CHAPTER II

REVIEW OF RELATED RESEARCH
CHAPTER II

REVIEW OF RELATED RESEARCH

2.1 Studies on Health Knowledge

2.1.1 Studies on Health knowledge of school students

2.1.2 Studies on Health knowledge of college students

2.1.3 Studies on Health knowledge of adults

2.1.4 Studies on Nutrition knowledge

2.1.5 Studies on Family Planning knowledge

2.2 Studies on Health Needs

2.2.1 Studies on Health Needs of students

2.2.2 Studies on Health Needs of Adults

2.3 Studies on Curriculum preparation
In this chapter, an attempt is made to present a review of literature related to the research topic. The literature available indicates that a few studies have been conducted on health knowledge and health needs among various sections of the people. The review of the related literature presented is as follows:

2.1 Studies on Health Knowledge
   2.1.1 Studies on Health knowledge of school students
   2.1.2 Studies on Health knowledge of college students
   2.1.3 Studies on Health knowledge of adults
   2.1.4 Studies on Nutrition knowledge
   2.1.5 Studies on Family Planning knowledge

2.2 Studies on Health Needs
   2.2.1 Studies on Health Needs of students
   2.2.2 Studies on Health Needs of adults

2.3 Studies on Curriculum preparation
2.1 Studies on Health Knowledge:

2.1.1 Studies on Health Knowledge of School Students:

Mitcham (1982) conducted a study to measure levels of health knowledge and indicate strengths and weaknesses by content areas of South Carolina Public School fifth graders. The results of the study revealed that fifth graders scored in the moderate strength (61% - 74%) level on consumer health, personal health, growth and development, drug use and abuse and safety and first-aid. Fifth graders scored in the weakness levels (50% - 60%) on international health, disease and disorders and nutrition.

Okafor (1981) conducted a study to develop and administer an instrument to assess the knowledge of six tropical diseases (Malaria, leprosy, Schistosomiasis, African trypanosomiasis, Filariasis and Leishmaniasis) possessed by primary sixth grade pupils and their teachers. 785 students and 31 teachers from Anambra state formed the sample. Results showed that low knowledge was found in each of the disease area and in each epidemiological category associated with the disease.

Tayeb (1980) conducted a study on health knowledge and health practices which consisted of three parts. The first part assessed the health knowledge of a sample of 1,667 sixth grade students, the second part assessed
the health knowledge of a sample of 948 third grade preparatory students and the third part ascertained the health instructional practices of a sample of 100 classroom health teachers from the sample schools. It is also provided comparison of the health knowledge of Libiyan and Indiana (USA) students of the same grade level to determine similarities and differences in health knowledge of the two countries. The results of the study revealed certain weaknesses in the health knowledge of elementary and preparatory school students in most content areas. Some health areas appeared to have received better instructional support than other resulting in a wide variation in the knowledge of students on current health topics.

Anderson (1987) conducted a study to determine the health knowledge of students in the sixth, seventh and eighth grade from selected Texas Public Schools. Test was administered to 997 students. The one way ANOVA and 't' - test were utilised to analyse the data. The results showed that only 4.9 per cent of the sixth grade, 15.9 per cent of the seventh grade and 17.3 per cent of the eighth grade students mastered the designated health essential elements.
Ballard (1982) conducted an experimental study to compare the health knowledge acquired by selected ninth grade students during a semester of direct health instruction with the knowledge acquired by students who were exposed to health information through indirect instruction in related subject area classes. The total sample is 438 ninth graders - experimental group \((N = 196)\) and control group \((N = 212)\). Results indicated that students exposed to direct health instruction (experimental group) had a significant increase in health knowledge as compared to students exposed to health information through indirect instruction (control group).

Venkatachalram et al. (1965) found that a majority of the school students possessed poor knowledge of smallpox and 61.5 percent of students knew the preventive measures of smallpox. The overall knowledge of health was found to be very poor among school students.

Sutton (1962) reported a study on misconception about health among children and youth. For this a test of 8 items dealing with nutrition, compiled from various surveys on health misconceptions in high schools, was used. The results indicated that 33 to 66 percent of students answered each item correctly with no sex differences.
Santha Kumari (1976) made a study on differential knowledge and practices regarding three selected aspects of personal health of both rural and urban high school children belonging to Chandragiri taluk of Chittoor district in Andhra Pradesh. The study was undertaken in the Z.P. High School of Cherlopalli and S.P.J.N. Municipal High School of Tirupati. The information was collected by the questionnaire method. The findings showed that both rural and urban high school girls obtained slightly higher knowledge than the boys irrespective of age. No significant differences were found between the knowledge scores of rural and urban high school children in the three selected aspects of hygiene. Both rural and urban high school children had a higher knowledge in the aspect of hygiene than in the other two aspects of sanitation and nutrition.

Sloan (1978) attempted to measure the level of health knowledge of South Carolina Public High School Seniors. Results showed that they did score moderate strength in safety First-aid (59%) and consumer health (52%) and weak scores in all the remaining categories i.e., Personal Health (46%), Exercise/relaxation/sleep (45%), Contemporary health problems (47%), Mental health (48%) and Human sexuality (43%) and very low scores in
Nutrition/diet (23.1%), Tobacco/alcohol/drugs (39%) and Diseases (41.1%).

Harrison et al., (1964) studied certain harmful health misconception of Junior High School students attending Public Schools in Metropolitan areas. A 22 itemed test consisting of nutrition and health misconception was given to 5,000 Junior High School students in Tennesse and Massachusetts cities. The results of the study revealed that 33 to 80 per cent of items were answered correctly by all the children. On an average 54 per cent of items were answered with no sex differences.

Walker (1983) surveyed 208 twelve to seventeen year old males and females for the possibility of a relationship between an individual's body image and an individual's health knowledge. The sample population was drawn from Junior and Senior High School students. The results indicated that there did not seem to be relationship between body image and the amount of health knowledge of subjects.

Omishakin (1978) conducted a study to measure the health knowledge of Black Junior and Senior high school students in an urban community. The instrument
consisted of ten health content areas - 1) nutrition, 2) diseases, 3) personal health, 4) environmental health, 5) consumer health, 6) family health, 7) mental health, 8) substances harmful to health, 9) safety and first-aid and 10) community health. Results showed that Junior high school students scored best in personal health, community health and nutrition. Content areas receiving the highest scores by senior high school students were dental health, drinking, smoking and narcotics and exercise, rest and recreation.

2.1.2. Studies on Health knowledge of College Students:

Allen (1981) conducted a study to assess the health knowledge of a sample entering freshman students in Tennessee-Supported Colleges and Universities in order to identify areas of cognitive strength and weakness. There was total sample of 1,242 participants in 20 colleges. Test consisted of 10 health content areas: Personal Health, Exercise/Relaxation/Sleep, Nutrition/Diet, Consumer health, contemporary health programmes, Tobacco/Alcohol/Drugs, Safety, and First-aid, diseases, Mental health and Human Sexuality. The results showed that the nutrition and diet area received lowest scores while safety and first aid received highest scores.
Nagda (1983) found that among the college students, 53 per cent know about the availability of MCH services, 65.2 per cent had the knowledge about vaccination and only 27.5 per cent had the knowledge about proper spacing.

Homsanit (1983) conducted a study to develop a valid and reliable test for determining health knowledge of the entering college students in Thailand. The final test forms were administered to both college freshmen and twelfth-graders in Thailand. The college freshmen scored higher than the twelfth graders on both final test forms.

Krishnaveni, R. (1988) conducted a study on scope of continuing education programmes for under-graduate students about civic, health and hygiene aspects. In the investigation, an attempt was made to know how much knowledge students at college level possessed about certain health and hygiene issues. Most of the subjects 83.3 per cent of men and 68.9 per cent of women felt that it was necessary to have some education programme to spread knowledge about health and hygiene. However, 16.7 per cent of men and 31.1 per cent of women felt that there was no need of any special education programme for this purpose. Further, subjects who felt the need of health and hygiene education were not able to specify the areas.
Most of the students were not clear about the methods of eradication of flies and mosquitoes. Good number of students have indicated that one disease or other is caused due to the impurities present in the drinking water. About 65.6 per cent of men and 10 per cent of women subjects were not aware about the importance of eating green vegetables for good health.

Dunn (1981) conducted a study to examine the relationship between several selected educational and environmental factors influencing the level of health knowledge and alcohol related behaviour of the subjects. There was a significant relationship between a higher level of health knowledge and more responsible action as shown in scores of three of four indices used to measure alcohol-related behaviour. There was no significant relationship between the levels of health knowledge and the number of general health courses or the method of teaching.

2.1.3 Studies on Health Knowledge of Adults:
Prasad et al., (1969) found that villagers near Lucknow had very poor knowledge of health. The knowledge about Cholera, Diarrhoea and Dysentry was poor. 38.2 per cent recognised that flies could cause diarrhoea and were a source of infection. 44.1 per cent.
know that Malaria was caused by Mosquito. All the villagers know about small-pox.

Gulhate et al., (1973) found that in rural community, the knowledge of small-pox was very poor. It was found that knowledge about small-pox immunization was not found to be directly related to caste in rural areas. It was found that occupation was not significantly related to knowledge of vaccination.

Naidu (1981) found that among the rural masses only 18.66 per cent of the control group and 22.6 per cent of the experimental group know about the availability of MCH services.

In a study, Nagda (1981) found that only 12 per cent and 14 per cent of the control and experimental groups respectively had the knowledge of various vaccinations available to children.

Subramanyam Swamy (1989), conducted a study on Health knowledge of Adults belong to STs in Koilakuntla Block. He found out that 36 per cent of adults do not know that head-ache is a sign of Malaria and that 32-61 per cent of them do not know that it can be prevented by control of Mosquitoes. Spraying of Kerosine on drainage water was unknown to 61 per cent of adults in STs. The symptom of
collapse stage of Cholera was unknown to 53 per cent of adults. 58 per cent of them do not know the mode of transmission. The mode of transmission and preventive measures of typhoid are not known to nearly 50 per cent of adults, 80 per cent of the adults do not know that weak people are more susceptible to the tuberculosis. 40 per cent of the adults believe that TB is a hereditary disease. Nearly 30 per cent of adults do not know that the pig is a mode of transmission for encephalities. More than 50 per cent of adults do not know the cause for women to be more susceptible to Tetanus during their delivery time. Nearly 50 per cent of adults are not aware of mode of transmission and preventive measures of viral hepatitis. 46 per cent of adults believes that leprosy is not a curable disease. 58 per cent of the adults do not know the characteristic features of chickenpox. 35 per cent of the adults do not know the method of prevention of measles. More than 30 per cent of the adults do not know the preventive measures of filariasis. 46 per cent of the adults do not know the mode of transmission of polio. Nearly 60 per cent of adults do not know that whooping cough can be controlled through immunization.

Jayasree, C. (1988) conducted a study to find out the health knowledge of community health volunteers (CHV) in communicable diseases. The results of the study indicate
that 95 per cent of the sample know the main characteristics of Malaria. More than 60 per cent of CHVs do not know the season in which the cholera occurs. 64 per cent of them do not know that contaminated water is one of the modes of transmission, and 40 per cent of them are not aware that flies are the carriers. The preventive measures for typhoid like immunization such as enaculations are not known to 60 per cent of the volunteers. More than 75 per cent of the sample do not know that "poor sanitary condition" is one of the mode of transmission for viral hepatitis. More than 50 per cent of CHVs do not know that pigs are one of the modes of transmission for encephalitis. 45 per cent of the volunteers do not know that "closing of the less pools" is one of the preventive measures for encephalitis. 40 per cent of the volunteers do not know "by using polio drops at the age of three months up to two years children can be prevented from poliomyelitis". 45 per cent of volunteers do not know that 'Culex mosquitoes' are one of the modes of transmission for Filariasis 25 per cent of the volunteers do not know the characteristics and preventive measures for whooping cough. More than 60 per cent of the volunteers do not know the characteristics of leprosy like 'Ting ling and numbness of nerves" and partial or total loss of sensation in the affected areas. 26 per cent of the
volunteers do not know that leprosy is a curable one and 34 per cent of the volunteers do not know that it is not a hereditary disease. More than 70 per cent of the volunteers do not know that "Using of unsterilised knives for cutting cord" is one of the modes of transmission of Tetanus. 61 per cent of the volunteers do not know that the "Vesicles, like pearls is are of the characteristic of the chicken-pox". Nearly 60 per cent of the volunteers do not know that "Isolation of children and personal hygiene" is one of the preventive measures for conjunctivities. More than 40 per cent of the volunteers do not know the diseases caused due to the deficiency of proteins and vitamins and their preventive measures. 46 per cent of the volunteers do not know that "destroy hair and patches" is one of the characteristics of the ringworm. Nearly 40 per cent of the volunteers do not know that Diptheria is a disease that generally affect the infants. 70 per cent of the volunteers do not know that "Breast-feeding" can prevent most of the diseases that affect the children.


Awasti (1980) found that a majority (95 per cent) of the patients attending the hospital did not know about their diseases.

Arora et.al., (1977) found that women attending Dufferin Hospital of Lucknow had very good knowledge of child health services.

Sobhavathi (1980) reported about the Harijans of Charala village in Chittoor district. They were not found to be very particular about their personal health and the children were not bathed regularly. Most of the
children of the village suffered from fever, cold, cough and digestive disturbances.

Gupta (1978) conducted a study for assessing the knowledge and practices of rural women about health and environmental sanitation. It revealed that the women and the aged were more prone to chronic ailments which had their origin in biological environment, indicating the state of general environment, way of life and state of health services in the community. It was also assessed that diseases like small-pox, cholera and plague had always been attributed to the wrath of various goddesses.

Madhavi (1979) and Hemalatha Rani (1981) found that the villagers had very little knowledge of health and hygiene. People in these villages used open fields for defecation and adopted no personal hygienic habits. Most people in the villages resorted to the use of herbal medicines.

Neerajamma (1982) conducted a study on health consciousness among illiterate adults in 13 communicable diseases. The results of the study revealed that more than fifty per cent of illiterate men did not have adequate knowledge on malaria, typhoid, tuberculosis, encephalities, tetanus, poliomyelitis and whooping cough, whereas illiterate women possessed some knowledge about tetanus, since
it was women who brought up children, and as such they were exposed to the knowledge of different diseases, their prevention and cure.

Hemanalini (1981) found that among rural women, direct and positive relationship was found between age and knowledge of health. Higher age group had more knowledge of health than younger age groups. It was found that individuals who were casual labourers had more knowledge of health (65.42%) as compared to agricultural labourers (54.84%) and family labourers (55.87%). No relationship was found between marital status and knowledge of health among women of rural areas. It was reported that there existed an inverse relationship between age at marriage and knowledge of health, among women in rural areas. It was found that an inverse relationship existed between mothers with number of children and their knowledge of health in the rural areas. The mothers who had no children had more knowledge and understanding than those who had children. She found that there was slight difference in the knowledge of health possessed by women of joint and nuclear families in rural areas. In nuclear family and joint family, the knowledge of health was 54.83 and 58.48 per cent respectively.
2.1.4 Studies on Nutrition Knowledge:

Sims (1976) reported that there exists direct relationship between nutritional knowledge and occupation. Higher occupational groups had better knowledge of nutrition than the lower occupational groups. He found that the family size was negatively related to nutritional knowledge. Families with small size had better nutritional knowledge than families with large size. The difference was found to be significant in this study at the 0.01 level. He reported that there was a positive and higher correlation between nutritional knowledge of mothers and their family income. Higher income groups had more knowledge than the lower income groups.

Carruth et al., (1971) conducted a study to find out the increase and retention of knowledge by cartoon approach in nutrition education. The knowledge mean scores on pre-test, post-test and retention test obtained by experimental groups were 72.38, 84.05 and 83.99 respectively. The subjects showed a significant increase in knowledge after the exposure to nutrition education. The retention test scores revealed that the amount of information lost during the six weeks time lapse was not statistically significant.
Naidu (1981) found that among the rural people in Andhra Pradesh, only 33.66 per cent and 28.66 per cent of the experimental and controlled groups respectively had the knowledge of locally available nutritious foods. 41.33 per cent and 36 per cent of the controlled and experimental groups respectively had knowledge about the essential foods to be consumed daily.

Nagwekar (1972) conducted a study in a village of Gujarat state to identify educational needs of rural mothers with regard to nutrition for children of 0.5 years. She found that the average knowledge of the mothers in child nutrition was below 50 per cent of the total knowledge considered essential for these mothers. This study indicates the need for education in nutrition among rural mothers. Nagwekar also reported that the aged members of the family were in greater need of nutrition education.

Smith et al. (1986) conducted a study to determine the effectiveness of the supplemental food programme for women, infants and children (WIC) for mother and their anaemic children under five years of age. The interventions for the experimental group included individual counselling, group nutrition classes and provision
of WIC food vouchers for purchasing foods containing essential nutrients that were deficient in the diets of this high risk population. The parents, guardians were also consulted on meal planning, shopping for food and food storage and preparation. Each child's diet was assessed after six months. The 30 minute education classes consisted of audio-visual presentations followed by discussions. Subjects like the importance of breast feeding, of infant nutrition, of child hood nutrition and of consuming adequate amounts of Vitamin A and C, iron and Protein and calcium were presented. The results of the 24 hour dietary assessment in the experimental group at the end of the study showed that the intake of 8 per cent of the participants were still below the RDA (Required Daily Allowance) for Vitamin A, while 4 per cent were below RDA for Iron and Folacin. The Vitamin C and protein intakes were adequate. The difference in the mean pre-and post-test results of participants in the educational presentation indicated an increase in their knowledge on each subject, with the greatest difference in the pre-and post-tests for the Vitamin A and C presence. Intervention process affected the outcome in a statistically significant way.
Emmons and Hayes (1973) conducted a study on nutritional knowledge of mothers and children. An attempt was made to see how many mothers practice what they reported as important in their children's diet. The results revealed that the nutrition practices seemed on the whole much better than nutrition knowledge might indicate. This was true with all food groups except vegetables. While, 88 to 87 per cent of the mothers said vegetables were important in their child's diet, only 55 to 69 per cent actually reported vegetables in their child's diet on the day of the recall. Furthermore, only 36 to 54 per cent of the children reported having vegetables in their diet on that same day. These observations indicated that the mother's practices were not based on an understanding of what they were doing.

Gupta (1981) reported that the awareness about the personal hygiene, balanced diet and eating was significantly higher in the students of lower age groups as compared to the students of higher age groups. He found that awareness of eating practices was observed to be somewhat higher in the adolescents belonging to nuclear families. However, no significant differences were found in the nuclear and joint family adolescents on the degree of awareness of balanced diet in the study. He
also reported that awareness of eating practices among the students of higher income groups was found to be significantly higher. It was also found that the awareness of balanced diet between the groups of adolescents from higher and lower income groups was not significant.

Young et al., (1956) reported on what the homemaker knew about nutrition. He found that actual performance of the homemaker in feeding her family was found to be considerably better than her theoretical knowledge on the subject. However, the food groups about which knowledge was weakest were also most poorly used. The adequacy of food used was related to nutritional knowledge.

Mothers nutrition knowledge was studied by Devadas et al., in 1967 while conducting an investigation on 99 pre-schoolers who come from 82 rural families. A diet survey was conducted to elicit the information on feeding pre-school children. Mothers were tested for their nutrition knowledge in relation to their education, caste, occupation and the nutritional status of their children. Results revealed that the socio-economic factors tested did not have much influence on the mothers knowledge related to feeding practices of children.
Vijayadurgamba and Geeruvani (1974) made an attempt to assess the dietary pattern and nutritional status of pre-school children in relation to their mother's awareness of nutritional knowledge living in urban slums of Hyderabad. Most of the mothers were unaware of the right type of feeding practices of infancy and pre-school age and are generally led by customs and beliefs. 88 per cent of mothers belong to the poor category of nutritional awareness.

Rajammal Devadas (1977) conducted a study on the "Nutritional knowledge and practices of the rural home-makers in a post ANP and non ANP Block". The nutritional knowledge and practices of selected rural home-makers in a post ANP were assessed and compared with a corresponding group drawn from non ANP Block of Tamilnadu area. The sample studied was 150 home-makers from each block. The criteria for the assessment was the details regarding food production, consumption and food expenditure patterns, food beliefs and dietary practices, willingness and enthusiasm of the home-makers to participate in the community activities and their nutrition knowledge. Nutrition knowledge of the mother in the above stated topics, ranged from 50 per cent to 90 per cent. But they have poor knowledge about kitchengarden and poultry unit. In the
non ANP block, only one per cent of mothers have knowledge about kitchen garden and poultry unit. In the non ANP block, only one per cent of mothers have knowledge about correct methods of cooking and 43 per cent of mothers have knowledge of new low-cost nutritious recipes. Thus, the significantly higher nutritional knowledge of home-makers of post ANP block is definitely due to their exposure to nutrition education programmes in the ANP by the functionaries, namely, the gramasevika and mukhyasevika. It was also found that knowledge was greatest when lecture-cum-cooking demonstration method was used for education.

2.1.5 Studies on Family Planning Knowledge:

Roberts et al., (1968) found that the proportion of women, who had knowledge of birth control methods, increased greatly with age up to a maximum of 25-34 years and from there it fell slightly towards the end of the reproductive period.

Chandrasekhar (1959) reported that older age groups had more knowledge of family planning than younger ones.

Somasundaram (1983) reported that 24 per cent of the NAEP participants had the knowledge of legal age for marriage for boys and girls while 21 per cent of the
non-participants had this knowledge. It was found statistically significant at one per cent level.

Naidu (1981) reported that in rural areas less than 5 per cent of the control and experimental groups were found to be aware of the minimum age for marriage fixed by the Government of India for boys and girls.

Nagda (1983) found that among college students, only 64 per cent knew that there is legal age for marriage in India. But only 15.6 per cent of the students knew the actual age for marriage fixed for boys and girls by the Government of India.

Bali et al., (1975) found that only 23.7 per cent of the boys had the correct knowledge of conception and child birth.

Sengupta (1968) reported that, in West Bengal, 89 per cent of the rural population and 94 per cent of urban population approved family planning. The studies of Somasundaram (1979), Prasad (1978), Moorthy (1978), Prameela (1978), Ravindranath (1978), Sujatha (1978) revealed that in the rural areas of Andhra Pradesh more than 90 per cent of their respondents knew the temporary methods. The studies also reported that condom was known to less than 50 per cent of the rural population.
Moses et. al., (1983) found that urban students had very low knowledge of reproductive system, birth of the baby, menstruation, general diseases.

Subramanyam et al., (1981) found that sex-knowledge was very poor among Indians, even among the educated sections of society. He also found that among women college teachers in Bombay, knowledge of male reproductive life was poor. Only 12 per cent had the correct knowledge of the duration of the fertile period in man.

Naidu (1981) reported that among the rural people included in the control group, only 21.33 per cent, 76 per cent, 66 per cent, 30.66 per cent knew vasectomy, tubectomy, pill and condom respectively, while in the experimental group 78.66 per cent, 76.33 per cent, 12 per cent, 28 per cent, 1.33 per cent and had the knowledge of vasectomy, tubectomy, pill, condom, IUD and MTP respectively.

Arora et al., (1977) reported that women patients attending the Dufferin Hospital of Lucknow knew all the terminal methods of family planning. Loop, nirodh and pills were also known to 98 per cent, 98 per cent and 73 per cent respectively.

Naidu (1971) also reported that occupation was related to knowledge of family planning. Higher occupational
groups had more knowledge of family planning than the lower occupational groups. The Chi-square test revealed the fact that this result was significant at 0.01 level. Saxena (1965) did not find any difference in the knowledge of family planning among agricultural and non-agricultural occupation. Das (1972), Department of Statistics (1974) and Bhatia (1970) also reported similar trends of results.

2.2 Studies on Health Needs:

2.2.1 Studies on Health Needs of Students:

Rohwer (1983) conducted a study to ascertain the present status and needs of school health education in Wyoming Public School. Questionnaires were sent to Wyoming School district superintendents and Wyoming House and Senate, Education and Public Health Committee members. They have also been sent to secondary school health educators and elementary school principals. These have gathered information regarding the need for school health education and information regarding professional preparation, curriculum, instruction and evaluation. The results indicated that there was support for health education in Wyoming Public Schools by the majority of school district superintendents and Wyoming state legislators.
Mitchell (1982) conducted a study to analyse and assess the health education needs of the students in the public secondary schools of Tennessee as perceived by local school board chair persons legislators, state board of education members in Tennessee. The questionnaire consisted of 46 items which were categorized in six sections that addressed socio-demographic information, school health education content areas, health services, health practices, fiscal matters related to health services and health practices. Health content areas of first-aid, food/nutrition and physical/dental health were perceived as most important by all respondents. Death education, sex education and marriages/parenting were perceived as least important.

2.2.2 Studies on Health Needs of Adults:

Eurlich (1982) conducted a study to assess the health needs of elderly persons in a rural area. 80 community based elderly residents were interviewed. Indices of proximity and functionality of the net works and functional health of the respondents were created. Correlational statistics based on the indices were computed to examine the associations between i) proximity and functionality of the net works and ii) respondent functional health and net work functionality.
Newemham (1983) conducted a study to investigate aged patients' health education interests. The survey respondents were predominantly female (63.5%) and white (96.6%). The age of the sample varied from 60 to 97 years. Three-fourths were under age 75. About 2/3rds were retired and 1/5th employed. The health topics of the most interest were arthritis, cancer, health check ups, diet and nutrition and high blood pressure.

Laisner (1989) conducted a study to develop perceived patient health education needs scale. The study consisted of a pilot test and two study phases. Initial instrument development was based upon literature review and feedback from a panel of health professionals using a modified Delphi Method. Results of the study showed that health education needs represent homogenous domain analogous to the conceptualization of health.

Mc Laughlin (1989) conducted a study to develop an information base that will specify the health needs of Dade Country adults in terms of their perceived health problems, knowledge of health practices, life styles conducive to optimum health and knowledge and use of health care services. A needs' survey was conducted to determine among adults their 1) Perceived health status, 2) Personal health care practices, 3) Frequency of
contact with health care providers, 4) Personal health behaviours, including cigarette smoking, alcohol consumption, exercise, nutrition, stress and hypertension management, 5) Experiences with common health problems, and 6) Perceived level of control over personal health. Data was derived from stratified random sampling and tested with chi-square at the 0.05 level. Findings showed significant relationship between independent and dependent variables - cigarette smoking to education level: alcohol consumption to ethnic background/race, age, sex, house, income and education level, amount of stress to ethnic background and hypertension to ethnic background.

Saini (1978) conducted a study to find out the learning choices of illiterate male and female adults in Punjab. According to the results of the study, the most popular learning choice among both male and female illiterate adults were knowledge of health promoting habits (91%) which was followed by agriculture (89%), physical exercise (82%), sports (82%), poultry (77%), political knowledge (75%) and gardening (73%).

As far back as 1965, Mysore State Adult Education Council (MSAEC, 1960) conducted a study of reading needs and interests of adult new literates. The purpose of the study was to find out the topics which the adults who
have acquired sufficient mastery over the basic skill of reading consider useful to knew in an effort to plan a series of follow-up booklets. The topics which were found to be most needed as well as moderately popular included how to care pregnant women, plants diseases and children.

Ramana, G.V. (1987) conducted a study on identification of learning needs of adult participants in adult education centres in Puttur Block. The learning needs identified in this study as perceived by the instructors pertaining to the area health and hygiene include ladies role in house-keeping, health precautionary measures, body and dress keeping, surroundings, cleanliness, accidents, first-aids, need for nutritious food, importance of vitamins.

Jhansi Rani, V. (1983) conducted a study to identify the learning needs of adult participants in adult education centres in Sri Kalahasti Block. Health and hygiene was one of the areas listed in the learning needs of adults. Topics included in health and hygiene area were - 1) disease of eye and their control, diseases of nose and their control, disease of ear and their control, construction of channels, maintenance of gutters, control of tuberculosis and whooping cough and diseases due to uncleanliness. The extent of
learning need on each topic was measured.

Kumar and Mago (1974) conducted a study regarding the training needs of farm women in Haryana in respect of course content, place of training, considering these to be of basic importance in designing suitable training programmes for farm women. The topics, preparation of milk products, meal planning, fruits and vegetable presentation, prevention of child diseases, care of sick children relating to nutrition and child care areas got higher scores than most of the agricultural items.

Nirmala Devi, B. (1988) conducted a study to identify the learning needs of adult participants in Adult Education Centre in Jarugumalli Block. Out of 150 learning needs, 28 items were covered under the area health and hygiene and 7 items in the area nutrition. The first 10 felt needs were in the areas of health, hygiene and nutrition. The topics identified were - 1) home sanitation, 2) cleanliness of surroundings, 3) care and cleanliness of food, 4) importance of vegetables and greens in the diet, 5) care of sense organs, 6) first-aid, 7) importance of hand pound rice, 8) care of pregnant women, 9) dysentry and 10) need for proper light and ventilation in houses.
2.3 **Studies on the Curriculum Preparation:**

June (1981) conducted a study of meet the needs of Kansas High School students, citizens and communities. The major recommendation was curriculum development for health occupations programme in Kansas should be a joint effort between the local programme instructors, the state health occupation, teacher education and the state vocational curriculum center.

Stohler (1983) conducted a study to find out the status of health education programme in Connecticut Public School. A state-wide survey was conducted to investigate the status of school health education. Data were collected on - 1) Purposes, goals and objects, 2) Curriculum and design, 3) Methodology, 4) Content, 5) Organisational structure and 6) Evaluation procedure.

Abioye - Salami (1977) conducted a study to plan a comprehensive, interdisciplinary health education programme focussing upon hospitals and schools in Iowa and with an emphasis upon curricular guides. Although there has been an increasing in Government spending in the health field particularly in the curative and research areas, there has been no corresponding decrease in the problems such as crime, accidents, venereal diseases and
others. It is the responsibility of each state to develop, implement, maintain, evaluate its own programme based upon the needs of its people. There is generalized ignorance in health field, yet no planned comprehensive system of health education in Iowa. The author has therefore designed a comprehensive, interdisciplinary health education programme generally applicable, but particularly in Iowa.

Sullivan (1986) conducted a study to prepare a model curriculum about cancer to the children whose parents have cancer. The introductory section presents the rationale for the curriculum. The literative review section contain the available educational theories and models used to develop the curriculum. The project section provides the purposes and goals of the curriculum, a topical outline of cancer education curriculum, and methods for evaluating curriculum. The activities for curriculum focus on cancer, treatment of cancer, human needs experimental problems and creative situation for coping with cancer in the family.

Pearson (1988) conducted a study to know the health education that preservice teachers in California are receiving. A questionnaire was sent to all the instructors of the pre-service health education course.
Findings showed that i) most institutions had goals and objectives related to school health programme, ii) the content included in most courses incorporated that recommended by the State, and the education code, iii) the rationale for decisions most frequently cited was student experiences, needs and interests.

Jones (1978) conducted a study to ascertain in which ways the present health education programme in the Philadelphia Public Senior High Schools was meeting the needs of the developing adolescent. 8 of the 24 Philadelphia Public Senior High Schools were selected at random. A student needs questionnaire was used as the instrument. It was administered to all the students and 8 selected health education teachers, one from each of the participating schools. Students were asked to rate each of the needs with respect to their importance to the students' own health. Teachers were asked to identity which health needs they considered important to the developing adolescent. The investigation compared the needs after named by teachers and students. A comparison was made to the present health education contents with the needs identified by teachers and students. Using the residual from the comparison,
the investigation developed a list of curriculum topics. The present curriculum was then compared with curriculum topics developed. The content on each area was rated by a panel. The outcome was a recommended curriculum of topic areas for health education. Curriculum areas, where there was agreement were mental health, sexual development and responsibilities, alcohol, tobacco and drug addiction, aging, death, consumer health, marriage and family life, fitness, first aid, suicide education, child development and parent-child relation. The areas of disagreement were nutrition, communicable diseases, national health problems, grooming and appearance, public health and human ecology.

Bixler (1989) conducted a study to determine the extent to which there was agreement among expert health education selected, health education issues and the rank order of major issues in health. The panelists top ranked issues were concerned with i) the primary goal of health education, ii) the basis for credentiality and iii) the selection of methodology affecting behavioural change.

Duffy (1984) conducted a study to determine the perceived health instruction needs and problems as they existed in the 1983-84 school year. The sample consisted
of 286 superintendents in the Massachusetts Public Schools. The results showed that emphasis was given to i) nutrition and dental health in the elementary schools, ii) substance abuse and nutrition in the middle schools, iii) substance abuse and family living in the secondary schools. Community health and consumer health were the least emphasized topics at all the three levels.

Ajala (1981) conducted a study to develop curriculum in Nigeria as perceived by students, health educators and administrators. 17 major health topics and 68 items were compiled as an instrument. All health items were favoured to be taught in schools by 89.5 per cent to 98.5 per cent of 200 students, 90 to 100 per cent of 75 health educators and 100 per cent of all 60 administrators.

A perusal of the review of literature presented indicates that there are a few studies available on the knowledge and health needs of adults, both Indian and Foreign. These studies do not appear to have covered different dimensions or components of health education. It also appears that studies are not available indicating the knowledge and health needs of rural adults in
the age groups of 15-35 and 36-55 years. There is need to identify the knowledge base and health needs of rural adults for designing suitable health component in adult education programmes particularly meant for rural adults in the age range of 15-35 years. The chapter that follows presents the title of the study, objectives, need and importance of the study.