CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.00 INTRODUCTION

2.01 THE SOURCES OF DATA
   A] Primary
   B] Secondary

2.02 FEATURES OF THE RELATED LITERATURE

2.03 CONCEPT OF HEALTH EDUCATION

2.04 CONTRIBUTION OF PREVIOUS RESEARCHER
   A] Fulfilment of Science Education
   B] Parents and Health Habits of Students
   C] Role of Teacher In Forming Health Habits
   D] Transfer of Health Habits

2.05 SURVEYS AND EXPERIMENTATION ON HEALTH HABITS
   A] Work Done by Voluntary Organisations
   B] Unicef's Contribution
   C] Central and State Government Efforts

2.06 ENCYCLOPEDIA REFERENCES

2.07 MENTAL HYGIENE AS EXPLORED AND UNEXPLORED AREA

2.08 THE UNEXPLORED AREAS

2.09 CHARACTERISTICS OF THE PRESENT STUDY

REFERENCES
2.00 INTRODUCTION:

Importance of health education has already been discussed in the previous chapter, 'The problem'. The present study has its focus on finding out the existing health habits and inculcating proper health habits through a specially prepared programme, to be implemented in classroom situation. So the background reading was related to the following aspects.

2. Role of parents, teachers and schools in the formation of health habits.
3. The existing pattern of health status and health habits of the students as reflected in their behaviour.
4. The experimentally tried out programme for improving health status and health habits of the students.

The sources of data are discussed below.

2.01 THE SOURCES OF DATA:

The literature related to the various aspects of the problem was classified into various groups for facilitating analysis and insight gained therefrom.

The related literature covered the following.
2.01-A PRIMARY SOURCES

The theses and research articles in original, dealing with health status were considered as the primary source in this study. The researcher could locate one thesis which was directly related to the health habits.

2.01-B SECONDARY SOURCES

The reporting based on primary sources in any form was considered as secondary source. The material covered the following.

a. Books and articles discussing various aspects of health and health habits.
b. Implemented programmes concerned with the health habits.
c. Abstracts or synopses of theses and research articles related to area of health and science education.
d. Educational index, encyclopedias, dictionary of education.
e. Reports of the various related studies, seminars, conferences and committees.
f. Articles and news in newspapers and periodicals.

The available literature was mainly in English, however a few articles were in Marathi.
2.02 FEATURES OF THE RELATED LITERATURE

The points covered in the review of related literature are arranged in the following subsections.

A) Concept of health education.
B) Contribution of previous researchers.
C) Survey and Experimentation on health habits
D) The Encyclopedia References.
E) The unexplored areas.
F) Characteristics of the present study.

2.03 CONCEPT OF HEALTH EDUCATION

The health professionals had taken a variety of approaches to the concept of health. Some had focused on the dimensional aspect of concept and offered various combinations of physical, mental, emotional, social and spiritual categories. Some had concerned themselves with the internal dynamics of the body in terms of personal feeling, ability to resist, emotional stress. Some of such definitions were already reproduced in the previous chapter, 'The Problem'.

In the present study the researcher had narrowed the scope of health in terms of three major determinants namely personal, social and mental health. In order to inculcate all the above mentioned dimensions of health into habits, health education has no alternative.
Health education has a past, a present and a future. In the past many forces have been at work. Among them are concern for the control of communicable diseases, the correction of physical impairments and the improvement of environmental conditions. The view of health education is slowly moving toward a developmental rather than a remedial programme, towards a comprehensive rather than a single approach, toward concentrated action of home, school, public and private agencies. Opinions about health education are far more theoretical than factual and discussion and description than research. Hence, for this important problem on which no research is reported, the researcher has synthesised opinions based on study and experiences. There were different definitions and descriptions of health education. Some of them are as under.¹⁰

American Public Health Association, Statement (1943) : Health Education is a process of facilitating... desirable learning experiences through which people become more aware of health problems and actively interested in securing solutions.

Dorothy B. Nyswander (1949) : Health education is a process of growth in an individual by means of which he alters his behavior or changes his attitudes towards health practices as a result of new experiences he had.
National Education Association and American Medical Association. Joint Committee on Health Problems in Education. Health Education: A Guide for Teachers and a Test for Teacher Education. Washington D.C. (1961): Health education... may be defined as the process of providing learning experiences which favorably influence understandings, attitudes, and conduct in regard to individual and community health.

Elena M. Sliepceivich. School Health Education. Washington D.C. School Health Education Study. (1964): Health education cannot rest on knowledge only. What is taught in the school must be so related to the daily lives of the students that they can act intelligently in matters of health...

Kasey McMahon and E. McMahon. "Education as a Living Process" in American Hospital Association. Health Education in the Hospital Chicago. (1965): Health education is guiding individuals or groups to perceive given healthful actions as being in line with their own values and goals.

"Professional Preparation in Health Education in Schools of Public Health". A Report prepared for the 1965 Annual Meeting of the Association of Schools. Health Education Monographs (1966): Health education is a process which effects changes in the health practices of people and in
the knowledge and attitudes to such changes. Education is an internal process of the individual concerned. Education thus places responsibility on the individual and is essentially different from a compliance approach. It involves motivation, communication, and decision-making.

Robert L. Johnson. "Health Education: Ramifications and Consequences." Health Education Monographs 31 (1972): I am assuming that in health education we are talking about those processes by which people are not only better informed but actually change their attitudes and behavior in ways which will be increasingly beneficial to good personal and community health.

W. Griffiths. "Health Education Definitions. Problems and Philosophies" Health Education Monographs. 31 (1972): Health education attempts to close the gaps between what is known about optimum health practice and that which is actually practiced. The target groups comprise the focus for health education efforts: first, individuals who lack adequate health knowledge, and second, individuals who possess adequate knowledge but for many reasons do not practice recommended health behavior. In attempting to close this gap, health education is concerned not only with individuals and their families, but also with the institutions and social conditions that impede or facilitate individuals toward achieving optimum health.
L.L. Keys. "Health Education in Perspective - An Overview." Health Education Monographs 31. (1972) : While health education has many definitions and is practiced in many ways, it should be kept in mind that the real index of health education is behavior. The objective of the schools or in the hospital is to lead people in think, feel and act wisely on matters pertaining to health and illness.

The Report of the President's Committee on Health Education. New York, 801 Second Avenue. (1973) : [Health education is the] process that bridges the gap between health information and health practices. Health education motivates the person to take the information and do something with it—to keep himself healthier by avoiding actions that are harmful and by forming habits that are beneficial.

J.J. Darden. "Once More Into the Breach—to the Defense of Health Education." The Journal of School Health 43,8:573-575. (1973) : An effective health education program should concentrate on helping the individual better understand and appreciate himself to know what makes him tick, to have self-respect. Such a program should help the individual feel right about other people and have a sense of responsibility to his neighbors and fellow human beings. These individuals would be better equipped to think for themselves, to make their own decisions, to set realistic goals.
"New Definitions: Report of the 1972-1973 joint Committee on Health Education Terminology." Health Education Monographs 33.03.70. (1973) : Health Education is a process with intellectual, psychological and social dimensions relating to activities which increase the abilities of people to make informed decisions affecting their personal, family and community well-being.

S.K. Simonds. "Health Education in the Mid-70's State of the Art" Paper prepared for Task Force IV. (1974) : The ultimate goal of health education is the improvement of the nation's health and the reduction of preventable illness, disability, and death ... Health education is that dimension of health care that is concerned with influencing behavioral factors...

Charles Edwards. "Statement" Federal Focus on Health Education : Conference Proceedings. Department of Health Education and Welfare Centre for Disease Control. Altanta. (1974) : Success in health education has to be measured in human terms - lives saved, suffering and disability reduced, productivity and creativity enhanced and something called the quality of life made more rewarding for everyone. That sounds like a tall order to lay at the doorstep of health education. And, certainly, it is, but, realistically, how could we be satisfied with less?

Nicholas Galli. Foundations and Principles of Health Education. New York: John Wiley and Sons Inc. (1978). The goal of health education is to provide information that individuals can use to enhance health status. The person who is educated about health is not only well-informed, but use this information in daily life ideally resulting in higher levels of well-being.

Bureau of Health Education and the office of Health Information, Health Promotion and Physical Fitness and Sports Medicine, "Role Delineation Project." Pical Points. Washington, D.C. USDHEW (CDC). July (1980). The Process of assisting individuals, acting separately and collectively, to make informed decisions about matters affecting individual, family and community health. Based upon scientific foundations, health education is a field of interest, a discipline and a profession.
Their close analysis of definitions revealed that,

1. The concept started with the curative aspect at public level related to health problems and securing the solutions to the above problems.

2. The initial outlook was maintenance of community health and then individual health.

3. In late seventies the major emphasis of health education was health promotion which included health maintenance, disease and improvement of the health care system and its utilisation.

4. The ultimate goal of health education is the improvement of the nation's health or world's health and the reduction of preventable illness, disability and death. This recent concept has set a new challenge to the world to achieve 'Health for all by 2000 A.D.'

2.04 CONTRIBUTION OF PREVIOUS RESEARCHERS

The contributions of previous researches were studied and analysed to know.

A) The fulfillment of science education with reference to health habits.

B) Difficulties of the parents in inculcating health habits.

c) Role of teachers in inculcating health habits.

D) Transfer of health habits from students to family.

The details are discussed below.
Veerappa (1958) examined the trend in science education from primary to degree level. He found that due to lack of experimentation, well trained science teacher and effective teaching methods, science education in India was not on a proper footing.

Patole (1969) explored the existing weaknesses of teaching science in rural primary schools and attempted to derive methods for improvement in the existing situations. He found that activity based method of teaching, the subject was superior to traditional one.

Rup Prakash (1968) had constructed and standardised an achievement test in every day science for class VIIIth students and constructed a scale to assess the attitude of the students towards learning of science he studied.

1) Acquisition of knowledge of scientific principles, facts and terms.
2) Application of principles and knowledge of science in every day life situation.
3) Ability to classify materials and substances.
4) Skill of observations and critical thinking.

There were 1380 examinees selected from urban, boys and girls which were normally distributed. The results were analysed using K.R. 200 formula.
The findings related to this study were,

1) Achievement in science and pupils attitude towards learning of science were positively related.

2) The pupils in urban areas scored more in science than those in rural areas.

3) Science achievement of pupils from government schools was better than that of pupils from non-government schools.

4) The girls scored higher than the boys in science.

Sinha (1970) had surveyed the environment sanitation, health education, health promotion and health of students of secondary schools of Bihar. He surveyed 430 secondary schools in Bihar. Rural-urban, government and non-government schools were included in the sample. The data were collected through questionnaire and interview. The major findings were:

i) The bare necessities like supply of pure water and provisions of sanitary disposal of human excreta and refuse were far from satisfactory. The provision being all the more worse in rural high schools.

ii) School were lacking in arrangements with regard to teaching of elementary physiology and hygiene, medical personnel, keeping first aid boxes, medical check up, provision of midday meals.
Wanchoo and Sharma (1974) surveyed the researchers conducted in science education in the country in order to locate gaps and evolve programmes for development of research. They found that research in the area of concept development was practically negligible.

Vaidya (1976) in his book, 'Reshaping Our School Science Education' had pointed out that, our education suffers basically from the gap between context and living experiences of pupils. The book had consolidated recent thinking and insights in some of the areas of science education and behavioural modifications of teachers.

Pandey in his study of adjustment problems of adolescent boys of Deoria (Rajasthan) and their educational implications. He had studied health as one of the area of adjustment. Administering and studying adjustment inventory to 500 students he concluded that rural students scored better points in health as an adjustment area. Urban student found it difficult to face health problem.

All above studies on science education were focused in study of the achievement in the subject, curriculum of the subject, treating general science as an integrated subject, but the application of scientific principles and facts in relation to health habits could not be located by the researcher.
While looking for the studies for the concurrence between the content in the curriculum and the presentation in the text book a remark,

"Though it was claimed that the text books are based on the curriculum there was a considerable divergence between what is included in the syllabus and what is presented in the text books."

was located in evaluation report on Nutritional and health education through the rural school systems.

The comment was passed by the Nutrition Foundation Of India on text books prepared by NCERT.

After reviewing the references about science education it could be said that the studies did not refer health habits as an area for research.

2.04-B PARENTS AND HEALTH HABITS OF STUDENTS

Parents are equally responsible to inculcate proper health habits in their wards. So the attempt was made to locate such works. It was found that in many schools parents-teachers Associations were functioning.

Vij (1972) had studied some activities of PTA. With the help of check list he collected data from the heads of School (100), teacher educator (100), School teachers (100) and parents (100). Majority of findings were related to the PTA and achievement in the school.
NCERT (1967) had conducted a survey of PTAs from the country. The study covered 125 associations from 154 districts in India. It was found that parents participation was in collecting the cash donations from community. It meant the work of the association was provisionary in nature.

Though the health of the students is the joint responsibility of parents and teachers, the topic health habits of the students was not the activity on the list of parent-teacher association.

2.04-C ROLE OF TEACHER IN FORMING HEALTH HABITS

It was already pointed out in the chapter "The Problem" that the curriculum of science had given the proper weightage to the area of health of students. It is natural to expect from the teacher that he should guide their students to bring the principles and facts of science into day to day practice. So the literature was reviewed to know about the role of teacher in forming health habits through day to day teaching.

As far as science is concerned the role of teacher was studied in comparison with the theory and practical work in Physics & Chemistry. No work could be located that had studied the role of teacher in inculcating the health habits of students.
Transfer of health habits were studied in a project conducted by Maharashtra Association For the Cultivation of Science (Pune) under the guidance of Dr. Sukhatme in (1987-88). The whole project was based on the consideration that if the child recognises the value and benefit of hygiene of public health, he is likely to carry forward the habits so formed in later life. The child could be acted as a catalytic agent to bring about social transformation of the whole village. In short it was a child to parent approach in passing health habits.

Schools were selected from the villages of Poona District. The health curriculum was prepared and training to the teachers was given. The health curriculum prepared had included only personal cleanliness and not other aspects of health habits. The methods used for the transformation of personal cleanliness were group discussions, demonstrations, action role play and exercises at home.

The project had made available the facilities of sanitation and water to the schools and villages. The evaluation was made by the teachers, Head masters and some people from the village. Their remarks on the achievement of the programme were as under:

i) It was very difficult to assess the impact of education on behavior change as it was a prolonged process.

ii) No system of education can change the habits and attitudes overnight.

iii) There should be more emphasis on mental health.
2.05 SURVEYS AND EXPERIMENTATION ON HEALTH HABITS

In this study, both surveys and experimental work were reported. As health is the prime area in the life of an individual, maximum efforts are put in throughout the world for betterment of health. WHO and UNICEF are constantly working in this field. Voluntary organisations are also contributing their work for health. Both central and state governments too are giving high weightage in their budget for the improvement of health.

2.05-A WORK DONE BY VOLUNTARY ORGANISATIONS

The work done by voluntary organisations was focused on
(a) providing the sanitary facilities.
(b) giving curative treatment through dispensaries and hospitals.
(c) immunising every child.
(d) providing mid-day meals through nutrition programme.

WHO, UNICEF and voluntary organisations have concentrated their work on mother, child and aged people. Government agencies are working to discharge their duties related to health. Government agencies are also trying their level best in preventive and curative measures of health. Their work mainly focused on social hygiene such as family planning, family welfare and population control.
The researcher could locate the efforts sponsored by following agencies:

(1) CHETANA (Ahmedabad)
(2) CCF (Bangalore)
(3) ACTION AID (Bangalore)
(4) PRIDE INDIA (Bombay)
(5) CASP (Bombay)
(6) PPAI (Bombay)
(7) CRHP (Jamkhed)
(8) MACS (Poona)
(9) IIE (Poona)

Analysis of the above work revealed that ....

** the training of the local persons for community health such as mother-child care, pre-natal, post-natal care and immunisation by CHETANA, Ahmedabad.

** the provision of sanitary facilities for community by ACTION AID, Bangalore.

** the provision of health education to women and school going children by PRIDE INDIA, Mahad.

** the health care of the sponsored children by CASP, Bombay.

** the communication of health message about health and hygiene among the villagers through Mahila Mandal by CRHP, Jamkhed

** the provision of health education to adults who attain adult education class by IIE, Poona.
2.05-B UNICEF'S CONTRIBUTION

In India, since independence both government and voluntary organisations have been actively involved in the field of health care. One such approach was child to child approach introduced with the help of Aga Khan Foundation and UNICEF and subsequently implemented in two urban (Bombay and Delhi) and one rural setting (Gujarat).

The objectives of the programme were:

i. To examine the feasibility of Child to Child approach in different setting such as urban-rural, formal-informal.

ii. To develop guidelines for the replicability of approach in different geographical systems.

iii. To suggest measures and means to improve the effectiveness of operational strategies.

Some of the changes related to the knowledge, attitude and practice of children, family and neighbours during the two years of implementation and evaluation were,

i. Certain messages related to diarrhoea, scabies, anaemia, immunisation personal and environmental hygiene, simple illness were easily retained by the students.

ii. Children remembered the treatment aspects of health topics rather than causes and symptoms.

iii. The retention of knowledge of students was better when variety of activities and materials were used.
iv. Constant reinforcement of message is necessary for retention of message.

v. The children who were slow in their classwork had also done well in child to child programme.

vi. Child to Child programme gave an opportunity to explain and communicate to a class, peer or family.

vii. Change in children's behaviour was the most noticeable as far as personal cleanliness was concerned.

viii Some of the aspects of environmental hygiene were noticeable such as covering the food, putting trash in garbage tin etc.

2.05-C CENTRAL AND STATE GOVERNMENT EFFORT

Both Central and State Government had contributed in the programmes in particular. Some of such efforts were reviewed and summarised as under:

Assessment of the school health of 21022 students from Delhi Municipal middle schools was conducted as a project undertaken by the Central Institute Of Education, Delhi. The survey was focused on three inter-related aspects namely health education, health services, and healthful school living.

The objectives were,

i) to orient administrators and personnel, involved in various aspects of total school health programme.
ii) to assess the present status of total school health programme in 44 schools under Delhi Municipal Corporation.

iii) to develop an educational programme and provide facilities to strengthen the existing programme.

iv) to explore common ailments and deviations of children from normal health.

The findings were noted down in terms of recommendations. They were

i) Proper health record of students should be maintained by the school.

ii) Records should be discussed with the parents.

iii) The role of teacher is important.

iv) Parents need education about nutrition and hygiene of growing children.

v) PTA could educate parents effectively.

vi) All teachers should be trained in first-aid and first aid boxes should be provided.

vii) Health education should be included in school.

viii) Older children looked after their younger siblings particularly in terms of cleanliness, keeping dangerous things out of reach, road safety. Hence child minding was unexpected outcome.

ix) Health consciousness was increased among the children.

x) Children communicated health message to parents.
The Government of India, through the NCERT had initiated a major project for the promotion of Nutrition/health/environmental sanitation and education in the schools. The evaluation of the project was done by Nutrition Foundation Of India. The broad objectives of the study were:

i. To study the adequacy, appropriateness and the validity of the content of the nutrition/health education package developed for the school children as presented in the curriculum prepared by NCERT.

ii. To assess the adequacy of the training of teacher for the central and crucial role he had to play in the entire project.

iii. To obtain first hand information regarding the physical facilities in the school.

iv. To assess the impact of programme on knowledge, attitude and practices of the pupils and to observe the state of their own personal hygiene.

v. To examine the relevance of the messages developed for propagation to the communities in the community contact programmes.

vi. To know parent's own assessment of the impact of community contact programmes on knowledge, attitude and practices of the community.
The study covered 2000 schools and 117 villages for community contact programme. Though the programme was implemented on all schools for the purpose of evaluation 35 schools from four states were chosen as experimental group and 11 schools as control group from respective areas due care was taken to include the schools on the road or remote areas. 700 pupils in experimental group and 300 in control group from classes I, II, III and IV. Apart from schools children, teachers, teacher-trainers and village families were also interviewed. A separate curriculum was prepared along with the teacher guides and teaching aids and workshops were also organised.

The findings of the study were reported in the form of recommendations. According to the evaluation report on the content and text books it was found that the present curriculum for this educational programme and the syllabus that had been drawn up nearly eight year ago (1967) now need careful review and some revision and updating. The text books also did not adequately reflect and did not do full justice to the syllabus. In a vast country with striking regional variations the content of the nutrition, health, environment, sanitation and education did not suit to local situations. Teachers and teacher trainers may be encouraged to undergo the certificate course in Health Education.

The contribution of the programme could be stated as:

The project had served the general purpose of providing new strategies w.r.t. development of content and improvement of communication strategies to the Primary Education.
Rajasthan and Maharashtra were the two states where SCERTS of the states had adopted and implemented the above programme.

SCERT Rajasthan had selected 100 primary schools form tribal areas of Udaipur district. Text books on health and hygiene were developed in regional language and teachers' training was also arranged. The teacher could not collect detailed information except getting text books.

SCERT Maharashtra had selected 63 villages in Ramtek Tribal Block of Nagpur district. The survey had two major objectives.

i. To find out the existing condition about Nutrition, Health and sanitation in these villages.

ii. After having known the prevailing conditions, to suggest improvement in these area of Nutrition, Health and Sanitation with the help of curriculum package provided by NCERT.

Some of the major findings were:

i. A majority of students (52%) were found to take up only two items in their lunch.

ii. Only 4.5% students had brought lunch boxes.

iii. About 75% students had purchased eatables from mobile vendors and 78% were in the habit of eating uncovered eatables.

iv. About 1/3rd students were ignorant about food items essential for growth.
v. Importance of good health was correctly reported by only 13.7% students.
vi. Only 1/4 students trim their nails regularly.

vii. The common diseases detected were fever, eye trouble, conjunctivities, scabies, whooping cough, enzima and ring work.

viii. In 97.5% houses latrines were not available.
ix. About 15% houses were found with garbage outside.

The above report was submitted to NCERT, Delhi.

2.06 THE ENCYCLOPEDIA REFERENCES

With the help of Encyclopedias of Education some of references were located by the researcher. The references cited below are from the Encyclopedias. According to WHO the goals of health education Programmes are that people should learn to adopt and maintain healthy life styles. Programmes that were attempted to improve health habits were limited to only one of the major goals of health education, the adoptive of healthy life style.

On the other hand some health educators recommended that programs consider environmental and hereditary factors in health and disease by teaching about such topics as susceptibility, early disease reaction, primary prevention, and environmental range to prevent disease (Ross and Mico 1980). Others recommend that health education should greater emphasis on teaching information about such topics as the
relative effectiveness of various private and public health preventive procedures so that students can make informed decisions about their health in the future (Frazier 1980). It still remains for researchers to determine whether such programs can affect broad patterns of attitude and habit or whether such changes will have lasting and positive effects on health. 16

About the efficacy of the programme Chambers (1975) had remarked, health educators should not expect that their programs will succeed in changing specific health habits of children whose family or cultural behavior patterns do not support the new preventive behavior. Educational research is certainly warranted here, to test the conclusion that health behaviors belong to habit complex that are relatively unaffected by traditional educational methods. Research is also incorporate to explore the educational implications this position, for example, the implication that the effectiveness of individual health education programs might be improved by coordinating the separate program efforts in schools, thereby affecting collectively broad segment of the students' health habits. 17

Green (1980) and others had offered a model that ...

School health education programs are often organised to maintain existing behaviours and to prevent participated changes in behavior rather than to change problematic
behaviors. Antismoking programs and programs to prevent drug abuse are of this type offer a model that may be particularly appropriate to these kinds of problems. They recommend that health educators should attempt to "innoculate" students against influences that may bring about future negative changes in health behavior. To do so they recommend that health education programs deal with factors that predispose students to health problems, that support unhealthy changes in their behaviors and that reinforce unhealthy behaviors once the initial changes have occurred.

This model implies that the appropriate position for health education programs in a school curriculum, is at a grade level or student age before the problem itself actually occurs, and possibly before the predisposing factors are seen. Here more research is needed that deals with the phenomena of social influence as they relate to the learning of health behaviors.

One of the problems faced at school level was that the environment in which children live. It was pointed out that

One of the perennial problems faced by health educators is that the environments in which children live and learn are incompatible with the health-promoting behaviors and practices that are being taught. The research is needed to determine the extent to which the school environment actually does affect certain aspects of
students health and the extent to which changes in the school environment can affect health behaviors.\textsuperscript{19}

Green (1980) had also remarked on the evaluation of health programmes. According to him

The desired outcomes of health education programs are changes in health, yet these may not be observable until years after the end of the particular educational experience. This problem is common to much of health care and so programs are often evaluated according to their organization and methods rather than their results. Some authors believe that school health education should be evaluated in the same way that other health programs and school curricula are evaluated that is, according to the use of appropriate methods and materials, and according to short-term measures of student learning. Accurate prediction and control of future voluntary behavior patterns is beyond the scope of health education.\textsuperscript{20}

stated that if

Frazier (1980) if the time required in inculcating health habits is taken as a function of health education, had suggested that following suggestions should be considered.

Short-term outcomes include changes in students knowledge and behavior patterns; long-term outcomes include actual changes in health (Frazier 1980). The effectiveness of health education should be evaluated in terms of
ultimate changes in health. The purpose of health education is improvement of health and it is against this criterion that decisions about objectives, content, and methods should be made. Unfortunately, knowledge about connections between short-term indicators of program quality and long-term measures of health is lacking and it is in this area that educational research may have its greatest potential for effect.

Bauer (1947) had explained the meaning of health education as "Health education is concerned with healthy growth, the prevention of disease, the correction of physical impairments, and the building of a healthful environment. At its best health education builds physical security and contributes to self-realization, social security, and the welfare of society. To attain these end results, school health education should be concerned with the roots of behavior with motives and drives to action, with why children and young people do, or do not do, the healthful things they know they ought to do.

An excellent example of a survey of health habits of 3512 boys and girls used the method of observation rather than the questionnaire was found in encyclopedia. The results of this survey showed marked deficiency in health habits. Not only were sleep problems prevalent during the elementary grades, but they increased in frequency as the
children grew older. Food habits likewise left much to be desired. Only slightly more than one third of the group drank as much as 3 cups of milk a day. This consumption of milk remained fairly constant for different age groups of similar intelligence and background. About three fourths of each age groups had 3 or more servings of vegetables daily. Eating candy between meals was reported at all age levels for one half to one third of the children. The amount of outdoor recreation decreased at the ages of 11, 12 and 13. Only 59 per cent of the girls as compared with 84 per cent of the boys played outdoors every day for two hours or more. Bathing and washing the hands after going to the toilet appeared to be less common practices in the intermediate grades than in the primary grades. In habits of orderliness and regulation of light and ventilation, only a small improvement was noted as the children progressed through elementary school. In general, the children's status with regard to health habits either remained fairly constant or showed an increase in poor health habits. The fact that so few children showed improvement in fundamental health habits is significant for health education. Equally significant are the facts that the slow-learning children and those from poor homes tended to have poorer health habits at all ages than the brighter children and those from favorable home environments.
For the school health programme the teacher has a key role. The remark about the teacher as health educator could be quoted in the original words as, "The teacher is the key person in the school health program. Without the interest of the teacher the best program will fail to function in the daily lives of the pupils. With a staff of well-trained and enthusiastic teachers effective health education is possible. In less than fifteen minutes, children's regular teacher can obtain significant information about defects and about normal health." 2.4

About the content of health curriculum it was suggested that, "The curriculum includes a consideration of cleanliness, food and nutrition; sleep and rest; dental hygiene; posture and exercise; ventilation, fresh air, and sunshine, clothing; mental hygiene; first aid and safety; and alcohol and narcotics. In addition to habits relating to these topics, attitudes of courage, helpfulness, consideration of others, independence, adaptability, and enjoyment in daily healthful living tend to be emphasized in the primary grades. More attention is given to the factual aspects of the topics and to first aid community hygiene, and effects of alcohol and tobacco in the upper grades. In high school, in view of the increased social consciousness and social sensitive of adolescents, it is appropriate that social aspects of health be given still more emphasis." 2.5
It was further suggested that, "the specific experiences that constitute the health curriculum should vary with different communities. In some situations diet should be emphasized; in others safety must be stressed. The difficulty in making generalizations regarding growth placement is obvious in view of the variations in the children's intelligence, previous knowledge, and immediate motivation for learning; in the health need of the community; and in the available materials and methods of instruction. In some courses of study methods of observation, questionnaire, survey, and conferences are suggested as means of obtaining information on the health needs of each group of children on local community health problems."  

About the tools that are used as the measurements in health education Bailey (1939) had pointed out that "The paucity of experimental work in the field of health education is that reliable and valid instruments have not been available for measuring changes in physical condition, habits, attitudes and knowledge.

2.07 MENTAL HYGIENE AS EXPLORED AND UNEXPLORED AREA

Most of the studies had accepted the three aspects of health as personal, social and mental. In the above paragraphs, the discussion would clearly indicate that the efforts in health promotion were mainly concentrated on the
personal and social aspects of the health.

No doubt, the area mental hygiene is not neglected totally but mental health as a topic of research had studied the psychological and educational implications of the concept of mental health in Indian situation. An attempt was made to locate the studies that were related to mental health.

Mental health was studied in relation to:

* Values (Roy, 1980)
* Sportsmen Vs. non-sportsmen (Talwar, 1981)
* Engineering and university students (Sinha-Bhan, 1978)
* Family characteristics of middle class school going adolescents (Bhan 1979)
* Creativity (Nothawat, 1977)
* Co-relation of intelligence and academic achievement (Magotra 1982)

2.08 THE UNEXPLORED AREAS

The various aspects of health are dealt by all media right from newspapers to science curriculum of the schools. All these media are engaged in creating an awareness about health. In this context the researcher could locate a number of newspapers, magazines and books. Even he could locate the magazines that were totally meant for health only. All these material included aspects of health such as personal cleanliness, social hygiene, preventive and curative measures, control over the diseases
and maintenance of general health.

What one finds from the above efforts of various is that the media are successful in creating an awareness about health among the people. However their efforts seemed to lack in certain ways e.g.

1. Stress was given on curative measures rather than on preventive measures.
2. No special efforts could be located for inculcating basic health habits.
3. Very few has given the importance to the school as an effective agency in inculcating health habits.
4. The area of mental hygiene was not explored in relation to general health.

So the researcher decided to prepare and implement a programme in class room situation to inculcate health habits among school going children considering their existing health habits.

2.09 CHARACTERISTICS OF PRESENT STUDY

1. The present study is based on the syllabus of science for the standards 1st to 7th, recommended by the Government of Maharashtra.

2. The curriculum proposed herein is such that it can easily be implemented in class room situation in schools, without warranting additional periods in the regular time-table.
3. The curriculum has taken into consideration all the three aspects of hygiene viz., physical, mental and social. All the three aspects have been given proper weightage.

4. A checklist of questions to observe and record the existing health habits of students has been provided with.

5. The present study is divided into two parts. The first part consists of knowing health habits prevailing among the students, while the second part comprises implementation of the experiment to make improvement in these habits.

6. The present study emphasises a co-ordination among the students, teachers and parents since the parents are as responsible and important as the teachers, for inculcating proper health habits within the students.

7. For a successful implementation of the curriculum suggested in the present study, appropriate tools have also been prepared and recommended not only for an assessment but also to obtain desired results.
8. The curriculum proposed in the present study can be implemented in any type of social circumstances, whether rural or urban, educated or uneducated, male students or female students and students with either Marathi or English medium.

9. Though the programme is prepared in Marathi, it could be implemented on students from other media schools. Only the translation into respective language would serve the purpose.

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CHAPTER TWO
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