MEDICAL SERVICE

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EDITORIAL

"Genesis of a Great Initiative"

The title of this editorial "Genesis of a Great Initiative" was the headline given by an editor at Thiruchirapally on the occasion of the foundation of the Catholic Hospital Association of India by Sr. Mary Glowrey of the Sacred Heart as far back as 1943, when the world was at war. Many things coincided during this period. The inflow of war victims, both military and civilians from Burma including victims of tropical disease and malnutrition was far beyond the limited medical facilities could cope with. "I have never seen so much pain and suffering, and we had so little with which to relieve it all" said a British military nurse after the seige of Imphal. The need was there, no doubt, for more medical facilities.

The appointment of The Health Survey and Development Committee, known as the "Bhore Committee" in October 1943 the report of which was published in 1946 which is still used as the basis for comparative statistical health studies.

Then there was the ever increasing problem of lack of medical facilities in the rural areas, all over the country, and particularly the experience of Sr. Mary Glowrey of the Sacred Heart in the State of Andhra Pradesh. It was in this background Sr. Mary Glowrey initiated the founding of the Catholic Hospital Association of India, appealing to Catholic Hospitals in India to organise and form an association with the opening words UNION GIVES STRENGTH.

It was Pope Pis XI who said in his address during the Catholic Nurses' Congress in Rome in 1935, "Nothing could be more opportune or more necessary, because it is in the nature of things, and God Himself, Creator of all things, tells us that we must organise ourselves".

Significant are the words of Sr. Mary Glowrey of the Sacred Heart when she ended her welcome speech on the occasion of the second meeting of the Catholic Hospital's Association on April 22, 1944 at the Good Shepherd Convent, Bangalore. She said "we now have a Catholic Hospital's Association. Let us make it, a POWER in the land so that if occasion arises, under the leadership of our Bishops, we may form a united body that can command a hearing. Watch! Be on your guard "

Today, after 42 years of existence the Catholic Hospital Association of India has become a mighty organisation which could have a membership of more than 2000 institutions if all our health care institutions under the auspices of the CatholicChurch would become members. Really an army of dedicated doctors, nurses, paramedicals and others are working in these institutions. I

am often reminded of this great strength of ours especially when I hear comments like, "What a powerful organisation you have". "CHAI should take lead in this, CHAI should take lead in that", and so on. More often the non Catholic friends and organisations recognise our strength. They even envy this. But my little fear is, have we realised this our great strength? If not, it is time for us to realise this our strength.

Today we are in a new situation, though somewhat similar to that at the time of the founding of our Association. In the light of the Alma Ata Declaration of Health For All by 2000 AD, the New Health Policy of the Government of India, and the realisation of our special role in the promotion of primary health care, Community Health etc., we are at a new historical point. We need to recognise our new role and our strength. If we believe in the words that "Union gives Strength", what better strength can any one have in this country in the field of health care when we consider the more than 2000 institutions with a well established Medical College and the army of dedicated persons in these institutions! All what we need is a realisation of our strength and a willingness to cooperate with and help each other. For this we need also the political will to change and readiness to accept the changes that come for the common good. "To live is to Change" said Cardinal Newman," and to "live wisely is to have changed often".

At this critical time of history, let us re-discover our role not so much as to what a single institution can do however efficient and prestigeous that institution may be; but as a united body. Here we should be prepared to sink any differences based on whatever considerations. Then, and then only this Great Initiative which began in 1943 can emerge in to a POWER that can meet the challenges of today and tomorrow.

International Research Workshop
The Family in a Technological Society

—Dr. (Sr) Catherine Bernard

Introduction

The International Research Workshop 'The Family In A Technological Society' held in Madras, India from Dec. 8th—14th Dec. 1984, was follow up of the First International Congress for the Family also held in Madras in January 1983. The workshop was organised under the auspices of the Tamil Nadu Family Development Centre—Asian Section— Madras. The weeklong workshop provided a special week of reflection, study, discussion and deliberations for nearly hundred participants, hailing from as many as seventeen countries, including those in Asia, Australia, Europe, Africa and America. This was done by virtue of real experts in the fields of Theology, Phychology, Industry, Communications, Medicine, Demography and Sociology.

The Workshop commenced with a Eucharistic Celebration, presided over by His Grace Archbishop R. Arulappa of Madras—Mylapore, concelebrated by His Excellency Bishop Theotonius Gomes of Dinajpur—Bangladesh and twenty five priests.

This coming together of different personalities was unique in the sense that, it was Ecumenical. This union fostered dialogue among persons of different faiths, viz., Catholics, other Christians denominations, Hindu, Muslim and Buddhists, expressing great concern while identifying the complexity and magnitude of problems that emnate owing to the prevailing conditions which as a natural corollary affects today's family.

The Workshop

At the Inauguration of the Workshop His Grace Archbishop R Arulappa, read a message from His Holiness Pope John Paul II. In His message, the Holy See encourages all those engaged in the task to persevere in their dedicated services to the family.

The interdisciplinary approach of the Workshop invited the experts pool their knowledge on how the family is affected and how best the family can cope with the problems, posed by a technological culture, without being victimised or become victims to the very technology that is expected to be used by and for humankind.

Representation

Among the participants were representatives deputed by the Governments were State Government of Tamil Nadu—India, The University of Kabul—Afghanistan, Christian Medical College and Hospital—Vellore, Department of Family Welfare, Government of Nepal.

Site Visit

The other major contribution of the Workshop is that it offered opportunity for site visits to the NFP projects of the TNFDC in Madras- Archdiocese. The participants hailed this experience as one of the most interesting aspects of the workshop. They met couples using NFP and were able to talk with them and have first hand knowledge of how NFP is accepted and welcome among people.

Nature and Deliberations of the Workshop

The major topics presented as position in groups with the guidance and expertise of the various resource persons and resource papers. This sharing in groups offered an exchange of experiences, knowledge, etc., among the participants.

The deliberations focussed on the humanization of the person despite the onslaught of a technologically oriented consumer society. "Technology has affected a change of pace", opined Dr. Sr. Catherine Bernard, Director, Tamil Nadu Family Development Centre, in her welcome address. "The Workshop will not provide solutions, but the facts and sharing of experience will enable the participants to arrive at solutions that will bring hope", the Director noted.

The Workshop recognized that technology attempted to change the life and life style of not only the individuals, but even the family as a unit and also environment. It also stated that technology though developed by man for the good of man can also be abused to fulfill evil design of vested interests and the ulterior motives of a powerful few.

The workshop further more examined some of the technologies that have a direct bearing on the family as a unit., Industrial Technology and Communications Technology and its various remifications as related to family. In the light of the discussions, the participants recognised an urgent need for all to urgently work towards strengthening the family by developing interpersonal communication, value oriented education, value clarification and sharing of love among its members, thereby using technology for amelioration rather than alienation and destruction of its members, and humankind at large.

The Workshop emphasized the need for planning and execution of Programmes that would develop better relationships among the members of the family, among neighbours, and among communities, which would be achieved through better understanding and love though better communication; and inter-personal relationships, openness, discernment and integration within the frame work of one's own culture and freedom. In this context, the imperative need for setting up of programmes such as marriage preparations, marriage counselling, family life and youth counselling and guidance, foster healthy and wholesome growth for both parents and children, was expressed by the participants.

The Workshop also pointed out that Government in its anxiety to control the population, totally neglects the inputs for developing qualitative aspects of population, and promulgates programmes of fertility control, which deal with fertility control merely as a biological function and not as an outcome of husband—wife relationship. In this connection, the Workshop strongly recommended the recognition and acceptance by Governments of Natural Family Planning Programmes, which approach fertility regulation through an integral and integrated approach taking into consideration the individual family in its totality, and procreation as an outcome of responsible and meaningful behaviour.

Dr. Billings, the initiator of the Billings Ovulation Method spoke of its applicability to peoples of all countries, irrespective of religion and social status and remarked that Natural Family Planning is not only a method but a way of life. Addressing the gathering, he asserted that society finds health and strength in a stable, happy family life and the family is the primary biological unit of society, the source of love and life. He said that a tiny child in its helplessness expressed the universal human need to be loved and to give love, and in the atmosphere of family love, experiences emotional security and unconditional acceptance which fosters psychological maturity.

The workshop felt that, regarding Natural Family Planning, the Church is yet to contribute a major efforts for a more realistic approach and intensive services. As Natural Family Planning is definitely a solution to many problems that menace the family today, it is the task of the Church to stand up for those values, when these principles and values are undermind

as in the case of 'Artificial Fertility Control' and 'Induced abortions'. The sanctity of life, from the moment of conception, should be made clear to the whole world, a participant remarked. One of the groups, expressed that the best health care, is the care which is mindful of the totality of man. Therefore health units especially Catholic health units must play an important role in promoting Natural Family Planning, the group suggested.

A workshop report on the impact of the press said the religious papers must deal more with common problems of man rather than merely devotional topics. While assessing the role of the press, a group said the press did not always help in bringing about a change in social attitudes like politics, business, advertisements, films, sports and other sesational matters.

The workshop also highlighted the need to assure the distributive practice in gains of technological development. Among the groups that need to be involved are women and youth, rural population, and the urban poor.

The participants recommended that as in other fields, so also in the field of fertility regulation the Church and other enterprises foster programmes of development and open up new avenues for employment for all, including women, development of youth, recognizing their social responsibilities and provision of Education and services that works towards health and wholeness for all.

In this valedictory address Fr. D.S. Amalorpavadass outlined the nature of the technological capitalised society as opposed to human value. He said that Awareness and Freedom are the two key, factors upholding human dignity. He said 'Authenticity to onself and one's culture maintains and retains the freedom of the individual. We should welcome with openness technological advancement, we should also develop personal maturity and true inner freedom, and participate in the process of humanisation.

Evaluation

Concluding the Workshop was the evaluation by Participants from some of the countries represented.

Sr. Virginia Taran—Phillipines stated that the Workshop was a positive help, enriched her, widened her vision. A lot of what was discussed by the participants from India were relevant to her country.

Dr. Mary Daniel from Singapore stated the programme was compact and wished to see more lay and married participants represented.

Mrs. Sabina—of Kenya stated "It was a wonderful workshop and was deeply moved by the spiritual dimension that was part of it. She said I came empty handed—but I am going back with riches—rich in knowledge because the discussions are of very high calibre".

Fr. Baptist Menezes—said the discussions were long, but not tiresome and congratulated the organisers for the opportunity to participate.

Mr. Anthony Devaraj also from India, appreciated the Director and staff for the wonderful organisation.

Dr. Francis Rosario of Bangladesh commended the organisation and the experiences of sharing by participants of different countries.

Dr. Malini Karkal was highly appreciative of the organisational aspects and stated that the Director and her staff, showed a higher level of human behaviour.

The statement which emerged at the conclusion of the workshop was unanumously accepted by the participants, who hailed it as a

document of profound concern and vision in a society dominated by technological competition.

In her concluding remarks, the Director Dr. Sr. Catherine Bernard called for commitment and dedication to the cause of the family, fractured and fissured in todays society.

Conclusion

During the entire Workshop there was a sense of seriousness, indepth discussion and a feeling of awakening and conviction to further realities affecting family today. As each participant decided on a plan of action on their return to their respect places on a deep sense of having been enriched by the Workshop also prevailed.

Statement of International Workshop on the Family in a Technological Society

Preamble

0.1 About a hundred participants hailing from seventeen countries of the world met together at the International Research Workshop for the Family of Asia and Australia, held at Madras 8th-14th December 1984 under the auspices of the Tamil Nadu Family Development Centre (TNFDC) to study and reflect on the theme The Family in a Technological Society; Participants were primarily from Asian countries and Australia, and also from Europe, Africa and U.S.A., As a follow-up of the First International Congress on the Family, this Workshop focussed more specifically on the sensitive issues and problems that face the family subject to the impact of technology in contemporary society.

0.2 This coming together of participants offered a unique opportunity for an in-depth search, in order to exchange ideas and information and to better identify the complexity and magnitude of the problems which confront the family in the world of today. The Workshop enabled us to focus on the strengths and weaknesses of the family affected by technology and the impact of technological developments on the structure of family life and its whole gamet of relationships. It also took stock of the activities and efforts already made for the promotion of the family and identified the different need areas.

1. IN THE CONTEXT OF A GLOBAL SOCIETY WITHIN THE INTERACTION BETWEEN FAMILY AND TECHNOLOGY

1.1 The vision maintained throughout the deliberations of the Workshop was a new world which is being re-shaped by the scientific discoveries and technological advances. This vision included a vivid awareness of the inequality in the distribution of the benefits of science and technology. The chasm between the haves and have-nots would only increase unless there is greater social justice in the distribution of these benefits. The main concern of the Workshop was that the family should so cope with the new situation as to be the basis of and contribute to the emergence of a more human, just and ecologically balanced society. The concern extended to encouraging the process for realising univeral brotherhood in which equality and freedom, fellowship and peace, the deepest yearnings of humankind can be experienced by all, inspite of several forces working to the contrary.

1.2 The *family* is the oldest and most basic human institution and unit of society. More than any other institution it has been affected by the profound and rapid changes witnessed by the world today. Many families are struggling to live in fidelity to authentically human values, while some others have become totally bewildered. Some even doubt if the institution has any more purpose at all. However there are families which even amidist the crisis of the present day society, remain faithful to the demands of love, justice and solidarity. But the danger of man becoming a victim of a certain technological and consumer mentality is ever present. In fact, the power of technology may lead people to control and manipulate not only the environment but also the very lives of others.

1.3 The situation in which the family finds itself has both bright and dark spots. Sometimes one feels convinced that modern times are better than bygone years, while at other times the so-called progress seems to be

an illusion. On the one hand, we find greater sensitivity to an awareness of personal freedom, more meaningful relationships, and desire to build a more just society. On the other hand many fundamental values like the sanctity of human life, the inherent dignity of the human person and the sense of responsibility for the world seem non-existent. The family is being called upon at this hour to play new roles, and be prepared to meet new challenges. As an enduring human institution and with its resilience beyond doubt it can fulfill this task.

1.4 Technology in all its forms is one of the major factors contributing to the present situation of the family.

1.5 Technology in the wider sense of the term is constituted by the manifold ways in which man tries to enrich himself, create a more just society, master his environment and make this world a better place to live in. Thereby man ought to become more human. There are families which even amidst the crisis ofthe present day society, remain faithful to the demands of love, justice and solidarity.

1.6 God created man and woman according to his image and likeness. The image is not merely a reflection but a genuine sharing in the power of consciousness and freedom which God freely chose to communicate humankind· As God's likeness men and women are called to become like Him and in the sense be divinised. The family, the community of a life-long partnership of love and togetherness, is entrusted with the task of stewardship over Gods creation. As a fundamental unit it serves as a pattern and model of this task of stewardship, to be fulfilled by society and the entire humankind.

1.7 As the human person carries out this task of transforming creation and building up a more just society, he not only reflects the image of God but grows into the very likeness of God. In fact the partnership and collaboration with God in the ongoing creation and transformation of our world becomes both privilege and an obligation. Through technology, among others man exercises this privilege and fulfill this obligation.

2. AMBIVALENCE OF TECHNOLOGY AND NEED FOR DISCERNMENT BEFORE A VISION OF HOPE

2.1 The created reality as it comes from God's hands is good. Man too, shares in this goodness of creation. But the entire creation including humankind has been affected by evil within man. Its forces and consequences are visible in human activities and in the structures of society. This ambivalence colours everything that man is and does. Thus technology too becomes ambivalent. At certain moments and in certain situations, technology shows forth the greatness and goodness of man, while at other times it becomes immensely influenced by the evil in man and seems to be one of the forces that seek to destroy or deform him. This calls for a serious discernment both with regard to the development of technology and its use.

2.2 In this spectre we wonder whether our vision can be realised and our aspiration fulfilled when evil seems to be so widespread and insurmountable. Our hope is that God's ultimate purpose with regard to the entire universe and humankind will never be thwarted not only because God in his wisdom and fidelity to his promise guides humanity in its history towards its culmination but also because individuals, groups and humanity as a whole are moving towards the final realisation. Man's collaboration in this task is indispensable and possible.

2.3 This is based upon both the biblical vision and Hindu world view according to which the mystery of being, Life and Energy is one at whatever level it may be shared. The whole world and all peoples are in one single process of being awakened and growing into higher

levels of consciousness until the whole of humanity shares fully in the awareness of God who is "pure Consciousness and the Consciousness of all conscious beings."

2.4 Today we are witnesses to the fact that such a process is already taking place. The dormant state and low level of consciousness of several individuals and groups is being raised; the isolated awareness are being interconnected and integrated. Such an awareness is being multiplied, increased and spread all over the world in spite of the ill effects of technology. Our own International Workshop on the Family bears witness to this reality. Such a consciousness is the basis of the whole man, and experience of peace and harmony in the emerging new society where human persons are truly themselves; sisters and brothers—and where God is all in all.

3. ISSUES

From our discussions the issues which concern the interaction of technology and the family, grouped themselves into four : (1) Work, (2) Mass media, (3) procreation, and (4) health.

3.1.1. All human work is valuable, whether one is remunerated for it or not. Thus the work of the wife and mother in the home and of all members of the family for the maintenance of the home is worthy of respect. All persons require the necessities of life. Those who are unable to provide for themselves whether for reasons of disability or unemployment must be helped by society, first of all by creating employment opportunities. Currently the basic means of sustaining life are seldom available for the unemployed.

3.1.2. Some work places are so substandard that people are depersonalised if not almost dehumanised. This is an inverse of priorities, which demand that humans must not be exploited for the sake of production.

3.1.3. A technological society is one in which, the basic relationships are often built on material productivity or the capacity to produce and not on inter-personal dialogue. This can easily lead to a a new kind of slavery in which people are exploited for financial gain. Such a society does not place a high premium on building and maintaining the family as one's 'home' but merely as the provider of one's material needs.

3.2.1. As the result of urbanisation and industrialisation many families are now nuclear. The parents of nuclear families have the full responsibility for the support and guidance of their children unlike previous generations. The press, radio, T.V. and video have become another force which competes with the parents in the education of the young. The mass media, particularly T.V. invades our homes and brings the world in. This widens our horizon but can also insert unwelcome ideas. The consumerism which many programmes project can compete with more interpersonal values to the point where the home may no longer be the site of re-energizing and fostering of relationships.

3.3.1. The most powerful human functions are those of thinking, willing and loving. While education is designed to socialise children into the family, culture and nation, the recently accepted population limitation policies have sought to achieve a quick reduction of family size by a combination of mass media and action-oriented programmes.

3.3.2. Because of the population problem, the value of human procreation has been downgraded in the minds of many. This is a great loss, as it is in procreating a person who is our equal in dignity that we attain the summit of human creativity.

3.3.3. The knowledge of a couple's fertility has been scientifically verified, refined and made precise. Couples can exercise procreative choice without altering their bodily functions with any technology. The teaching of NFP includes not only scientifically valid reproductive physiology, but the integration of this

knowledge into the couple's marriage, family, culture, religion and society.

3.3.4. The freedom of conscience of every person must be respected in the formation of public policy. When there are substantial differences in life issues such as sterilization and abortion these cannot be directly or indirectly imposed by any individual, group or authority on anyone.

3.4.1. While sophisticated medical care is within the reach of a few, comprehensive primary health care is still not available to vast sections of people.

3.4.2. As the recent gas tragedy in Bhopal has shown, technological progress especially in the industrial sector is often blind to health hazards such as environmental pollution.

3.4.3 Advance in technology being insensitive to human values has resulted in the proliferation of nuclear arms which threaten to annihilate humanity itself.

RECOMMENDATIONS

4. To all who share our concern for the family in a technological society, we recommend that:

4.1 Every effort be made to create public forums and ensure participation of people to voice their opinion about specific technological choices, specially those affecting the country and the people at large.

4.2 Technological advances with regard to life's basic necessities be directed less to the refinement of resources and more to an equitable distribution of available ones.

4.3 Leaders from all walks of life be made to realise the absolute need of value education with regard to technological developments.

4.4 Young people especially be made aware of the manipulative use of technology and be educated in ethical values the respect for life, genuine love, truth and justice.

4.5 A comprehensive family life education be given at all schools and colleges so that the youth may be well equipped to accept their responsibility in the society of tomorrow; and research studies on the family be encouraged.

4.6 All people wake up to the insufficiently met need for marriage preparation and family life education so that a purely mechanical approach to human intimacy may be avoided.

4.7 The equal status of woman in society be recognized especially with regard to laws of property, succession, wages and socialisation within the family and society at large.

4.8 The scientific effectiveness of NFP be brought to the attention of government officials and other public authorities and that efforts be made to familiarise doctors, nurses and parents with its applicability.

4.9 Opportunities be made available to families to help them evaluate the media and its impact on family life, and use the media to deepen communication within the family.

4.10 The UN incorporate family life education in its programmes for the International Year of Youth 1985.

CONCLUSION

5.1 We participants of this workshop commit ourselves to these recommendations and wish to involve ourselves towards their fulfilment.

5.2 The participants of the Workshop expressed their appreciation for the efforts made by both civil and religious bodies throughout the world to strengthen and enable families to face up to the challenges of modern technology. They are happy to place on record the untiring and dedicated service rendered by TNFDC to thousands of families in Tamil Nadu.

5.3 May the all powerful spirit of God who guides the destiny of humankind and history lead the families of Asia, Australia and the entire world to discover and regain their own inner resources in order to discern His will amidst the fast changing technological society of today.

The Management Consultation for Health Care Fields

—Anang R. Sanghavi

The idea of management consultation for health care field is of very recent origin. Many people also think that in the service oriented health care field, why this type of sonsultation is required? Generally people associate management consultation with profit earning. As there is an absence of profit motive in the health care field, the Administrators and the Medical Professionals or the Trustees do not care for the management consulting in managing the hospitals or launching upon a hospital project.

In the light of above facts, I would like to state my views as to why Management Consultation is necessary in the health care fields? There are 5 very valid reasons as to why the Management Consultation is necessary:

(1) In the Health Care Fields, technological innovations are taking place very fast. During the last decade the health care industry has moved from the use of radiology to non-invasive diagnostic technology and now talking about N.M.R. Technology. The day is not very far when radiology will be outmoded. The equipments of radiology at present, take up /10 lakhs at the time of putting up a Hospital.

(2) Hospital is a service oriented industry and therefore 45 to52% of its total revenue budget is spent on salary and wage bill of its employees. As there is an increase in prices all round, the cost of having index is going up. This factor has led to formation of unions amongst hospital staff in large cities. The formation of union always increases pressure on the management to pay more and more wages.

I am aware that in Catholic Hospitals there is a dedicated and service minded staff but increaxe in the cost of living index affects everybody unanimously. There may not be pressure of union movement but even on the humanitarian ground it becomes obligatory on the management to increase the wages proportionately.

(3) Due to all round increases of prices there is a big increase in the cost of electricity which is being used in the Lospitals on a large scale. Being a consultant attached to a few hospitals, I am aware that the cost of electricity has increased almost 100% between 1979 and 1983 in the city of Bombay. There were 3 increases and one more imminent at any moment. In other cities also I don't think electricity is cheap. On the contrary many breakdowns and discontinuance of the power supply and large fluctuations in voltages necessitates the investment in disel generating sets. There is also increase in cost of kitchen and washing soap. Laundry and Kitchen being primary incidental-services to hospital the increase in expenses on the above two items also affect hospitals adversely.

(4) The Donation and resources mobilisation has become difficult. This is so because the amount required is huge. It is also difficult because the charity mindedness of common people has dried up due to the increase in cost of

living index. Our Indian People are large hearted people with a charity orientation to such an extent that from a loaf of bread they will share even the half for a guest. But the increase in cost of living index has not allowed even the half loaf of bread in the hands of common man.

(5) The Capital Cost of new hospital now runs into crores. Even a small hospital of 100 beds but with the latest diagnostic facilities together with automatic pathological laboratory equipments costs more than a couple of crores. Similarly the revenue expenses of a hospital also run into millions of rupees every year. The maintenance of a hospital bed per day per patient costs not less than Rs. 60/- and Rs. 70/- in a city like Bombay. In a very sophisticated hospital the cost of a higher class bed runs into Rs. 300/- a day or even more.

The scientific management is necessary where resources are sparse and requirements are multifold. We have been as above that the requirements are quite multifold and the resources are really very sparse. Hence application of principles of scientific management becomes obligatory. Here is below we will have a casual glance as to how the application of scientific management principles reduces the capital cost of a hospital or revenue expenditure in a hospital.

(a) The application of scientific management principles at project level is necessary to screen the hospital project to reduce the capital cost as well as to reduce the future revenue costs.

In scrutinising the design of an architect for the hospital, we have to work out the floor space utilisation index. This floor space utilisation index is worked out from the area allotted to patient care as against the total built-up area. This is known as designing efficiency. Some of the new hospitals the floor space utilisation index comes out to as low as 0.4. It seems that the building cost of the hospital is 21/2 times than what will be actually used for the patient care.

As regards the revenue expenditure it is necessary to work out the requirements of lifts, the requirements of passages which are minimum required. As we are aware, lift consumes electricity and needs a lift man because hospital is a public place. The wide passages increases the requirement of cleaning staff as well as the expenses on soaps, dusters, etc. The hospital has to be maintained very clean and as it is a public place lot of people visit the same. Hence cleaning up also takes up lot of cost. If there are unnecessary wide passages the lighting and cleaning will also take up lot of future revenue expenditure.

(b) The Government has declared import duty of 160% on quite a number of hospital requirements. The same Government also excludes some of the hospitals from the payment of customs duty if they fulfil certain conditions. As the hospital equipments runs into lakhs of rupees, it is better to procure such exemptions to keep the capital cost of the hospital within the limits.

The Government has also given certain liberties in non-payment of excise duties and sales-tax provided certain conditions are fulfilled by the hospitals. If all these planning is well-done it always saves money for the capital cost of the project. There are certain exemptions to the Donor. The coming hospital project has to avail of maximum

exemptions to the Donor which are feasible under the present tax law structure.

(c) Man Power Planning : Some of the hospitals run quite smoothly having 1.8 staff per bed incldng the staff for the diagnostic centres. However, some of the hospitals face lot of difficulties even though their staff is around 3 per bed. This increases the expenses.

(d) In running the various diagnostic centres and the departments what is the minimum requirements of equipments has to be studied. If we take more number of equipments the maintenance and depreciation expenses go on mounting without equivalent work. Hence it is necessary to find out what are the optimum capacity of each machine and what should be the number of equipments that are required for the said quantum of work.

It is also necessary to keep a check on the wastage such as spoilage of X-ray plate. Now a days there is a shortage of X-ray technicians (Radiographers). This shortages pressurises hospital management to accept newly turned out technicians whose spoilage of X-ray Films is 6% as against 1% of a really trained and experienced person.

(e) It is also necessary that the various statistics collected by hospitals become comparable to each other. In an association like Catholic Hospitals Association of India, if all hospitals follow a uniform accounting pattern and keep the fixed number of ledger accounts and debit the expenses as per the common rationale accepted by all, the expenses of one institution becomes comparable to the expenses in other institutions. If this pattern is followed the hospital administrators of all hospitals can check his/her efficiency by comparing the figures of other hospitals.

Similarly for health records also the figure can be kept in a comparable way. I have noted that in one of the hospitals even the tooth extraction has been included in operation to inflate the figures of number of operations. This is really ridiculous.

Similarly for controlling costs it is necessary to keep uniform method of accounting. I have just narrated above the cost of X-ray Films and such incidents can be multipled.

The last point is to control expenses, laundry and linen and other expendable and what should be considered as expendable and what should be considered as capital cost items need also a unanimity in the accounting procedures.

(f) I would like to state that some of the Catholic Hospitals Associations members are only a primary health care units and have nothing to do with the above points which are connected with the referral hospital. Hence I would like to state something about the primary Health care. The primary health care deals with personal hygiene. In the case of personal hygiene, our country has a wide disparity from the rural people who are suffering from non-availability of postable drinking water, non-availability of even pit type toilets and no water, for bathing as against the most affluent society staying in a city having not only filtered and boiled but areated water to drink and twice a day bathing with 125 to 200 litres of water a time and scenting the body with perfumes atleast half-a-

dozen times a day. To educate the rural people for the personal hygiene and the health care what type of minimum infrastructural facilities including the requirements of health care personal is needed is a question that needs lot of studies and attention. What sort of antenatal care is required for the effective mother and child health care what nutrition is necessary are all problems of primary health care. A better planning with the most effectiveness will suggest an easy solution to this Himalayan problems.

Thus, I feel that the applying of scientific management principles in the field of health care will increase the cost effectiveness of a rupee spent and will yield better results to the satisfaction of all concerned at the helm of affairs.

Noise Pollution—You'd Better Believe It!

by Carol C. Sides

Noise in our industrialised society has rapidly grown from a simple nuisance to a major cause of concern. Unable to escape it, we're busy conducting research to learn more about it.

The most elementary facts about noise concern its effect on the human ear. As sound waves reach the eardrum, they are magnified; if too strong, they can injure delicate ear mechanisms or even cause deafness. Fortunately, safeguards are built into this sensitive part of our anatomy.

This is where the middle ear takes control. The hammer, anvil, and stirrup are three tiny bones that carry sound vibrations from the eardrum to the inner ear. If the noise is very loud, two sets of muscles are activated. One of these tighten the eardrum, decreasing the sound vibration; the other pulls back the stirrup, releasing its tight hold on the inner ear. A third safeguard, the Eustachian tube, connects the middle ear to the mouth cavity and helps to equalise air pressure.

The snail-shaped inner ear, filled with liquid, lies deep inside our skull. As sound moves through the middle ear, it creates waves in the inner ear's liquid. These waves stimulate tiny hair cells to convert the movement into electrical impulses, which are sent to the brain's hearing centre.

Noise affects the heart and the blood vessels; causes a change
in the heartbeat; increases the cholesterol level in the blood;
and raises the blood pressure.

For scientific purposes sound is measured by decibels, a complicated system using the comparative ratios of loud sounds to softer ones. For example, an increase from one to three decibels means sound energy is doubled, but an increase to 40 decibels means sound energy is 10,000 times greater. Table 1 shows the comparative energy increase for consecutive10- decibel increments. Sound and Hearing explains it like this: "The decibel measure gives a rough connection between the physical intensity of sound and the objective loudness it causes."

Table I

Decibel Increase	Sound Energy Increase
20	100 x
30	1000 x
40	10000 x
50	100000 x

Let's see how daily sounds affect us. The average person hears well in a range from one to about eighty decibels. Decibel measurements for everyday sounds are listed in Table 2.

Researchers estimate that several hours of daily exposure to noise above the 85-decibel range can cause gradual loss of hearing. About 120 decibels, noise cause a tickling feeling in the ear, and noise above 130 decibels may produce pain.

At a Paris meeting about three years ago, a twenty-two nation panel warned the Organisation for Economic Cooperation and Development about noise pollution. Modern technology and lifestyles have raised the average sound level one decibel per year since 1949.

Table 2

Common Noise Sources	Decibel Ratings
Threshold of hearing	0
Soft whisper	20
Library sounds	30
Typewriter	40
Air-conditioner	50— 70
Ordinary conversation (between 2 people)	60
Vacuum cleaner	70
Heavy traffic at 30 metres	70
Clothes washer	78
Home shop tools	70— 90
Garbage disposal	80— 90
Food blender	88
Shout in the ears	90
Heavy traffic at 7.5 metres	90
Power mower	90— 100
Motorcycle at 15 metres	100— 110
Chain saw	114— 120
Rock band	114— 120
Loud Sirens	120— 130
Jet takeoff	120— 130

Several millions are subjected to noise in normal, everyday sound. What does this mean to the average person? In addition to loss of hearing, side effects include changed endocrine hormone secretion, abnormal kidney functioning, emotional upheaval, loss of sleep and a slowing of the mental processes.

What noise does to monkeys

One interesting research project subjected monekys to the daily noise experienced by a typical blue-collar worker. The monkey's morning sounds included an alarm clock, an electric razor, rush-hour traffic, and a television show. In the afternoon they listened to cafeteria clatter, a diesel generator, and a car radio. At nighttime they heard an air conditioner's hum, chirping birds, and the drone of a lowflying plane. Result? The monkey's blood pressure rose 43 per cent during a three-week period. Although these statistics can't be considered accurate for humans, the researchers, Dr. Ernest Peterson and Dr. Jeffrey Augenstein, of the University of Miami School of Medicine, concluded that "everyday noise may be injurious to people's health."

Human testing has demonstrated that noise affects the heart and blood vessels. Loud noise causes a change in heartbeat rhythm, increases the cholesterol level in the blood, and raises the blood pressure. Sudden sound at lower levels (such as firecrackers) cause even higher pulse rates and blood pressure, along with muscular contractions, increased perspiration, and a decreased flow of gastric juiesc and saliva. Germany's Dr. Gerd Jansen played recorded sounds at 55 decibels to determine their effect on sleeping subjects. By measuring the flow of blood in their fingers, he learned that the sleeper's blood vessels were contricted by noise of even one second's duration, with several minutes needed for the veslsels to reopen. He concluded, "Night sounds heard while we sleep could further endanger ailing hearts and arteries."

It's interesting to note that noise has the opposite effect on the brain's blood vessels, causing them to dilate, which can result in headaches. Even low sounds can make the eye pupils dilate and alter the natural rhythm of brain waves.

Noise may cause birth defects

Some birth defects have been blamed on noise. Dr. F. Nowell Jones, professor of psychology at the University of California, Los

Angeles, analysed more than 225,000 births in the Los Angeles area between 1970 and 1972. His findings showed a higher rate of birth defects in babies whose mothers lived near Los Angeles International Airport than in those whose mothers lived in quieter sections of the city. In a similar study John S Horner found a high percentage of stillbirths in the area near London's Heathrow Airport. About an unusually low birth weight was observed among babies of mothers living near Osaka Airport in Japan. Although these findings are not conclusive evidence, they do suggest that foetal development is adversely affected if the mother is subjected to continuing noise stress during pregnancy.

According to MD Magazine, growing evidence suggests that stress resulting from exposure to high decibel levels contributes to physical, phychological and behavioural disorders. Workmen in noisy surroundings tend to be aggressive and quarrelsome, reporting twice as many family problems as workers in quiet environments. The real problem is hidden—people have learned to adapt to noisy work conditions, not seeing them as a potential cause of disorders.

What you can do

But what can an individual do to help solve the problem? Try these suggestions.

1. Use noisy appliances when family members (and neighbours) are normally awake.

2. Install weather stripping (sound proof material) on doors and windows.

3. Use heavy drapes on noise-facing windows and use soft-upholstered or inflated furniture.

4. If you live on a busy street and have air conditioning, close your doors and windows to outside air. (Highway traffic is quoted as the most widespread and persistent source of noise, though not necessarily the loudest.).

5. If you must turn your stereo high, close the door so others won't be bothered.

6. Learn about potential legislation in your area and support laws that will curb unnecessary noise without infringing on individual rights.

Noise is a necessary part of living, but uncontrolled noise becomes pollution. Fortunately, much noise pollution can be controlled. Learning about the sources and effects of noise, and being concerned for people around you, are ways that you can help.

Courtesy : Herald of Health

You and Your Deaf Child

—by Kiranmayi R. Kamath

Every parent wishes to have healthy and normal children. The sex of the children is of secondary importance. It is easy to imagine the reaction of the father and mother when they find that their new-born child is unable to hear—that it is deaf. Some people curse destiny. Some go into a state of shock. But they should realize that they are not the only ones who are afflicted by the grief and anguish that this situation brings about. The thought that there have been many parents like them who have suffered the same pain initially, yet they overcome it, should be a source of consolation and courage. The parents of a child who is deaf should be specially thankful, that he is normal in all other aspects. Naturally it will take some time for them to reconcile with the idea of accepting this unfortunate situation into the family. The shock may wear away slowly, but several other questions keep cropping up in the mind like, Will he ever hear? Talk ? What will the child do for a living when he grows up? Indulging in such negative thoughts, and brooding over the matter may not help in any way. The real solution to the problem lies in accepting the reality and finding some suitable means to improve the child's impaired hearing.

It should be remembered that a deaf child too can speak, his speech organs are all right. He does not learn to speak because he cannot hear. During the first five years of the child's growth most of the learning takes place casually. As the child grows, he takes in everything that goes on around him. He becomes more communicative with parents who are attentive, and who respond to his attempts to express himself. This casual spur-of-the-moment teaching and learning takes place whether the child is able to hear or not. Children, as a rule, spend most of their time with their parents, especially with the mother. So it is very important that to improve the condition of the child with loss of hearing, the mother plays a major role.

Making Sure

How does one suspect hearing loss in a child? The surest way to know is when the child does not respond to the noises around him, however loud they may be. Further, he becomes dull and inactive. When the child's hearing loss is detected at an early stage it can be rectified. Nobody is really stone deaf. There will be some hearing left in all cases. If the child is suspected to be suffering from deafness, he should be taken to an ENT (Ear, nose and throat) specialist. Negligence on the part of the parents may cause irrepairable damage to the child's future. Treatment given for hearing loss at an early stage will yield favourable results. The ENT specialist will examine the child, measure the hearing left, and also find out the cause for the child's impaired hearing.

For a child whose hearing loss cannot be cured by medicines, the doctor may prescribe a hearing aid.

Causes

What is the reason for deafness in children?

It cannot be categorically stated. Some of the main reasons for deafness are infection in the early stages of pregnancy, anaemia, too much intake of antibiotics, previous miscarriages, smallpox, German measles, forceps delivery, etc.

Types of Deafness

Deafness is of three types : 1. Adventitous deafness—deafness at any time after birth. 2. Congenital deafness—deafness at birth, and 3. Post lingual deafness—deafness occuring after the baby has learnt to talk. Deafness, again is classified into two types based on the causative factors. One is due to conductive hearing loss and the other is due to sensory-neural loss. Conductive hearing loss is caused by partial or complete blockage of the outer or middle ear. In the second type, the problem is in the inner ear or beyond where the sound is interpreted by the brain. The first type of hearing loss could be cured with medicines or by surgery. Antibiotics and sulpha compounds now control and cure most middle ear infections. With the advent of micro-surgery, very significant advances have been made in treating cases of deafness. Sophisticated surgical instruments and highly refined binocular microscopes enable surgeons to perform delicate operations in the tiny crowded ear chambers. But for the second type of deafness, the use of a hearing aid is the only answer.

What is the Hearing Aid?

It is an instrument which makes the sound clearer and louder enough for the child to hear. There are many organisations which are manufacturing cheap hearing aids. These are to be avoided. Hearing aids should be bought only from government recognized agents or companies. An inexpensive hearing aid may not be useful, but at the same time, there is no guarantee that costly aids are suitable to all types of ears. The instrument should be first checked by the ENT specialist and then worn by the patient.

Parental Responsibilities

Parents should very well remember that just by buying the hearing aid for the child, they are not free from further responsibilities. The deaf child has to learn to understand people by watching their lip movement. So parents must talk to the child as often as possible, for the young child is very much attached to its parents. He keeps watching and reacting to them. The child has to use his eyes a lot to learn. The child must realize that a particular lip-movement means something, and he will try to imitate it. Holding the child near your face at its eye-level is the best way to encourage lip reading and speaking. Sometimes the child does not realize that a person talking to him is making sound even though the speaker may be moving his lips. Make the child feel the vibration by putting his hands on your cheeks and throat. The child must be made to feel his own vibration when he babbles, laughs or cries. The child will soon realise that he has to produce a vibration to go with the movement of the lips. This will be more effective when the child changes his normal babble into speech.

The parents must not feel that just because the deaf child cannot hear, there is no point in talking to him. On the contrary, they should talk to him constantly—while bathing, dressing or feeding him, or merely sitting with him, explaining things of interest to the child. While talking to the deaf child, of course, there is no need to shout. Speaking to the child must be done normally. When the child attempts to speak by making noises and by moving lips, all his efforts should be encouraged. The deaf child should be exposed to the world of sound. Gradually the child may learn to recognise different sounds. Care must be taken to avoid loud sounds being made near the child. These may cause further damage to the ears. Spend as much time as possible with the deaf child. Teach him to read, write and speak. The extra efforts made by parents of the deaf child will enable them to see their child blossom into a self-supporting personality in due course.

Training Centres

Apart from giving home training, the parents should take advantage of the training centres specially meant for the deaf and the dumb. There the children will be taught under the guidance and supervision of trained speech therapists. Continuing education in such schools will help the child overcome the handicap of mutism. There are so many publically and privately supported institutions in our country which are exclusively devoted to the education of the deaf, and also trying to impart training to the parents of such children. An American institution offers a free correspondence course to parents who need help. The address is as follows.

JOHN TRACY CLINIC
806 WEST ADAMS BOULEVARD
LOS ANGELES, CALIFORNIA - 9007
U.S.A.

Both young people and parents can find constant inspiration in the example of Helen Keller who in spite of being deaf, mute, an blind achieved world renown for her contributions to the betterment of the handicapped and to humanity in general.

—*Courtesy :* HERALD OF HEALTH

Dying with Dignity ?

Reiterating Age-Old Truths

St. Mary Cathlean Harvey

Your editorial in the February issue of the *Journal* was indeed stimulating and thought provoking. I appreciated your open attitude and your invitation to initiate a discussion on 'The Right to Die with Dignity.'

Taking a stand against 'Mercy Killing' I have nothing new to say regarding 'Dying with Dignity'. Nevertheless I am of the opinion that to reiterate age old truths will not be out of place. All will agree on the right to the dignity of every person, and that every person has a basic right to 'die with dignity.' But what is meant when we speak of dying with dignity ? It would appear that in many minds there exists a confusion of the meaning of 'dying with dignity'.

Originally the word euthanasia was taken to mean a 'good, honourable and dignified death' Euthanasia has always referred to the kindness and loving concern that physicians, nurses and others attending on the patient, extended to help him to minimise physical pain and mental anguish, and at the same time to maximise his fortitude and serenity. It is just in this century that euthanasia has come to be understood as the direct, albeit painless, termination of the life of the patient considered to be terminally ill, and who chooses to die without further delay and further pain.

To die with dignity should simply mean to pass away from this life peacefully, when God the Author of life takes away that life. Human life is unique and sacred. It is Godgiven. Man is the custodian of his life, and whilst everyone has the responsibility to live it well, and to achieve fulfilment, no one has the right to terminate it. In other words, man's right over his own life is not absolute. Neither the individual, his relatives, his doctor, nor any arbitrary state law should dare to abrogate this right which belongs to God alone.

In order to die with dignity does anyone have the right to decide the actual time when he should die ? Is this not a supreme dishonour to the Almighty, the Creator and Lord of the Universe ? Can we consider that any person who opts to die to avoid the pain of living is truly choosing an honourable and dignified exit from this life ?

Instead of 'mercy killing' could the doctor, the nurse and all those responsible for the patient provide psychological and spiritual therapy, to enable the terminally ill patient to 'live' life to the end ? Could we not give to them a reason to live as well as a reason to die victoriously, and in true dignity ?

When a person is in the throes of struggle, there is taking place in him, another inner dialogue, a dialogue with God, even if the person concerned thinks that he is an unbeliever and supposes that he is wrestling only with himself. There is often a conflict between God's demands and the person's resistance to these demands, a dialogue between the searching Voice of God and the replies it demands.

The doctor and the nurse are there to wage a battle against death, with all their

competence and dedication. They are there to give inspiration and courage, to strengthen the patient's will to live. To accomplish this they should understand the healing power of love, convey to the patient the feeling that he is loved, appreciated and needed. They should endeavour to create an optimism and a desire for life.

We know that the patient's calmness and inner peace can be a healing and life-giving adjunct to medical efforts and this serenity and peace of mind are decisive factors enabling the person to face life, even in physical suffering. When death is inevitable the patient is encouraged to confront it peacefully. This is the zenith of personal freedom.

As we see the evening of life giving way to the dark night, with a reverential awe at the mystery of life and death, could we ourselves face the prospect of our own death and come to terms with it ? Then we may be capable of helping others to die in peace and dignity.

Abiding by the criteria of freedom and peace, certainly we must do everything that is possible to minimise suffering, physical and psychological, whilst at the same time helping the patient to use every conscious minute to be ready to meet God. There are so many ways open to us whereby we can relieve human suffering and avoid resorting to 'mercy killing'. Life and death are 'mercy' and dying is actually a part of life-the culminating part for those who believe in the mystery.

Not all of us have the capacity to face suffering with the same degree of equanimity and dignity. Therefore it is important that not only the amelioration of physical pain has to be considered, but even more significant will be the comfort-psychological and spiritual—that the nurse and the doctor, as well as all those attending on the patient can extend to him.

We have seen people transcend themselves in faith and trust in a loving God..... people who could endure great suffering and whose lives have become radiant—a radiance which surely came from their attachment to God and to His will, and with the experience that their friends still needed them. In the suffering of such people, in spite of their limitations by age or ill-health, some new maturity blossoms. We have seen others who have given way to despair and a refusal to open themselves to the meaning of that mystery of life and death.

To say "Yes" to God is also to say "Yes" to life, even if that be a maimed or crippled life. It is to turn from the negative to the positive. To take up a negative attitude and say 'No' will not compromise health and vitality in its holistic concept. In the words of Dag Hammerskjoeld : "Once I answered 'Yes' to Someone-or Something-and from that hour I was certain that existence is meaningful and that therefore my life in surrender, has a goal."

Readers are no doubt aware that in 1981, there has been set up in Bombay, a Specialised centre to study and to promote Bio-Medical Ethics, for the benefit of non-medical people as well as for medical practitioners and students. This centre has set up a task force, consisting of doctors, lawyers, non-medical experts as well as paramedicals to study the legislation of 'mercy killing'. This Task Force on Euthanasia has gone into several aspects of the question. It has found that there is indeed some confusion where terms and phrases are used, which tend to cloud the issue. Hence it has set out clear definition as well as guidelines. The cultural aspects too have been studied. These have brought out the fact that 'mercy killing' is indeed abhorrent to our Indian culture and

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Sterilization and it's Complications—Moral, Physical and Psychological

By Dr. John J. Brennan

While contraception prevents fertilization by interfering with the individual sex act, sterilization leaves the individual act untouched as it destroys the sexual faculty itself.

The greatest gift we have is life. The second greatest gift we have is the ability to transmit that gift of life to the next generation. Life itself does not belong to the individual, to his family, or to the State. Life is a gift bestowed upon us by God to be returned to him at some God-given time. So too, the gift of transmitting life to the next generation does not belong to the individual, his or her spouse, the family, or the State. The gift belongs to God. It is given to each woman to protect and use for an average of thirty to thrity-three years. In His wisdom, the gift of transmitting life is returned to Him by each woman before she reaches the age of fifty. Each man retains the gift from adolescence into his old age.

Sterilization may be permanent as with hysterectomy, tubal ligation, or vasectomy. It may be temporary as with contraceptive pills or injections. During the thirty years that I have delivered babies every week or two a woman has inquired about postpartum sterilization by tubal ligation. The fact that no woman has even left my care because I have refused to sterilize her shows how ambivalent women are on this subject.

I yell her that a doctor's highest calling is to be a teacher and that I must teach her how to live with her own reproductive organs.

A doctor cannot consider how he can solve all human social problems with his surgical instruments. If a woman said she could not control her hands, that she was a kleptomaniac, (a compulsive stealer) the doctor would hardly use his surgical instruments to cut out her tougne. Even if she couldn't control her appetite for food, the good doctor would teach her about diet and nutrition rather than perform an intestinal bypass operation. The new car in the display room and the gold bracelet in the jeweler's showcase look attractive to all women. Yet women must accept a discipline in which they cannot have everything they desire. With cars, jewels, clothes, and food—so too with sex, life has a discipline.

Just as often-once every week or two a woman asks me about the chance of having a tubal ligation reversed. Most of these are young, poor, black women who had a tubal ligation performed after one or two babies as a teenager. Someone has cinvinced each one that her reproductive organs are her greatest libility and that she can "make something of herself" if she becomes a miniman. Suggestion and persuasion rather that coercion or compulsion are the cause of most tubal ligations in our country. Unfortunatley, most of these young women have had their tubes burned out and tubal reversal is impossible. In one recent year in which our hospital had no maternal mortality we did have one woman die of generalized peritonitis after tubal ligation in another hospital. The red hot poker used to destroy the tubes must have burned a hole in her bowel causing the disaster which resulted in her death.

Many a woman who has had tubes burned by the age of twenty, has at the age of twenty-five met a man who would like her to become his wife and the mother of his children. Such women have asked, "Why couldn't I have met some like this when I was seventeen or eighteen ?. The answer is simple—they were looking in the wrong place. They were looking for action in the tavern while this young man was studying in the library.

The question has been asked, "Is it possible that tubal ligation may be performed in a Catholic hospital ?". The answer is, "Yes it is possible".

The traditional teaching of the Catholic Church has condemned sterilization. Cooperation in the act of another person requires some clarification. There is distinction first between formal and material cooperation. *Cooperation* is any assistance in an act that is a violation of the law of God. *Formal cooperation* directly intends the wrongful act of the principal agent. The act is directly desired by the cooperator either as an end in itself or as a means to an end. In *material cooperation* the cooperator desires neither the wrongful act for itself nor as a means of anything else, but rather permits the wrongful act to occur.

Immediate material cooperation is cooperation in the wrongful act itself while *mediate material cooperation* is cooperation in one or more of the circumstances leading up to the act. Mediate material circumstances can either be *proximal* or *remote*. *Necessary coperation* is that without which the wrongful act could not occur. *Contingent cooperation* is that which is not necessary for the occurrence of the worngful act.

This results in three principles :

(1) Formal cooperation never permissible.

(2) Immediate material cooperation is never permissible because by cooperating in a wrongful act one is violating God's law (even though cooperation is for another reason).

(3) Mediate material cooperation is permissible if the action of the cooperator is not a violation of God's law and providing cooperation is done for a proportionately serious reason.

In 1975 the Sacred Congregation for the Doctrine of the Faith reiterated the traditional teaching on sterilization. On 15 Sept. 77 in an explanation of the Sacred Congregation's document the Administrative Board of NCCB made it clear that a Catholic hospital can in no way approve of a sterilization as that would be formal cooperation. If a sterilization does take place serious scandal may result. Therefore, the Bishop must be involved in each decision. Material cooperation is possible but that means that the reasons for allowing the sterilization must be different from the reason for performing the sterilization. Such a reason might be the possible closing of the hospital. Such cooperation is considered only mediate. Some hospitals have merged rather than close. Certainly the problem is complex and the result unfortunately, is what is sometimes called "geographical morality".

Some Catholic hospitals may allow tubal ligations because they are under court order and the alternative might be closure of the hospital ; and/or the hospital might be the only hospital in area. Some catholic hospitals may be functioning in a Communist controlled land where the Bishop may decide that there is proportionate good coming in remaining open while complying with orders from above. So too in areas where secular humanism dominates federal funds may be withdrawn if the Bishop does not offer mediate material cooperation.

Sterilization dates back to ancient times. Hippocrates recommended sterilization for hereditary insanity. In 1834 Von Blundell suggested tubal resection but it was not until 1881 that the first tubal ligation was performed in the United States by Dr. Lungren. In 1935 Dr. William Kroener, Jr. reported on 1000 tubal ligations performed by his father in Whittier, California.

Probably the series most characteristic of the conseqnences of tubal ligation was collected by Major James Tappan of Travis Air Force Base in California after tubal ligation was allowed in military installations in U.S.A. Of 404 tubal ligations 244 responded—at a minimum of six months and an average of nine months after surgery. 41% had a heavier flow; 27% had a longer flow; 21% had a more painful flow; 9% were more irregular; 10% had a lighter flow; 5% had a less painful flow. 38% gained weight; 29% lost weight and 42% had no change.

12% of those who had tubal ligations for social or economic reasons felt six to twelve months later that they could now afford another child. 15.5% desired another baby six to twelve months after their tubal ligation.

Most series seem to try to prove that the physical consequences of tubal ligation are so great that either a total hysterectomy should be performed on the wife or a vasectomy performed on the husband.

In 1954 Randall showed that after tubal ligation 4.8% developed cancer of the uterus, cervix and ovaries.

Lu and Chen in 1967 said that functional menstural disturbances are common after tubal ligation because of circulatory changes within the terminal brances of uterine and ovarian veins.

In 1972 Muldoon from the University of Dundee followed 374 patients for ten years after tubal ligation. 43% needed further gynecological treatment; 25% had further major surgery. 70 had hysterectomies.

"A survey of the literature reveals that relatively few followup studies have been published on individuals who have undergone voluntary sterilization. These studies yield conflicting information on the psychiatric complications of the procedure. The psychological complication rate varies from zero to 83%. Most of the studies are unscientific and uncontrolled. Eadey and Bernstein reported that 95% of the males and a slightly lower percentage of women are "satisfied". The lower percentage among women is supposedly related to the fact that some were sterilized for reasons of medical necessity and that some of these women were childless and wanted children."

"In India there has been indiscriminate male sterilization in the past according to Wig and associates. They reported that 36% of their patients had symptoms related to the operation and called them the "postvasectomy syndrome". These patients were seen in psychiatry and urology clinics. Kharna, who studied 500 couples after the wives had salpingectomies, reported that the psychiatric symptoms were usually hysterical involvement of the voluntary nervous system and face-saving rather than symptoms of anxiety or depression, which are less acceptable in India. These patients showed alterations in motor function or sensation to operation was satisfactory even though some observed a change in their sexual activity-that is, a decreased frequency of sexual intercourse and a lessened ability to reach orgasm. With these observations the authors stated, "We should now be carried away with our enthusiasm for the operation and with our public spiritedness. We must keep

foremost in mind the future happiness and emotional stability of the patient."

"In contrast to this article, Sturazaker, in England, reported 99% of 1000 followed patients to be pleased after vasectomy. This finding may have meant that the patients were "Happy being sterile" in spite of some untoward side effects".

"Horenstein and Houston, with interviews and psychological tests, studied 20 vasectomized patients and Ne matched patients who did not undergo vasectomy six and eighteen months after surgery. They found that most were satisfied with the surgery and that their sex lives and marriages were better. These results indicated that the psychologic adjustment was adjusted but that the affect varied with time and the patient's defensiveness. These investigators concluded that the operation did not affect the patient's self-concept and that on a superficial level the patients were emotionally better but at a deeper level were worse".

"Componella and Wolf studied women two years after tubal occlusion and reported no serious medical or psychological problems but did notice some interesting aspects in relation to age :

* Minor psychosomatic symptoms occured in 40% of the younger subjects in the first year and in 30% after two years.
* Menstrual irregularities occured in 25% of the younger subjects in the first year in 30% after two years.
* Ninety-five per cent of the older women were satisfied with the operation two years after surgery but only 75% of the younger women were satisfied at that time".

"Neil and co-workers compared a group of women who had been sterilized to a control group whose husbands had vasectomies, including more pain and flow, than did the women whose husbands had vasectomies. Those women with surgical sterilization subsequently had 10 hysterectomies whereas only—occured in the control group. Seven percent of those women operated on had psychiatric problems as compared to 3% in the control group. Of those women sterilized, 90% were happy with the surgery, 3% in retrospect would have had it done on themselves. 3% in retrospect would have had it done on their husbands and 4% would not have undergone sterilization."

Cox and Crozier studied 220 women who had been sterilized 20 to 36 months earlier. They found that 5.9% regretted the surgery and 6.8% were uncertain. They also found more satisfaction among those sterilized by leproscopy than by abdominal tubal ligation. The authors wondered if the small scar was a factor in the satisfaction. They reported that one patient lost her libido after sterilization. She requested and obtained reversal of the procedure and regained her libido. They reported these complications: worsening of sex life in 11, weight gain in 7, menorrhagia in 7, guilty conscience in 3 and "nervous trouble" in 2. Of the 13 who regretted having had the surgery, 6 had strong medical indications for sterilization and 5 were sterilized for high parity. The *important observation is that those with the strongest indications for sterilization felt the most regret. This finding was also reported* by *Thompson and Baird,* and could be due to the circumstances that lead to the operation rather than to the operation itself. Barnes and Zuspan found a high degree of complications when sterilization was done along with cesarean section. Over 25% regretted the operation. Here the patient had little choice in decision making and little time to consider."

"Sachs abd Lacroix stated that young couples with families who, despite ambivalent or strong feelings against sterilization, submit to the procedure because of medical advice are more likely to regret it later, particularly if they have a poor understanding of the need for the procedure".

Neil and co-workers followed 493 women. They found considerable more menorrhagia and dusmenorrhea in women who had laparoscopic tubal ligations than in those who had tubal ligation at interval laparotomy and least menorrhagia, dysemenorrhea and dyspareunia among women whose husbands had vasectomies.

There is no doubt that abortion destroys human life. It is wrong not only because it violates the fifth commandment, 'Thou shalt not kill", but also because it defies the first commandment, "I am the Lord, thy God, thous shalt not have strange gods before me". Abortions are "the strange gods of the twentieth century". Only God gives life, Only God takes life away.' Abortionists take over the role of God by determining when an individuals life should end. So too only, God endows humans with the gift of transmitting life. In his plan sexual intercourse is both unitive and provreative. Those who burn tubes, who destroy the gift of transmitting human life are also "the strange gods of the twentieth century".

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traditions. It will be recalled that in 1981 when a Member of Parliament introduced a Private Member's Bill, it was rejected in 1982. The Prime Minister had said that it was not in consonance with the cultural traditions of our country. We can add that it is not in harmony with *Ahimsa*, the ideal so much lived and promoted by our Mahatma.

Regarding public opinion, we have on record several surveys taken up in Bombay to assess the feelings and the opinion of people on this issue. In 1982 one survey carried out by C.J. Vas, showed that the average person was not for it. In 1983 Shanbag and Jha conducted a survey among the poorest women in the slums of Bombay to find out their attitude to this subject; 69% were against 'mercy killing' 3% were for it, the remaining 28% had no specific views. In 1983 Bhattacharya conducted a random survey in a rural area. Of this only 2% had heard of 'Mercy Killing', 58% were against it, 12% in favour and 30% had no response. Many of those interviewed were apparently upset at having been asked the question, whether they would like someone to die, whether they would like to kill some. In the detailed and scientific opinion survey carried out recently by the FIAMC Bio-Medical Ethic Centre at Goregaon, Bombay of 1210 individuals 90% of those interviewed, from all faiths, ages and occupations were against 'Mercy Killing'. These views must surely be taken into consideration and respected. If legislation is intended for the small percentage in favour, surely abuses can be expected (cf. C.J. Vas, *Medical Service*, New Delhi, 1983).

Nurses, be at the bed-side of the terminally ill. Do what is possible to comfort them, relieve pain and anxiety and maximise their fortitude and hope. Show them your loving concern and release for them the healing love of God. For "the most beautiful thing in life is the Mystery". (Einstein).

References

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