swasth hind

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OBJECTIVES

Swasth Hind (Healthy India) is a monthly journal published by the Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, New Delhi. Some of its important objectives and aims are to:

REPORT and interpret the policies, plans, programmes and achievements of the Union Ministry of Health and Family Welfare.

ACT as a medium of exchange of information on health activities of the Central and State Health Organizations.

FOCUS attention on the major public health problems in India and to report on the latest trends in public health.

KEEP in touch with health and welfare workers and agencies in India and abroad.

REPORT on important seminars, conferences, discussions, etc., on health topics.

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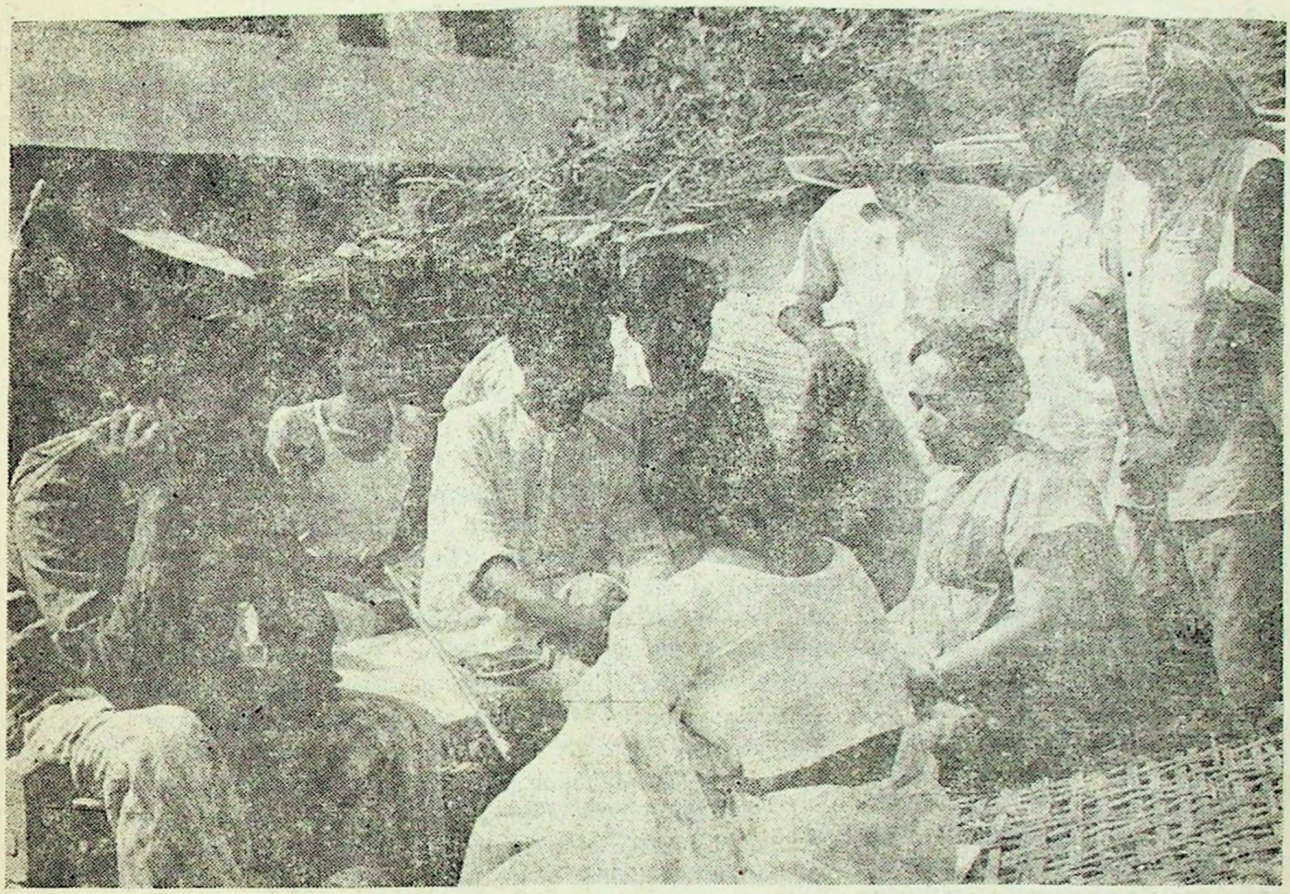


HEALTH IS EVERYONE'S BUSINESS

Food, clothing, shelter and good health care are basic requirements for humans to survive and lead a productive life. Improvement of living conditions and quality of life together with good health services contribute to good health. Achievement of good health is a social goal. Economic development is necessary to achieve social goals. At the same time, social development is necessary to achieve economic goals. The purpose of both social and economic development is to achieve a health status that would enable people to lead a socially and economically productive life, based on cultural values that prevail in different societies. Such a health status cannot be achieved by the health sector alone. Other social and economic sectors such as education, agriculture, animal husbandry, housing, water, public works, communications and industry have a bearing on health development. Hence there is a need for constant consultation between major social and economic sectors to ensure development and to promote health as a part of it.

It is well accepted that basic human requirements include adequate food, shelter, clothes and health care. These basic elements are essential for survival and make for happy and healthy living. Ill health, on the other hand, has an adverse effect on the individual as well as an indirect effect on their families, communities and country. There are many factors contributing to good or ill-health. These include heredity, personal behaviour, environmental conditions and accessibility to health services. Improvement in health status can be brought about through improvement of the living conditions and quality of life. In fact, economic development is necessary to achieve most social goals and social development is necessary to achieve most economic goals.

Indeed social factors are the real driving force behind development. The purpose of development is to permit people to lead economically productive and socially satisfying lives. Social satisfaction and economic productivity will be interpreted in widely different ways according to the social and cultural values prevailing in each society. Everywhere people themselves realize that their motivation in striving to increase their earnings is not greater wealth for its own sake but the social improvements that increased purchasing power can bring to them and their children, such as better food and housing, better education, better leisure opportunities, and, perhaps most important of all, better health. For only when they have an acceptable level of health can individuals, families and communities enjoy the other benefits of life. It has been said "Health is not everything, but there is nothing without health". Health development is therefore essential for social and economic development, and the means for attaining them are intimately linked. For this reason, actions to improve the health and socio-economic situation should be regarded as mutually supportive rather than competitive, requiring the active support and full participation of all.

Intersectoral Coordination

Member Countries of WHO are now accelerating the process of health development through the strategy of Primary Health Care. Inherent to the PHC approach is the recognition that health cannot be attained by the health sector alone. In developing countries in particular, economic development, anti-poverty measures, food production, water, sanitation, housing, environmental protection and education all contribute to health development. Activities of the health sector therefore must be coordinated at national, intermediate and community levels with such social and economic sectors. Thus, health activities should be undertaken concurrently with measures for improvement of nutrition particularly in mothers and children; increase in production and employment, a more equitable distribution of income, and protection and improvement of the environment.

Mutual Consultation

No sector involved in socio-economic development can function properly in isolation. Activities in one impinge on the goals of another; hence the need for constant consultation between the major social and economic sectors to ensure coordinated development and to promote health as part of it. Primary health care, too, requires the support of other sectors; these sectors can also serve as entry points for the development and implementation of primary health care.

Agriculture

The agricultural sector is particularly important in most countries. It can ensure that production of food for family consumption becomes an integral part of agricultural policy and that food actually reaches those who produce it, which, in some countries, may require changes in the pattern of land tenure. Also, nutritional status can be improved through programmes in agriculture and home economics geared to meeting priority family and community needs.

Women's Role

It is particularly important to ensure that women enjoy the benefits of development as well as men. In most developing countries the majority of women in rural areas are engaged simultaneously in agriculture, household management and the care of infants and children. They need appropriate technology to lighten their workload and increase their work productivity. They also require knowledge about nutrition which they can apply with the resources available, in particular concerning the proper feeding of children and their own nutrition during pregnancy and lactation.

Similar policies in support of health are needed in other sectors. Water for household use is as important as water for cattle, irrigation, energy and industry. Plentiful supplies of clean water help to decrease mortality and morbidity, In particular among infants and children, as well as making life easier for women. Countrywide plans are required to bring urban and rural water supplies within easy reach of the majority in the shortest possible time. The safe disposal of wastes and excreta also has a significant impact on health.

Water supply and sanitation

The health sector can promote investments in water supply and sanitation, but as a rule major investments come from other sectors. In rural areas in particular, the community may well be active in these fields as part of primary health care. Education in the proper use and maintenance of water and sanitary facilities is important.

Housing that is properly adapted to local climatic and environmental conditions has a positive effect on health. Houses, like animal shelters and food storage facilities, need to be protected not only against the elements but also against disease-carrying insects and rodents. All these structures, and particularly kitchens and sanitary facilities, should be easy to clean. Here too, education is important for ensuring the proper maintenance of houses and the areas surrounding them.

Certain aspects of public works and communications are of strategic importance to primary health care, particularly for dispersed populations. Feeder roads not only connect the farmer to the market but also make it easier for people to reach villages, bringing new ideas together with the supplies needed for health and other sectors. Two-way radio communication, where this can be afforded, puts isolated areas in contact with more centrally located administrative levels, at the same time serving as a vehicle for learning.

Information and education of health

The educational sector also has an important part to play in the development and functioning of primary health care. Community education helps people to understand their health problems find possible solutions to them and determine the cost of different alternatives. Instructive literature can be developed and distributed through the educational system. Associations of parents and teachers can assume certain responsibilities for primary health care activities within schools and the community, such as sanitation programmes, food-for-health campaigns or courses on nutrition and first aid.

The mass media can play a supportive educational role by providing valid information on health and ways of attaining it and by depicting the benefits to be derived from improved health practices within primary health care. For example, they could support a sound pharmaceutical policy by helping to create public awareness that a number of drugs with generic names are just as good as advertised products with brand names. They could also help to popularize primary health care by disseminating authentic news about it in different communities.

An intersectoral approach

Many agricultural and industrial activities can have side effects that are detrimental to health. To mention a few, irrigation schemes and artificial lakes can create the right conditions for the breeding of mosquitoes that transmit malaria, industrialization can lead to the pollution of air and water with toxic chemicals and the accompanying urbanization can provoke psychosocial problems. It is, therefore, wise to incorporate preventive measures in industrial and agricultural projects which pose particular health hazards. Such measures can be included in irrigation schemes and man-made lakes, safety precautions can be taken to reduce industrial accidents and pollution, potential carriers of diseases can be identified wherever there are large population movements, and special attention can be given to protecting the physical and mental health of migrant workers. There is a proper place for primary health care in most of these activities.

In addition, the industrial sector can support primary health care by establishing industries related to health, in particular for essential foods and drugs. Local small-scale industries are also important, because they create employment and thereby improve the local economic base and earning power. Thus there is hardly any section that is not directly or indirectly related to health. Health, truly, is everyone's business.

—Courtesy WHO

MOTIVATION AND COMMUNITY PARTICIPATION FOR BETTER ACCEPTANCE OF HEALTH PROGRAMMES

DR (SMT) V.K. BHASIN
DR K.S. SINHA

Motivation and community participation must be ensured for successful implementation of any health programme. Health education cannot yield rich dividends unless it emphasises motivation and community participation. All the training programmes in health education must focus on various components of motivation and community participation.

THIS paper attempts to highlight the importance of motivation and community participation for better acceptance of health programmes by the people. It is important that for better delivery of health care services to the people, all our health professionals should be trained in process and techniques of motivation and community participation. The need of the day is to integrate these concepts in the training programmes in health education. Once the health professionals are trained in these techniques they should be able to motivate the people to accept all health programmes and avail of the services offered.

Mere availing of the services are not enough, rather they should make demand for basic and primary health services. It is significant to know that people on their own do not make demand, unless it becomes their felt need. To make the available services as their felt need, the health professionals have to make efforts to convert their unconscious needs into sub-conscious ones and thereafter into conscious needs or felt needs. The model given below clearly indicates how the unconscious needs are converted into conscious needs.

STIMULUS RESPONSES

For this we require stimulus to be provided to the people. Stimulus may be in the form of knowing the facts from the people about health.

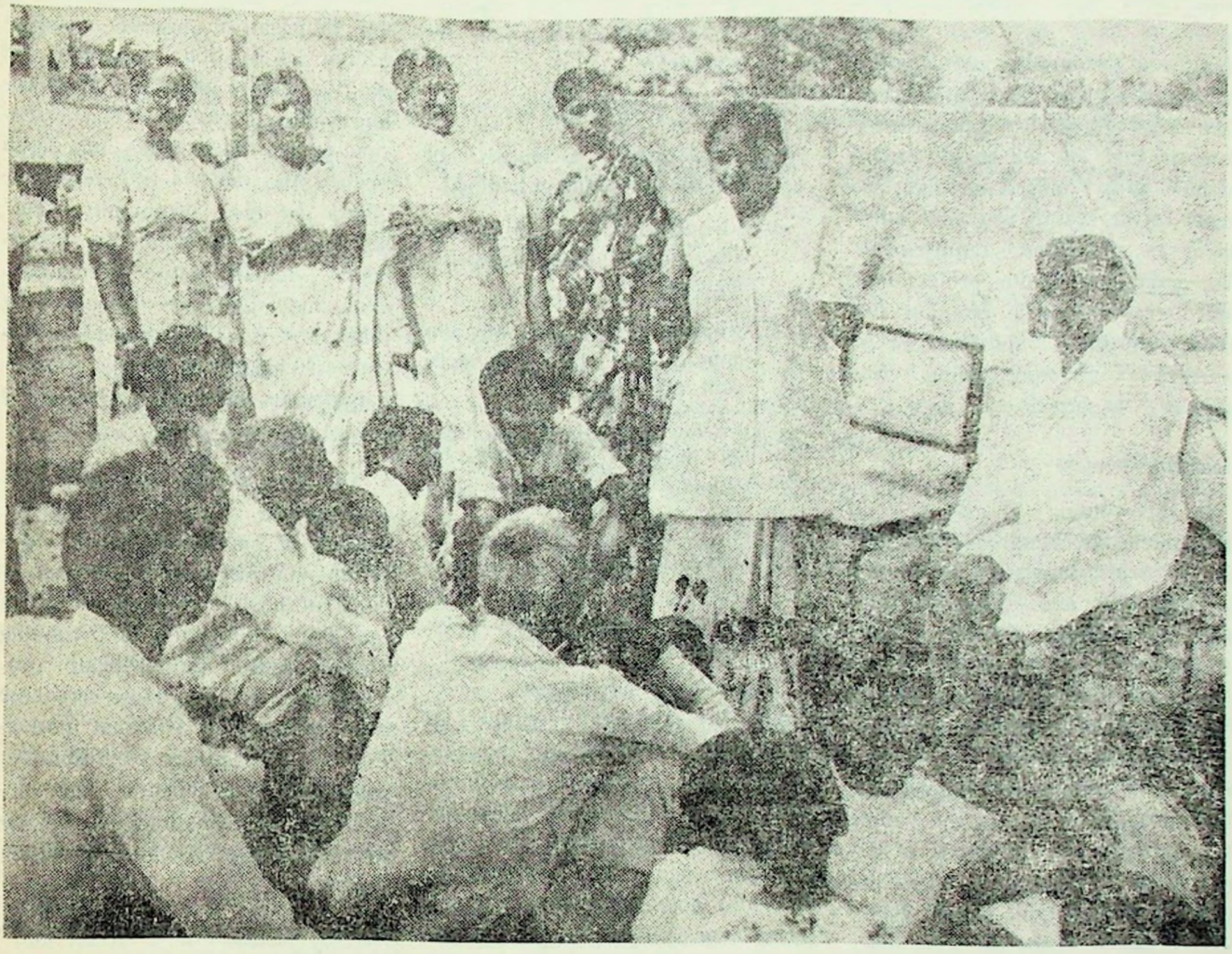
By and large people give least importance to health and they rarely talk about health. Therefore, it is essential that the health professionals should have talking points on certain health problems. Based on the talking points, they should give health talks and after the talks they must be good listners, too. After listening, the health professionals relate the points with the day-to-day activities, so that they become felt-needs of the people. If a felt need is generated, it motivates the people to make demand for the services.

The model given below clearly indicates how momentum is generated in a community.

Talking points———Health professionals——Talk———— Listen————Observe—— —Think———Motivate———— Action/Demand Chain reaction/ multiplier effect.

For instance one plus one becomes eleven. A motivated person can motivate many others resulting in the adoption of a programme.

It is not enough to generate demand through motivation for action (it is dealt with elsewhere in this paper); but it is also essential that the interest generated should



Motivation for cooperation: **Once the change-agent understands the community profile of the people, she/he can seek their cooperation by motivating them.**

be sustained for community participation. For sustaining the interest it is of paramount importance that the people should own the programme. Once the programme is owned it is necessary that the opinion leaders make public commitments in the presence of the followers, so that they adopt or adapt health programmes in totality and make its best use. It is then that we can achieve the goal of Health for All by 2000 AD. through motivation and community participation.

However, for achieving Health for All by 2000 A.D., the health professionals must understand clearly that the success of any health programme depends considerably upon the participation of the community in the programme. In other words community should be involved in planning, implementation and evaluation of health programmes to be launched for a particular community. It is a well known fact that our community gives no attention or minimal attention to our health problems in comparison to agriculture education, employment etc. Therefore, it is essential for our health professionals to give maximum importance to health education through motivating the people for community participation. To make the health as a valued asset to the community it is essential that our health professionals should be prepared to use various techniques to motivate people for community participation. Generally speaking, most of our health professionals, such as, health workers, health

supervisors and health/extension educators have their own perception about community participation, health education and motivation. The pre-requisite condition, therefore, is that all our health professionals must understand the concepts in the same way and adapt them as per their requirements. To make our health professionals more effective, it is essential that these concepts should form an integral part of our training programmes in health education.

Desired Changes

In this context it may be said that there are hundreds of definition of health education in relation to motivation and community participation. From operational point of view it may be defined as a process of bringing about a change from undesirable health practices to desirable health practices through a change in knowledge, belief and behaviour of the people by adopting the methods of de-education (re-learning). This involves keeping people to help themselves. This change can take place only when we are in a position to know "why do people behave the way they behave". This has a motivational linkage. The role of the change-agent or health professional, therefore, is to know and apply the principles of motivation and community participation.

Motivation deals with the inner urge of the people and in this context the health professionals must be trained to arouse the inner urge of the people. Motive deals with or comprises of people's needs, wants, desires, hopes and aspirations on the one hand and removal of fears, worries and apprehensions on the other. Health professionals will have to work as change-agents for which following jobs are to be completed:

(a) Community diagnosis.

(b) Educational Diagnosis of of the problems identified.

(c) Identification of local opinion leaders and their leadership pattern.

(d) Finding out channels of communication both modern and traditional.

(e) Listing of available resources in terms of (i) men. (ii) money. (iii) material, and (iv) means.

(f) Available resources may further be classified into internal and external resources.

Once the change-agent under stands the community profile of the people, he will be in a position to have their co-operation by motivating them. Motivated behaviour starts with a need which has a goal and the goal is accomplished through active striving. At the same time, people have different motives which are inter-related. Some motives drive one towards certain specific goals while other motives drive him to avoid certain goals. Most of the goals are learnt and are subjective. Therefore, while understanding the motivation for health he should also try to identify both (i) negative and positive motives related to healthful living, (ii) the goals through which these motives are fulfilled, (iii) the strength of striving towards these goals that exist, (iv) the relative strength of positive and negative motives and whether the non-acceptance is due to the absence of positive motive or due to the presence of strong negative motives.

In case, where non-acceptance is due to negative motives, simply adding information regarding the positive factors alone will not produce desired results. The extension worker must probe into depth beyond the reasons of resistance offered by the community. He/She must learn in depth the reasons which actually cause non-acceptance and manipulate their thinking through various techniques in favour of healthful living. Dissemination of information is essential to get desired results.

We have already discussed salient features of motivation in the context of operational health education on strategy for better acceptance of health programmes which should be integrated in training programme for various health professionals/workers. However, there is no denying the fact that motivation is pre-requisite condition for community participation, nevertheless, we must also highlight the salient features of community participation.

Salient features of community participation

As explained elsewhere in this paper that our health workers have their own concept of community participation. It is, therefore, essential that we should evolve a working or operational definition of community participation based on our experiences of working with the people in rural, and urban area and slums.

When we use the word "participation" we must see whether action is involved on the part of the community or people. If action is not involved, we cannot call it participation in the true sense of the

(*Continued on page 45*)

Health Education Based Medical Education —An Answer to the Unmet Health Needs

DR S.C. GUPTA

If the existing 80 per cent of the total unmet health need of the present society is to be met, medical colleges will have to prepare their products to perform their role both as health educators and supervisors for the educational activities predominantly meant for the mothers and the children by the health team under various settings.

A THOUGHTFUL observer of medical education will be troubled by the regularity with which the whole medical education system is isolated from the health services system of the country concerned. In many countries these schools and faculties are ivory towers, where students are prepared for some ill-defined international "academic" standards and for the dimly perceived future requirement of the twentyfirst century, while the pressing needs of the society of today and tomorrow are often ignored.

These facts show that if the health service system of most of the countries is failing to meet the felt-needs of the majority of the people including vulnerable group of population, the criticism can be levelled at institutions responsible for training health personnel. In general terms, with some exceptions, medical education has not been sufficiently concerned with relevance with the need to prepare graduates for the special health needs of the community they are to serve. It is said that health profession which could act as a powerful instrument of social change, has been turned into a formidable instrument that constitutes a threat to basic human values such as dignity, equality, liberty and security. Furthermore, health manpower plans, when they exist, do not always serve as a basis for formulating educational objectives leading to a definition of the content of the teaching/learning process. Frequently, there is also lack of communication between the producers of health manpower in the training of agencies and the use of such manpower and the service agencies. Therefore the former cannot positively assess the relevance of training to the job requirement of the latter. In certain parts of the world, medical education is also making a valuable effort to produce doctors who are able and ready to meet community health needs, to restore the balance between the general and specialized medical care and to direct the medical professional from its one-sided disease orientation to health orientation.

The goal of medical education relates to the performance of our students (graduates). If we do not select the ideal students and build the ideal curriculum, whatever our ideals may be, and dissociate ourselves from the health care system of our society, we will be dooming ourselves to failure. For, we will be disregarding one of the three inputs in my view, the major one into the performance of doctor physician.

Medical education is a social phenomenon in the sense that its character as well as the kind of doctor it produces is shaped by the socio-cultural characteristics, of the host, agent, and environment, *i.e.*, of the students, the teaching institutions and the health care delivery system.

We are much more familiar with the completely opposite model, the doctor as God's representative on earth if not the deity himself with the power of life and death. Here, the doctor is in total control applying his clinical brilliance and the weapons of medicine to save the life and restore the health of the passive, grateful, patient with a complaint.

World Health Situation: As per WHO (1977:9), despite every effort and a health expenditure of material and human resources the health situation today is grave. The present trends are developing into a major crisis which must be faced at once to avert costly reactions and grasp present opportunities. The following section reviews some of the achievements improving the health situations and points to the majort needs that still persist.

(a) *Mother and child health*: Despite tremendous strides in medicine and technology, the health status of the majority of the mother and children in disadvantaged areas of most countries of the world remains low. In the developing countries, within each 10 second one child is dying, owing to preventable diseases. In sheer numbers, mothers and children comprise approximately 70% of the population of the developing world and are the major consumers of health services. They are also a "vulnerable" or special risk group. Global observations show that maternal deaths range from 4 to 295 per 100,000. In the developing countries, the primary concern of health department still has to be the reduction of maternal and child health problems. The seriousness of the problem is shown by the high morbidity and mortality rates that exist in the rural and peri-urban population that still constitute 80-85 per cent of the population of the world where around 750 million people are still suffering from absolute poverty. Although morbidity and mortality show a downward trend, problems such as malnutrition among the children, communicable diseases, parasitic infestations and others continue to take a heavy toll of people's lives, especially those of infants, children and other vulnerable groups in the disadvantaged areas. The low health status of the mother and children has not only manifested itself in terms of morbidity and mortality but has also affected human development and capacities of individuals to develop their potentialities and lead a productive life.

(b) *Communicable diseases*: Tuberculosis is still one of the major public health problems in almost all countries (Park, 1979:343). There is no single country which has succeeded in reaching the point of control, *i.e.* "less than 1 per cent tuberculin positivity among children in the age group 0-14 years". A case of smallpox occurred in Birmingham (U.K.), in August 1978, after a lapse of 5 years. In most of Asian, African and European countries, cholera has become endemic with occasional epidemic exacerbations. Although plague has declined significantly during 20th century, it continues to exist in "Natural foci" outside man in many countries, *viz.*, Central Asia, Africa, South America, etc, and, according to WHO, there has been little net improvement in the operational and epidemiological situation about malaria. In India, there are about two million cases of tuberculosis, 14 million cases of filariasis, two million cases of malaria, 3.2 million cases of leprosy. Acute respiratory infections and diarrhoea are rampant and are the major killers during preschool years.

(c) *Non-communicable diseases*: Recent studies have demonstrated that chronic diseases such as cardiovascular diseases, cancer and certain liver and kidney diseases are becoming more commonly recognised in the developing countries. There are good reasons for attributing these quite largely to improved diagnostic procedures but it may also be indicative of a real increase in their incidence. Assessment of mortality of the extent of morbidity from alcoholism is a difficult task, owing to lack of records.

The health aspects of traffic accidents are of world-wide concern. More than 10 million people are injured on the world's roads each year: there are 2,50,000 deaths and the incidence of accidents is constantly increasing. The world-wide trends in smoking-related mortality and morbidity are alarming.

(d) *Health care delivery*: A country like India, despite its various national health programmes in term of health manpower development, increase in the budgetary provision for health care, has failed to improve quality of health care to its people in any appreciable way (Neki 1980:11). Infant mortality rate of 117 per 1000 live births is 10 times higher, the maternal mortality rate of 3 per 1000 is at least 15 times higher and pre-school mortality is at least 20 times higher than in most developed countries. Malnutrition is widespread with at least one million having *Kwashiorkor* and an equal number blinds from vitamin A deficiency.

As substantiated by Grewal (1985:14), health services which should aim at improving the health status of the community are not doing so to the degree desired. WHO (1977:25-35) also state that health access of large segments of the world's population to health is limited or non-existent. In other areas these services have often operated in an isolated manner, neglecting other

factors contributing to human well being such as education, communication, agriculture, social organization, community motivation and involvement. One reason being the approach adopted has been largely promotive of highly sophisticated and centrally located medical and even when not so, has frequently been unrelated, to local realities.

The Conference on Primary Health Care at Alma-Ata in 1978, reaffirmed the importance of establishing and further developing in each country a comprehensive National Health System of which Primary Health Care is an integral part, and the Government and many non-government organizations in India are making efforts to achieve this objective (Grewal 1985:1). But still a lot needs to be done to achieve responsible health status of the community.

In India, nearly, 70% of the doctors are involved in general practice. Besides, there are 500,000 practitioners of indigenous systems of medicine, many of whom are institutionally qualified. As observed by Gupta (1984:106), preventive aspects and health education receive scant support from these practitioners because these aspects of health care are at present not as remunerated as relief of systems.

The findings of Kathuji (1985: 111), show that the doctors practicing modern medicine are more business minded than the practitioners of old systems of medicine. Today, despite prolonged contract with scientific medicine in India, and the benefits having been in some cases brought to the doorstep, the common man remains dissatisfied, even disillusioned. In brief, despite tremendous efforts and advance in the science of medicine, its benefits had not been accepted by the people. The above fact is a testimony to the experiences of Sahni (1980:35) that in spite of the large production of health manpower, 80% of the population receive very little health care. He emphasises that to achieve the objective of Primary Health Care by the year 2000, we would have to increase our manpower, organizational machinery, and technology by at least three times.

Role of Health Education

The World Health Assembly considering the report of the Alma-Ata Conference on Primary Health Care has reaffirmed that the main social target of governments and of WHO in the developing decades should be the attainment by the citizens of the world of a health level that will permit them to lead a socially and economically productive life by the year 2000 A.D. On the other hand there are copious references which show that the said goal can never be attained without an active and continuing participation of the community in maintaining its health by its own efforts, action and realization that its health lies in its own hands.

Keeping in view the above stated horrifying facts about the health situations throughout the world, it is quite apparent that in the developing countries like India, health education has to play a much more expanded and critical role in attaining a level of health for every citizen that will permit him to lead a socially and economically productive life. As cited by Belchiors (1977:85), while reviewing the level of health in England and Wales back to the eighteenth century concluded, that in order of importance the major contribution to improvement in health in England and Wales were certain modification of behaviour and changes in the environment and it is to these same influences that we must look particularly for further advances.

It is appropriate to consider the unmet health need of the society as a challenge for medical education. For nothing can be accomplished, if we do not incorporate health education in the undergraduate medical curriculum and give it a place of prime importance. The medical schools/colleges need to be oriented towards producing graduates and not disease graduate, who would consider medicine to be a service and mission rather than a competitive business, who would serve and educate above all the low income groups, who needed their services more, who would be trained in a teamwork and a spirit of co-operation to prepare them for group education, practice around a health centre who would practice preventive medicine majoring health education and, who would become interested in health and not only in diseases.

The first task

The first task, and one of the most important today before health education is the promotion of health. Since health cannot be taken for granted, it must be maintained and promoted through incessant activities in which the physician/medical officer has a greater role to share than any of the other health worker. He is the real team leader and hence is expected to play a more expanded and critical role in strengthening the health education activities in the population to which he/she is responsible. As a team leader he/she should know in most of the countries health sciences and technology have come to a point, where their contribution to the further improvement of health standard can make a real impact only if the people themselves become full partners in health protection and promotion.

However, unfortunately in the existing medical education an emphasis is mostly on the students to learn the skill and techniques in therapeutic treatment of patients under various settings, their training in health education as evident from WHO (1977:62), has been too meagre to permit achievements to match the expectation with any lasting effect. Their existing training in most of the countries, does not equip them to practice health education in their clinical as well as preventive fields.

There is no second opinion that unless the individual himself knows of damaging life factors and has an understanding of a positive way of life, the physician and medical care service cannot protect his health. There is also a great need to give the

medical teaching faculty a better understanding of the basic necessity of broad and intensive health education. Instead of making people more and more dependent on professional medical contacts, the medical professional must support the will and the knowledge to increase self-care in each society. If the said medical contacts are unavoidable, that must be availed of for percolating the message of health education in a meaningful fashion as is evident from CMC Developed Comprehensive Health care Methodology, as pointed out by Dhillon *et el* (1979 : 1-5) Deptt. of Community Medicine has developed a Comprehensive Health Care Services Scheme for its Block Population attached to the Christian Medical College, Ludhiana. Under this scheme through family folders complete record of family health profile is available. As cited by Grewal (1979 : 1-5), there are three main tools of this methodology.

(1) The family folder, (2) The master register, and (3) the Desk Diary. Under this scheme there is one medical officer for 5,000 population and under him there are two multipurpose health workers, one male and one female. The main points of entry to this methodology are :

(i) Know the community, (ii) Keep in touch with the family by regular home visits—reach the unreached, (iii) Identify present health needs, (iv) Anticipate the health need, (v) Plan intervention to meet these needs, and (vi) Evaluations of the success of these interventions.

As cited by Grewal (1979 : 11), under this Scheme it is expected that appropriately trained medical team leader will be able to deliver Comprehensive Health Care to each family with the help of other paramedical staff. From the above methodology as shown by Dhillon *et al* (1979 : 5) it has been synthesised that it is only through frequent and regular contact between the workers and community any given public health education approach will be in a position to change the community health attitudes towards positive life-style and have requisite degree of health awareness. Through the above cited approach as cited by Dhillon *et al* (1979 : 6), severe malnutrition has been minimized from 50 to 17 per cent within a minimum period of 6 months care, especially through nutrition education. The medical under-graduate students are also sensitized to this methodology right from their 1st day in the department. During first year, around 30 hours have been allotted to the study of behavioural sciences, especially sociology, anthropology and social psychology in relation to health and diseases. The understanding of these disciplines include the acquisition of experience in dealing with the culture, social and economic factors that impinge on community health care. The detailed understanding of above disciplines not only help the students to understand the community and/or society, its structure, its functions, adoption of new innovation in community study settings and also widen the students understanding of different facts of human behaviour, which reflect the individual response to health and diseases. All these steps undoubtedly help the students in facilitating their training and understanding the philosophy of health education.

During the 2nd year, two families are allotted to each student where he has to work for at least 32 hours during his 2nd professional year. The same experiences are again repeated in a more scientific and meaningful way during the 4th professional year. During this residential training every student has to spend at least 15 days in rural health training centres under Re-orientation of Medical Education Scheme. The above situation provides enough opportunities to the undergraduate to become familiar with rural community, its health needs and felt-needs. At this stage, every student has to work out the health needs of every 16 families allotted to him/her and recommend and implement suitable intervention for achieving the same with the help of internal and external resources. Consequently, students on completion of the course have at least a basic understanding of rural community health needs, skill of transferring the health need into felt-need with the help of local resources and have ultimately enough capabilities to meet the changing health needs of the society. From the above data, it is synthesised that keeping in view the existing world health situations and their future trends, economic constraints and state of socio-economic development, especially in the developing world, the only feasible alternative and permanent solution to the problem at large is that if the existing 80% of the total unmet health needs, of the existing society is to be met, medical colleges have to prepare their products to perform their role both as health educators and supervisors for the educational activities predominantly meant for the mothers and children by the health team under various settings.

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HEALTH PROBLEMS RELATED TO HOUSING

DR A.K. MUKHERJEE

A healthful residential environment is one in which "the family can develop and flourish physically, mentally and socially". The residential environment should be considered as one of the several environmental health problems associated with planning and development and having economic and social aspects.

HOUSING is basic and indispensible need for man. Most countries of the world have felt the overcrowded housing and the resultant unhealthy environment is a serious threat to physical and mental health of the population and their social well-being. To cite an instance, over half the diseases of metropolitan areas could be eliminated through proper understanding of the factors affecting the health of the community and sound environmental planning of housing.

'HOUSING' includes, in the modern concept, not only the physical structure providing shelter but also the immediate surroundings and the related community services and facilities. The first report of the WHO Expert Committee on the Public Health Aspects of Housing has defined housing as 'the physical structure that man uses for shelter and the environs of that structure including all necessary services, facilities, equipment and devices needed or desired for the physical and mental health and social well-being of the family and the individual. The report also points out that the immediate surroundings of residential buildings should be included in housing environment. These are also referred to as neighbourhood or micro-district. Thus, a healthful residential environment is one in which "THE FAMILY CAN DEVELOP AND FLOURISH PHYSICALLY, MENTALLY AND SOCIALLY". The residential environment should not be considered as an isolated subject but as one of the several environmental health problems associated with planning and development and having economic and social aspects.

The country at present is facing a housing shortage. Over the sixth five-year plan period, the requirements of dwelling units for the additional population were estimated at 4.5 million in the urban areas and 8 million in rural areas. This was over and above the housing shortage estimated by the National Buildings Organisation at 5.6 million units in the urban areas and 18 million units in the rural areas. Considering the quality of existing housing in urban areas about 86% of the housing stock is pucca, 24.7% semi-pucca, and the balance unserviceable kutcha housing. In rural areas, kutcha and semi-pucca houses are commonly seen. More than 80% of house-holds in major cities, reside in small one-room dwellings. Due to tremendous over-crowding resulting from urbanisation and industrialisation, about 5 persons live in one-room house. The Central Public Health and Environmental Engineering Organisation had reported in 1980 that 82% only of urban households received safe drinking water. Of urban households, only 27% have sanitation facilities, only 30% of rural population have safe water supply and 2% have basic sanitation facilities. The availability of these and other amenities including health care, school and recreation is not only relatively less for the poor but also varies from place to place.

The visible symptoms of this shelter problem are overcrowding dilapidated housing stock, severe shortage of rental accommodation, rapid increase in the prices of land and houses even in smaller cities and the pervasive spread of slums and squatter settlements without any basic facility.

Planning Commission has estimated that about 33 million people are living in slums at present. Roughly, 20% of urban population lives in slums.

Fortunately, it is being increasingly realised that adequate housing and a healthy and hygienic environment are not only the pre-requisites for a balanced and harmonious growth of economy but they also increase the productivity of the people, raise their morale and standard of living.

Poor housing and poor health have long been associated, thus, leading many experts to consider housing as a public health problem. The incidence of tuberculosis and other respiratory infections like common cold, influenza, diphtheria, bronchitis, measles, whooping cough etc, bear a close relationship to the degree of crowding in dwellings. Other diseases like scabies, impetigo, ringworm, leprosy, rickets,

plague, rat-bite fever, infections jaundice and home accidents are far more prevalent in areas of poverty, congestion and unhealthy housing. Rats, rodents and arthropods like houseflies, mosquitoes, fleas and bugs also abound where housing conditions are poor and these transmit several diseases. Morbidity and mortality have been observed to be high where the housing conditions are substandard. There can also be psycho-social effects like neurosis and behavioural disorders, particularly because of islolation of people living in cities. There is also a high incidence of major crimes, delinquency and fires in slum areas.

Basic principles

The basic principles of healthful housing evolved by CEA Winslow covered four major areas of concern:

(1) fundamental physiological needs.
(2) Psychological needs.
(3) protection against contagion
(4) protection against accidents.

WHO Expert Committee, in its first report has outlined similar principles covering 4 levels of planning:

(1) prevention of premature death;
(2) prevention of disease, illness and injury;
(3) attainment of efficiency of living;
(4) provision of comfort.

Planning for healthful housing should include:

(1) Provision of space for light, air and recreation;
(2) Provision of adequate water supply and proper sewerage, drainage and solid waste disposal facilities;
(3) Freedom from accident hazard;
(4) Clean air;
(5) Freedom from unnecessary noice and disturbance;
(6) Insect, rodent and nuisance control; and
(7) A land use Plan.

Every community needs small parks, play grounds etc. for children to play, for adult's recreation, for mental stimulation and relaxation and for other community activities which aid the total health of the individual and family.

The environmental engineers and planners with their knowledge of environmental problems affecting community health have a vital role to play in the field of housing activities. In collaboration with public works departments, planning departments city and regional authorities and health department, they may be able to have a positive influence on plans relating to water-supply, sewerage and drainage systems, overcoming run-off and flooding hazards of surface water etc.

A number of water-related diseases are transmitted by biological agents. Chemical pollutants in water may affect man's health directly and also indirectly by accumulating in aquatic life (e.g. fish) used as human food.

A daily supply of 150-200 litres of water per head is generally considered adequate.

For public health, an adequate, safe potable water supply is essential. The lack of adequate water pressure in the municipal distribution system can cause inconvenience as well as serious health hazards due to contamination in the system by back-siphonage.

All metropolitan cities should have a water-carried sewerage system with provision for suitable treatment. The domestic solid wastes disposal is also a factor to be given serious attention to.

Removal of hazards and nuisance

Patterns for dwellings especially those on highways and main streets should be so designed as to minimise accidental injury and deaths. Programmes need to be developed for overcoming existing hazards in substandard dwellings in view of their structural deficiencies. Accident hazards for children in residential streets also merits serious attention.

Existing air pollution problems should be taken up by State Pollution Control Boards for suitable action for minimising pollution and or shifting either industries/habitants. New habitat should be located in such places as are free from industrial odours, gases, dust and fumes.

Exposure to high level of noise leads to auditory fatigue and even deafness. There are other non-auditory effects such as annoyance, interference with speech, impairment of efficiency and physiological changes such as rise in blood pressure, visual disturbance and sleep disturbance. Thus, noises from industries, railroads, motor traffic and other sources are all potential health hazards for housing. Corrective measures need to be taken in areas where disturbance is of serious character. For new housing programmes, these aspects as also insects and rodents control need to be considered seriously.

Based on the principles of hazard free housing as indicated by the WHO Expert Committee Report on Public Health Aspects of Housing, minimum standards need to be adopted. In the USSR, the mass housing, programmes are carried out in accordance with All-Union Building Standards and Regulations which are revised periodically. These provide that noise levels of dwelling houses should not exceed 35 decibels between 8 AM to 10 PM and 30 decibels at night (10 AM to 8 AM). New code ordinances and enforcement procedures may have to be developed as also a clearing house for a more effective enforcement.

Code-enforcement can prevent the deterioration of housing facilities because of unapproved or substandard remodelling.

Corrective Measures

Four basic types of housing are commonly seen:—

(1) Areas which are essentially satisfactory and will require protective action only.

(2) Areas which show incipient blight or which are subject to adverse conditions beyond their borders. These areas need protective and corrective action.

(3) Sub-standard areas which are basically sound enough to be brought to an acceptable standard by a comprehensive approach to their problems.

(4) Areas which are unsuitable for continued use and cannot be elevated to an acceptable standard economically because of poor qualities of dwellings and environmental conditions. These areas require redevelopment.

Three types of approaches may be considered: —

(1) *Conservation*: Retaining and protection of all satisfactory elements of the dwellings and their environment;

(2) *Rehabilitation*: Repairing, remodelling, renovating or supplementing basically sound dwellings and their environment.

(3) *Redevelopment*: Demolition of individual or groups of structures and planned re-use of individual premises.

Health Education

The enthusiasm and interest of key persons in each neighbourhood should be aroused for identification and correction of existing health hazards due to improper housing, civic organisations, groups of citizens or parents, clubs etc. should be educated and exposed to the possible environmental problems in the community. Planners should also be in close contact with Health Department and other government bodies which are responsible for provision of public facilities. In Detroit Metropolitan Area, the Governor's office formed a so-called task force comprised of representatives of all interested groups, which alongwith officials from the various organisations worked together under the leadership of the Chief Engineer of Environmental Health Division of the Health Department.

Mass Education should include production of numerous simple-worded, well-illustrated pamphlets, brochures and bulletins related to problems of rubbish disposal, rodent control, building maintenance, gardening etc. which can encourage a person to improve the home and surroundings. Inclusion of environmental studies in School Syllabi, public recognition of individual or group efforts, institution of awards may help generate enthusiasm for improvement of residential environment.

MOTIVATION AND COMMUNITY PARTICIPATION—FROM PAGE 38

term. For example, the job of a health educator in a particular situation may be to motivate people to give blood for testing (to see whether a person is suffering from malaria or not). If people come forward on their own for blood testing that is in their own interest, we can say that action has been taken on the part of the people. In this case, there is no denying the fact that people have taken action but the question is when did they come to give blood? Thus, action without taking into consideration the time factor has no meaning. Therefore, desired action on the part of the people within the fixed time is an essential element in community participation.

Another important factor in community participation is whether after the initiation of the project or programme "the community strives for greater self understanding and achieves greater cohesion and capacity to act in respect of its problems", *i.e.*, health problems. For instance let us take the case of community participation in Family Welfare Programme. If the health educator health worker/ health supervisor responsible for the programme in a village is able to work as a change agent, and proves successful in satisfying the sterilized cases, who in turn narrate their success to their friends, resulting in significant increase in number of cases, we can say that people have participated in the programme.

It is also important to know the decision making process to find out whether there was actual community participation. People should be helped to help themselves in taking appropriate decisions. In other words, if the community is able to take appropriate decisions frequently and act upon them, we might say that one of the factors in community participation has been empirical for its effectiveness.

For successful community participation, it is vital that the community is helped and encouraged in such a way that it "adopts a given idea, plan services or techniques". For instance, if health personnel are able to convince the community that DPT and other immunizations are important for controlling diseases of children, who in turn adopts this idea and gets the children immunized regularly, we can say that we have been able to achieve community participation as far as immunization is concerned.

HEALTH CARE AND SAFETY BEGIN AT HOME

The quality of one's life is greatly influenced by one's home environment. A healthy home requires careful consideration of existing environmental conditions and health hazards: proper site selection, quality of physical structure, living space, ventilation, domestic animals, prevention of domestic accidents, safe disposal of excreta and refuse, clean water and food, good personal hygiene, and proper nutrition. In addition, government support is needed in the areas of policy setting, legislation, and provision of services and infrastucture. WHO assists the governments of the Member Countries in their efforts to improve the home environment. In the South-East Asia Region alone, WHO provides assistance to over 100 on-going projects in support of various aspects of a healthy and safe home environment.

On an average, two-thirds of a person's life is spent in his or her home evironment. The home will, therefore, influence and determine the quality of one's life more than anything else. Not surprisingly, 80-90% of all diseases and illnesses in the developing world can be directly connected to deficiencies and shortcomings of the home environment: poor structure, overcrowding, humidity, inadequate sanitation, lack of cleanliness, presence of domestic animals, poor ventilation, unsafe cooking facilities, etc.

Magnitude of the problem

— Over 1 billion people in the world today live in sub-standard homes. This figure has remained more or less unchanged for the last 15 years.

— Around 100 million people in the world today do not live in structures but in the streets, under bridges, in sewers, in abandoned cars, or otherwise in the open.

— During the past 10 years around 350 million people in the world migrated from rural areas to the cities thereby compounding the already severe problem of overcrowding in the urban fringe areas.

— Around 600 million new homes will be needed, globally, until the end of the century.

How can a problem of such magnitude be tackled? Usually lack of funds is mentioned as the prime cause for all housing problems. The answer, however, does not only lie in the provision of funds. A healthy home does not have to be expensive. A simple home built with some thought and with consideration of the prevailing environmental hazards may turn out to be healthier and more suitable than a costly structure.

Points for consideration

1. The Site

To select the proper site for a home requires some thought. The place should allow rain water or waste water to drain away from the house and not towards it. The site should be at least 100 meters from a refuse dump, stagnant water bodies and other places where disease vectors and stray animals may live. It is also important to consider the

general direction of the winds. Odours, dust, smoke or litter, blown off a refuse site present a great nuisance around the home and may cause health problems.

2. Quality of the Physical Structure

A building—even the simplest structure—should be constructed properly and of the right type of building material. Leaking roofs, cracked walls and earthen floors can result in dampness and provide a haven for insects and rodents. Cracked walls provide excellent nesting and breeding places for arthropode vectors. Earthen floors may also house disease—causing organisms (e.g., hookworm).

Furthermore, the house should be laid out in a way that proper ventilation is easily possible. One should also consider using solar energy, where possible.

3. Living Space

A healthy home does not have to be very big, but it should provide enough living space for all occupants. Overcrowding leads to increased rates of disease transmission—in particular air-borne and contact diseases--and to a higher accident rate. It may also lead to stress situations, tension and conflicts.

4. Ventilation

Good ventilation of a house is essential. It not only helps to keep the place dry but also helps in keeping it free of smoke and other gases. Traditional use of biomass fuels for cooking and heating in badly ventilated structures may result in a high concentration of carbon monoxide, formaldehyde and other gases. Levels exceeding MAC values (30 ppm for carbon monoxide, 2 ppm for formaldehyde) by 200 to 300% can be found in poorly ventilated places.

Smoke can cause severe irritation of the respiratory tract and eyes. Infants, young children, old people, people with respiratory problems and smokers are particularly at risk.

5. Domestic Animals

Animals (pigs, dogs, chickens, goats etc.) should not share the living quarters with people. They should be kept separately and at a safe distance. If domestic animals are allowed into the house they will not only carry dirt and excreta inside, they may also spread diseases like hydatideosis, rabies, anthrax and a variety of helmintic infections.

6. Accidents at Home

Accidents at home are due to a variety of causes. The most frequent ones, however, are burns and accidents involving children.

Burns are either caused by people falling into the fire or on hot stoves or by spills of hot oil, hot food or boiling water. Women, while preparing the food, and young children, unaware of the danger, are especially at risk. It is therefore essential to keep the children away from the cooking area. Also all objects which can harm children should be kept safely out of reach: sharp objects (e.g., knives, tools), matches, chemicals (e.g., insecticides, rat poison) dangerous liquids (e.g., acid, kerosene, paint thinner) and medicines.

7. Safe Disposal of Excreta

Defaecation and the disposal of excreta is generally regarded as a "natural process", which "people can manage themselves". Unfortunately, it is also a matter of many misunderstood facts and considerable superstition.

All excreta are potential sources of causative organisms for a variety of enteric infections. Indiscriminate defaecation should therefore be avoided and one should consider the following very carefully:

- Every home should have a latrine.
- Excreta should not contaminate ground water, surface water and the surrounding land (the distance from the house, spring, well, or river should be at least 20 meters).
- There should be no odour molestations or unsightly conditions.
- Excreta should not be accessible to flies or animals.
- Fresh excreta should not be handled.
- The latrine should be safe but inexpensive to construct, operate and maintain.

8. Proper Refuse Disposal

Every household produces refuse. Although rates for the generation of refuse vary, one can assume that in the developing world a person produces between 0.5 and 0.7 kilogram per day. The refuse which is not properly disposed off (e.g., at collection points, in pits, at landfill sites) will not only pollute the area around the home, but will also provide breeding places for disease vectors.

9. Safe Water

Water is used at home for drinking, preparation of food, washing/bathing and cleaning (utensils, clothes, etc.). Water should be drawn from a safe source. If possible, from a spring or protected well. Water from a river can usually be regarded as contaminated, in particular if people are living along its banks. Water from stagnant water bodies—e.g., ponds—is usually highly contaminated and should be avoided if possible. Rain water is an important source, but its quality will greatly depend on the collection and storage system used.

A safe water source, however, is not enough. Even the cleanest water will get contaminated if collected in a dirty bucket. Cleanliness is therefore most essential.

10. Keeping Food and Water Clean

Most enteric infections enter the body through food and water. Cleanliness with regard to both is therefore essential. Persons who prepare food should wash their hands often and keep the cooking utensils clean. Food items and water should be stored in cool places and where flies do not have access. Food which is left open to flies is, in practical terms, covered with excreta. Rodents, ants, cockroaches, etc. will not only destroy food but also contaminate it.

11. Personal Hygiene

Unhygienic habits and lack of cleanliness are the causes of a large variety of diseases. Water, soap and brushes are simple, inexpensive but very effective devices to maintain cleanliness.

12. Proper Nutrition

Under normal circumstances, a large proportion of the food consumed is prepared at home. Knowledge about the nutritional value of various food items, the possibility of substituting certain foods and modes of safe preparation are therefore essential. This is particularly important if food is being prepared for children.

Additional Requirements

Although the main responsibility for healthy conditions in the home rest with the family, it has become increasingly difficult for an individual or family to deal with all problems of the home environment and maintain healthy living conditions. A healthy and safe home environment is, therefore, very much a matter of government support, policy and legislation. The main areas where such support is needed are as follows:

- formulation of clear health and housing policies;
- provision of community health personnel, who operate on the first level of primary health care (home level);
- provision of health education in all aspects of primary health care;
- provision of health services at community level;
- organization of support services for water supply, excreta and refuse disposal;
- provision of legislation, standards and codes for buildings and building materials;
- promotion and development of housing schemes, building societies, etc.
- provision of infrastructure (site drainage, roads, community services).

How WHO contributes?

WHO directs all support for a healthier home environment to the governments of Member Countries. This is done through a variety of programmes, the most significant one being "Promotion of Environmental Health" with the following components:

- Community Water Supply and Sanitation.
- Environmental Health in Rural and Urban Development and Housing.
- Control of Environmental Health Hazards.
- Food Safety.

Other programmes include:

- Public Information and Education for Health.
- Nutrition.
- Oral Health.
- Accident Prevention.
- Maternal and Child Health, including Family Planning.

In the 11 countries of the South East Asia Region there are well over 100 ongoing projects in direct or indirect support of a healthier home environment. There are 24 projects under "Promotion of Environmental Health" alone in addition to six intercountry or regional projects providing services of experts, supplies and equipment, seminars, workshops, training courses, fellowships, technical literature and information material.—*Courtesy*: WHO

MEDICAL EDUCATION —A Critical Review

DR AJAY K. SOOD
PROF. V.P. SOOD

All the faculty of medical colleges should do exercises to develop a multi-disciplinary, problem-oriented, practical teaching and training approach, which could be more relevant than the present one, which very often alienates the young doctors from their own culture and communities.

DOCTORS in India, have a trained incapacity to work in rural areas, the reason being the development of a health manpower system on the pattern imported from the West without local adaptation by the health planners. Masses in the rural areas remain largely dependent on the local practitioners, many of whom are not even registered and practise allopathic medicine in gross violation of the basic principles of prescription writing. Whenever, the masses in rural areas approach the Governmental health system for service, they are faced with non-availability, time wastage, socio-cultural gap in communication, and inadequate specialist care. The doctor is a pivot around which the entire health team functions for delivery of the services in the rural areas through the health centres. The training of doctors thus deserves greater attention of the planners of medical education.

The existing pattern of training the doctors

On the one hand, the planners wish to impart the latest in the field of medicine to these young doctors during training, and on the other, expect them to serve in the rural areas later on, where even the basic facilities are not adequate. After his training in the big institution with latest equipments and medicines, when this young doctor is placed at the point of his utilisation in the rural set-up, he finds the skills he has acquired, inadequate and irrelevant to meet the local challenges. He thus exhibits the so called "Escape-tendency", either shuns service in the rural area, or merely neglects everythings, when forced to stay in the rural set-up.

Throughout five-and-a-half year period of his training, a student hardly gets 2-3 months exposure of rural area, that, too, many situations are confined to a few visits to the training centre attached to the medical college. It is a big surprise, how it is expected that by forcing interns to stay in rural health centre for 2-3 months, where they usually confine themselves to the outdoor patients departments they can get the desired rural orientation.

The departments of preventive and social medicine of the medical college are given the responsibility of

this "Herculean task"—rural orientation of doctors. In most of the situations, the departments do not have full administrative control over the health centres adopted for training. Dual administration of the state health services and of the medical college, make these training centres the responsibility of none. When the interns come to the health centres, the medical officers happily handover the work in OPDs and wards to these young doctors. So, for practical purposes, the 2-3 months period they spend in rural area merely make them shun the rural set-up for future, from the type of their experiences. The other faculty of the medical college hardly participate in the process of rural-orientation. They quickly wash hands off their responsibilities, by merely criticising the discipline of PSM and highlighting its inability to bring out the desired change.

History of development of the existing pattern of training

Two key decisions of the Government of India affected the development of health services after Independence. Firstly to develop the system within the existing political set up and secondly, to have a rural-based health services system. To make these services available free of cost, the entire cost of training of doctors was met by government sector. The erstwhile medical officers of the army were called to plan the system, they themselves were trained in the West and were not aware of the local needs and cultural milieu. Hence, we had wrong planning from the very beginning and the planners developed the training of doctors on the imported pattern of the West without its local adaptation. During his training in the big institutions, the young doctors, identify themselves with the highly sophisticated hospital-based system and look down upon the facilities available in rural areas. They look for opportunities abroad and those who fail in doing so, settle in urban areas.

Where have we gone wrong?

The training of the health personnel need to be based on the local needs. The knowledge of the local health problems, health needs and factors influencing the health status of the population is essential if we wish to plan for the training of health manpower relevant in local context. The available technology and skills should then be modified to fit into the socio-cultural set up of the country to achieve the desired objectives. These critical factors were not given due weightage by our medical education planners.

With 108 medical colleges producing nearly 12,000 allopathic doctors every year. 8,000 of whom go in for specialisation, we, in India, are investing nearly 2.4 billion rupees every year on the training of these doctors. Nearly two-thirds of these settle down in urban areas and the rest who are forced for rural service find a wide gap in their skills and challenges in the rural set-up and are unable to deliver the goods.

His training in the medical college makes him a specialist, who can diagnose and treat ailments only if sophisticated equipments are made available to him, whereas in a health centre he is expected to exercise his skills as an administrator, as a team leader and as an organiser and manager to institute preventive, promotive and curative measures to improve health status of nearly one lakh rural population within limited resources.

What can be done?

The Indian Medical Council of India has recommended a rural posting of undergraduates for 4-6 weeks and of interns for 6 months. But, in most of the medical colleges, the period of rural posting of interns is reduced to 3 months, due to resistance both from the clinical faculty and the students themselves. Can the desired rural orientation be made by merely posting interns and students to rural areas? Is it the responsibility of the discipline of Preventive and Social Medicine alone? What should be the commitments of the other faculties in the medical college in shaping the future doctor in the national context? All these queries must be seriously considered and suitable interventions be made in the existing system of medical manpower training. The production of the right type of 'doctor' should be the responsibility of the entire factulty of medical college. The clinical faculty, which very often controls the decision making process, must pay a visit to rural areas, reorient themselves to the needs of the masses, and then sit together and discuss to reframe the teaching pattern. Drastic changes are needed and these can fit into the existing set up. The need is to realise the commitments towards the masses. All the faculty of medical colleges should do exercises to develop a multi-disciplinary, problem-oriented, practical teaching and training approach, which could be more relevant than the present one, which very often alienates the young doctors from their own culture and communities. ●

HEALTH EDUCATION AND PREVENTION OF AIDS

DR (SMT) N.A. NATH

The AIDS pandemic poses serious questions for public health experts. Health administrators and medical professionals realise that health education is the most important tool to curb the spread of AIDS.

"HEALTH is neither a commodity to be purchased, nor a service to be given; it is a process of knowing, living, participating and being", says the country's national health policy. It clearly enunciates that one of the aspect of health is "Knowing". Various aspects of a disease, mainly its prevention, are to be made known to the people, so that they can take timely action to prevent disease and thus remain healthy. Whenever a new disease or a new disease syndrome threatens to strike, it becomes obligatory on the part of health professionals to create awarness amongst general public regarding all possible modes of preventing it. It also becomes obligatory to educate the high-risk group or the target group so that they alter their behaviour and succeed in preventing the infection. If a disease can be prevented by an alteration in behaviour, then the achievement of this altered behaviour enables its incidence in the community to be reduced. To alter behaviour, where it causes disease, is the aim of health education.

Indiscriminate sex or sexual aberration is one of the most important modes of transmission of Human Immunodeficiency Virus (HIV) called the AIDS virus. As the world is facing AIDS pondemic, each affected country is evolving its own methodology for creating public awareness. In India, so far, the methods adopted have been to transmit the scientific knowledge available on AIDS to the general public through mass media. In the absence of any epidemiological findings on AIDS in our country, the health education and communication strategy cannot be developed. Based on the pattern of diseases as available from other countries, the following steps for creating awareness and for education of high-risk group have been evolved.

I. Health Advocacy

It was felt that scientific information on AIDS should be made known to administrators, medical and health professionals to enable them to take necessary action in prevention of AIDS. Some of the groups identified are:

1.1 *Administrators*

- Of health department
- Education department
- Information and Broadcasting
- Social Welfare Board
- Defence
- Tourism Department
- Border Security Force (BSF), Police Department, Jails etc.
- Voluntary Organisations.

1.2 *Medical Professionals*

- In Government service both at urban and rural health set-up, medical colleges, medical officers manning blood banks, STD Clinics and laboratory service.
- In private practice including blood bank incharges, sexologists etc.

II. Orientation of Health Staff

- Nursing personnel
- EPI workers
- Malaria Surveillance Worker specially those who make blood slides.
- Laboratory technicians
- Blood Bank technicians
- Other category of health staff.

III. Information to General Public

- Youth organisations
- College students and students at higher secondary level.
- Teachers
- Industrial workers
- Hotel staff
- Reform home inmates

IV. Health Education of High Risk Groups

- Homosexual, heterosexual men
- Prostitutes and call girls
- Drug addicts
- Professional blood donors and blood recipients.

V. Patient Counselling and Rehabilitation of patients having AIDS related complex (ARC) or full blown AIDS disease:

Health administrators and medical professionals realise and accept that health education is the most important tool available in our hand to curb the spread of AIDS. However, they realise that objective of health education will be based on subjective attitude and sex behaviour of the target population group. They also realise that health education methodology will be based on testing of various methods which can create a positive impact on the

people. However, some of the problems need to be resolved and questions answered, before any method can be tried out. Some of the problems visualised and questions raised are:

— What are the criteria for defining high-risk group or target group for education? As the epidemological data on AIDS for India is not available, how can the target group be defined?

— There are very few studies, if any, on sexual behaviour of different population groups. Most of the information on homosexuals or heterosexuals are based on assumptions.

— What are the sexual norms? And who decides these norms? Obviously, the responsibility lies with individual society. But where polygamy has religious sanction, where endogamy and sexual promiscuity are overlooked or have societarian sanction, what sexual norms can be adopted and advised?

— Health education for those high-risk groups who have sexual aberration, will be more akin to moral education for adults and sex education for youths. If that be so, who would educate this group—health staff or social workers?

— Are our people receptive to moral and sex education? And as a corollary, are our health or social workers capable of educating on these sensitive topics? If yes, then what are the parameters? What method and approach has to be tried out?

— What percentage of drug addicts use syringes for injecting drugs? And who are the drug addicts? Are they coolies? Or emotionally displaced youths?

— Do we have information on the Indian emigrants coming to India on vacation from countries already infested with AIDS? What form of screening and educational policy will be adopted for them? There are hundreds of Indian labourers who visit home from the country of their work. They could be the potential carriers of the AIDS virus.

And lastly, what would be the optimum approach for health education? People and professionals have been enquiring whether we are not overplaying! Some also feel that we are underplaying. None of these questions is easy to answer, and therefore whatever method of education is adopted, it has to be watched, modified changed and reconstituted. One thing is certain that if the general public is not alerted, and if the disease spreads and takes its toll, it will be too late to do anything. Any approach tried for the first time has to meet the criticism, invite comments and discussions. But, that should not create hurdle in carrying out the task, which the administrators and health professionals have started. Any new venture, scientific or otherwise, attracts the Press and other media. Articles on AIDS started to appear from September 1985 in the Indian magazines. May be even earlier than that. Although the outreach of these magazines may be limited, but the final responsibility to convey authentic information on AIDS lies with the health professionals. ●

A I D S

Answering the Vital Questions

AIDS is an incurable disease. Prevalent worldwide, though it is more common in some countries than others. It proves fatal, though everyone, who is infected with the AIDS virus does not develop AIDS. The virus is caught by blood or semen from an infected person getting inside your body. People can be infectious even if they look and feel completely well.

Q. Who is most at risk?

A. Men who have sex with other men.
People who have sex with prostitutes.
People who have sex with many other people.
Drug misusers who share injection needles.
People who receive blood transfusion in countries where blood is not checked for the AIDS infection.
People who receive injections with infected needles.
The sexual partners of the above groups.

Q. If you have sex, how can you stay safe from AIDS?

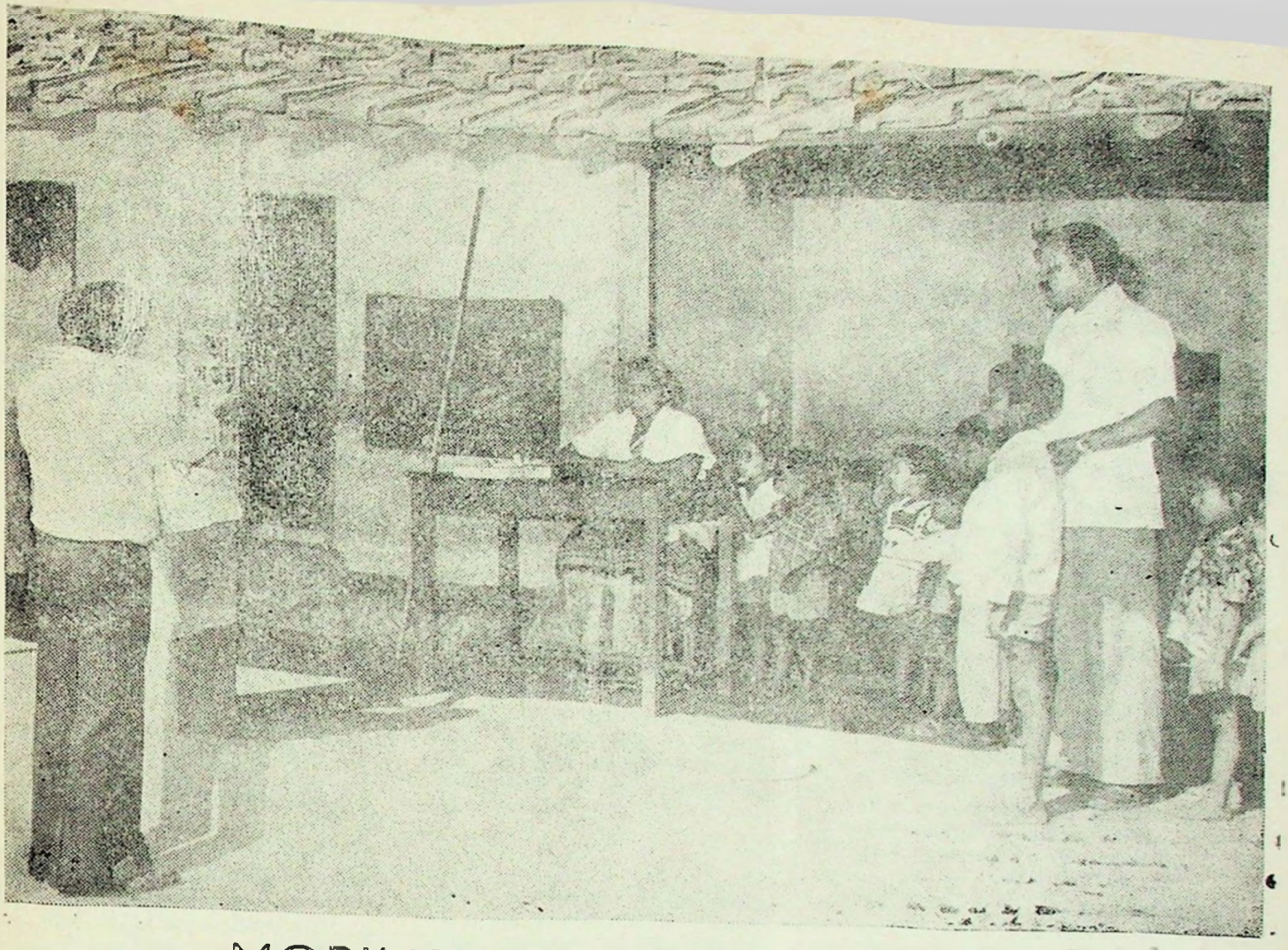
A. The fewer people you have sex with, the less chance you have of meeting someone infected with the AIDS virus. So cut out sexual relationship and avoid prostitutes. It is better to keep relationship only with your spouse or with one partner. If you have sex with someone other than your usual partner, make sure, that a condom (Nirodh) is used to cut other sexually transmitted disease. Remember, if you become infected, you can pass the virus on to your usual sexual partner on your return home.

Q. If you need blood, medical or dental treatment involving injections, can you catch the AIDS virus?

A. In some countries, blood for transfusions is not checked for the AIDS infection. Hence in places where infection rates are high, do not have blood from a local donor if you can avoid it.

If you take medical or dental treatment from the Government run hospital, dispensary or primary health centre, you can be sure that the equipment are properly sterilised and there is no risk of getting AIDS infection. Also, if you take treatment from a qualified medical practitioner or a qualified dental surgeon—you can be sure that their equipments are properly sterilised.

If you read this, share your knowledge of prevention of AIDS infection with others so that more people can learn how to avoid AIDS infection.



MOBILISING TEACHERS FOR VISION SCREENING OF STUDENTS

SMT. C.K. MANN
DR U.C. GUPTA

RAHUL was very sad. He did not go to play during recess time. Earlier, his teacher had remarked that he was inattentive in the class and is disturbing the boy next to him besides copying from his note-book. He felt insulted. He was not able to explain to the teacher that he could not read what was written on the blackboard from a distance. Probably, he was not given the opportunity to explain his inability to copy from the blackboard.

Rahul's teacher sent a complaint to his parents that he was weak in his studies and often he did not do his home-work. Rahul's mother was also very angry. She was not able to understand why her son was weak in the class. Whenever she would ask him to do the homework, he would complain of headache. The mother often thought it was an excuse. But, none bothered to know the real cause.

There are such examples of children's behaviour when they are found to be weak in their scholastic performance. Neither the teacher nor the parents ever tried to find out the real cause. In both the cases, as quoted above, the children were having problems with vision. Rahul was not able to see properly what was written on the blackboard and that is why he was trying to copy from a boy sitting next to him. The teacher failed to observe the real problem of Rahul. Evidently, the fault was not of the teacher. She was not oriented to observe the health defects and deviations among the children.

The anxiety of Rahul's mother about his poor performance in the class was genuine. Any parent would be concerned. But both the parents and teacher failed to understand the real cause of the headache which was misunderstood as a lame excuse by him.

In a public school, to have the students top in the board examination, its Principal arranged for a special class for the weak students to remove their shortcomings. Surprisingly, on a routine eye examination, it was observed that most of the students of this special class were suffering from myopia which was responsible for their disinterest in the classroom teaching. Had the teacher been able to identify these defects earlier, no extra inputs were required by the principal.

Such undetected conditions affect the studies of the students and can lead to acute and chronic conditions in the latter life. The developing countries with their meager resources can ill-afford such health conditions. Half a million children go to the eye specialist or to a hospital when the damage is done and nothing can be done to restore the eyesight. In India alone, about 30-40 thousand children become blind annually. The total number of blind population is around 9 million. About two-thirds of this blindness is preventible if appropriate and timely action is initiated. The contributory factors are:—

1. High level of illiteracy and resultant ignorane of measures for eye care.
2. Superstitions, traditional beliefs and cultural undesirable eye care practices.
3. Lack of comprehensive planning to combat the problem.
4. Dearth of needed resources in terms of manpower, logistics, sophisticated equipments and other infrastructure.
5. Inadequate use of mass media communication for the education of the community to create awarness and public acceptance of Government programmes.
6. Absence of community participation to seek preventive intervention, early detection and treatment to restore the eyesight.

In view of the importance of the protection of vision and magnitude of the eye problems and considering the factors identified for the aggravation of these problems a study was undertaken to demonstrate how teachers can be mobilised in the vision screening among the school students. The selection of the study was based on the following issues: —

1. Prevention is definitely better than cure as it saves enormous resources required to be invested in institutional care and sophisticated equipment needed for treatment and rehabilitation.
2. Education is the main medium of prevention. To what extent educational institution itself can extend help in this sphere?
3. To overcome wide gap between manpower available and required; to what extent teachers who offer tremendous manpower potential, can be mobilized?
4. Early detection of any visual deviation will not only save from further deterioration, eventually, leading to chronic and acute conditions but will help in early protection and early restoration of eyesight.
5. Since ignorance due to illiteracy, traditional beliefs and cultural practices account for undesirable eyecare practices and thus leading to high incidence of blindness; how far the educated class particularly those who are the provider of education are aware of the importance of eyecare and factors leading to blindness.

Objectives

1. To develop a strategy for mobilizing teachers for prevention of blindness so as to fill the gap between the manpower required and available for this programme.
2. To assess the knowledge of teachers with regard to eyecare and practices desirable for the prevention of blindness.
3. To orient teachers by providing scientific knowledge about eyecare and preventive measures related to blindness control.
4. To seek active involvement of teachers in conduction of actual vision screening for early identification of eye defects and deviations with a view to referring the students with defective vision for early treatment.
5. To determine the scope of the role of teachers in eye health education of the students and the parents.

Strategy for mobilizing teachers

The following strategy was worked out for involving teachers in the prevention of blindness programme:—

1. Assessment of the knowledge of teachers with regard to eyecare practices and factors leading to blindness.
2. Teachers' Orientation Programme to provide up-to-date scientific information related to prevention of eye health problems and desirable eye care practices.
3. Orientation of teachers to observe eye defects and problems.
4. Training of teachers in conducting vision screening, through demonstration.
5. Vision screening of students by the teachers.
6. Referral of students having defective vision or other eye problems to ophthalmologist.
7. Eye examination by the ophthalmologist to determine visual equity and other eye problems among the referred students.
8. Intimation to parents about the identified defects or deviation found among the students for getting early treatment.
9. Feedback to the teachers about the treatment offered by the family doctor.
10. Involvement of teachers for follow up to ensure (1) regular use of glasses if prescribed, and (2) regularity in treatment prescribed in case of infections of the eye, (3) regularity in the intake of Vitamin A rich food.
11. Involvement of teachers in providing eye health education to the students and the parents so that they are able to take appropriate preventive measures.

Selection of School

In India, two types of school systems are common—Government-run schools, which generally cater to lower socio-economic strata of society, and the "Public Schools," run by the private organisations or individuals that cater to middle and higher income group communities. This project was undertaken in one of the public schools because a number of studies have already been

undertaken in the government-run schools. The main hunch in the selection of the school was to determine the extent and type of eye problems among the children of the so-called educated families. The selected school has 2,200 students having classes from third grade to twelfth standard with a teacher strength of about 100. The socio-economic status of the community can be termed as higher middle and higher level.

Assessment of teacher's knowledge

A proforma was developed to assess the knowledge of teachers regarding the importance of eyes and vision: types of common diseases of eyes: factors responsible for eye problems particulary the night blindness: food rich in Vitamin A and desirable eyecare practices. This proforma was administered to 50 teachers who were selected at random basis. The analysis of the responses received indicate that even though a majority of teachers particularly the ones with science background had good knowledge about these eye health problems, most of them were not aware of the preventive measures. Many of them knew about the sources of food rich in Vitamin A, but very few knew that lack of Vitamin A causes night-blindness. Majority of them never observed the children for vision defects as they considered it the duty of parents to take the child for vision examination to the ophthalmologist in case a child complains of vision problem.

Teacher's Orientation Training Programme:—

One-day teacher's Orientation training was organised on the (1) importance of care of eyes and prevention of blindness among the students, (2) structure of eye and common eye health problems, (3) teachers' observation of the eye problems among the students and their role in the prevention of blindness, (4) demonstration of vision screening with the help of Snellen's Eye Chart. This orientation training was attended by about 95 teachers out of 100, who showed keen interest by taking active part in discussions and raising a variety of questions. The thrust of the whole orientation was on clarification of certain queries and issues seeking up-to-date information. The information provided was supplemented by (1) folder on the "Role of teachers in the prevention of blindness", (2) Folder on guidelines for vision screening, (3) Poster on golden rules for eyecare, and (4) Posters on healthy practices for eyecare.

Visions Screening of students by teachers.

On the day of vision screening of the students, teachers were again given instructions for conducting screening test. They were explained five important aspects essential for proper screening. (1) Snellen's Eye Chart should be placed on the wall of classroom at the eye level of the student, (2) no glare should fall on the chart so that the students do not have to strain the eye due to glare, (3) screening test should not be conducted in the presence of all the students so as to avoid cheating by the rest of the students, (4) covering one eye by the cup of the palm of the hand, (5) making the student stand at a distance of 6 metres from the chart.

The students were made to stand in the queue outside the classroom. They were sent inside the classroom for vision screening, one by one. Teacher with the help of a senior student recorded the information and referred the students with vision problem to the opththalmologist. The student with vision defect and any other eye problem was examined by the specialist, who further referred him to the parents indicating his specific problem so that parents can take him to family eye specialist.

In this way, 2101 students out of 2,200 were examined by the teachers in only 10 days. The findings showed that about 27.4 per cent of children were suffering from vision defects which in most of the cases remained undetected.

Had these children continued to be left undetected, it would have further deteriorated their eyesight leading to blindness? It was also observed that in one hour, one teacher can screen the vision of about 30 students thus only 2 minutes were required for each child. This also generated lot of interest and enthusiasm in the teachers about the importance of the care of the eye health. Thereafter the teachers organised eye health education classes for the students and the parents.

In view of the high percentage of children with vision defects, every one seemed to be concerned. It aroused tremendous interest among the teachers for the eyecare of children. Everyone seemed to be curious to know the causes of it and what preventive or remedial measures could be undertaken. Hence, it was thought that a School Health Advisory Committee may be set up to evolve an educational programme for the students, teachers and parents. The Advisory Committee's members included Principal of the school as the chairperson and the School Social Worker as the Convenor. The other members included three teacher representatives, School Medical Officer, Senior Opthomologist and three student representatives. The Advisory Committee members held discussions to identify the factors which could be responsible for this high magnitude of the problem.

Table—Number of Students screened and found with vision defects.

Classes	Nos. Screened	Nos. with Vision defects	
III	351	137	(38.9%)
IV	337	61	(17.8%)
V	340	68	(20.0%)
VI	256	85	(33.2%)
VII	216	54	(25.0%)
VIII	166	53	(31.92%)
IX	122	40	(32.7%)
X	104	28	(27%)
XI	95	23	(24.2%)
XII	144	27	(23.6%)

However, following factors seemed to be responsible:—

1. Early stress on the child for school education. There is a trend to admit the child in the school at a very tender age of two and a half to three years. By this time, even his eye muscles have not grown to full.
2. Early start in reading and writing. Majority of parents expect their children to begin reading and writing at the early age. The competence and performance of the school is judged by the ability of child for reading and writing at the age of two-and-a-half to three years.

(Continued on Page No. 57)

ALCOHOLISM

Begins with "Cheers" But Ends Up in Health Problems

K. BALAN

The increasing drink–drug habit among the youth is of a national concern. When they do it in private, it attracts nobody. But, when it erupts as a volcano of health problems at a later stage that will erode the nation's wealth because such a health calamity among the youth is unbearable, indeed.

THE recent findings of an unofficial survey that 25 per cent of the youth in Kerala drinks alcohol is not alarming or surprising because it seems to be only a tip in the iceberg considering the illicit liquor trade and private-habit of drinking among the younger people. At the all-India level the findings of such a study may be more as the drinking habit has increased considerably in recent times, according to authoritative sources.

But, astonishingly, the recent reports of a study conducted by the prominent Soviet Psycotherapist, Mr. Vladimir E. Rozhdin, who had devoted more than 30 years to the study and treatment of alcoholism in Soviet Union, raises an alarm for drinking youth everywhere. The book based on his study and titled as "*We are men*" says even a small amount of alcohol can do irrepairable harm to young men, who take to drink at an early age. The phyciological formation of the male organism is completed only at the age of 25 and alcohol consumption by adolescents leads to extremely "undesirable" shifts in their nervous endocrine and urogenital systems.

Now the findings will reveal how the health potential of the youth of the nation can be eroded if they are habitual drinkers. They have to avoid drinking alcohol to avoid future physiological complications in them and also to prevent alcohol related health problems in the country.

As early as 1979, resolutions passed by the World Health Assembly of WHO recognised that problems relating to alcohol rank among the World's major public health problems. Since then the consumption of alcohol has increased considerably its quality deteriorated with more and more adulteration and the health problems multiplied, particularly in the third world.

The increasing drink-drug habit among the young and tender population is a national concern for a country like India. When they do it in private of campus, it attracts nobody, but when it erupts as a volcano of health problems at a later stage that will erode the nation's wealth because such a health calamity among the youth is unbearable to any developing country.

In the third world, where the majority people take shelter under a small income to live a half-starved life, and who always live in the vicious circle of poverty, drinking costs heavily to the individual, the family and the nation. They are increasingly becoming victims of illicit trade, sub-standard or adulterated products and are forced to spend a good part of their income for alcohol. The result is suffering to the other family members. So much so, it leads to undernourishment and socio-economic problems of the family and ultimately increase the national burden. The habit of drinking among the elders of the family comes down to the children also in course of time.

Drinking, they say, seriously affects the human system including heart. Drinking leads to cirrhosis. In Australia, it was found that about 50 per cent of psychiatric problems are due to drinking. In the third world in general, and in India in particular where these are alarming rates of mental disorder and social problems, much headway has not been made to find out the amount of damage done by alcohol among the drinking population. Studies both in the developed and developing countries attribute the reasons for majority of the road accidents in the third world as drinking alchol.

In drinking families, particularly where parents are heavy drinkers, there exist multi-faceted behavioural and social problems which affect the shaping of the attitude and outlook of the children in the family. Thus most of the younger people in the drinking circle are facing serious challenges of ill-health sooner or later.

Another important concern is that heavy drinking habit among the highly placed people whose occupation is directly or indirectly connected with the life of the people like civil servants, surgeons, physicians, drivers and such other professions, will have its influence, overtly or covertly, on the decision they take or work they do affecting others.

Not a remedy for depression

As the misconception of many is, alcohol is not a remedy for the high degree of depression and anxiety among the people, particularly younger people. It has to be treated in medically. Research findings have confirmed that heavy drinking women will have children with certain abnormalities such as congenital abnormalities, growth retardation or functional abnormalities detectable through neurological examination. This will serve as an eye opener to the people in the third world and to the new entrants to drinking.

Considering the serious problems created by drinking drivers, several countries like Finland, Greece, the Netherlands, Norway, Yugoslavia, etc., have prohibited drinking before and during driving. If the third world countries can follow this and enforce rigid punishment such as permanent cancellation of driving licence, a lot of problems related to this can be solved without much difficulty.

Lack of family control

What is more disturbing is that most of the youth do not know what to drink and why to drink and they drink often what is given on as is where is condition. They are led to drinking due to various social and family problems. Absence of strict control at home also sometimes takes children to drinking habit. They do not know the serious health problems involved in drinking. Educative material published on health problems of alcohol, is probably not reaching out to this segment of population effectively.

In developed countries serious consequences of alcohol addiction have already been brought to light after years of study and research and on this basis the World Health Organization have already provided necessary guidelines to the developing countries of the world. In the developed countries, rigid rules and intensive health education are the two wheels swiftly moving towards the minimization of the incidence of drinking among the youth. In the third world, absence of any specific research in the area has resulted in the merger of alcohol-related health problems with other diseases. And there is need to fight this menace before it becomes uncontrollable.

Lessons

The following lessons from the developed countries may be helpful to us in achieving better results in this regard and preventing misuse of alcohol to create health problems.

(a) General parental control.

(b) Rigid rules of Government.

(c) Limit the supply and reduce the demand.

(d) Reduce the hazardous chemicals and substances and publish the approved formula of the items sold.

(e) Fight illicit liquor trade and adulteration on war footing.

(f) Research on the health problems of liquor.

(g) Education and publicity.

It may not be possible to ban drinking completely at this advanced stage. Even if a strict prohibition is introduced at this stage, that will lead to illicit trade, black-marketing of alcohol, lawlessness and other problems. In the USA such a ban from 1920 to 1933 has proved unworthy and prohibition was lifted. But this should not mean that the same should happen in other countries also. There are several Gulf countries where prohibition is a success.

So the best way in the present circumstances is to have effective control which may be done on the basis of the following:

(a) Fully licensing the trade; restricting licences, reducing total production gradually.

(b) Products manufactured with approved formula will be allowed to be sold.

(c) Restricted time for sales in approved retail shops.

(d) Ban on sale of drinks to teenagers and those under 25, particularly school and college students and others of similar age.

(e) Complete ban on drinking before and during driving with stringent punishments like cancellation of driving licence permanently.

(f) Complete ban on all advertisements as has been done in countries like Canada, Costa Rica, Mexico, the UK, Sweden and Polland.

(g) Introducing an alternate to drinking, *i.e.*, less harmful drinks.

(h) Reducing idleness among the young with increased educational and employment opportunities, sports, games and other recreational and library facilities.

(i) Strict punishment for adulteration and sale of sub-standard products.

(j) Health education and publicity on alcohol-related problems.

Health education

Health education involving all sections of the people, health education material in school and college curriculum, parental control at home and strict campus control in hostels and colleges, celebration of National Anti-Drink Day, publicity through TV, Radio and the Press and display of posters and exhibition of films on the subject are some other means to reach the end aimed at. Positive results in this direction are necessary to achieve the goal of Health for All by 2000 AD. ●

(*Continued from Page No. 55*)

3. Heavy load of studies. Our public schools are loading the students heavily with variety of subjects even from the primary classes. Lot of emphasis is laid on the academic studies in the school as well as in the home in the form of home work.

4. Increased viewing of T.V. and video. Public schools draw children from affluent families. Each home has a T.V. and majority out of them have videos. There seems to exist a craze for these two and generally children are glued to them whenever they have time.

5. Ignorance about the appropriate distance to be maintained between the T.V. and the viewers. In most of the homes, it has been observed that children sit very close to T.V. sets while watching.

These factors demanded for a comprehensive educational programme for students, teachers and parents. ●

What is Wrong with Kavita's Maths?

DR R.L. BIJLANI

IT was a Wednesday which started like any other day at school. In class VII, the teacher wrote a few sums for the class on the blackboard. The first sum was:

$$4a^2b \times 3a^3b^3 \times 5a^1b^2$$

After a few minutes, the teacher went towards Kavita's seat. Kavita was one of the best students of the class. The teacher was sure that her answers would be right. The teacher thought that after her notebook has been checked, Kavita could check a few other notebooks. Kavita's answer to the first sum began all right with 60, but, what a terrible surprise it was for the teacher to find that the powers were all wrong: a^1b^5 instead of a^6b^6. "Kavita, what is this? The very first sum is wrong. Can't you even add?" shouted the enraged teacher. Kavita was not surprised at the teacher's outburst because although she was hoping her answer would be right, she know all along that it was wrong. She had not been able to read those little-little 'powers' from the board. How could she get the answer right when she had got the question wrong? What Kavita was not prepared for was that the teacher would choose to check her copy first. Now that the worst had happened, in order to avoid further consequences of the teacher's wrath, Kavita managed the mumble, "Madam, I could not read the board properly." Now the teacher know that there was nothing wrong with Kavita's maths, but something was wrong with her eyes.

Vague feeling

Kavita's eyesight had been deteriorating for a few years now. In the beginning she did not know, but for at least two years she had been vaguely aware of it. She generally sat in the front row, and could therefore read the board. Once in a while, when there was some difficulty, she had learnt by experience that she could see more clearly by squeezing her eyelids a little. But on that fateful Wednesday, she was sitting in the third row, and hence the squeezing trick had not worked. Kavita had thought several times that she should tell her teachers or her parents about the weakness of her eyes. But she had not been able to gather enough courage for it. She had a vague feeling that the problem was somehow connected with her fussiness about eating vegetables. A sense of guilt and shame prevented her from talking it over to anyone. But the maths episode had helped her accomplish in a moment what she had been unable to do for months.

The teacher thought the best course would be to first send Kavita to Mr. Mehra in the school dispensary to have her eyes checked up. In the dispensary there was a white chart on which were written several rows of letters of the alphabet. The topmost row had only one letter, which was very large. As one went down the chart, the number of letters in each row increased, and their size decreased. Kavita was made to stand quite far away from the chart and asked to read it from above downwards, with one eye at a time. She could make out only a hazy 'E' at the top. She reflexly squeezed her eyes, and suddenly she could read the next line also—'T' and 'B'. But Mr. Mehra told her not to do that. He gave her a note for her parents saying that her vision in both eyes was $\frac{6}{60}$, and that her eyes should be examined thoroughly for a prescription for glasses. Kavita didn't like the idea of glasses at all, but she just asked Mr. Mehra what

$\frac{6}{60}$ meant. He told her that she read the chart from a distance of 6 metres. The 'E' that she could read can normally be read from a distance up to 60 metres. Since she could read from a distance of 6 metres only the 'E' which can normally be read from 60 metres, her vision was $\frac{6}{60}$. She thanked Mr. Mehra and came back to the class with a heavy heart.

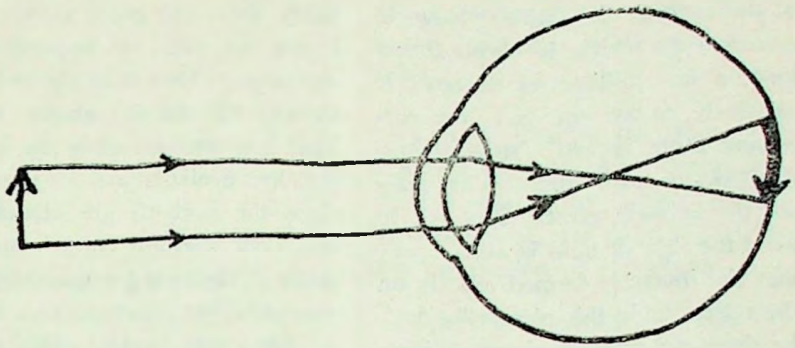


Figure 1

Structural defect

At home, when Kavita's parents saw the note from school, they were visibly sad. They confirmed her fears when at mealtimes they grumbled about her not eating green vegetables in spite of her eyes having gone weak. They took her to a doctor for an eye check-up. The doctor confirmed that her eyes were weak, and she needed glasses. She would have to make three visits to the clinic to get a prescription for glasses, she was told. The repeated visits to the doctor gave Kavita and her parents a chance to get closer to the doctor. And luckily, on the third visit, when he gave them the prescription, Kavita was his last patient. Since there was no other patient waiting, Kavita's father asked the doctor a question which had been bothering everyone at home. "Doctor, is it possible that her eyes have grown weak because of some vitamin deficiency?" he asked. The doctor replied, "Possibly not. The defect in Kavita's eyes is a purely structural one." He picked up a piece of paper, took out a pen from his pocket, and drew the following picture (Figure 1).

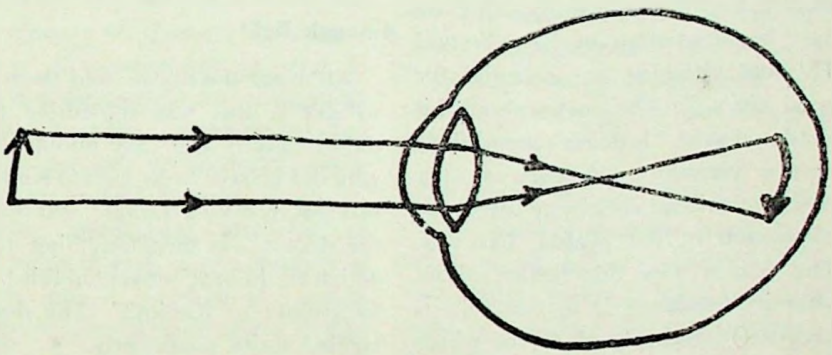


Figure 2

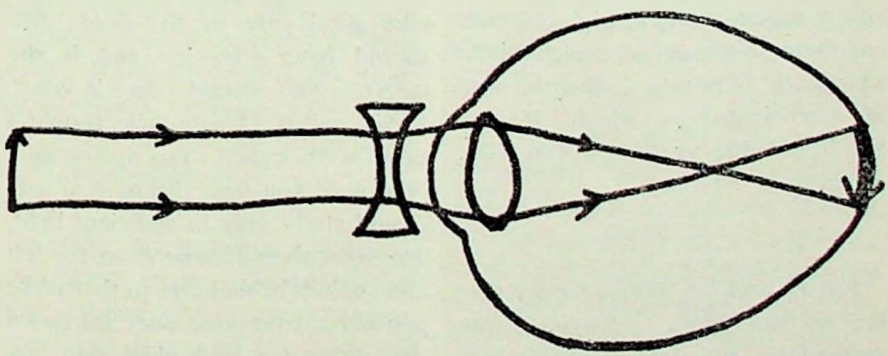


Figure 3

He continued, "Normally distant objects form a sort of picture, called an image, at just the right place in the eye as shown in this picture. This is made possible because the length of the eyeball and the capacity of the eye to bend rays of light are well matched. But in case of Kavita, and many other people, the eyeball is a little too long, as in this picture". And, he drew another picture as shown in Figure 2.

He continued, "The result is that the image is formed a few millimeters in front of the sensitive layer

of the eyeball, the retina. Now, in a structure, which is about 2.5cm long, a few millimetres of error is relatively minor—in fact, the surprising thing is why such errors don't occur more often. What glasses do in such erratic eyes is to bend the rays of light in such a way that the image is formed exactly on the retina, as in this picture." And, he drew yet another picture (Figure 3, Page 59).

While he was drawing the above picture, Kavita's fater said, "But we have heard so aften on the radio and TV that vitamins are essential for good vision." The doctor shook his head and said, "It doesn't seem likely that a vitamin deficiency or any other nutritional deficiency can cause elongation of the eyeball like this. The reason why this feeling about vitamin deficiency is so common is because vitamin A, plenty of which is found in carrots, is important for normal eye function. In case of vitamin A deficiency, one of the first symptoms is night blindness, or inability to see clearly at night. Later on, there might even be ulceration, and finally blindness. But the sort of short-sightedness which Kavita has is not due to any vitamin deficiency."

Kavita and her father were satisfied by this reply. Kavita was particularly relieved of her feeling of guilt. Her father then asked the doctor, "Kavita studies a lot. Can she continue doing so? Or, will it make her eyes worse?" The doctor replied, "Glasses will not affect Kavita's achievements in any way. She can study as much as she likes. But I must warn you not to be upset if her eyes grow worse—probably they *will* grow worse. That is not her fault or because or her studying. That is likely to happen anyway till she is about twenty. That is so because while she is growing, her eyeballs are also growing. Since the eyeballs are changing in size, her eyesight can change, and usally it changes for the worse. But you need not worry about it. Just get her eyes checked once a year, so that if she needs a change of glasses, it can be done."

Enough light

Although the doctor told them not to worry, this was something they didn't exactly feel easy about. "Oh, why did it have to happen to Kavita!" thought Kavita's father, and asked the doctor, "Is there anything at all which could have prevented this from happening to Kavita?" The doctor replied quite confidently, "I don't think so. It is in-built in her genes. If her eyes had to grow this way, nobody could have prevented it. But all the same, it is better to take good care of the eyes. She should have done it, and if she hasn't, she should do it now". Kavita asked, "Uncle, how should I care for my eyes?" The doctor said, "I'm sure you have heard that you should study only in sufficient light. The light should come from the left and slightly behind you so that while you write, your hand does not cast a shadow on the area which you are watching. Keep the book or copy at a distance of 25 to 30 cm from the eyes. Wash your eyes with water at least thrice a day, and wipe them with a clean unused towel." "These are things which are important for everyone, no matter whether the eyes are weak or normal" he added.

Kavita's father could notice traces of hurry and irritation in the doctor's voice now. But he felt compelled to ask at least one more question. He said, "I am sorry doctor, we are troubling you too much. Now, this is my last question: is it possible for Kavita to get rid of her glasses?" The doctor said, "For all practical purposes—No. People might tell you some medicines, even simple things like walking barefoot on the grass every morning, and many such folk remedies as sure prescriptions for getting rid of glasses. But as far as I know, none of these works. Contact lenses do give one an appearance of being without glasses, but do not cure the basic defect in the eyes. Moreover, contact lenses are not advisable at her age. There is an operation which has come to us from Russia, and has just been started in India, which is as near a cure as one can get. But even that is not done at this age. When she is grown up, and wants to get married, we will see", he said with a smile, patting Kavita on her head. And as an afterthought, he added, "Kavita, take my advice. Get married only to a boy who likes your studious looks, glasses and all. O.K." On that note, they thanked the doctor and bade good bye to him.

In a few days, Kavita got her glasses and suddenly realised how clearly things could be seen. She had got so used to seeing things hazy. A wonderful new world had opened up for her. She could once again play properly because the ball or the shuttle cock was so clear. And, of course, she made no more silly mistake in Maths even if she was sitting on the last bench. ●

India on threshold of achieving immunization goal

A mid-course review of India's immunization effort, the largest anywhere, suggests a cautious optimism.

A great surge is undoubtedly underway towards the goal of immunizing all infants and pregnant women by 1990. But there is equally no doubt that only the most rigorous local planning and programme management can raise immunization levels in the regions which still lag behind.

The stakes are high. In the early 1980s, vaccine-preventable diseases were estimated to be claiming the lives of 1 million children annually.

Results are reinforcing the strategy adopted in 1985 when the Prime Minister committed the nation to universal immunization as a 'living memorial' to the memory of the late Indira Gandhi.

An Expanded Programme of Immunization was already in operation in all of India's 420 districts. Within that structure, the plan was to work district by district to 'deepen' immunization coverage from an average of below 30% to 80% or more.

In 1986, this plan went into action in 92 of the 420 districts. The coverage achieved so far is 63% for TB and polio, 68% for DPT, and 40% for measles. These figures compare with a national average of 33% for TB, 30% for polio, 35% for DPT, and 9% for measles.

In other words, coverage has been roughly doubled (and for measles quadrupled) in these 92 districts, with almost a quarter of India's population, which have been tackled to date.

In 1987, the programme has moved into another 90 districts to reach a total of 10 million infants and 11 million pregnant women. Maintaining the new level of immunization in the original 92 districts, while extending it to 90 more, is an enormous undertaking involving the coaxing of a vast and complicated system into co-ordinated action across a subcontinent divers in language and culture, climate and terrain.

Overall, the achievement on the supply side of the immunization equation—vaccine production, refrigerated distribution, and the training of health workers, administrators and engineers—has to be judged as remarkable.

In 1986, for example, 4,800 doctors, 72,000 paramedics, and 30,000 other community workers were trained to help in the effort. Secretaries of all state health departments and key people in each state administration are now being trained every year in immunization.

But reaching and sustaining a nation-wide immunization coverage of 80% or more will depend just as much on creating the demand as on ensuring the supply. And it is the demand side which still lags behind.

In every district, the plan is to mobilize all possible communications resources to raise public knowledge of, and demand for, the full vaccination of all infants.

Members of parliament and religious leaders, association of health professionals and businessmen, panchayat members and community elders, school teachers and child careworkers, sports personalities and the folk media, women's groups and youth organizations, are all now beginning to support the health services in promoting the immunization message.

So far, for example, 500,000 Indian primary-school teachers have been oriented on infant immunization and printed materials have been distributed widely through primary schools.

Radio and television are reaching tens of millions with the immunization message. And an estimated 100 million people are seeing advertisements for immunization in over 12,700 cinemas.

In other words, the capacity for information and support which India has built up in recent years is now being mobilized to achieve a great social objective—the saving of a million children's lives each year by universal immunization.

If that goal can be achieved and sustained, then the immunization effort of the late 1980s may also have pioneered a path for progress against the many other major problems of health and nutrition which still confront the nation's children.—From UNICEF feature, U. N. Newsletter, 26 Dec., 1987. ●

National Conference on Continuing Education of Health Personnel in Health Education

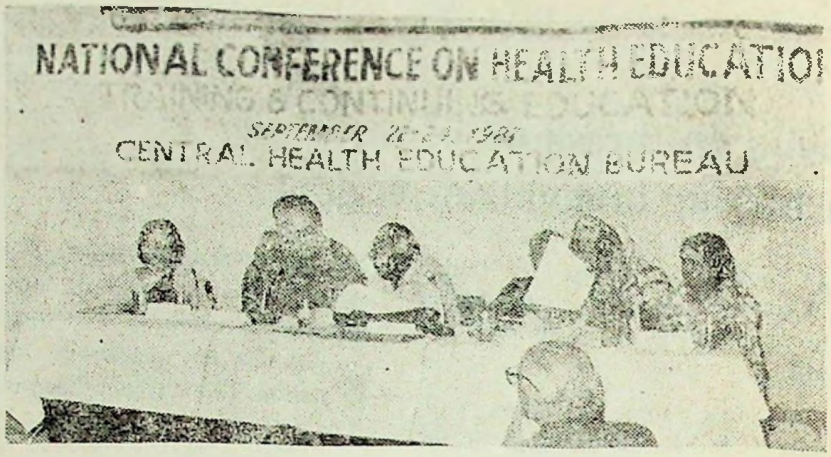
DR (SMT) V.K. BHASIN DR (SMT) S.V. DHARAN K.L. BATRA

TODAY, health education is recognised as one of the important elements necessary to accelerate India's march towards health status. Health education is also the first and the foremost element of primary health care.

The Government of India is a signatory to Alma-Ata Declaration and has also signed a health charter with the World Health Organization for achieving the goal of "Health for All by 2000 AD". Indeed, the goal is only 13 years away.

It is to achieve this goal, health functionaries at different levels are involved in carrying out health education activities. But, these functionaries need continued training to carry out their jobs effectively and to meet the changing needs of the community. Keeping this in view the Central Health Education Bureau organised the National Conference on continuing Education of Health personnel in Health Education from 22nd to 24th September 1987. The objectives of this conference were to review the educational contents in the job responsibilities, the training needs in health education and to evolve a strategy for continuing education in health education for health personnel at the peripheral level *viz*, trained *dais*, health guides, health workers, health assistants and block extension educators to enable them to work efficiently and effectively for achieving the goal of "Health for All by 2000 AD".

Thirty delegates attended the conference. They were drawn from State Health Directorates; National Institute of Health and Family Welfare, New Delhi; All India Institute of Hygiene and Public Health, Calcutta; the Gandhigram Institute of Rural Health and Family Welfare Trust, Tamil Nadu; Regional Health and Family Welfare Training Centres; Rural Health Training Centres; Planning Commission; and State Health Education Bureaux. Six resource persons from the Central Health Education Bureau and other organisations guided the participants in their deliberations.



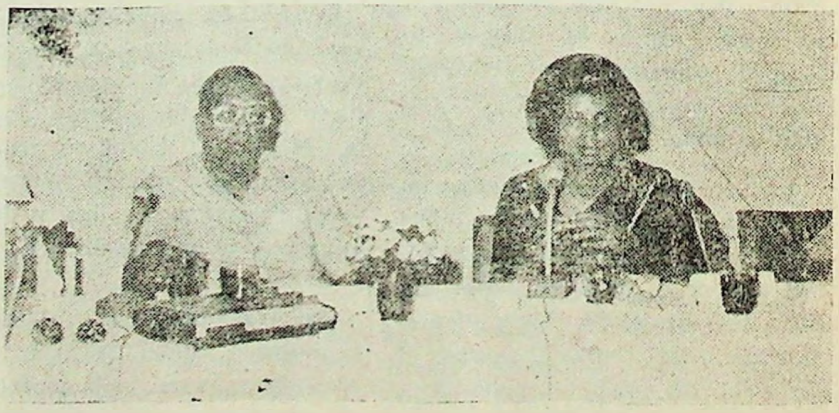
Dr Mahendra Dutta, Deputy Director General (Planning), Directorate General of Health Services (Third from left) inagurating the National Conference.

Dr B. Popovic, W.H.O. Representative in India actively contributed throughout the conference and helped arriving at meaningful decisions.

Importance of continuing education

The inauguaral address of Dr G. K. Vishwakarma, Director General of Health Services, who could not attend, was read out by Dr

Smt. Rami Chhabra, Adviser (MMC), Ministry of Health and Family Welfare who "shared her views". Dr Indira Bhargava, Deputy Commissioner (MCH) (left) chaired a plenary session during the Conference.



Mahendra Dutta, Deputy Director General (Planning). The address had drawn attention to the vital importance of continuing education in bridging the gap between the present performance and optimum performance of all health personnel.

Earlier, in her welcome address, Dr (Smt) V. K. Bhaisin, Director, CHEB traced the history of efforts for better health from the reign of Emperor Ashoka (third Century B.C.) to the present-day endeavours.

The objectives and methodology of the conference were presented by Dr (Smt) S. V. Dharan, Co-Director of the Conference.

In his address, Dr. G. A. Clugston, Regional Adviser (Nutrition) S.E.A.R.O., W.H.O. said that health education is the life and blood of all health programmes.

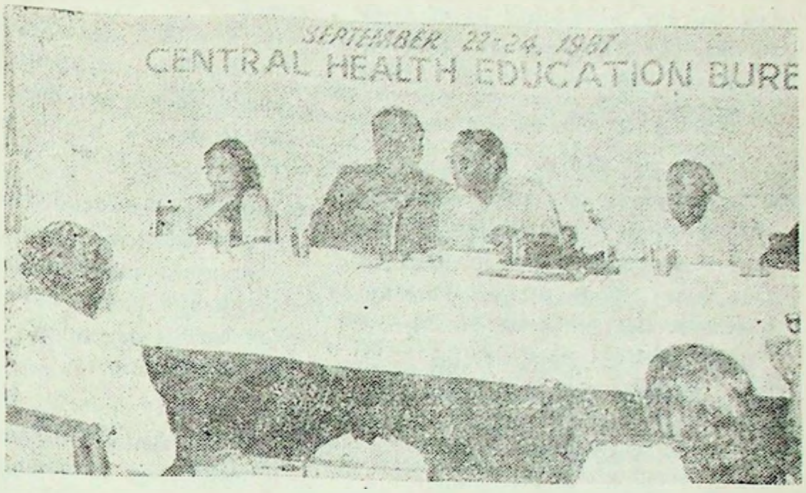
Shri K. L. Batra, Conference Coordinator, proposed the vote of thanks.

Inter-sectoral coordination

The first plenary session was chaired by Dr B. Popovic, W.H.O. Representative in India. Dr M. D. Saigal, former Director General of Health Services and W.H.O. Consultant delivering a key-note address on the "Role of Health Education for achieving Health for All by 2000 AD" emphasised the need for inter-sectoral coordination in continuing health education efforts.

The second plenary session was chaired by Dr. (Smt) S. K. Sandhu, Regional Director of Health Services, Chandigarh. Dr J. S. Chauhan, Professor of Health Education, Gandhigram Institute of Rural Health & Family Welfare Trust, in his talk reviewed the job responsibilities of health personnel and suggested modifications in the training curriculum.

The third plenary session was chaired by Dr. Indira Bhargava, Deputy Commissioner (MCH), Smt. Rami Chhabra, Adviser (MMC), Ministry of Health & Family Welfare, shared her views with the delegates on the need for integration of Health and Family Welfare activities. She cited the instance of success of ICDS programme which is a shining example of inter-sectoral coordination. This session was followed by lively discussion.



Shri P.K. Umashankar, Special Secretary, Ministry of Health and Family Welfare (second from right) delivering the valedictory address at the National Conference.

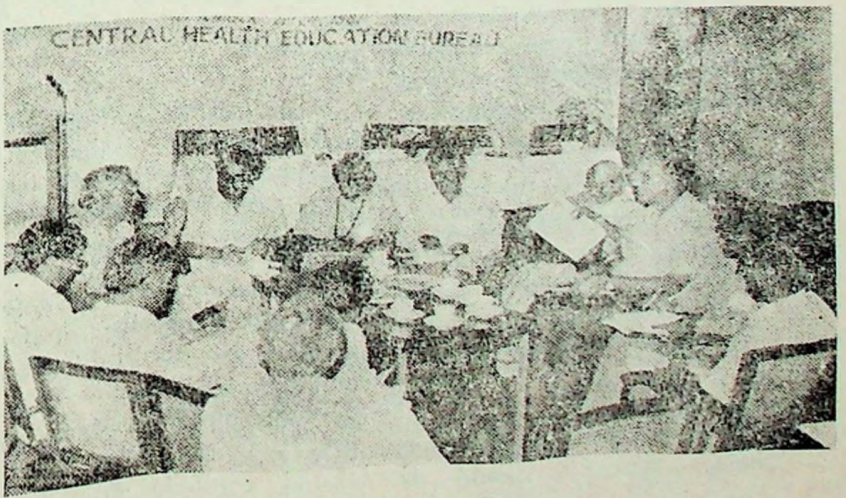
In the fourth plenary session under the chairmanship of Dr. (Smt) Ira Ray, Additional Director General (Medical), the objectives of the conference were reviewed. Valuable suggestions were given by Dr B. Popovic Dr M. D. Saigal, Dr B. S. Sehgal and Dr (Smt) S. K. Sandhu. The salient points made by the speakers were considered and the amended objectives were read out by Director, CHEB, and unanimously adopted.

The participants then met separately in two groups and selected their chairmen and rapporteurs and with the aid of resource persons had detailed discussions which continued on the second day of the conference.

Motivation

The reports were presented in a plenary session chaired by Dr A. K. Mukherjee, Additional Director General (Public Health). He said that the people on whom primary health care approach depended were not very well trained. Motivation was also lacking among health and medical personnel, he said. Dr Mukherjee

A group discussion in progress.



stressed on the utilization of folk media like *Kirtan* songs to communicate effectively with people on health matters.

The next plenary session on administrative, financial and technical support for continuing education programme was chaired by Dr Som Nath Roy, Director, National Institute of Health & Family Welfare, New Delhi. Dr Roy enlisted nine points that could form the basis for formulating recommendations on administrative, financial and technical support for continuing education programme. Dr B. S. Sehgal stressed the role of supervisors, and the value of maintaining a reference library.

An opinion questionnaire specially prepared for the conference by Dr Popovic was administered to the delegates on the last day to elict their opinion regarding different aspects of continuing education in health education. This was analysed and feedback provided immediately.

Evaluation of the conference was carried out with the help of specially designed and pretested proforma prepared by the Evaluation Committee for the conference. Responses showed that the delegates found the theme of the conference to be of vital importance in the present context.

Recommendations

The major recommendations of the conference were presented by Dr. (Smt) S. K. Sandhu on behalf of the participants during the valedictory session that include:—

- Training programme under continuing education should be task-oriented for skill development with maximum involvement of the participants in teaching-learning activities for all categories of health functionaries.
- Talking points related to various health problems existing in the community may be provided to the health guides for carrying out health education activities in the community.
- Adequate financial resources are essential for organising and implementing continuing education.
- Inter-State exchange of experiences among the faculty of training institutions, state health education bureaux and the key trainers at the district level should be provided for.

Health education

Shri P. K. Umashankar, Special Secretary (Health), Ministry of Health & Family Welfare, while delivering the valedictory address said that health education should be taken up seriously with clear objectives. There were adequate number of health personnel in the country, who are either not convinced about their educational task or not able to undertake the same, he said.

Their training programmes need to be evaluated so that the shortcomings are identified and removed. Health educators should be good communicators, he said.

If health educators are to change the health behaviour of the community, they need to develop communication skills among themselves for spreading the messages scientifically and effectively, Shri Umashankar concluded. ●

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BOOKS

Concepts of Health Behaviour Research, SEARO Regional Health Papers No. 13, New Delhi : Regional Office for South East Asia, World Health Organization, 1986, pp. 78.

As health promotion strategies receive more attention, many health researchers are finding health behaviour to be an important research issue. The South East Asian Regional Office of the World Health Organization, and Dr. Soon Young Yoon should be commended for bringing various reports and studies on this topic into a cohesive, readable document.

This book views health behaviour research (HBR) as a part of health system research which is needed to complement all primary health care components. It outlines the concept of health behaviour, defines the scope and direction of HBR in the South East Asia Region. It is meant for wide distribution among field workers, policy makers and health administrators (p.5).

The book is divided into six chapters: Background, Health Behaviour Research in the context of HFA, Current Trends, Examples, Methodologies and Approaches, and Conculsions. The introductory chapter briefly outlines the chronological development of the recognition of the need for HBR in WHO.

The second chapter begins with a defining health behaviour research as being "concerned with finding out what people know, believe, think and feel about health, and how much cognitive and effective (sic) basis are related to what they do" (p.11). The bio-psychological model of health is adopted, study is focussed on "the origins and causes of human behaviour in relationship to changes affecting health (p. 11). The scope reiterates the concern for studying human behaviour in relation to the whole social system.

The goals of HBR include: (1) promotion of participatory health development; (2) demystification of knowledge and provision of the means by which decision makers can anticipate, predict and influence behaviour in order to promote positive health behaviour; (3) development of an indigenous conceptual framework and methodologies appropriate to the needs of the developing countries, and (4) strengthening the use of research in national planning (p. 13, 15).

The third chapter, considers recent developments which influence the conceptualisation of HBR, such as the notion of culture, particularly the separation of the dominant professional health cultures and lay health cultures. Behaviour models adopted, should keep in mind the multiple therapy strategies utilised in most developing countries, and encourage family self-care and cure. In terms of community participation, it should be noted that factions are a rule in most communities, and local elites, "manipulate village politics" (p. 23.) Attention should be paid to identifying existing traditional organization instead of imposing alien structures. More research is needed on translating pilot projects into national programmes *i.e.* going to scale.

The longest chapter of the book, Examples, shows how medical and social science researchers can approach priority problems of the region. Apt, well written examples include self-care/life style, MCH and family planning, nutrition, malaria, water supply and sanitation, leprosy control, dengue haemorrhagic fever, community participation, health education, traditional medicine, and non-communicable disease. I shall only touch on two of these examples—community participation and health education.

In community participation, the importance of the attitude of planners is mentioned but this is not followed up. To me, this is one lacuna of this useful book. I find it strange that issues in planning, administration and management are not considered even though this book is aimed at policy makers and administrators. Perhaps, this book illustrates the fact that despite the recognition of the need for studying these aspects, eventually it is the "recipients" who are studied. To me, another crucial aspect of study would be the interaction between the community and the health care providers.

In the health education section, the emphasis is rightly on people's own perspectives and decision making processes which determine behavioural outcome (p.53). Thus, HBR should be a part of all health education programmes. I am glad to note that health promoting attitudes, beliefs and practices are included in this section, and the popular, spurious division between health education and health promotion is not made. Mention is made of the need of HBR for evaluating health education programmes. This is true, but also simplistic in that HBR is needed throughout the planning process for which evaluation is only a part. Moreover, I am suprised that much importance is given to KAP survey, albeit KAP is to combine participatory and qualitative research. Reliance on KAP has caused enough damage to health education research, so it should not be further supported in this forum. A salient topic, the use of HBR in planning, is subsumed in this as an important issue in its own right; it should have received adequate separate coverage.

Similarly, methodologies and approaches are covered in a cursory manner; it would have been interesting to discuss this in detail with appropriate examples, so that the reader could appreciate the differences in various methods and be able to choose methods appropriate to the problem. Another area which need HBR and which has been identified as one of the goals, the use of research in national planning, is neglected. What kind of research is needed to determine the reasons for non-use of HBR? This should be worked out before carrying out further HBR which would suffer from the same fate as present research.

On the whole, this book is valuable for both medical and social scientists. It brings attention to priority research areas and raises salient research questions. well thought out examples make interesting reading. The book should stimulate appropriate HBR which is essential for well designed health education programmes.—*Courtesy* SEARB Bulletin.

—**Dr Jayashree Ramakrisna**

Regd. No. R. N. 4504/57

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January	Anti-Leprosy Day Number
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