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CHAPTER – I
INTRODUCTION

Promoting health today requires consideration of the overall status of children, not just identification and treatment of specific diseases or injuries. Children’s health today, is important in its own right, also will have a profound effect on their health as adults. Developing the human capital of nations especially the intellectual, social, mental, and physical abilities of children and adolescents is fundamental to the improvement of the quality of life of the citizens. Developing human capital is also critical for nations to enjoy political stability and economic growth. Nations that have invested in health and education have tended to experience corresponding economic development. The social structure and customs are different in different parts of the country, where children’s health has received poor attention as compared to adult. In spite of slow progress in improving the children’s health, more attention shall be given collectively to improve the health status of children in the national interest. The social transformation of childhood in modern society reflects the views and behavior of parents towards children. We have different types of cultural ideology and social background of the family members which play very significant role in survivability and bringing awareness among society about protecting the health of children. Similarly importance of childhood and the role played by families and social forces reflect the views of parents and children in which welfare of children is increasing due to investment in education, health care and other institutions. Thus children’s health development, achievements and social attainments are necessary; when we have threat of different infectious and non-infectious diseases. It is well known fact that children are the future of the nation. Hence, healthy children build a healthy nation. In addition the children are recognized for creative role in families, empowering nation and overall development.

Furthermore, education and health are inseparable. Student's health affects not only their cognitive performance in school, but also their ability to attend and stay in school over the years. Those young people who attend primary schools have better chances of survival. To ensure attendance of our children and to enhance their ability to learn, their health issues need to be addressed continuously. It is in this regard that the public health system of a nation has an important role to play. Health agencies working with educational systems have the potential to reach billions of young people worldwide.
1.1 CONCEPT OF CHILDREN HEALTH

The major questions remain about how to define children's health, how to assess the status of children's health, what health influences to monitor, and how to apply appropriate measurement tools. The National Research Council and the Institute of Medicine, from the U.S. Department of Health and Human Services (HHS), formed the Committee on Evaluation of Children's Health to consider these questions. Children's health should be defined as the extent to which an individual child or groups of children are able or enabled to: a) develop and realize their potential; b) satisfy their needs; and c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments. The committee also proposes three domains to translate this broader definition of health into measurable categories. The first, health conditions, captures the traditional notions of health measured by disorders or illnesses of body systems. The second, functioning, assesses how health affects one's daily life. The final domain, health potential, involves the identification of assets and positive aspects of health such as competence, capacity, and developmental potential. The committee's report offers a new framework for the health measurement of children and provides a foundation for moving toward a comprehensive children's health measurement system that is better suited to today's concerns.

Health is historically viewed as the absence of disease or premature mortality (Ottawa charter 1986). Today, most health care providers agree that definitions of health should incorporate both disease prevention and health promotion views that embrace positive aspects of health. Building on views of health expressed at the 1986 Ottawa Charter, the committee recommends a new definition of health.

Today's threats to healthy childhood result from complex interactions of influences in children's biological, behavioral, social, and physical environments. In contrast to simple cause-and-effect disease models, future models of health must consider a complex chain of interactions that persistently affect the child's health trajectory in both positive and negative directions throughout the lifespan. Health at each stage of development sets the stage for and affects future health. The committee proposed a new model that portrays these dynamic interactions over time and their effects on health throughout different stages of childhood (Figure 1).
Children represent our nation's future; they will create the families, power the workforce in the years ahead. Scientific and public health advances have reduced infant mortality and morbidity from infectious diseases, accidental causes and improved access to health care. There are notable disparities in health across various groups of children. Strengthening the nation's ability to nurture and develop our children with all their inherent richness and potential requires new strategies and new partnerships to improve the comprehensive assessment of children's health.

Although most children are healthier today than a century ago, worrisome disparities in health remain among particular racial, ethnic, and socioeconomic groups within the child population. The precise mechanisms that explain these disparities...
remain a mystery. But the systematic nature of health disparities, calls for concerted
efforts to collect data that can guide studies of the underlying causes, relationships,
and influences.

1.2 PRESENT SCENARIO OF CHILDREN HEALTH

India is making positive strives in reducing child mortality through new
policies and ambitions programs, but preventing the deaths of millions of children
remains one of the country’s greatest challenges.

Roughly 1.7 million children under five years old die every year in India, says
UNICEF, representing more than a fifth of all child deaths worldwide. Most of these
deaths are preventable as they stem from complications of birth, pneumonia, diarrheal
and malnutrition.

“India is the most important country in the world when it comes to saving
children lives and if they can achieve success and we can achieving an extraordinary
and historic results of ensuring that every single child around the world lives to see
their fifth birthday” (Rajiv shah, us Aid).

In 2010 and 2011, India averaged a 7.25% drop in child mortality. However
when data is disaggregated, it is clear that child’s chances of survival are hugely
dependent on geographic location, caste, class and gender.

The new national screening policies are on encouraging sign of the momentum
building around health care programs that target children worldwide. In 2012, 6.9
million children under five died globally, a depressing statistic but still a sharp
improvement from the figure of 76 million in 2011. (Joan butler, 2013).

1.3 MALNUTRITION IN INDIA

Malnutrition is a condition resulting from deficiency, excess or imbalance of
nutrients. It can be a under nutrition or can be over nutrition .Malnutrition is more
common in India than in sub-Saharan India. One in every three malnourished children
in the world lives in India .About 50 percent of all childhood death is attributed to
malnutrition. Malnutrition limits development and the capacity to learn. The
prevalence of malnutrition varies across states, with Madhya Pradesh rate (55%) and
Kerala. (27%)
Malnutrition in children is not affected by Food intake alone; it is also influenced by access to health services, quality of care for the child and pregnant mother as well as good hygiene practices. Girls are more at risk of malnutrition three boys because of their lower social status.

Malnutrition in early childhood has serious, long term consequences because it implodes motor, sensory, cognitive, social and emotional development malnourished children are less likely to perform well in school and more likely to grow into malnourished adults, at greater risk of disease and early death. Around one third of all adult women are underweight. In adequate care of women and girls, especially during pregnancy results in low-birth weight babies. Nearly 30 percent of all newborns have a low birth weight, making them vulnerable to further malnutrition and disease.

Vitamin and mineral deficiencies also affect children’s survival and development anemia affects 74 percent of children under the age of three, more than go percent of adolescent girls and 50 percent of women. Vitamin A deficiency, which causes blindness and increases morbidity and mortality among pre-schoolers, also remains a public-health problem.

1.4 SCHOOL HEALTH CHECK-UP PROGRAMME

Children are the foundation of a strong and health nation. Morbidity among school going children adversely affects their normal growth and development and hence is a major public health concern. School health program was started as an important component of total health care delivery system in the country with a purpose of addressing the health needs of children.

School, a convergence center for health and education is a setting that plays an important role in physical, social, mental and emotional development of children. School health program is an important component of total health care delivery system in the country started with a purpose of addressing the health needs of children, both physical and mental and in addition, provide for nutritional interventions, yoga facilities and counseling. This program promotes screening of school children for various health problems and raises awareness about health issues in children and their families. The important services include general health examination, anthropometry, treating minor ailments, referral and health education school health check-up program also caters to adolescents who represent ground 25 % of the world’s population and
around 59% of developing countries. Morbidity among school going children adversely affect their normal growth and development and hence it is a major public health concern. The common ailments seen in this age group are malnutrition, vitamin A deficiency, dental caries upper respiratory tract infection or excess or imbalance of nutrients can put children at high risk of early development of chronic diseases particularly if combined with other adverse lifestyle behaviors.

Therefore it is imperative that these morbidity pattern and nutritional status deficiencies are detected and controlled to get a healthy and economically productive future generation.

Accordingly, in 1909, Sir Sayajirao Gaikwad, King of Baroda, started School Health Programme in Baroda region. It was the first school health program in the Country. In 1946 the Bhore Committee reported that School Health Services were practically not existent in India and where they existed they were in an underdeveloped stage. In 1953, the secondary Education committee emphasized the need for medical examination of students and school feeding programme. In keeping with these developments and to ensure good health for our school children the state of Gujarat has launched a major School Health Programme. This is the single, largest, health programme operating in the state of Gujarat for last 8 years.

1.5 GOVERNMENT OF INDIA INITIATIVE

The Govt. of India launched the ‘Special School Health Check-up Programme’ in the year 1996 in coordination of Department of Health & Family Welfare and Department of Education for school going children of Primary Schools with the following objectives;

- Detection of health related problems that are commonly occurring amongst primary school children
- Screening of children for appropriate referral,
- Building of health awareness in the community through primary school children and
- Follow-up arrangements for detailed check-up and treatment of referral cases at Govt. Health Facilities
It was a 6-days programme throughout the country and the Multi-Purpose Health Workers undertook primary screening. Referral services were provided at the Primary Health Centers. The programme was however discontinued after sometime.

➢ INDIA’S Important Programme for combat Malnutrition (FAO Corporate Document Repository (1993-94))

1. Integrated Child Development Service Programme (ICDS)
   
   This is Unique Programme under which as package of integrated services consisting of supplementary nutrition, immunization health check up, referral and education services are provided to the most vulnerable groups even with in children and women.

2. Special Nutrition Programme (SNP)

   This programme was launched way back in 1970-71 for the same target group as in ICDs. The Programme is confined to tribal areas and slums. Main activity under this programme is to provide supplementary finding to beneficiaries for 300 days in a year.

   **Balwadi Nutrition Programme** - BAL (Children) and Wadi (Home) Nutrition programme is contemporary of SNP and is being implemented since 1970-71 by the central social welfare board and national level nongovernmental voluntary organization.

3. Crèches for children of working and Ailing Women

   The scheme, implanted since 1975 has been designed to free the working and in some cases ailing mothers, from the task of looking their children while they are on work or are sick.

4. Wheat based Supplementary Nutrition Programme

   The scheme was started with the twin objective of providing supplementary nutrition to children and popularizing what intake.

5. World Food Programme Project

   World Food programme – UN provides food stuff so that supplementary nutrition could be provided through the projects supported by them.
6. ‘CARE Assisted Nutrition Programmes

Under the indo-care Agreement of 1950, care – India extends food aid so that supplementary nutrition can we provided to pre-school children of age less them six years and expectant/nursing mothers. The ‘Care’ assistance is how dovetailed with LCDS projects.

7. Tamilnadu Integrated Nutrition Project

The project located in Southern State of Tamilnadu, was started some time in 1980-81 with the World Bank.

8. UNICEF Assistance for Women and Children

India has been associated with UNICEF since 1949 and is one of the major countries as far as activities of UNICEF are concerned.

1.6 GOVERNMENT OF GUJARAT INITIATIVE

Govt. of Gujarat, Department of Health in collaboration with Education Department started innovative School Health Programme since 1997, wherein primary examination was done by medical officers of primary health care system.

A State level steering committee, under the chairmanship of Health Minister was formed for planning School Health Program. Chief Secretary, Additional Chief Secretary (health), Additional Chief Secretary (finance), Additional Chief Secretary (education), Health commissioner and Members of legislative Assembly are other members of the steering committee.

The steering committee takes important policy decisions regarding School Health Programme and decides the date as well as the time duration of the programme and. Before start up meetings of CDHOs, CDMOs, RDDs and programme officers are called and detailed discussions held for effective implementation of the School Health Programme. Individual Medical Officers prepare Micro plans at the PHC level which include date, time and place of examination, number of schools and number of school children to be examined. District health authorities collect and compile micro plans and send the same to the state authorities for compilation and analysis. At the state level Health Education Bureau compiles and analyzes all Information and prepares a state level master plan, which includes interlaid the requirement of;
• Manpower
• Drugs
• IEC Materials
• Stationary
• Contingencies

Medical officers with their teams examine all school going and I.C.D.S. beneficiaries in the primary schools and anganwadies. Children with minor ailments are treated on the spot in the school. Children requiring examination by specialists are sent to the related referral centers where different medical experts like ophthalmic surgeon, physician, pediatrician, dentist, skin specialist and E.N.T. surgeons examine and treat them. Those children who require spectacles are provided the same free of cost. Children suffering from Heart, Kidney and Cancer diseases are examined by super-specialty hospitals. Operative and other treatment are given free of cost. Transportation is also provided by the state Govt.

In the health of children the importance of nutrition has been given more attention in recent years. Earlier in the child health development programme, measures for the prevention and cure of diseases were included, but now vigorous and healthy growth development programme is also included. In the development of nutritional disorders unfavorable environment and infection and infestations are the contributors in the early period of life. Nutritional status depends upon several factors and the causal relationship between malnutrition; mortality, morbidity and health are complex. Malnutrition specifically under nutrition is one of the prime cause of morbidity and mortality in early childhood. Malnutrition could be an aggravating or intervening cause of mortality rather than a direct cause. Healthy children are less likely at risk of dying than severely malnourish children. Based on a review of six nutrition intervention projects concluded in four countries including two in India, Kielman et al. (1982) concluded that nutritional intervention seems to have its clear and most important effect on child mortality, the prevalence of malnutrition as a precursor to child mortality is similarly affected.

According to estimates by the National Family Health Survey (1998-99), fifty percent of children in India under the age of three years are underweight and the same figure for the Gujarat state is forty five percent. This is a serious cause, as there is evidence that the risk of mortality is increased even for the children who are mildly to moderately under-weight. Evidently, problem of malnutrition should be taken seriously as a means of reducing mortality among young children.
The nutritional status of an individual or community is affected by socio-economic and ecological factors. The impact of these factors is likely to serve as useful indirect indicators of human nutritional status. The impact of these factors on health and nutritional status has been evaluated through data on dietary intake, anthropometrics indices, clinical signs of nutritional deficiency and biochemical or biophysical parameters. These parameters are considered to be the direct indicators of nutritional status. The impact of these factors on health and nutritional status has been evaluated through data of breast feeding, prevalence of infectious and parasitic diseases, access to health care, immunization against major childhood diseases, vitamin A supplementation, maternal care during pregnancy, water supply and sanitation, socio-economic status, and health seeking behavior.

The level of potential exposure to diseases can be approximated and scaled by using a series of simple physical indices that are known to be strongly correlated with the levels of biological contamination of the environmental sanitation. Since environmental contamination includes a variety of aspects including housing condition and source of drinking water, the individual factors may not be revealing much but their combined effect might be substantial. The malnutrition among children was much high among those with poor housing and sanitary conditions even with the same level of dietary intake. Whereas in spite of lower dietary intake, the level of malnutrition was much lower for those living in better sanitary conditions. Thus to reduce the problem of malnutrition among children there should be dual focus on dietary intake as well as on providing safe drinking water, better sanitation and housing condition for improving their general standard of living.

Malnutrition, measured as poor anthropometric status, remains one of the most common causes of morbidity and mortality among children worldwide. The effects of nutrition on growth, physical development, social and cognitive development can endanger children especially during the school age of life. The health authority adopted a strategy to improve the health status of children. However, there is lack of studies focusing on the health and nutritional status of children of school going children.
1.7 JUSTIFICATION OF THE STUDY

Children represent our nation’s future; they will create the families, power the workforce in the years ahead. Their health today, important in its own right, also will have a profound effect on their health as adults. Scientific and public health advances have reduced infant mortality and morbidity from infectious diseases, accidental causes and improved access to health care. Promoting health today requires consideration of the overall status of children, not just identification and treatment of specific diseases or injuries. Strengthening the nation’s ability to nurture and strengthening the nation’s ability to improve the comprehensive assessment of children’s health. The social structure and customers are different in different parts of country, where children’s health has received poor attention as compared to adult. In spite of slow progress in improving the children’s health, more attention shall be given collectively to improve the health status of children in the national interest. Thus, children’s health development, achievements and social attainments are necessary; when we have threat of different infectious and non-infectious diseases. It is well known fact that children are the future of nation. Hence, healthy children are recognized for creative role in families, empowering nation and overall development. Therefore, present study was planned to assess the health status of school going children of Mehsana city.

1.8 STATEMENT OF THE PROBLEM

“Assessment of the Health Status of Primary School going children of Mehsana City and Taluka of Gujarat State.”

In the present research attempt was made to assess the health status of primary school going children.

1.9 OPERATIONAL DEFINITIONS OF TERMS

Operational definition in the present study has been taken in account as follows:

Assessment of Health Status:

“Assessment of Health Status has been done in terms of Assessment of Nutritional status as well as Physical status along with absence of morbidity seen in selected primary school going children.”
Primary School going children

Selected (total 896) 448 students from Urban area and 448 students of rural area (age group 6-11 years) from selected Primary School of Mehsana city (eight) and Taluka (eight) respectively.

1.10 OBJECTIVES

1. To study the socio-economic status and life style characteristics of school going children.
2. To study the health status of school going children in terms of Assessment of Nutritional status as well as Physical status along with absence of morbidity seen in selected primary school going children.
3. To compare the health status of school going boys and girls.
4. To study the relationship between selected variables and the health status of school going children.
5. To be familiar with awareness of parents regarding school health check up programme.
6. To understand the opinion of parents and teachers towards school health check up programme.

1.11 VARIABLES

(A) INDEPENDENT VARIABLES

➢ Personal Characteristics
  1. Age of Children
  2. Gender

➢ Socio-Economic Status
  1. Area of Residence
  2. Caste
  3. Education of Parents
  4. Occupation of Father
  5. Work status of Mother
  6. Family Size

➢ Source of Information

➢ Life Style
1. Health and Nutrition Knowledge of Parents
2. Life Style of Children
3. Dietary habits of Children
4. Percentage of Calorie intake of RDA
5. Percentage of Protein intake of RDA

[B] DEPENDENT VARIABLE

- Health Status of Children
  - Clinical measurement- morbidity
- Nutritional Status
  - Anthropometry Measurement
    1. Height for Age
    2. Weight for Age
    3. Weight for height and body mass index for age
    4. Comparison of anthropometric data to reference standards
- Biochemical Investigation – Level of Hemoglobin Percentage
- Dietary Pattern

1.12 LIMITATIONS OF THE STUDY

The present research was limited into:

1) Eight Urban schools of Mehsana city
2) Eight Rural School of Mehsana Taluka
3) Assessment of health status regarding selected variables.
4) Assessment of Health Status has been done in terms of evaluation of Nutritional status as well as Physical status along with absence of morbidity seen in selected primary school going children by using only Anthropometric Measurement, Clinical Findings, Food Frequency and Twenty four hour recall method.