MEDICAL SERVICE

on the beginning of human life ● the problems of health and hospital organisations in india—some administrative change ● case for breast feeding ● the law on the abolition of untouchability ● yoga and old age—a holistic view point

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contents

EDITORIAL

Man : a miracle being

In this issue we are presenting to you a testimony by Prof. Jerome Lejeune of Paris about the beginning of human life. By presenting the scientific facts about how and when a human being is said to come into existence, Prof. Lejeune establishes beyond any doubt that life begins at the very moment of conception. In his own words : "to accept the fact that thereafter fertilization has taken place a new human has come into being is no longer a matter of taste or of opinion. The human nature of the human being from conception to old age is not a metaphysical contention, it is plain experimental evidence."

The situation we see in practically all countries of the world today, including our own beloved land of "Ahimsa", is quite different from what Prof Lejeune had to say. The question as to when does life really begin seems to be there are different people saying different things about the beginning of life. Some say there is NO life for a child in the woomb. Some others opine that life begins three months after conception. There seems to be people who even say that life begins only 3 days after delivery. Abortions performed in our own country by thousands under the innocent looking name MTP seem to disprove what Prof. Lejeune had to say. But Prof. Lejeune's presentation is scientifically and otherwise regarding the beginning of life except maybe for people who want to hide facts and ignore the dictates of their conscience at least temporarily.

In our country a concept that is very much misunderstood is population explosion, as though the hundreds and thousands of innocent lives are destroyed every day are responsible for the economic backwardness. Strikes, bundhs, even bloodshed for defending the rights of the people are daily happenings in our country under the auspices of unions, associations etc. But suppose there was a union of the unborn and they were to speak out ! Yet they are speaking. But all of us are as though deaf to hear their cries.

We are familiar in this country with steps being taken to "protect cows," "protect wild life", "protect forest" etc. But when the question of protecting the life of human beings is concerned, it is as though we are not concerned.

Rabindranath Tagore wrote : "Every child comes to the world with a message that God is not yet discouraged of man". We have the psalmist saying : "For it is you, who created my being, knit me together in my mother's womb. I thank you for the wonder of my being." Man is certainly a miracle being as presented by Prof. Lejeune. Let us, who have the chance to live and claim the RIGHT to live, defend the rights of the unborn as well as the born.

Institutionwise celebration on the theme 'Respect-Life'

We have still to get reports from very many institutions about their celebration on the theme "Respect-Life". I once again request all those institutions who haven t done so still, to have the same on a convenient day and send us the report.

— Executive Director

Diocesanwise celebration on the theme 'Respect-Life'

The second phase of celebration proposed is diocesanwise in order to make all concerned aware of the importance of having respect for life. A programme lasting for at least one full day is requested to be arranged by means of seminar, discussion, study circle, liturgical celebration etc. on this all important theme, I request all the dioceses to have it by end of October before we have the national celebration which will be this year's convention at St. Pius X College, Goregaon, Bombay, from November 6th to 10th, 1983. A circular dated 19.7.1983 to this effect has already been sent to all the Bishops and diocesan coordinators. After the celebration a short report, together with photographs if any, should be sent to the office for publication in our journal 'Medical Service".

— Executive Director

Question Box

When problems are mounting every day, it is not possible to deal with all of them in a magazine like ours. However there may be cases in which one would like to get some help and guidance quicker and even personally. With this in view we are going to introduce a *question box* in our magazine. Your questions and doubts on health matters can be sent to this question box and you will get an answer directly or through the column of Medical Service as early as possible. A panel of doctors will deal with the questions, and answer will be given accordingly. Please clear your doubts and questions through this question box. Please write to :

Question Box, Medical Service
c/o Dr. Paul Neelamkavil
Dept. of Dermatology
St. John's Medical College Hospital
Bangalore 560 034.

— Executive Director,

On the Beginning of Human Life

by Prof Jerome Lejeune (Paris)

Testimony presented April 23, 1981 before the Senate Sub-Committee of the U.S.A. on Separation of Powers

Mr. Chairman and members,

My name is Jerome LEJEUNE, Doctor in Medicine and in Science. I am in charge of the mentally defective out-patients at the Hospital des Enfants Malades (Sick Children's Hospital of Paris). After spending ten years in full time research, I am professor of fundamental genetics of the University Rene DESCARTES.

Some twenty-three years ago I described the first chromosomal disease in our species, the extra chromosome 21, typical of mongolism. For this work I had the privilege of receiving the Kennedy award from the late President, and the william ALLEN memorial medal from the American Society of Human Genetics. I am a member of the American Academy of Arts and Science.

When does a person begin? I will try to give the most precise answer to that question actually available to science. Modern biology teaches us that ancestors are united to their progeny by a continuous material link, for it is from the fertilization of the female cell (the ovum) by the male cell (the spermatozoon) that a new member of the species will emerge. Life has a very, very long history but each individual has a very neat beginning, the moment of its conception.

The material link is the molecular thread of D.N.A. In each reproductive cell, this ribbon roughly one meter long, is cut into pieces (23 in our species). Each segment is carefully coiled and packaged (like a magnetic tape in a mini cassette) so that under the microscope it appears like a little rod, a chromosome.

As soon as the 23 paternally derived chromosomes are united, through fertilization, to the 23 maternal ones, the full genetic information necessary and sufficient to express all the inborn qualities of the new individual, is gathered. Exactly as the introduction of a minicassette inside a tape recorder will allow the restitution of the symphony, the new being begins to express himself as soon as he had been conceived.

Natural sciences and the sciences of law speak the same language. Of an individual enjoying a robust health a biologist would say he has a good constitution; of a society developing itself harmoniously to the benefit of all its members, a legislator would state it has an equitable constitution.

A legislator could not conceive what a given law is, before all its terms have been clearly and fully spelled out. But when this full information has been given, and when the law has been voted for, then it can help in defining the terms of the constitution.

Nature works the same way, the choromosomes are the tables of the law of life, and when they have been gathered in the new being (the voting process is the fertilization) they fully spell out his personal constitution.

What is bewildering is the minuteness of the scripture. It is hard to believe, although beyond any possible doubt, that the whole genetic information, necessary, and sufficient to build our body and even our brain the most powerful problem solving device even to analyse the laws of the universe, could be epitomized so that its material substratum could fit neatly on the point of a needle!

Even more impressive, during the maturation of the reproductive cells, the genetic information is reshuffled in so many ways that each conceptus receives an entirely original combination which has never occurred before and will never again. Each conceptus is unique, and thus irreplaceable. Identical twins and true hermaphrodites are exceptions to the rule: one man one genetic make-up; but interestingly enough, these exceptions have to take place at the time of conception. Later accidents could not lead to harmonious development.

All these facts were known long ago and everybody was agreeing that test-tube babies, if produced, would demonstrate the autonomy of the conceptus, over which the test tube has no title of property. Test-tube babies now do exist.

How many cells are needed to build an individual? Recent experiments spell out the answer. If very early conceptuses of mice are artifically disassembled (by a peculiar enzymatic treatment) their cells come apart. By mixing such suspensions of cells, coming from different embryos, one sees them reassembling again. If the tiny mass is then implanted in a recipient female, some little mice (very few indeed) manage to develop to term, completely normal. As theoretically expected by B. Mintz and demonstrated by Market and Peter, a chimeric mouse can derive from two or even three embryos, but no more. The maximum number of cells co-operating to the elaboration of an individual, is three.

In full accordance with this empirical demonstration, the fertilized egg normally cleaves itself in two cells, one of them dividing again, thus forming the surprising odd number of three, encapsulated inside their protective bag, the zona pellucide.

To the best of our actual knowledge, the prerequisite for individuation (a stage containing three fundamental cells) is the next step following conception, minutes after it.

All this explains why Drs. EDWARDS and STEPTOE could witness in vitro the fertilization of a ripe ovum from Mrs. BROWN by a spermatozoon from Mr. BROWN. The tiny conceptus they were implanting days later in the womb of Mrs. BROWN, could not be a tumour or an animal. It was a fact the incredibly young Louise Brown, now three years old.

The viability of a conceptus is extraordinary. Experimentally a mouse conceptus can be deep frozen (even to -269c)and, after careful thawing, implanted successfully. For further growth, only a recipient uterine mucosa can supply the embryonic placenta with appropriate nutriments. In his life-capsule, the amniotic bag, the early being is just as viable as an astronaut on the moon in his space-suit: Refuelling with vital fluids is required from their mother-ship. This nuture is indispensable for survival, but it does not "make" the baby: no more than the most sophisticated space shuttle can produce an astronaut. (Such a comparison becomes even more cogent when the foetus moves. Thanks to a refined sonar-like imagery, Dr. Ian DONALD from England a year ago succeeded in producing a movie featuring the youngest star of the world, an eleven weeks old baby dancing in utero. The baby plays, so to speak, on a trampoline! He bends

his knees, pushes on the wall, soars up, and falls down again. Because his body has the same buoyancy as the amniotic fluid, he does not feel gravity and performs his dance in a very slow, graceful, and elegant way, impossible in any other place on the earth. Only astronauts in their gravity-free state can achieve such gentleness of motion. By the way, for the first walk in space, technologists had to decide where to adapt the tubes carrying the fluids. They finally chose the belt-buckle to the suit reinventing the umbilical cord.

Mr. Chairman and members, when I had the honour of testifying previously before the Senate, I took the liberty of referring to the universal fairy tale of the man smaller than the thumb.

After two months of age, the human being is less than one thumb's length from the head to the rump. He would fit at ease in a nutshell, but everything is there: hands, feet, head, organs, brain, all are in place. His heart has been beating for a month already. Looking closely you would see the palm creases and a fortune teller would read the good adventure of that tiny person. With a good magnifier the finger prints could be detected. Every document is available, for a national identity card.

With the extreme sophistication of our technology, we have invaded his privacy. Special hydrophones reveal the most primitive music: A deep, profound, reassuring hammering at some 60, 70 per minute (the maternal heart), and a rapid high pitched, cadence at some 160, 170 (the heart of the foetus), these mixed mimic those of the counterbass and of the maracas, which are the basic rhythms of any pop music.

We know what he feels, we have listened to what he hears, smelled what he tastes and we have really seen him dancing full of grace and youth. Science has turned the fairy-tale of Tom Thumb into a true story, the one each of us lived in the womb of his mother.

And to let you measure how precise the detection can be: if at the very beginning, just after conception, days before implantation, a single cell was removed from the little berry-looking individual, we could cultivate that cell and examine its chromosomes. If a student looking at it under the microscope, could not recognize the number, the shape, and the banding pattern of these chromosomes, if he was not able to tell safely whether it comes from a chimpanzee being or from a human being he would fail in his examination.

To accept the fact that there after fertilization has taken place a new human has come into being, is no longer a matter of taste or of opinion. The human nature of the human being from conception to old age is not a metaphysical contention, it is plain experimental evidence.

Courtesy : THE EXAMINER

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The Problems of Health and Hospital Organisations in India— Some Administrative Change— (Change in Structural — Functional Approach)

by **M. Sankara Rao M.A**

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Theme I and Objectives

According to my recent findings and experiences, in some of the areas of India, I have seen that the problems of Health and Hospital Administration are becoming more and more complicated on account of many reasons like enormous growth of population, increase of unhygienic conditions, lack of hospital facilities, etc. Hence changes in the functional values and in social structure, and keeping the patients out of hospitals by reducing the rush and demand for in-patient treatment must be essentially made by the introduction of new process in health and hospital administration.

The following are given as main themes for the study of health and hospital administration in India.[1]

1. To discover the responsibilities of Urban and Rural Local Governments in providing the basic and bare amenities to the public.
2. To analyse the organizational structure of Health and Hospital Departments in their historical context.
3. To analyse the performance of the departments with special reference to their existing organisations, their personnel policy, their finances, their inter-relationship, and public relations in providing social welfare services ; and
4. To trace out the role and responsibilities of people in urban and rural areas in social, hygienic, cultural and economic conditions for providing welfare services by the local government.

Unless studies are made in the above areas it is not possible to suggest or offer or introduce new methods for administrative change, because, in India there has been a complex administrative system (known as (1) politico-bureaucratic system, and (2) structural separation of Health and Hospital Organisations) has caused distortions in the assumption of role and responsibilities as well as administration. Unless certain administrative changes are brought about in structural and functional fields of the two 'Health' and 'Hospital' organisations by providing valuable policy guidelines, India may not be able to solve the problems. Of course, our country may build and operate hospitals. But their initial cost may go on mounting higher and higher every year for their maintenance. The economy may be affected. Hence the amount set apart for it in the budget should not impoverish the other essential services. But it should be the reasonable investment for the reduction of sickness, incraease of industrial production, and national income.[2]

Suggestions

For the achievement of certain objectives, like economy in investment or expenditure, standard in medical care and efficiency in the administration, the role and functions of hospitals have to be changed in such a way that.[3]

1. there must be a system of comprehensive medicine operating throughout the community, including environmental hygiene, occupational and health services ;

2. there must be a provision of home care service for the sick and injured to be nursed at home, with merely supporting help from the hospital ;

3. the hospital must be changed into a health centre for imparting education to all types of health workers known as—doctors, nurses, midwives, technicians and public ;

4. the hospital must be a centre for research.

If a hospital is assigned more than the above functions, it cannot be administered by any efficient authority and it may also fail to secure impression and image of public about hospital as a place for treatment of the sick. But, it is also a fact that, today, in our country, medical needs are great and becoming greater ; but financial resources are meagre and scarce. Hence organisational change is necessary in lavishly spending upon hospital buildings with their high cost of maintenance. The Government can spend money on hospitals for the development of environmental, preventive, and domicillary medicine. However, the health and hospital programmes will have to be carefully observed, adopted and changed according to the diverse conditions of an individual region and social structure.[4]

Theme II and Objectives

This is another concept or model that is offered basing on 'Regional Planning of Hospital services within health services of a wide area which, I may presume, cannot only eliminate, to some extent, the problems of health and hospital organisations in India, but it can also improve equal opportunity to all, maximum utilisation of resources, and maintenance of efficiency and economy without structural and functional duplication and overlapping in both the organisations.

In this concept or plan, there will be three kinds of hospitals such as (1) Regional Hospital, (2) District or General Hospital, and (3) Rural Hospital. The degree and range of the hospitals may be structurally and functionally fissible ; but they will be fusible in services.[5]

The Structural-Functional Change

1. Regional Hospital

It is a kind of hospital that should be designed and assigned the work to provide a complete range of treatment, including such specialities like Radio-Theraphy, Neuro-Surgery, Thorasic Surgery, Cardiac-Surgery, Plastic-surgery, etc., with graduate and post-graduate teaching facilities and research. This hospital should be objectively and favourably placed in the region to cover the area consisting of three to five million population, so that the patients in need of its highly specialised services could be readily referred to it. Secondly, with such a limited function, the administration will definitely go on efficiently. But around it, there must be a number of major district hospitals and easy lines of communications.

2. District or General Hospital

It is a secondary hospital wherein several hundreds of beds with a high standard of

medical, surgical, obstetrical and other general treatment should be provided, so that it can be more useful for developing countries like India, because it concentrates only on general treatment rather than specialized treatment. But the problem in it is that it requires systematic planning for in-patient accommodation, for diagnosis, and short-term treatment.

3. Rural Hospital

It is almost a small and local hospital system consisting of a few beds in it. The nature of its structure and function may probably be undifferentiated, because (some times) it may perform medical, surgical and maternity care functions. Though some of the experts have offered different opinions and arguments, about this organisation, the very purpose of the rural hospital is that it is a preventive health clinic essentially local in its functions (i.e. the treatment of minor diseases ; supervision of health of nursing mothers and young children ; imparting health education in the homes of the people ; providing protective inoculations, sanitation and control of insects and infections ; and the care of health of school children. For these services, easy access to the people is necessary.

Arguments

Of course, it may be economical, if rural hospital is not established in a Rural Area. But the entire folk of the rural areas for every kind of disease may approach to the District or Regional Hospitals. They may not be able to meet the demands of over-crowded community. As a result, the big hospitals, which possess efficient doctors and costly equipment, may be considered as inefficient on account of insufficient time. In a similar way, the waiting time of the patients may be more and more in these hospitals and their image about these hospitals may be bad or still worse. Then the investment or the expenditure on them has no value, no object, and no purpose. It is, therefore, justified in all respects, the existence of rural hospitals in rural areas.

Merits of this Change

1. The new concept brings combination of two separate functional services (i.e. hospital and health services) into one which provides a better and fairer distribution of services, particularly in less prosperous areas, wherein the need is often greatest.

2. It makes the hospital truly a centre of preventive as well as curative medicine, including ambulatory and domiciliary treatment.

3. It enables a measure of control to secure reasonably a uniform standard of medical care throughout the region.

4. It promotes economy in centralisation of such functions like accounting, statistics, the bulk purchase of drugs, equipment, hospital supplies, establishment charges, etc.

5. It avoids gaps of equipment and overlapping of functions, and

6. It brings the staff of hospital and health organisations within the region into a closer rapport and facilitates interchange and exchange of health and medical opinions among them.

Important Suggestions :

The combination or amalgamation of health and hospital administration on regional basis, further, requires that,

1. Quite a number of small teams either mainly or entirely medical men with high standing and wide experience, should be constituted in order to make up-to-date survey of existing

facilities of the whole health and hospital services in the region, ascertain the range of patients, draw attention of gaps and overlapping, and recommend appropriate changes and developments in health and hospital organisation ;

2. Committees, selecting senior members of the staff among the Regional, District and Rural Hospitals with a health officer should be constituted in order to make periodic visits of the hospital and health organisations, to find out the nature of health and treatment of sick, and to suggest ways and means for the welfare of the community ;
3. Regular arrangements should be made for the transmission of records among the three types of hospitals ;
4. Such cases or diseases which require additional skill and special equipment like 'Radio-Theraphy, etc., and not available in the lower hospitals should be referred to the higher hospitals ;
5. The senior staff members of the Regional Hospital should hold consultant sessions at District and Rural Hospitals ;
6. The regional authority can, and, should where desirable, encourage a district hospital for the development of a particular service ;
7. There should not be any rigid rule that highly specialised services should be available only at Regional Hospital and not at District Hospitals ;
8. The Regional Hospital should be given power to some extent, in matters relating to the establishment of new services, the role of hospitals, the direction of over-all policy, and the day-to-day administration of each hospital ;
9. The Regional Hospital should foster Post-graduate education and Research throughout the hospitals of th region by offering local doctors in part-time clinical assistant appointments and by inviting them to use medical library and common room of Regional Hospital staff ; and
10. The office of the medical officer on preventive medicine should be established in the Regional Hospital in order to advise hospital staff on matters of hygiene and out-breaks of infection. It would be desirable to place his quarters nearer to the out-patients department, so that he can demonstrate the exhibits that bring about changes in occupational health education and administration.

Conclusion

Thus, the concept or model or planning with the above measures and suggestions will not only help foster a good standard of health and medical services, economy in establishing and maintaining hospitals, but it will also develop efficiency in the administration of health and hospital organisation under the unified system. But for effective implementation of this Regional Planning, the senior staff must be prepared to support the juniors in giving their advice and consultations whenever and wherever necessary. Similarly, the juniors should also follow the advice and directives of the Chief Medical and Health Officers in attending certain hospitals out-patient clinics and domestic health services of the area. Then only, the concept has some meaning and the problems of health and hospital organisation in India can be solved, to a large extent, under this *Administrative Change.*

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Case for Breastfeeding

— Ian Steele

There is no substitute for breastfeeding. Forty years of research by scientists and technicians has yielded no equal formula for breast milk. The mother's milk provides the infant with a variety of nutrients, which with regular feeding, are sufficient for the normal growth for first four to six months. A child which is properly breastfed should need no other nutrients during this period.

At birth, the newborn infant passes from the warmth and safety of its mother's womb into a germladen world which demands rapid adaptation for survival. With its first gasp of life the infant is exposed to chills and infections which its body is not yet mature enough to fight : it is immediately vulnerable to forces which can benefit or prejudice its development in later life.

The mother's milk provides the infant with a variety of immunities and nutrients which, with regular feeding, are sufficient to sustain healthy, normal growth for the first four to six months. Medical opinion is unanimous that more than nine of every ten women are capable of breastfeeding and that a child which is properly breastfed should need no other nutrients during that period.

For more than 40 years, scientists and technicians in the industrialized world have attempted to produce a substitute for those first critical months. Their efforts have yielded more than 200 varieties of "infant formulas" and a $2 billion market for them in more than 100 countries.

Although they have failed to discover an equal for breastfeeding, baby food manufacturers have managed to penetrate the marketplace in societies where breastmilk is often the only protection a mother can afford to give her child against disease, infection and poor nutrition.

For ten years now, the World Health Organization and the United Nations Children's Fund have been warning against marketing methods for infant formula which could induce mothers to abandon traditional safeguards for more expensive modes of bottlefeeding; but the response of manufacturers and distributors to their appeals for understanding of the possible consequences, has been mixed at best.

Despite growing scientific and technological sophistication, breastfeeding remains an integral part of the reproductive cycle and provides a unique biological and emotional basis for a child's development.

WHY Breastfeeding ?

Mounting evidence is available in favour of breastfeeding, including the following:

* Breastmilk contains antibodies which protect the child against disease and

infection while its own immunities are developing.

* Breastfed babies have been found to be less vulnerable to allergies, more responsive to stimulus and less likely to be overweight in later life than those who are artificially fed.

* Mothers who breastfeed are said to experience an especially close bonding with their children during the formative years and in later life.

* Breastfeeding has a contraceptive effect which helps with child spacing.

* Mothers who have nursed have been found to be significantly less susceptible to breast cancer.

* Uterine contractions induced by suckling, accelerate the return of the uterus to normal pre-pregnancy dimensions.

* Women who breastfeed regain normal pre-pregnancy weight more rapidly than those who bottlefeed.

* And, for most mothers, breastmilk remains cheaper and more convenient than any artifical product.

Develcps Resistance

Breastfed infants have been found to be more resistant to diseases like malaria and cholera and viiuses such as poliomyelitis. They are less prone to intestinal & respiratory infections and are less likely to suffer from rickets, anaemia and other vitamin deficiencies than are those who are artificially fed. More than a dozen studies have shown that the vast majority of babies hospitalized with severe diarrhoea and dehydration—a major cause of infant mortality in developing countries—are bottlefed.

The American Academy of Paediatrics reports that babies who are exclusively breastfed for the first six months of life have been found to be less susceptible to allergies such as eczema, rhinitis and asthma, and that bottlefed infants suffer more from allergies, "presumably because of the early exposure to cow's milk and other food antigens".

The sudden Infant Death Syndrome or "Cot Death", which in industrialized countries is a cause of death among infants between one and 12 months of age, has also been reported as occurring less frequently in breastfed infants.

There are indications that breastfeeding has a positive impact on health in adult life.

A study in the Boston area of the United States showed that 30-year-old adults who were exclusively breastfed for at least two months had significantly less cholesterol in their blood than those who had been breastfed for less than two months, even if their adult diet was high in animal fat.

Formula Feeding is "Force Feeding"

The American Academy of Paediatrics reports "concern about the fat composition or infant formulas". It observes that while the relationship between infant feeding and obesity is not fully understood, a number of studies indicate a higher prevalence of obesity in formulated infants and suggest that overweight infants are more likely to become overweight adults.

Some doctors liken formula feeding to 'force feeding'.

The Academy of Paediatrics reports: 'Milk intake by the breast-fed infant is determined primarily by the amount needed to satisfy the infant. The mother of the formula-fed

infant may see some formula left in the bottle and induce the infant to consume more. Recent studies have shown that milk samples from nursing mothers at the end of the feeding contain much higher levels of lipid and protein than at the beginning of the feeding and this change in composition may satiate the infant or in some way signal a cessation of feeding."

The Academy notes that another significant factor in the overweight question could be the early introduction of solid foods which has accompanied the use of infant formulas and greatly added to calorie intake.

Breastfeeding for low Fertility Level

A relationship has been established between breastfeeding and low levels of fertility.

Dr. Jamal K Harfouche, Professor of Maternal and Child Health at the American University in Beirut, Lebanon, has reported that mothers who breastfed their babies for six months or more, tended to have their children about two years apart.

A body of medical research indicates that the return of menstruation and ovulation after birth is delayed by the process of lactation. In a study of 500 nursing mothers in New Mexico, only 46 became pregnant while breastfeeding their babies, and all but six of these became pregnant in the last few months of nursing.

In some countries of North Africa and Asia, mothers breastfeed their children for upto three years for reasons associated with child spacing. The practice and its effectiveness is reinforced by taboos against intercourse with a nursing mother. There is concern as to the effect artificial feeding could have on the population balance in these regions.

"Those of us who believe that four million years of evolution are wiser than two generations of formula feeding, think the burden of proof that formula is as good or better, lies with the formula feeders", says Dr. Garald Gaull. Professor of Paediatrics at the Mount Sinai Medical Centre in New York.

Dr. Gaull, who is also a researcher in mental retardation, believes that mother's milk has a significant and beneficial effect on brain development. Having studied the presence of an amino acid called taurine in the brain of 16 animal species, he had found that the brain of the human foetus has more taurine than any other amino acid and that levels of the substance are higher at birth than in adulthood. "This suggests that in some, as yet undefined way, taurine plays a role in the development of the immature brain", he says. Dr Gaull has found that the concentration of taurine in mother's milk is 40 times greater than in cow's milk.

A British National Health Service Survey conducted between 1946 and 1978 found that low intellectual aptitude scores were frequently associated with artifical feeding.

Dr. W Allan Walker, a leading researcher of the properties of breast-milk from the Massachussetts General Hospital, remarked during a recent interview that he believed the proven benefits of breastfeeding were "just the tip of the iceberg".

In industrialized countries there is now a steady swing back to breastfeeding, but there is increasing concern about the increase in formula feeding of children in the developing countries. Breast is no longer automatically considered best.

And, as Dr. Walker added: "As research progresses, I think we'll discover a lot more factors in human milk that enhance its prospective and nutritive value".

— Courtesy : *Swasth Hind*

LEGAL EDUCATION-1

The Law on the Abolition of Untouchability

P. D. Mathew

[Starting with this issue we shall be publishing a series of articles on various legal matters which will form part of our Community Health Education Programme. This is by Fr. P.D. Mathew sj, Director, Legal Aid, Indian Social Institute, New Delhi. Fr. PD. Mathew is also moving around the country conducting orientation courses and study circles on various legal matters protecting the rights of the under privileged. We are grateful for his contribution.—Editor]

What is 'Untouchability' ?

The term 'Untouchability' is not defined in the Constitution or any statute. It conveys a sense of pollution and defilement and is related to practices of the caste system. It implies social ostracism and manifests itself in various forms. It includes customs and behaviour sanctioned by Indian customs and by which Scheduled Caste persons are excluded from the use of streets, temples, public places, conveyance facilities and institutions etc. Being an evil practice against the dignity of man, the Constitution of India abolished it in 1950.

What is the Constitutional provision against 'Untouchability' ?

Article 17 of the Constitution abolished 'Untouchability' in all its aspects. It states : 'Untouchability' is abolished and its practice in any form is forbidden and the enforcement of any disability arising out of untouchability shall be an offence punishable in accordance with Law.' This was the result of conferring equal citizenship on all Indians irrespective of caste, creed, colour and race, under Article 5, to bring about equality as a way of every day life.

Which Statute punishes the practice of 'untouchability' and what is its object ?

The Indian Parliament passed the 'Untouchability (Offences) Act' in 1955 which was amended in 1976. It is now known as 'Protection of Civil Rights Acts, 1955.' The object of the Act is to prescribe punishment for preaching and practice of 'untouchability', for the enforcement of disabilities arising therefrom and for matters connected therewith.

What are the rights the Constitution and the Act confer on the Scheduled Castes ?

1. Nobody is allowed to practise 'untouchability' against Scheduled Castes in any form.

2. No one is allowed to call a member of a Scheduled Caste 'untouchable' as a matter of community or personal abuse.

3. It gives right to every Scheduled Caste person to have access to, entry in, and enjoy.

* All religious places, objects of worship, temples and religious institutions belonging to the Hindu religion;
* All public places, educational health institutions, hospitals, hostels, shops, hotels, places of entertainment, road passage, transport services, conveyance and objects which other members of the general public are allowed to use;
* Places used on Trusts created for public or charitable purposes maintained by state funds;

4. It also gives right to the Scheduled Castes

* For the construction, acquisition or occupation of any residential premises in any locality;
* For the practice of any profession or the carrying on of any occupation, trade or business, employment or job;
* For the observation of any social, religious customs, usage, ceremony and for taking part in or taking out any religious, social or cultural procession;
* For the use of jewellery and finery;
* For selling and buying goods and for obtaining services from other people.

What is the punishment for enforcing disabilities ?

1. The practice of untouchability and of its abetment (by instigation, intentional aid or conspiracy) is punishable with imprisonment which may extend to 6 months or with fine which may extend to Rs. 500/- or with both.
2. When a person is punished for refusing to sell goods or to render service, the court may also cancel or suspend the licence of the offender in respect of his profession, trade, calling or emyloyment.

Offences by the Company

If a Company, firm or association, is the offender, then the person in charge of them will be held guilty of the offence.

As punishment Government can suspend the licence of rescind the grant given to them.

Is Social Boycott against a Sch. Caste person an offence ?

Yes. Boycott of a Sch. Caste person in professional or business or social relationship is an offence.

Is forcing a Sch. Caste person to do scavenging or sweeping etc. an offence ?

Yes. If a person compels any Sch. Caste person on the ground of 'untouchability' to do any scavenging or sweeping or to remove any carcass or to flay any animal or to remove the umbilical cord or to do any other job of a similar nature, he is liable to be punished with imprisonment for a term not exceeding six months and also with fine not more than Rs. 500/-.

Is summary trial allowed for untouchability offence ?

Every offence under the Act is a cognizable offence (i.e. a police officer can arrest the accused person without warrant). Every offence, except where it is punishable with imprisonment for a minimum term exceeding three months, may be tried summarily by a first class Judicial Magistrate (For summary trials procedure is simple and so the case can be disposed of expeditiously).

Burden of Proof

In criminal cases normally the accused is believed to be innocent until proved guilty, and the burden of proving the guilt is on the prosecution. However, in 'untouchability' offence cases, the burden of proof of inno-

cence lies on the accused. In other words, when the victim is a member of a Scheduled Caste, the commission of a forbidden act shall be *prima facie* presumed to have been committed on the ground of 'untouchability'.

What is the duty of the State Government to ensure the enforcement of the Act ?

1. The State Government must take measures to make the rights available to the persons subject to any disability.
2. Such measure must include:

* Provision of adequate facilities including free Legal aid to avail oneself of such rights.
* Setting up of special courts.
* Appointment of special officers for initiating or exercising supervision over prosecution;
* Setting up of Committees to assist the State Government in formulating or implementing such measures;
* Provision for periodic survey of the working of the Act;
* Identifying 'untouchability prone areas' and adopting relevant measures to eradicate such practices.

What should a Sch. Caste person do when an offence under this Act is committed against him ?

1. As in other criminal cases immediately report the matter to the nearest police station giving the following information:

* The name and address of the alleged offender;
* The nature (particulars) of the offence or the act committed;
* The name and address of the witness;
*The time, date and place of the offence.

For further information on legal matters contact :

Director, Legal Aid
Indian Social Institute
Lodi Road, New Delhi-110 003
Tel. 622379, 624760
Gram : INSOCIN

Employments

Wanted two MBBS doctors and one DGO for immediate appointment in a hospital at Palghat, Kerala.
Please contact :

Fr. T A Paul
Assisi Hospital
Kanjikode PO
Palghat 678621
Kerala.

Yoga and Old Age—A Holistic Viewpoint

Jayadeva Yogendra

"Man is a creation of faith. He reaches to such heights as his faith takes him to. A man with a poor faith remains a dwarf: one with great faith scales great heights."—Bhagwad Gita.

Today, unfortunately, we have a bankruptcy of high aspirations and ideals. All our targets end up at ordinary physical/material level. We have failed to understand that the true source of happiness, joy and compassion lies within us.

With his increasing appetite for material needs, the modern old man is in a pitiable position. He has been so brought up that this whole personality - body, mind and spirit—is dependent on external help. It is like Sindabad the sailor and the old man. The old man had a great desire to see places and enjoy himself. But he did not wish to exert himself. He waited for someone whom he could exploit. Young Sindabad was moved to compassion on seeing the old man and carried him on his shoulders. What was the result? The old man refused to get down !

A materialistic philosophy leads to a lot of difficulties in "advancing" old age. Our civilization creates such pitiable old men who have not formulated higher aspirations.

Systems like Yoga have a different philosophy and value system. It speaks of good health, longevity and happiness. However, techniques like 'satkarma' for cleansing of impurities, or 'asanas' for education of the physical or 'pranayama' for control of bioenergy, are meaningful only in the context of higher goals. Otherwise, they are just mechanical.

In fact, disease and old age is a total process. Health and longevity are also total and holistic. Many people, young in age, are old in spirit. Conversely many old people are young in spirit. Given the right attitudes and approach, yogic techniques for good health and longevity become very useful.

The theory of 'hathayoga' centres around the concept of 'prana'. 'Prana' is life; it is energy; it is feeling and emotion. A person whose 'Prana' reserve has fallen is sickly and ages earlier. Another person who has conserved his 'Prana' is healthy and remains comparatively young.

The 'hathayogi' tries to understand the physical in the context of the mental and spiritual. 'Asanas' are not mere physical culture and muscle building. 'Asanas' are anabolic, are not repetitive; they relax and lead to inwardness, and steadiness of the mind. A person who accepts introversion, sedate health and higher awareness, will take easily to the practice of 'asana'. However, a person who is looking for excitement, thrills, display and show, will probably not favour this scheme. The techniques remaining the same, the results are better when the mind is conditioned to such a mature system.

Just regulating the breathing is good, in so far as it contributes to better oxygenation or elimination of carbon dioxide. But the yogic ideal 'pranayama' is control of bioenergy 'prana'. This involves rhythms of breathing, harmony between inhalation and exhalation, synchronization of the mind to the act of respiration, control over higher brain centre and respiratory cetre, control over cerebration of the brain and mastery over both the body and the mind.

A person interested in just increasing his breathing capacity will benefit by doing 'pranayam' like exercise. In the yogic context, however, it neither regulates 'prana' nor does it lead to concentration.

In ancient India the advent of old age was looked at from a philosophical and spiritual angle. The old person exchanged one set of duties and responsibilities for another. As Yajnavalkya said, "This is your highest duty in life, to realise the true meaning of life".

On accepting higher aspirations, the householder is willing to give up lesser desires and material involvements, namely, money, passion, name, fame, etc. He begins to reduce his needs and wants. He trains himself to be self-reliant. In other words, he practices Yoga. He regulates his behaviour, his routines, and attends to his personal hygiene. He looks after himself in this new context. He also controls his mind, emotions, attitudes, etc. His free time is spent in altruistic activities.

Now he is not dependent on others. He exists with lesser needs. He has a purpose in living—in fact, the very highest—to realise the truth of his existence. Or, to realise God. He is no more a pitiable cripple, full of needs and desires. In fact, not only his family, but society at large will seek out such an individual for his experience, perception, wisdom, etc.

What the modern scientist tries to achieve through grafting of the glands, resuscitation of isolated organs by cold-storage process, the elimination of old age pigments and such other means, the scientific yogic does through self-treatment or autotherapy. For example, first, by thorough-going elimination of all toxins. Secondly, by concentration of bioenergy 'prana' on any specific organ of the body where degeneration has or is apt to commence—through transfusion from other parts—with a view to directly regenerating that organ so that it may resume such normal activities as are conducive to a healthy organism. And, thirdly by giving rest to the entire system through conscious but suspended animation extending to varying periods from weeks to months. There are quite a large number of yoga processes to defer old age and aid rejuvenation.

Yoga meets with the physical possibilities by strengthening the physiological aspects and the psychological ones too. Hence when yogic techniques are used meaningfully in the context of higher goals—physical old age is neither a burden to oneself nor to others. In fact, it becomes a means to realise the Highest which is latent in all of us.

Courtesy : Bombay Hospital Journal

World Health Day Theme for 1983

The World Health Day Theme this year underscores the urgency of initiating action on several fronts if the goal of Health for All is to be achieved.

Dr. U Ko Ko, WHO Regional Director for South-East Asia, in his message on the occasion of World Health Day on April 7, 1983, laid emphasis on

(a) Health is not only a fundamental human right; it is also an essential pre-requisite to human development.

(b) According to global strategy worked out by Member States and the South East Asia Regional strategy, in spite of several difficulties and constraints the task of the governments of the countries can be made lighter and speedier if people understand their own responsibility and duties and articulate their rights with the clear understanding of the social and technological issues involved.

(c) Action for health is not and should not be the prerogative of a few health knowing individuals. The wider the understanding of health, the greater is the possibility of preventing and controlling ill health.

(d) Continuing political commitment was needed if health were to receive the required attention and resources. Governments and the people will realise the potential of health improvement that can be achieved in the next 17 years and will individually and collectively take right action at the right time.

Seminar on Primary Health Care for Sri Lanka Parliamentarians

A seminar on Primary Health Care was held for Members of Parliament in Colombo, Sri Lanka, on 24th February'83. The discussions were lively and interesting and focussed on the Primary Health Care Programme as per objectives and not merely on deficiencies in administrative and financial aspects in the Medical Care Programme.

Ninth Session of WHO, South-East Asia Advisory Committee on Medical Research

The Ninth Session of the WHO, South-East Asia Advisory Committee on Medical Research, opened in New Delhi on 11th April, 1983 to select those problems which could hasten the achievement of the goal of Health for All and to ensure that the limited resources of the Organisation and Member countries were utilized for the greatest benefit.

Research Needs for Health for All

The Regional Director identified mothers and children as the key group needing attention in respect of health programmes, health services research, diarrhoeal diseases control and health behaviour research on which reports were presented at the Session. There were two general underlying principles as now revised which formed the basis for screening all research projects ;

(i) all supported research must have the widest possible outreach to the population, particularly the weaker sections, and have potential for producing the greatest impact on the total health system, and

(ii) the research must yield solutions to priority national development problems within the shortest possible time.

WHO's research efforts are thus increasingly focussed on supporting national, regional and global strategies to attain the goal of Health for All by the Year 2000.

Courtesy : HFA 2000

Social Welfare Centre, Indore Report for 1982

The progress/events/development for the year 1982 are reported briefly below under each heading :

Nandanagar :—This year 145 women came for learning, earning and work. The sisters had much to do in the preparation and supervision of needle-craft work and many other activities. Nineteen girls joined the two-year course in the special class. Out of them 17 passed their first or second Hindi examination. The sale of the needle-craft and article in the shop was a great help indeed.

Medical Care :—Brother Henry and the Sisters are trying their utmost to prevent, care and rehabilitate leprosy patients as well as others.

Sant Prakash

General patients treated	8027
Babies treated in Mother and Child-Care Dept.	4956

Every week a team of 3 Govt. nurses came to give Polio and D.P.T.

Mobile Clinics

1.	Kankriya-Khurda-surrounding villages	...5709 patients
2.	Kotacheri-Goelkhera-Bargaon	.. 5074 ,,
3.	Dewas (Leprosy patients)	.. 2464 ,,
4.	Ujjain Road ,,	.. 4928 ,,
5.	Ujjain Town ,,	.. 4180 ,,
6.	Indore ,,	...2640 ,,

Ishawaas

The total number of leprosy patients treated from Ishawaas Pallia-Sanjay Nagar-Pushp Nagar=110048.

The Chapel-cum-Community Hall was completed and is in use. It is a great boon for the patients.

Another six (6) living quarters were completed. More handicapped patients can now be admitted. Several deaths occurred during the year, but the vacant places were quickly replaced.

Resam, one of the orphan girls in Ishawaas, married a policeman-a non-leper. The marriage celebration passed off nicely and the couple now live in Dhamnod. This means that the next generation of children from this family will not be bound by colony ties.

All the leprosy patients, even though handicapped but can do some work, are employed. Many got an outside job and are doing well. This rehabilitation takes a long time, much patience and love, but in the end, both they, and the centre are happy.

Pushp Nagar

Many improvements have been effected. It is wonderful to see how well the leprosy patients are accepted and how much they take part in the activities, both social and religious, in the colony.

Education

The results on the whole were very good. Many families are being helped in regard to the education of their children.

Day Schools	342 children
Boarding	72 children

Small Farmers

There was a very poor yield of crops. Reasons for this were untimely rainfall, dry spell and excess moisture at flowering times. The output was really little. The winter rains did much damage to the standing crops.

Education of farmers through supply of short duration varieties of crops; mixed cropping; irrigation at critical stages and land and water management.

Sixty acres have been put under seed production for wheat, Hybrid Jowar CSH-5, Cowpea, Urad, Soyabeans, Jute.

There were many difficulties in effective participation of the people themselves.

Gobar Gas Plant

One Gobar Gas Plant was constructed during the year.

The over all picture of 1982 was a good one. God's Providence was experienced in many ways. But it also gives some idea of the difficulties encountered and success met with, the latter being mainly because of the help received from so many benefactors, financially, as well as encouragement and sympathy, and a right word at the right time. When things go wrong, it is difficult to take the next step forward, but with people behind to help in every endeavour and trusting in the love and providence of God, the Social Welfare Centre has the courage to try again and so in this spirit and hope it moves into the new Year, 1983.

N.F.P. Gets Government Recognition

The Natural Family Planning method (Billings ovulation method) has been accepted officially as part of the Indonesian National Family Programme, a Catholic lay leader announced recently. Doctor J Riberu, Chairman of the Catholic Institute of Family Welfare in Indonesia (LK31), was referring to a statement made by Mr. Suwarjono Surjaningrat, Minister of Health, and the National Chairman of the Family Planning Programme Organisation (BKKBN), during a meeting of the BKKBN in Kupang, capital of Nusa Tenggara Timor (NTT) province in southeast Indonesia. The government's decision is in response to an appeal by the LK31 and the NTT provincial authorities, who have been concerned about people's unwillingness to accept the more common contraceptive methods such as the "pill," the intra-uterine device (IUD), vasectomy and tubectomy. "This decision represents a start for popularizing the natural method," says Doctor Riberu, while Mr. Ben Mboy, Catholic governor of the predominantly Catholic NTT province, says that this government decision is important because it gives natural family planning a wider acceptance.

Courtesy : *The Examiner*

Community Health Department of CHAI

The Community Health Department team of CHAI had a follow-up planning and orientation session at St. John's Medical College, Bangalore, from 20th to 30th June, 1983.

A brief report of the first session was already published in the April 1983 issue of our journal Medical Service. The follow-up session was to plan more concretely the action programmes for the department for the coming years. The following resource persons helped us during this session : Fr. D.S. Amalorpavadas, Dr. Dara Amar, Dr. Ravi Narayan, Dr (Mrs) Thelma Narayan, Mr. R.T. Rajan, Prof. R.L. Kapur, Mr. SMS Shetty, Sr. Dolores Kannampuzha and Ms. Simone Liegeois. One of the items in the agenda was a deeper understanding of various documents both from the part of the State and the Church dealing with the question of health to be seen as the integral well-being of the whole man and all men. We found in these documents, the basis for the promotion of community health programme as a priority for CHAI for the coming years. The need for a still deeper and thorough study of these documents and plan action programmes accordingly was stressed very much in the session. At the end of the session a more detailed plan of action was drawn up.

With the addition of new members, the following will form the team for promotion of Community Health for the time being :

Fr. Thomas Joseph Therakathinkal from the diocese of Mananthavady, Kerala, as Programme Director and Team Leader; Fr. Chacko Paruvanani from the diocese of Berhampur, Orissa, Coordinator (Part-time); Sr. Marina Kalathil RGS; Sr. Jeyaseeli Dhanaswany, FMM; Sr. Mariamma Antony, FMM; Ms. Reetha PC; Ms. Lovely Antony; all coordinators. As Programme Director and Team Leader, Fr Thomas Joseph will be in charge of the Department of Community Health.

—Executive Director, Chai

The Editorial Board of Medical Service Meets

A meeting of the editorial board was held at the residence of Dr. Ravi Narayan, St. John's Medical College, Bangalore, on June 26, 1983 from 10.00 a.m. Discussions were held on the various points raised in the previous meetings. Dr. C.M. Francis explained the need for fixing up certain definite objectives for the journal. He shared his views on this and the same was discussed.

The possibility of introducing a "question-box" for the benefit of the readers in clarifying questions and doubts on medical field; the need for making a readership survey; possibility of involving all the Catholic Doctors in CHAI and Medical Service, etc., figured out during the discussions. It was proposed to have another meeting sometime in October to discuss more about the objectives, improvement of the magazine, etc.

—Executive Director

CHAI -To Promote Pro-Life Movement

The ad hoc committee for the promotion of Pro-Life movement through CHAI met at St. John's Medical College, Bangalore, on June 26, 1983. Starting with the panel discussion during the convention in Coimbatore last year, till the Convention in Bombay this year with the theme "Respect-Life", this whole year is a Year of preparation. The second phase of this preparation, i.e. organising programmes in the diocesan level, was discussed during the meeting. These need to be finished before the proposed national level meeting, which will be the convention. The possibility of preparing a short film (colour) on the theme, in collaboration with the Film and T.V. Department of Amruthavani, Secunderabad, was also discussed. Plans are already on, to work out the various aspects of the film.

—Executive Director