V SUMMARY AND CONCLUSION

The study entitled “Educational Intervention on Enhancing Hygiene Management Practices among Women in Selected Urban Slums of Coimbatore Corporation” was carried out with the major objective of educating women on hygiene management practices to lead a healthy family life. The study encompasses three phases namely; planning, implementation and evaluation and the same are discussed below.

A. Planning phase

The area selected for the study are two urban slums namely Kamarajapuram and Kavundampalayam within Coimbatore Corporation of Tamil Nadu State. The samples were selected using simple random sampling method through multistage sampling technique. The samples drawn comprised of 350 women from Kavundampalayam - 70 women from each of the 5 divisions; and 200 women from Kamarajapuram - 40 women from each of the five streets. Thus a total of 550 women were selected to find out the existing hygiene management practices of women related to personal hygiene, food hygiene, and environmental hygiene. A well-constructed and pretested interview schedule was used for the collection of data. Chi-square test and Anova were performed to find out the association between the socio-economic variables and existing hygiene management practices.

B. Implementation phase

A curriculum was developed based on the assessment of needs of the women on the three aspects of hygiene management such as personal hygiene, food hygiene and environmental hygiene. Fifty women, twenty five from each of the two selected areas, from among the 550 women included for the initial data collection regarding the socio-economic background and the existing hygiene management practices, were included for the education intervention programme. The selected women were educated as per the curriculum developed using the IEC materials specifically prepared for the programme. The education programme was conducted for a period of one
year, initiated with awareness and ended up with the efforts of follow up. The women were exposed to different extension methods such as lectures, interactive sessions and hands on experience. The topics were covered by the researcher and the experts in the fields of pediatrics, dentistry, gynecology and obstetrics, dermatology, ophthalmology and nutrition.

C. Evaluation phase

The salient findings of the study are presented in the following heads:

1. Profile of women in urban slums
2. Existing hygiene management practices of women
3. Impact of the education programme.

1. Profile of women in urban slums

The profile of women in selected slums is discussed under the following aspects:

(a) Socio-economic background of the women

- The socio-economic profile of the selected 550 women from the two slums revealed that a majority, 61.2 per cent of the respondents were between 21 and 35 years.

- Out of 550 women, 34.7 per cent were in the age group of 18 to 25 years; 26.5 per cent of the respondents were found in the age group of 26-35 years.

- A majority (96.5 per cent) of the respondents were married.

- Majority of the respondents, 95.5 per cent, were Hindus.

- Regarding the educational status of the respondents, 66.5 per cent were educated up to primary school level.

- As far as the occupational status of the respondents was concerned, 30 per cent were sanitary workers and 23 per cent were manual labourers and 22.5 per cent were doing small business.
Regarding family income, 45.5 per cent of families had income less than ₹5000, and 39 per cent of the families had income between ₹5000 and ₹10,000.

Regarding the type of family, 79.8 per cent of the respondents belonged to nuclear families.

Around 48 per cent of the respondents belonged to small family with less than 4 members, 43.8 per cent of the respondents were in medium family with 4-5 members and 7.3 per cent of the respondents were from large family with more than 5 members.

Municipal hospital and private clinics were accessible to the people.

The educational facilities in the area were Anganwadi (pre-school), primary school, high school and higher secondary school run by the Municipal Corporation. Free nutritious mid-day meal was provided by the government to children up to 8th standard.

Majority of the respondents, 46.9 per cent, were living in rented houses; 37.5 per cent of the families were living in houses of their own and the remaining 15.6 per cent of them were living in houses allotted by the Slum Clearance Board, Coimbatore.

(b) Features of the house of respondents

About 70 per cent of the respondents reported that they were living in single room in row houses with poor ventilation.

Nearly half of the residences of the respondents (56 per cent) had only one window, 9.3 per cent of the houses had no windows and the rest of them had 2 windows.

The houses were provided with smoke outlets as reported by 31.1 per cent of the respondents and sunlight was felt adequate by 75.6 per cent.
(c) Availability of services and facilities

- As far as the supply of water is concerned, 51.4 per cent of the respondents expressed that they could fetch 400-500 litres per house per week from the common water tap provided by the Municipal Corporation.

- A majority of the respondents, 87.6 per cent of them, were depending on public transport facilities.

- About 57 per cent of the respondents were dependent on public toilets.

- Only 56 per cent of the selected respondents had separate space for washing dishes and clothes.

- As per the respondent’s reports, 38.5 per cent of the houses had common drainage and 16 per cent of the houses had soak pits.

(d) Problems due to poor disposal of garbage

- Segregation of waste into decomposable and non-decomposable waste was practiced by a very low percentage (2.0) of the respondents.

- Clogging of ditches and stagnation of water were reported by 54.9 per cent and 53.8 per cent of the respondents respectively.

- The occurrence of the diseases due to poor sanitation as reported by the respondents were asthma, wheezing, bronchitis, tuberculosis, jaundice, chikunkunya, malaria, dengue, influenza and swine flu fevers.

The association of disease index with the socio-economic variables and the physical features of the house were statistically analysed. The family size, education of the respondents, income of the family and type of house had no association with the incidence of disease index; whereas the type of residence, number of rooms, free space available, ventilation, sunlight penetration had significant relation at 1 per cent level which indicated that
houses with lack of required facilities were also the reason for the occurrence of diseases.

2. Existing hygiene management practices

The findings on existing hygiene management practices of the women are given under the following headings:

(a) Personal hygiene

(b) Food hygiene

(c) Domestic hygiene

(d) Environmental hygiene

(a) Personal hygiene

- It was found that only 44.5 per cent of the respondents had the habit of regular bathing and washing clothes.

- The practice of regular oiling and combing was followed by 6.5 per cent of the respondents only.

- The personal hygiene score was statistically analysed against different socio-economic variables and physical features of the house. The age, family size, family type, marital status and type of residence had no relation with personal hygiene whereas education, income of the family and type of house were found to be significantly related to personal hygiene at 1 per cent level.

(b) Food hygiene

- Regarding purchase of products in the market, awareness on the quality of goods with indicators like Agmark symbols, (date of manufacturing and “use - best before date”) of the products were known only to 30.5 and 35.1 per cent of the respondents.

- Washing vessels immediately after use was practiced by 66.4 per cent of the respondents.
• Only 2.2 per cent of the respondents had the habit of washing vegetables before cutting.

• About 47.1 per cent of the respondents were consuming the leftover food (i.e. food cooked on the previous day but not refrigerated and reheated).

• The percentage analysis on food hygiene practices, related to storage of raw foods and on preparation and serving of cooked foods, indicated the awareness to be meagre. The food hygiene score against the socio-economic variables was statistically analysed. It was found out that food hygiene was influenced only by the family size and family type at 5 per cent level of significance. The educational level and type of residence of the respondents had positive influence on food hygiene at 1 per cent level of significance.

(c) Domestic hygiene

• Only 5 per cent of the respondents had the habit of dusting daily.

• Above 87 per cent of the respondents swept their house daily.

• Only 4 per cent of the respondents could practice mopping floors on daily basis due to lack of water supply.

• About 87 per cent of the respondents reported that they cleaned their kitchen. Cleaning of the outside area of the houses, doors and windows, bathrooms and toilets were occasionally practiced.

• Only 46.4 per cent of the respondents had the habit of disposing the garbage into the common dust bin.

The statistical analysis regarding the association of socio economic variables with domestic hygiene revealed that marital status and type of house of the respondents had significant association at 5 per cent level; family size, type of the family and type of the residence of the respondents had significant association with domestic hygiene at 1 per cent level, whereas
education of the respondents as well as the income of the families did not have any influence on their domestic hygiene.

(d) Community hygiene

- Dependency on public toilet was reported by 55 per cent of the respondents.
- About 60.4 per cent of the respondents reported poor drainage facility.
- Rain water stagnation and leakage of water pipes were reported by 62 per cent of the respondents.
- About 86 per cent of the respondents had menace of mosquitoes and flies, 59.6 per cent had problem of street dogs, 58.9 per cent of the respondents complained of contamination due to spitting of tobacco.
- The problems faced by the respondents were - foul smell of waste by 66.4 per cent, clogging of ditches by 54.9 per cent, stagnation of water by 53.8 per cent, overflow of drainage by 50 per cent and problems due to location of house near the common dumping area by 25 per cent of the respondents.
- About 44.5 per cent of the respondents faced nuisance due to open defecation and overflowing street bins.

Awareness index on government health care programmes was statistically analysed and found that education of the respondents and family size had significant association at 1 per cent level whereas marital status, family type, residence, type of house and income of the family were all found to have no significant association with awareness on government health care programmes.

Correlation analysis between scores on disease index, personal hygiene, environmental hygiene, food hygiene and awareness on government health camps was carried out. The correlation results show that disease index is negatively correlated with all the hygiene scores and awareness scores.
This means that the respondents with higher level of personal, food and environmental hygiene and awareness scores had lesser percentage of incidences of diseases. The correlation values were found to be significant at 1 per cent level. Further personal hygiene, food hygiene, environmental hygiene and awareness scores were found to be positively correlated among themselves.

3. Impact of the educational intervention programme

Impact of the educational intervention programme given to the selected women is described under the following headings:

a. Knowledge gained by the respondents

b. Attitude developed by the respondents

c. Practices adopted by the respondents

(a) Knowledge gained by the respondents

• The knowledge gained by the respondents regarding reproductive hygiene such as menstrual hygiene of the women at different stages namely teenage, adulthood, pregnancy and nursing women were found to be significant at 1 per cent.

• The knowledge gained by the respondents regarding child care practices such as bathing, feeding techniques, clothing and immunization were found to be significant at 1 per cent level.

• The knowledge gained by the respondents regarding feeding practices for infants, preschool and school going children, hygiene practices related to bathing and clothing of children, and immunization of children were found to be significant at 1 per cent level.

• The knowledge gained by the respondents regarding care for milk tooth, tongue, gums, brushing techniques, prevention of decay and management of wisdom teeth for adults were found to be significant at 1 per cent level.
• Nearly 50 per cent of the respondents gained knowledge on importance of washing vegetables before cutting.

• The knowledge gain on washing vessels just before using it was reported by 52 per cent of the respondents.

• Nearly 58 per cent of the respondents had gained knowledge on need for checking the manufacturing date, “best before date” and agmark symbols on packed food items.

• About 84 per cent of the respondents understood the importance of disposing plastics in the recycle bin.

• The knowledge gain on disposal of garbage in the street bin was ascertained from 94 per cent of the respondents.

• Nearly 90 per cent of the respondents gained knowledge on the ill effects of open defecation.

• About 86 per cent understood the composition of the stock solution, EM (Effective Microorganisms), its uses and methods of application in home management practices towards better hygiene.

(b) Attitude developed by the respondents towards hygiene management practices

The favourable change in attitude towards hygiene management practices on personal, food and environment was evident from the respondents through percentage analysis.

• Regarding personal hygiene management, importance of hand washing with soap was well understood by 80 per cent of the respondents.

• Importance of brushing twice was recognized by 60 per cent of the respondents.

• About 40 per cent of the respondents had attitude change on importance of washing vegetables before cutting.
• The change in positive attitude on washing vessels just before using it was reported by 42 per cent of the respondents.

• Nearly 48 per cent of the respondents had change in attitude on need for checking the date of manufacturing, “use best before date” and agmark symbols on packed food products.

• The change in attitude against the practice of open defecation was evident in as many as 50 per cent of the respondents only.

• Segregating and recycling of waste as a good practice was reported by 45 per cent of the respondents.

• Disposing garbage only in the designated area as the mark of a responsible citizen was stated by 46 per cent of the respondents.

• The benefit of EM technology in suppressing the odour and driving away mosquitoes and flies was expressed by 88 per cent of the respondents.

(c) Practices adopted by the respondents

• Sterilization of bottles before/after every use was practiced by all the 9 mothers in the group.

• Brushing twice and using proper brushing techniques was followed by 90 per cent of respondents.

• Oiling and combing was regularly practiced by 88 per cent of the respondents.

• Washing hair at least twice a week was felt necessary and practiced by 90 per cent of the respondents.

• Nearly 85 per cent of the respondents washed fruits and vegetables before cutting.

• Washing vessels and cutleries just before using it was practiced by 94 per cent of the respondents.

• Using separate plate to keep stirrer and spoon was practiced by 88 per cent.
• Buying packed foods after checking manufacturing and expiry date was practiced by 78 per cent of the respondents.

• About 64 per cent of the respondents trained their children to use private toilets and avoided open defecation.

• Prevention of stagnant water near the house was taken care of by 80 per cent of the respondents.

• Segregation of waste before disposal was carried out by 58 per cent of the respondents.

• About 58 per cent of the respondents used EM2 solution for decomposing the kitchen garbage and disposed the same through sanitary workers.

Recommendations

For policy makers:

• Administrative machinery like health department should gear its programmes on health education focusing on hygiene management practices in the urban slums involving stakeholders.

• Short term training courses with incentives may be organized for target groups such as adolescent girls, pregnant and nursing women on personal hygiene by the health department to develop scientific outlook and practices towards healthy living.

For training institutes:

• Educational kits on waste management, proper use of public toilets, drainages, soak pits can be produced and distributed to the people by the health department, e.g. pamphlets, posters and video films in regional languages.

• Women’s SHGs attached to the Municipal Corporations and non-governmental organizations may be mobilized and given short term training on domestic and environmental hygiene management.
• Entrepreneurs in self-help groups may be trained to manufacture EM products such as EM2, EM Bokashi on a large scale and market the same on regular basis.

• Popularization of the EM technology through Government exhibitions, and films on EM technology by popular artist on TV channels will create a quick and positive response.

**Improvement in infrastructure:**

Municipal Corporation should come forward to provide the following infrastructure facilities to the growing number of slum dwellers.

• Adequate public toilet with water supply to totally eliminate open defecation.

• Provision of underground drainage facility coupled with regular maintenance to avoid stagnation of water even in rainy season.

• Ensuring safe drinking water.

• Systematic collection of segregated wastes.

**Conclusion**

The role of women in creating and maintaining a healthy, hygienic environment for the family is very vital. The study revealed that women, especially the young in the urban slum area, are very enthusiastic to learn new and useful practices that would enhance the health and living condition of their families. Irrespective of their educational and economic backgrounds concerted and conscious effort to sensitize and activate women’s groups, who are viable vehicles of information dissemination, is the need of the hour. Such women’s groups would bring remarkable changes in attitudes and practices towards better family life and sustainable environment.