LEAD SPEECH

by Professor V. Ramalingaswami
Perspectives in Health and the Family

Derived from the latin "familia", the family is a body of persons living together under one head and in one house, including parents, children, relatives, servants and others. Persons of different ages live together in a state of interdependence. It is a social unit comprised of individuals; the units together in turn constitute the community. Each unit is more than the sum of its members; if one member is ill, it has a bearing on the family and on the community. Any discussion of the family must consider the individuals of whom it is made and the community of which is a part.1

The family as an institution is in a state of flux under the impact of modernisation and urbanisation. In many places, the extended family is giving place to the nuclear. Within the family itself, the functional roles and interrelationships of individual members are changing, be they biological, socio-cultural, educational or economic. "Generation gaps" are appearing. But the speed of change is very variable and even within the same village community, the range of variation may be wide. Sweeping generalisations should therefore be avoided but a broad perspective can be attempted.

Factors influencing family health - an ecosystem

Internal factors related to individuals within the family and external factors related to the community make up an ecosystem and their interaction determines the balance between health and disease in the family. Health and disease are not merely expressions of biological processes; they are influenced considerably by psycho-social, economic and cultural factors.

Environmental factors - the double burden

A clean, beautiful and hazard-free environment is supportive of health of the individual, family and community. The less industrialised countries are engaged in a massive developmental effort in an effort to overcome economic backwardness and social disabilities. In doing so, they carry a double burden - the existing burden of poor sanitation, malnutrition and rapid population growth and the evolving burden of new health problems consequent upon much-needed economic development.2

Safe drinking water, proper water management, safe methods of excreta disposal, combined, if possible, with bioconversion technologies, are components of an environmental sanitation package. But the availability of this technology alone is not enough. Improved personal hygiene and life-styles and the hygienic use of water within the family are essential. If these components are separated, the health benefits are compromised.3

At the same time, the adverse effects of industrialisation, such as heavy metal hazards, various levels of atmospheric pollutants, industrial effluent pollution of river systems and pesticide residues in food chains, need to be prevented or minimised and a healthy work-place environment ensured for the industrial worker. It is not necessary, as Lord Eric Ashby said[4] "for nations in, as it were, an adolescent

stage of technological growth to have to recapitulate in their ontogeny the whole drab phylogeny of industrial history". Indeed, we must strive for a balance between the biosphere of man's heritage and the technosphere of his creation.5

The mother and child

The mother and child constitute a sub-unit of the family. Their health is an integral expression of family health. The family contributes the immediate social environment in which the young child's growth and development takes place and his future behavioural style is moulded. The process starts in reality when the fertilised ovum starts on a perilous voyage in the darkness of the mother's womb. There is a saying in Japan for a pregnant woman, "Mi hitotsu", meaning one body. The new born is already one year old according to Chinese computation. The human person develops from a cluster of cells as a result of complementary biological and social endowments. A biological continuity exists between the mother and the foetus during pregnancy followed by social continuity between parents as educators and the growing child.6

The nutritional link between the mother and child continues after birth up to weaning, through breast feeding which brings with it an aura of personal involvement between the mother and child. Weaning is the most critical period in a child's life, a period when the child passes from a liquid diet of milk alone to a mixed adult diet. While on mother's milk in the first few months of postnatal life, the infant, even from the most under-privileged section of society, grows well receiving from breast milk immunoglobulins, lymphocytes, enzymes and other protective substances. The weaning child is exposed to new foods, new activities and new environmental stimuli.7

The nutritional needs of weaning children can be met most effectively in poor societies from locally available and culturally acceptable low cost foods. It is the use of simple technologies and determined human action that holds the key to the improvement of nutrition of children under three in the developing world. The greatest safeguard against malnutrition and illness in infants and young children lies in the development of the insights of the mother. Maternal care-taking behaviour is a social skill based on scientifically sound biotradition. Some mothers raise excellent children even under severe privations. We need to understand how successful mothers function and how they transmit their culture to their daughters.

Meanwhile, protein and energy deficiencies in pregnant and lactating mothers and in infants and young growing children continue to be intractable and endemic in many parts of the developing world. In such areas, birth weights are generally low, and low birth weight babies (weighing less than 2500 gms) may contribute up to 50 per cent of all births. On a global basis, out of 125 million births annually, about 21 million are low birth weight babies.8 It is the single most important factor in the survival of infants and children later. Peri-natal mortality may differ by a factor of 5 between the most and least developed countries.

The background factors that lead to such a high prevalance of low birth weight are poverty and under-development.9 The poverty - under-development syndrome itself is characterised by low income, low educational levels, poor sanitary conditions, diminished food intake, repeated episodes of infection, family instability, low parental attention, too many births, poor ante-natal care. Each one of us is

the fruit of a germinal entity moulded by surrounding circumstances. Featureless environments, drab uniformity and narrow range of life experiences cripple intellectual growth. The extraordinary dependence of the human young upon adult care and caring provides a unique opportunity for optimal growth and development by care and for distorted development by neglect.[10] The practical lesson is clear; our approach must be on a coordinated multi-sectoral action based on a broad development programme - health, nutrition, education and environmental diversity.

While non-nutritional activities such as control of infection, birth spacing and sanitation are required for the control of protein energy malnutrition, that food intake of children has to be increased and the potential for nutritional self-help and self-care within the family and community needs to be explored.

Family planning and family health

Family planning and family health are inseparable and mutually reinforce each other. The pattern of family formation - timing, spacing, total family size - exerts a profound influence on the health of the mother and child. The health risks associated with uncontrolled births are well-known - high foetal losses, high prevalence of childhood malnutrition, poor growth and development of children, high maternal and infant mortality, pregnancy anaemia, predisposition to later development of carcinoma of the uterine cervix. The risk of poor childhood outcomes is high for children of very young mothers of high parity. Children in Asia and the Near East born within one year of their previous sibling are 2 - 4 times as likely to die as children born three or more years after previous birth.[11] "The dead malnourished infant must too soon be replaced from a chronically malnourished mother".[1] There is thus a family health rationale for family planning. Family planning improves the health of the mother and child; improved child health enhances the motivation for family planning.

Integration of services

Family health is best achieved through the provision of integrated, comprehensive health and family planning services. Family planning is not a numbers game. A qualitative dimension must permeate all efforts in this regard. Both breast milk and maternal attention must be available to the infant in adequate measure. There are advantages in an integrated package of services since nutrition, health and family planning services are aimed at the same target groups (women and children) at critical life points - the adolescent female, the pregnant and lactating mother and the weaning child[12] are reached through the same delivery system.

The last trimester of pregnancy and the first three years of post-natal life offer the greatest opportunity for laying the foundation for optimum human growth and development.

Integration is a sound principle. However, if basic health care and maternal and child health care services are themselves weak with limited community outreach, other services such as family planning and nutrition, anchored around them, would also go down. Further, there is need to take a fresh look at maternal and child health services; while the focus on the mother and child is of the essence, participation of fathers plays a supportive role and, once again, the family as a bio-social unit should receive focus.

One has to recognise the complementary structural position of traditional systems of medicine, especially in family health mothers. Rather than wishing them away, these systems could be used with benefit to support primary health care and develop a working relationship with modern medicine.

The working adult and the ageing persons

The care a woman receives in her childhood has a bearing on her capacity as a mother in terms of reproduction and child-bearing ability. The health of the working adult, whether in the field, farm or factory, is closely linked with productivity. The status of the woman in the family is a major determinant of family health, especially of child health. This can be improved by gainful employment opportunities for women, raising the age of their marriage and spread of education. The social preference for sons can be deleterious to maternal health.

It is in the care of the aged and the mentally ill that the family structure has a crucial role to play. Family care contributes to a favourable outcome in schizophrenia and, as a consequence, requirement of psychotopic drugs is reduced.[13] Therapeutic outcome depends upon social care and drug action. In the management of the mentally ill and the aged, the family and the community have a comforting, protective role to play. They also help in reducing demands upon institutionalisation. In industrialised societies with nuclear families, community institutions are taking on this role increasingly. There are limits to the stresses that families can bear; urbanisation and rapid social change bring in their wake physical and mental stresses, both in developed and developing countries.

Clinical care

Care and cure of the sick individual are central to the health of the family.[14] This is something that is not prominent in today's discussions of community health and primary health care. Illness can be both a rallying point and a stress factor in family cohesion.

The patient is often regarded as a passive receiver of care or a work object or a consumer of care. It has been suggested that the patient be regarded as a producer in the health care process.[15]

Medical education and family health

Deep and fundamental changes are needed in the training of physicians and other health workers to orient them to the whole family as the unit of care and relate it to the community. Many countries are attempting to restructure their educational programmes towards this end, particularly at the postgraduate level. It is not a question of adding a few more hours to community and family medicine or of subtracting a few hours from anatomy. The whole exercise must be intellectually challenging. It must present man and his environment as a bio-cultural science through an inter-disciplinary holistic approach. It must encompass human evolution, population dynamics, demography and disease, fertility and health growth and development, human nutrition, patterns of health and disease as a function of biological, psycho-social and cultural factors, patterns and rates of family formation. Attempts must be made to train physicians in the culture of their countries. The method of medicine is scientific; its purpose is social. The scientific basis of medicine remains the same whether it is practised in Madras or Manhattan but the circumstances

of its application differ with local priorities, local social, economic and cultural settings.[16]

There is the question of international standards in medical education. There is a tendency for newly-established medical schools in developing countries to proclaim parity of their standards with some of the renowned medical schools in developed countries. This is understandable but the Alma Ata Declaration on Primary Health Care clinched the issue by stating that "the highest standard in medical education for any country is that which is most responsive to local needs". We want our medical education to be scientifically sound and develop a family and community ethos. Our centres of education cannot remain as passive spectators of a society steeped in poverty, ignorance and disease.[16]

Society's servants-in-training

Dr. Julius Nyerere, in an inaugural address to a World University Service symposium on the university's role in development of the Third World, in Geneva in 1966, said:

> "But, with all this stress on his individual responsibility, how can we at the same time safeguard the individual against the arrogance of looking upon himself as someone special, someone who has the right to make very heavy demands upon society in return for which he will deign to make available the skills which that society has enabled him to acquire? In particular, what can a university do to ensure that its students regard themselves as servants-in-training? This is one of the most vital and most difficult of the functions of a university in a developing country."

Reorientation of medical education to community needs, restructuring of auxiliary cadres and introduction of a new type of community-based health worker, all functioning together as a team, are being attempted as alternative approaches. Health care delivery and medical and auxiliary education are being planned together. Creation of large bands of paramedical workers functioning close to the homes of people is an important feature of the emerging pattern.

Community involvement for family health

Active participation of the community is a basic tenet of primary health care. Without it, health activity becomes a mockery. The translation of much medical knowledge into practical action involves the use of simple and inexpensive intervention which can be readily implemented by ordinary people with minimal training with great benefit to society. Stirring the mass of people into taking responsibility for their own personal health and that of their families is vital.

As Illich says, there is a great deal of medical capability outside the medical system and formal institutions. Basic questions have been asked such as "Is there such a thing as a village community where there is so much social stratification?" There is little documentation on how to involve people in rural health development although there is much experience in many countries on successful projects. In working with rural people, we need to start somewhere; the entry point should be something that is feasible and clearly relevant to rural life. The entering wedge, often an effective therapeutic intervention, can be used as a foundation on which to build other elements of development.[17]

Education for family health

All of us must feel humble over the progress made in health education over the decades in developing countries, considering the power of modern communication media. The message is as important as the medium; it needs to be cast in a pattern recognisable by the target group and lead to understanding and then to a behavioural change. Interpersonal communication between people, endorsement by the local charismatic leaders, a "fit" into local life-styles, something that raises incomes - these are likely to help diffusion of technology across rural society. Education does not take place in a vacuum, it takes place in the matrix of experience. Health care personnel have an important role to play in this regard in the context of their daily health care activities. They must have a tolerant understanding of the health culture of the people.

Health is an individual responsibility; there can be no health without health consciousness. An individual is the subject, rather than the object, of health. Health education is not a one-shot affair but a life-long experience; to unversalise it, it must be made a part of general education.

Human behaviour depends not only upon the biological machinery but also upon its information content based upon life experiences. It has been stated that the greatest technological contribution to control human behaviour was made over 500 years ago when the printing press was invented.[18] The radio and television are recent additions.

Despair at putting these technologies to maximum use to serve the health of man was echoed by Seymour Kety when he said:

> "I am much more disturbed about the lack of use of methods of birth control, which are 98 - 99 per cent efficacious at the present time ..... I am much more concerned about the failure of society to utilise these methods to control the frightening problem of over-population ..... I am much more concerned about the knowledge that we acquired decades ago about sanitation, about infectious diseases, and more recently about nutrition, our failure to apply more adequately these means of providing human health and well-being ..... I am much more concerned about the failure of our society to recognise the important deprivations that occur in poverty, not only in terms of nutrition and sanitation but also in terms of intellectual and social stimulation and motivation ....." [18]

A policy for family health

I would like to conclude on an optimistic note. Major improvements in health are possible at costs that are affordable even by the poor nations of the world.[19] A recent study of ten selected projects across the world shows that in populations less than 120,000 and with able leadership, integrated health, nutrition, sanitation, education and family planning services can reduce infant mortality rates by 50 per cent or more and increase child growth significantly in a relatively short period of time.[20] It also shows that such excellent results can be achieved at a cost ranging from 0.5 to 2.0 per cent of annual per capita income, a modest expenditure.

Conceptionally, these are primary health care activities.[21] How can we

diffuse these micro-level experiments to macro-level successes? The answer to my mind lies in the systematic application of the primary health care approach, its "ten commandments" being modified to suit each country's requirements. Out of these, proper coordination at all levels between health and related sectors of development, education, nutrition, safe water and basic sanitation, maternal and child health care including family planning, immunisation, promotion of clinical care of the sick have been discussed in this presentation as supportive of family health. The overall strategies and policies of primary health care are most fundamental to the concepts of family health care.[22]

Countries are currently engaged, with the help of WHO and UNICEF, in the translation of primary health care concepts into strategies, plans and programmes. A study group jointly set up by the Indian Council of Social Science Research and the Indian Council of Medical Research, in its report just published,[23] has stated that the goal of health for all by 2000 AD cannot be achieved by a linear expansion of the existing system or by tinkering with it through minor reforms. It calls for a national health policy which includes eight dimensions: curative, preventive, educational, nutritional, environmental, social, cultural and philosophical. It suggests an alternative model, firmly rooted in the community and aiming at involving the people in the provision of the services they need and increasing their capacity to solve their own problems.

As Dr. Mahler says, the time has now come to move beyond timid gropings to new solutions, through the grand symphonic movement of primary health care.

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