in category I when compared to the categories II and III.
6.0 Problems in Marketing

It is known that all the three kinds of women entrepreneurs were following more or less similar marketing strategies. Going by the statement of Basotra and Sharma (2001) that in order to make an enterprise successful, all aspects of an enterprise such as production, financing, organization and marketing should be properly managed, it may be said that all these aspects have been taken care of by the respondents in the present study.

It is worth mentioned that majority (70%) of the respondents have stated “finance” as the major problem faced by them. If financial support is augmented, as the major problem faced by them their profit will also go up. Giving more finance will also raise their successful enterprises from micro to mediums level enterprises.

In the present study we have found that lack of training in entrepreneurship was one of the problems of entrepreneurs. Hence training should be also given for literacy education and for entrepreneurial training, illiterate women may be linked to educated entrepreneurs who would be role model for illiterates. They should also be given a chance to participate in the workshops, camps and campaigns. Misra (2005) in his study reports that guidance and provision of facilities for marketing were inadequate. Government
and NGOs should come forward to give lots of training to prospective entrepreneurs. This is justified by the finding of Kumar (2006) where a overwhelming proportion of women entrepreneurs had undergone training before establishing their enterprises.

Motivation of women to become entrepreneurs is yet another aspect for consideration. Monika (2007) in her study found that only motivated youth took up self employment. Hence motivation should be one of the aspects of training.

Not many have been found to produce innovative goods. As innovative goods boost sales, women should be motivated to be creative in their products.

As far as the problem of entrepreneurs the findings of the present study concur with those of Parimalan (2005), Breew et al (1995), Selvi (2005), Prasad (2005) and Anupam (2005). The problems are inadequate finance, lack of knowledge in marketing, lack of marketing expenditure, lack of marketing avenues, lack of storage facilities, lack of transport facilities and lack of training. There was a difference in the problems as well as methods of solving between the more profit earning and less profit earning entrepreneurs. The profit is found to be influenced by whether they have intermediary between the producers and marketers. Having an intermediary obviously reduces the profit as part of the profit goes to the intermediary. Also the more profit earning entrepreneurs had
fewer environmental risks like facilities for storing raw materials. Also they had better infrastructural facilities in rural as well as urban areas. Government has provided outlets for selling the products of SHGs. However there is a need for providing more storage facilities for raw materials.

6.1. Implication of the study

An introspective analysis of salient findings of the study implied the following.

- The result of this study revealed that substantial knowledge gain had occurred among the participants in nutrition education, balanced diet, health status, and hygiene and sanitation. Hence it might be concluded that despite individual difference in socio-economic characteristics among the participants, significant knowledge gain resulted due to nutrition education except for balanced diet. Nutrition education may be organised in SHG women and rural youth so as to create awareness on nutrition and health among the SHG population.

- The findings of this study also indicated that significant knowledge retention was effected by nutrition education on health status and also hygiene and sanitation but the balanced diet was non significant. The nutrition education which are to be practiced within a fortnight may
be disseminated through audio visual aids like video audio, slideshow, charts and booklets etc., so that the information at least may be utilised by the viewers or beneficiaries.

Conclusions

From the results of the present investigation of the following valid conclusions could be drawn.

- Majority (68%) of the SHG women belonged to medium category.
- In this area 22.00 percent of the SHG were illiterate while 24 percent had primary school, 28.00 percent had middle and 26.00 percent had high school education.
- More than 48.00 percent of the respondents belonged to backward caste.
- The monthly expenditure on food was higher than other expenditure for LIG (30%), MIG (24%) and HIG (22%) and also the data predicted that as the income increases the expenditure on the above decreases.
- Similar to monthly expenditure, percent monthly expenditure was assessed and the data showed that cereals used as major food item and
also showed that nutrition education greatly influenced the dietary pattern of the SHG women respondents.

- Nutrition education made its impacts on food consumption pattern of the SHG women. The respondents had changed their food consumption pattern in meeting their daily requirements after education.

- Poor nutrients intake was seen among the SHG women. It was regulated by the nutrition education. Their nutrient intake was increased after exposure based on their RDA.

- LIG were giving too much importance to food beliefs and taboos than the rest of the income groups and false beliefs had been corrected by the nutrition education.

- The knowledge gain was more in hygiene and sanitation followed by health status and balanced diet.

- The knowledge retention was more in health status followed by hygiene and sanitation and balanced diet.

- Statistical analysis showed that socio-economic characteristics negatively associated with knowledge gain on nutrition education. The same was seen to knowledge retention except community which
had positive association with knowledge retention on hygiene and sanitation.

- The anthropometric measurement of the SHG women revealed that generally their weight, BMI and skinfold thickness were higher than the literature values. In these three categories the weight, BMI and skinfold thickness were high in category II when compared to categories I and III. This might be due to higher intake of cereals and other foods and reduction in the physical activity. But height was lower than the literature values. The primary reason for the decreased height in SHG women may be that they genetically short in stature.

- The clinical assessment of the SHG women revealed that anaemia, angular stamatitis, mottled and discoloured teeth were the major nutritional deficiency. It might be due to low intake of vitamin B and C rich foods.

- The haemoglobin concentration was lesser than the normal haemoglobin concentration in all three categories. Only 14 and eight percent were in normal and on anaemic conditions respectively. Anaemia was more common in category I when compared to the categories II and III.
- It has been found that majority of the entrepreneurs had been in the SHG for more than 9 years. One cannot wait for this long a time to become a successful entrepreneurs. Hence it is imperative that measures are taken to identify and equip women through entrepreneurs training so that they too become successful entrepreneurs within a short time.

- On the basis of the present study a consolidation of recommendations would be in order. Along with continuing the present arrangements by the government for micro enterprises, additionally more finance may be provided. The present study covers only the successful ones. There are many many unsuccessful ones in Tamilnadu Government and NGO should take an all out effort to provide basic education, awareness on different facilities to be exploited, training in entrepreneurship, storage facilities, provision of raw materials, better transport facilities and marketing out lets. These measures will go a long way in empowering more and more SHG women economically and socially.