

The Singapore Family Physician



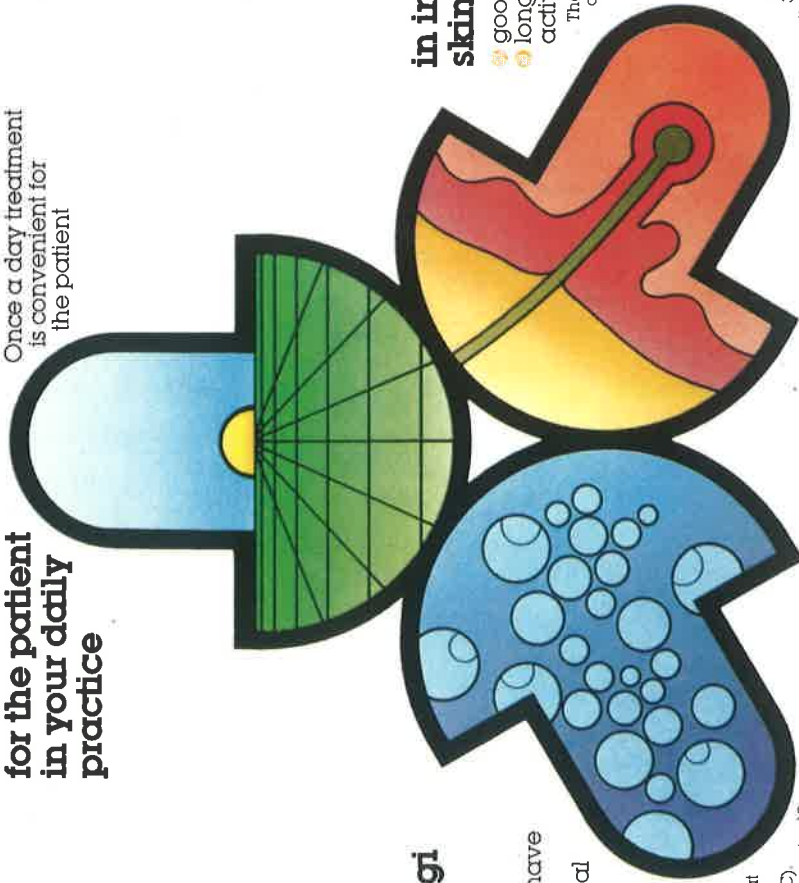
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The College of General
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Vol. XI No. 3
July/September 1985

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Moderate	17	21	40	38	14	12
Severe	52	48	25	21	2	2
Very Severe	31	31	6	6	1	—

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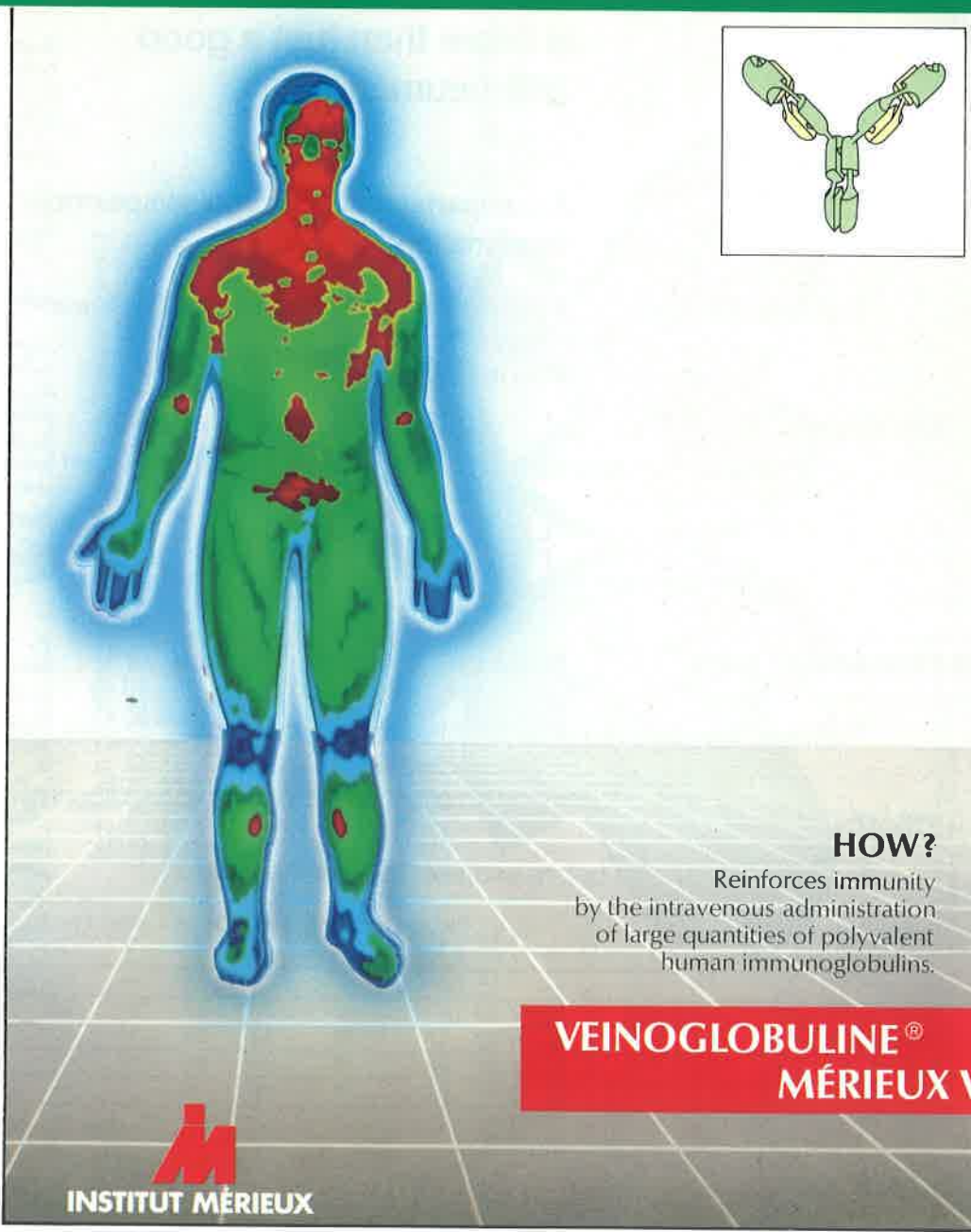
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3 Miura, T.: Long term tolerability study of diclofenac sodium: J. Int. Med. Res. 3, 145 (1975)

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1. Graham DY et al.: Am J Gastroenterol 76(6): 500-505 Dec 1981

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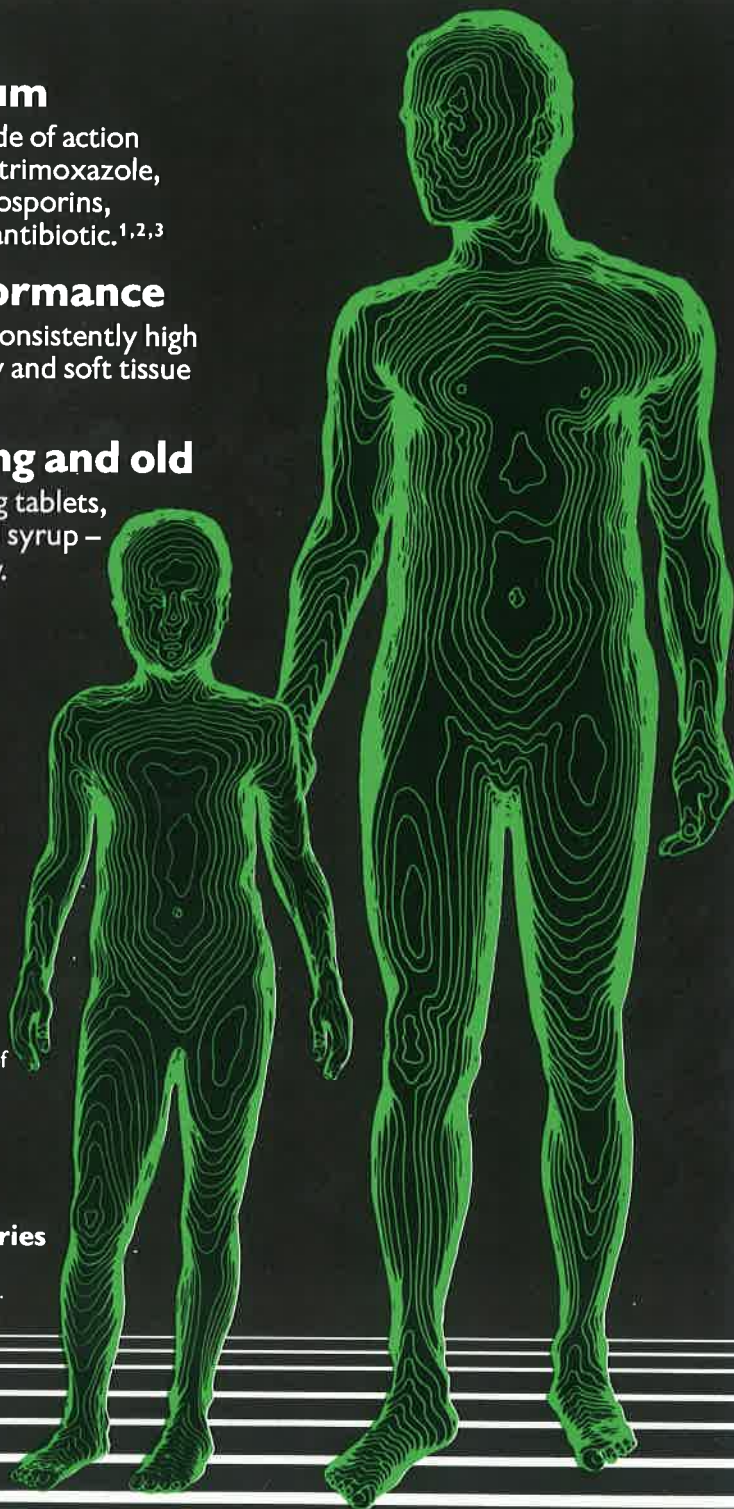
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THE FAMILY AT VARIANCE — ENTER THE FAMILY PHYSICIAN

General Practitioners or Family Physicians? College of General Practitioners or College of Family Physicians? The question of how the College should style itself and how it should refer to its members has arisen many a time in recent years, and has been discussed at various levels, including the AGM, without satisfactory headway. Perceptive of the sensitivities of many of the members of the College, the proponents of 'Family Medicine' and 'Family Practice' have capitulated to the retention of the status quo.

Is the issue one only of semantics? What *is* Family Medicine? *Who* is a Family Physician? What is *Family* as in Family Care? Perhaps a consideration of all these factors will help settle the debate.

The Family is Family Practice refers not to a genetic family or the legal entity, but stands for any group of intimates with a history and a future. This suggests a new whole that is greater than the added properties of its parts, and a concern with communication, self-regulation, feedback, and ongoing interaction which influence the whole's future health and direction. *The Family Physician* assumes responsibility for seeing that the patient receives comprehensive continuing health care, co-ordinating this care for the benefit of the patient and his family. *Family care* is not only involved with the health of the individual, but diagnosis and intervention often occurs at the level of interaction among individuals in families and between the family and its surrounding environment.

In Singapore, are our General Practitioners family physicians? Some limit their practice by age (e.g. no paediatrics or geriatrics) or by discipline (e.g. the factory doctor or the doctor who does no obstetrics); many practice primarily crisis-oriented medicine and give episodic care to individuals with symptomatic

disease without significant emphasis on health maintenance or preventive medicine; others lack the time, interest or proficiency to involve themselves adequately with family and marital counselling and management of emotional problems so common in practice. The social setting in many families in Singapore, where both parents are often working (and turn to their company doctors for medical care), and children are commonly fostered out to surrogate parents for the day or for the week does not also lend itself to the concept of one doctor providing co-ordinated comprehensive health care to the family unit. This is not to decry the position and work of many of our members, who do practice Family Medicine in its true sense, providing primary and continuing personal care to whole families within the context of their psychosocial environment and the community, treating definitively almost all of the problems they present and referring members of the family where indicated to appropriate sources of care while preserving the continuity of their care.

What do we do then with the medical students who are sent to us for their one-week posting? The objective of this exercise, as laid down by the Dean of the Faculty of Medicine when the programme first started in 1970, was to give the students a brief exposure to general practice — "an opportunity to see medical practice outside hospitals in a manner which accorded them a more balanced perspective of the pattern of medicine in Singapore; an introduction to the problems of general practice in the private sector; and an opportunity to see practitioners at work in the setting of the patients' natural environment".

So why does the College take such great pains to formulate a structured programme for the students in that one week, organising lectures, tutorial groups at out-patient clinics,

and selecting the best teachers for them? Why has it embarked on a programme of Teacher-Training? Why does it keep lamenting the lack of formal training for general practice, and repeatedly keep calling for the establishment of a Department of General Practice/Family Medicine within the Medical Faculty of the University?

Medical care in Singapore for most of the population has become fragmented, de-personalised and consequently expensive. What the people need are Family Doctors who have the ability, the interest and the training, to provide integrated and comprehensive care to whole families on an ongoing basis, more efficiently and cost-effectively. Since a vast majority of our medical graduates end up in private general practice, does it not stand to reason that they should do so through appropriate training rather than by default?

What role, then, should the College play? This brings us to disagreement in another "family". The Ministry of Health organises medical care in the public sector, and the University churns out the graduates and specialists to fulfill those needs. In this "family" have been included the Academy of Medicine and the College of General Practitioners, both bodies having been offered premises within the College of Medicine Building in recognition of their "societal role in organising and providing continuing medical education for doctors necessary to maintain a high standard of medical practice in Singapore". Is the responsibility of the College limited to graduate doctors already in practice? Should it not be interested in and involved with the doctors of tomorrow?

While proper family functioning depends on clear boundaries of responsibility and authority being drawn up, these boundaries need not be overly rigid so as to prevent responsive change to alterations elsewhere in the system. The family unit is vulnerable to the ever-shifting social, political and economic environment surrounding it and must evolve ways of adapting to this change, while within itself, it is crucial to achieve a capacity for reciprocal redefinition of the responsibilities and relationships of different parts of the family in response to adaptive change in one part.

The change has occurred and is occurring in more enlightened communities, where authorities have realised that excessive emphasis on specialisation and hospital-based care is neither necessary nor affordable, and the pendulum has swung back toward the whole patient and his needs. In Singapore, however, the Ministry of Health and the medical school have failed to lead and pave the way towards reducing the fragmentation of medical care. Health care cannot be viewed solely as a "value-added" industry. The emphasis *must* be on comprehensive care for our own population, and with this will come the emergence of Family Practice.

Our University cannot afford to isolate itself from the needs of the community. Our medical students cannot be effectively taught care of ambulatory patients with common illnesses under existing departmental structures, wherein they are exposed almost entirely to the model of the specialist. The undergraduate must have demonstrated to him the role, knowledge and skills of the Family Physician, and the special ability of Family Physicians to integrate knowledge from many disciplines and apply it to the individual patient and his family.

General practice must adapt itself to these changes in an effort to best serve the public need. Family Practice, the augmented dimension of general practice, must be learnt, and appropriate training provided, to enable our members to fulfill the major objective of medicine — the care of sick people, wherever they live, for everyday illnesses, within the family or community. Affective skills and efficient methods of providing primary and comprehensive care do not come naturally to the young Family Physician. The distinct knowledge, skills and attitudes necessary for effective and successful Family Practice must be demonstrated to be teachable, and *must* be taught to our students and young doctors. Only then can we replace the present denigrating attitude concerning general practice within the medical profession and University with one of respect for the role of, and the care provided by, the Family Physician. **MV**

Views expressed in the Editorial are not necessarily the official views of the College.

PRESIDENTS' PAGE

Dr Victor L. Fernandez

The Tenth Council of the College of General Practitioners Singapore was elected to office at the 14th Annual General Meeting held in May this year. At its first Council Meeting Dr Lee Suan Yew was elected Censor-in-Chief and Dr Moti H Vaswani the Honorary Editor. While welcoming these appointments, it is particularly gratifying to welcome a lady doctor to the Council. Dr Sivakami Devi, Deputy Director of Medical Services (Primary Health and Health Education) joins Council at a time when efforts are being made for primary health care doctors from the public sector to be more involved in the College's educational activities, and it is most opportune. We also look forward to this representation increasing in accord with the increasing number of women in general practice.

The Council takes office with the full knowledge that our College has done a great deal, not only just to maintain but also to raise the standard of general practice in Singapore, and so has contributed to the welfare of the community we serve. From the very beginning the Singapore College has maintained its priorities. Medical education is doubtless what the College is all about. Our efforts have been geared towards

- undergraduate education to enable students to see general practice in perspective;
- vocational training for those seeking to enter general practice;
- continuing education to help keep the general practitioner abreast of his responsibilities, and
- research both in and into general practice.

In all these fields the College has certainly achieved a lot more indeed than many would have predicted, but less, no doubt, than would have been possible with more support from Government and the University. Many members of the College have generously contributed money and time to College activities, but it seems clear that the College's own resources are not enough to maintain the desirable level of activity in education and research, both of which are vital if general practice is to contribute to the welfare of our peoples to a measure of its full potential. The College up till now has been concerned with standards and training in general practice, but these have been so intricately bound up with public funding, that it is difficult to foresee a future without the College having to take a greater part in negotiations with the relevant authorities on matters of vital importance to general practice. Full and frank consultations must take place.

The College's present position and value is the result of hours of work by past members or office-bearers, at all levels. They have spent many hours, away from their homes and practices, for no reward, but to promote our educational orientation, our successful seminars and conferences, our journal and our current policies.

The College now needs you. You can help us bring in new members. Join any of our Standing Committees and do something useful for our discipline and profession. We need your ideas, your energy, your drive and loyalty for the College to grow and fulfil the needs of the general practitioners of to-day and to-morrow.

HEARING AND SPEECH PROBLEMS IN CHILDREN

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PURPOSE

The chief aim of this project was to identify all hearing loss in children early so as to provide early therapy, continuous treatment and rehabilitation.

METHOD

315 infants and children who had poor speech and suspected hearing problems were examined clinically by a developmental paediatrician and suspected hearing problems were tested subjectively and by objective audiometry at the Ear, Nose, Throat Department of the Singapore General Hospital from the 1st of January 1983 to the 31st of December 1983.

In the subjective hearing test, free field audiometry and conditioning pure tone audiometry were used. For those who were not co-operative for behavioural test, objective hearing tests such as impedance audiometry and/or auditory brainstem response were used to determine their auditory status.

In the impedance audiometry an amplified impedance meter was used. The Stapedius reflex result and the tympanometric determination of the eardrum mobility was carried out using the technique designed by Anderson. The Stapedius reflex was elicited by means of an audiometer capable of delivering an output of 125 dB HL at 500 Hz to 4000 Hz and for wide noise.

An electric response audiometric system (Micro — Shev C — ERA 100) was used to obtain the auditory brainstem response

(ABRS). Standard gold cups E.E.G. electrodes filled with conductive paste were attached to the vertex and both mastoids by surgical tapes. The electrode on the forehead served as ground.

The ABR measurements were obtained using alternating polarity clicks at a rate of 40/second, a matched pair head set and conventional recording techniques. The clicks were presented monaurally and each averaged at least once. Recording usually began with stimulus at 115 dB SPL. If a response were obtained at this intensity level, the stimulus was decreased to 10 dB steps and in some cases, 20 dB. The originally reported wave PV threshold was used as the ABR predictor for positive hearing responses as it is the most prominent and stable.

For infants and children Syrup Chloral Hydrate had to be used to induce sleep. All the subjects were tested in a sound treated childrens' audiometry room.

RESULTS

A total of 315 children had undergone the hearing test programme and table 1(a) shows the age distribution of the children tested. The majority of the children were in the age group of 3 years while those above 7 years were few (Table 1a).

Table 1(b) shows the sex and racial distribution of the children. The majority of the sample were Chinese followed by Malay, Indians and other races.



Table 1(a) — Shows the various age levels of the children with hearing loss.

Table 1(b)
To show racial distribution of the children tested

Sex	Chinese	Malay	Indian	Others	Total
Male	145	13	8	12	178
Female	121	7	6	3	137
Total	266	20	14	15	315

In our study the children were divided into three main categories as follows:-

- 1) Normal development with hearing responses but delayed in speech.
- 2) Normal peripheral hearing with abnormal central auditory dysfunction.
- 3) Confirmed hearing loss.

Table 2 shows that 35.2% had normal peripheral and central hearing and their delay in speech was environmental, because the children were fostered out and not brought up in a proper hearing environment.

In 5.7% the peripheral hearing was normal but there was a central disorder and in 59.1% of children there was confirmed deafness.

Table 2
To show the different types of auditory conditions

Auditory Conditions	Total Number	%
Normal (Peripheral and Central)	11	35.2%
Central Disorder only	18	5.7%
Confirmed Deafness	186	59.1%
Total	315	100%

Note: That 59.1% were children with confirmed deafness.

Idiopathic conditions accounted for 32.2% and 22.6% had conductive loss due to middle ear pathology.

We classified the sensori-neural deafness into 7 classes as seen in Table 3. 32.2% were due to unknown causes and middle ear infection accounted for 22.6% of the conditions. Viral infection accounted for 17.2% while meningitis was responsible for 7% of the conditions. Neonatal jaundice was responsible for deafness in 8.1% of the children and hereditary deafness was seen in 0.5%.

The degree of hearing loss was described as shown in table 4. A hearing loss of 30 dB or

Table 3
To show the causes of deafness in children

Possible causes of Deafness	Total Number	%
Middle Ear Infections	42	22.6%
Viral Exanthem	32	17.2%
Meningitis & Drugs	13	7.0%
Premature Birth	11	5.9%
Trauma	12	6.5%
Neonatal Jaundice	15	8.1%
Hereditary	1	0.5%
Unknown	60	32.2%
Total	186	100.0%

Table 4
To show the degree of hearing loss

Estimated Hearing Loss	Total Number	%
Normal	129	41%
Mild to Moderate	103	32.7%
Severe to Profound	83	26.3%
Total	315	100%

Note: That 26.3% were severely to profoundly deaf.

Table 5
Sources of referrals

Sources of Referral	Total Number	%
E.N.T. Specialist	48	15.2%
Paediatrician	124	39.4%
General Practitioners and M.C.H. Doctors	110	34.9%
Others	33	10.5%
Total	315	100%

Note: The majority of the referrals are from the paediatricians

less was normal, 35-70 dB hearing loss was mild to moderate and 75 dB hearing loss and above was considered as severe to profound hearing loss.

From table 4, it was seen that 26.3% of the children had severe to profound deafness, and it is important to detect these children

early for training purposes.

It will be seen from table 5 that the majority of the children with speech and hearing problems were referred by the paediatricians and the next big source of referrals were the general practitioners and the doctors at the infant welfare clinics. This brings up the need for developmental assessment of hearing at all infant welfare and paediatric clinics to detect these defects early.

DISCUSSION

From this survey it will be seen that it is the paediatrician or the general practitioner who when confronted with a child with a speech defect or suspected hearing loss refers the child to the ear, nose, throat specialist as 75% of the referrals were from them.

A careful history must be taken to look for an etiological diagnosis eg. rubella in the antenatal period to exclude high frequency deafness often not diagnosed till late. In the postnatal period a history of neonatal jaundice must be sought as this was noted in 8.1% of our children. Equally important is a history of post-viral infections eg. mumps or measles as these viral infections were noted in 17.2% of the children.

In the developmental history one must ask the mothers whether the baby babbled as the absence of babbling indicates deafness.

Davies (1983) reported that 5% to 10% of school children have some degree of speech problems and approximately 80% of childhood hearing loss is conductive, usually related to some ear problem eg. otitis media or impacted wax as described by Urban. Often mild otitis media is treated by paediatrician or general practitioners but in conditions of chronic otitis media the condition is referred to an ear, nose, throat specialist.

A detailed physical examination is important to exclude recognisable syndromes eg. Waardenburg's syndrome or Pierre — Robin syndrome or some chromosomal abnormality. Children with anomalous ears, cleft palate, receding chins are usually referred to the plastic surgeon and ear nose throat specialist as surgery may improve this condition cosmetically and functionally.

A hearing impaired child who does not talk is often labelled mentally subnormal when he is really intellectually normal perfor-

mance wise but backward only in speech. The ear, nose, throat specialist relies heavily on a close liaison with the audiologist to provide important and relevant information concerning the degree of hearing loss and type of deafness eg. conductive, mixed, sensori-neural, non-organic and central. Special audiological tests are carried out by the audiologist in determining more precisely the locus of the hearing loss within the auditory system.

In addition, one of the more valuable contributions made by the audiologist lies in the area of rehabilitation of the hearing impaired person. Often the first step is determining the best type of amplification to be worn by the patient and monitoring the use of the aid through periodic evaluation.

Both objective and behavioural testing was performed on the 315 children in the ear, nose, throat clinic. This group of children were referred by the ear, nose, throat specialists, paediatricians, general practitioners and infant welfare clinic doctors who suspected a hearing loss or delayed speech. In our study 35.2% had normal hearing. Environmental conditions play an important part and a child learns to talk from his mother and his siblings. The pattern of fostering our children because of working mothers has produced delayed speech in these children, mainly because foster mothers do not have the time to talk to these children because they have to cope with their own family household chores. Another cause of developmental delay in speech may be due to emotional problems or due to minimal brain damage. 5.7% of our cases had good peripheral hearing responses up to the inferior colliculus but the children had considerable difficulty acquiring speech and language only with much help, because of severe central disorders.

Brook (1969) and Howle et al (1976) have shown a high degree of middle ear disorders in infants and children, but only 42 cases were detected to have conductive involvement. For conductive hearing loss the problem may be temporary and speech is frequently normal, although sometimes, delayed. 45% of our cases had sensori-neural deafness and 59% could be linked to one of the risk registered categories. In a previous report by Yiap, 62.2% of his sensorineural cases could be identified.

The nature and severity of the hearing loss affects speech development to varying degrees as reported by Skinner (1978). 32.7% of the children had mild to moderate hearing loss and 26.3% showed severe to profound loss. As a result of hearing loss the speech problems are largely of articulation, voice or language development. The child cannot accurately pattern his own speech or that of others because of not hearing well. Consequently, sounds are substituted or omitted and the voice may be too loud, too soft, monotonous or inappropriately pitched.

In sensorineuronal hearing loss it impedes both reception and perception discrimination of sound. Intelligibility may be severely impaired. The child who has a hearing problem is frequently misjudged as being slow, retarded, emotionally disturbed or learning disabled. When the hearing loss is sensori-neural and no medical or surgical intervention can alleviate the hearing the child is prescribed with a proper fitted hearing aid. Speech therapy is also recommended for language stimulation and optimum development of articulatory skills.

Therefore, early detection, appropriate referral and remedial procedures are essential to secure optimal development of the hearing handicapped child. Team management is the key to the effectiveness of the concerted efforts of professionals to provide guidance for the hearing impaired individual and his family. Essential participants in the team management of a hearing impaired child are a paediatrician, ear, nose, throat specialist, audiologist, speech therapist, psychologist and educators of the deaf.

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THE PLACEBO EFFECT

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In 1901, William Osler affirmed that faith in our drugs and methods is the great stock in trade of the medical profession. He observed that faith in the gods or saints cures one, faith in little pills another, hypnotic suggestion a third, faith in a plain common doctor a fourth and that faith is the most precious commodity without which we should be very badly off. It is unfortunate that with advances in medical technology, the patient's intrinsic recuperative powers have been neglected by the modern day physicians.

It is a common clinical experience in general practice that the same drug given by different doctors to the same patient may produce different results. Such variability in therapeutic effects are attributed to the "placebo effect". It is unfortunate that the traditionally negative connotation of the word placebo may prevent us from recognising the potential benefits of the "healing power of expectant faith".

CASE No. 1

TLE, A 40-year old Chinese lady was seen by several doctors for epigastric pain and vomiting with no improvement. Barium meal and gastroscopy were normal. On further investigations she was found to be in renal failure with a serum creatinine of 18.9 mgm. She was also salt depleted with a urinary sodium excretion of 290 mmol in 24 hours.

She was given one course of peritoneal dialysis with symptomatic improvement. The provisional diagnosis at that time was that she had some form of salt losing nephropathy and

she was treated with 9 α fludrocortisone and salt tablets. Her renal condition stabilised but she continued to have problems due to postural hypotension.

Subsequently, she defaulted follow-up and went to see a general practitioner who was reputed to be able to "cure" kidney diseases. The latter treated her with daily injections and tablets for more than a year and then with injections and tablets every three days. She was also recommended an injection from China which is "good for kidney diseases" which she requested the general practitioner to administer for her. This injection was later identified as nandrolone phenylpropionate, an anabolic steroid.

A few years later, she decided to seek a second opinion and was referred back to the nephrologist for reassessment. To the surprise of the nephrologist, her renal function had improved markedly with the serum creatinine falling from 7 mgm to 3.6 mgm. She still had some postural hypotension but was asymptomatic.

Looking back, the nephrologist postulated that the patient may have had an acute episode of tubular necrosis due to an unknown cause which resulted in the marked salt loss and that her present mild renal impairment was either due to a preexisting chronic disease or to residual damage from the acute episode.

The patient, however, remained anxious about not having the injections and it took about six weeks to "wean" her off the injections.

CASE No. 2

Two young boys, suffering from acute lymphoblastic leukaemia were treated by the same team of doctors at about the same time. One died while the other was cured and is still alive ten years later.

CASE No. 3

A young girl with a bone tumour rejected her surgeon's advice to have an amputation and lived on to get married and bear two children.

The unexplained recoveries in the above cases are often attributed to "spontaneous remission" of the diseases involved. However, Dennis Jaffe pointed out that very little research has been conducted on such unexpected cures. He felt that the major reason for the "mystery surrounding placebo healing" is that "the medical community does not accept or is unaware of the impact that psychological processes have on the self-restorative capacity of the body."

Jaffe suggested that if such cures can be proven to be due to specific psychological processes, then beliefs would become an important aspect of treatment and "miracles" made routine and explainable. In fact, it has been said that the most enduring part of medicine is the ability to get through to the inner consciousness of the patient and finding the key that can release nourishing hope as well as switching on the body's full capacity to overcome not just disease but despair.

PLACEBOS AND THE PLACEBO EFFECT

A placebo is usually regarded as a medicine given more to please than to benefit the patient. But Arthur K. Shapiro has defined a placebo as any treatment (or part of a treatment) which does not have a specific action on the patient's symptoms or disease but which nonetheless may have an effect upon the patient.

The uses of placebos may be classified as follows:

1. *Pharmacological*

- (1) to study the definitive pharmacological actions of drugs,
- (b) to determine the true effects of the drugs as distinct from the effects of suggestion,

- (c) to eliminate bias on the part of the patient as well as the observer.

2. *Medical*

Henry Beecher described two ways in which doctors used placebos:

- (a) as a psychological instrument in the therapy of certain ailments arising out of mental illness,
- (b) as a resource of the harassed doctor in dealing with the neurotic patient.

Herbert Benson however condemned the use of traditional placebos such as injections of salt water and administration of sugar pills as dishonest, unethical and unacceptable. He proposed a more positive use of the placebo effect:

- (c) to stimulate the healing power of expectant faith in the patient.

It is essential that we distinguish the placebo effect from the placebo in order to tap the therapeutic potential of the placebo response. Benson defined the placebo effect as the changes in the patient, symptom or disease produced by placebos. The clinical effects of placebos are not only confined to subjective responses but objective physical changes have been documented.

Cobb et al in their study of internal mammary artery ligation for the relief of angina pectoris found that in one patient, the sham operation allowed 10 minutes of exercise without pain and without electrocardiographic abnormality 6 weeks after operation. Prior to the operation, 4 minutes of exercise resulted in pain and striking inversion of T waves in this patient.

THE THERAPEUTIC EQUATION:

The therapeutic effect of any drug or medical procedure may be represented by the following equation:

$$\begin{array}{l} \text{Pharmacological action} \\ \text{or} \\ \text{Efficacy of procedure} \end{array} + \text{Placebo effect} = \begin{array}{l} \text{Therapeutic} \\ \text{Effect} \end{array}$$

It is important to recognise the fact that any substance given or any action performed by a physician will inevitably have an effect on the reaction component of suffering. This is the placebo effect and can be used to augment the efficacy of the drug or surgical operation. Beecher advised against underestimating the

usefulness of a favourable placebo component in the restoration of the patient to health.

It would be prudent for doctors to recognise and appreciate the healing power of expectant faith manifested in the placebo effect rather than to regard such a phenomenon as a stumbling block in their search for new drugs and surgical techniques. Furthermore, in diseases where there is no effective surgical or pharmacological treatment available, doctors can still use the placebo effect of a caring patient-doctor relationship to relieve suffering and despair.

We would do well to heed the counsel of Hippocrates:

"For some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physicians."

THE MIND-BODY CONNECTION

Awareness of the intrinsic healing powers of the human body requires a re-appraisal of our concept of disease and health. Jerome Frank contended that Western scientific medicine tends to regard disease as a physical problem caused either by pathogenic agents from within such as a cancerous growth or from without such as viruses and bacteria; or by wear and tear as in the degenerative disorders. The doctor is then seen as an expert technician who is able to combat the invaders through biological, pharmacological and surgical tools, or to repair the worn-out parts.

The patient is simply treated as a passive spectator even though it is his body that is the "arena for the battle for supremacy" between the doctor and the disease process. Such a viewpoint ignores the role of emotions in the pathogenesis of disease and the process of healing. In such a context, the placebo effect is seen as nebulous and an unnecessary evil rather than as a potent ingredient of the healing process.

In contrast, the holistic approach emphasizes the close relationship between physical illness and the psychological, social and spiritual dimensions of the patient's life. Illness was seen by the ancient physicians as an indication of a problem in the patient's life or his role in society. The following dictum

enunciated by Plato two thousand years ago still holds true today:

"The great error in the treatment of the human body is that physicians are ignorant of the whole. For the part can never be well unless the whole is well".

Our beliefs, attitudes, thoughts and emotions can affect the physiological functions of our body. This is clearly demonstrated by the stress response, the discovery of endogenous opioid peptides and the effects of meditation.

The Stress Response

In his research on the biochemical reactions induced by stress, Hans Selye identified a psychophysiological final common pathway which he called the "general adaptation syndrome". He postulated that the hypothalamus-pituitary-adrenocortical axis is an important homeostatic mechanism as well as a probable link between stress and disease. This pathway may also mediate the effects of emotions and changes in the environment (see fig. 1)

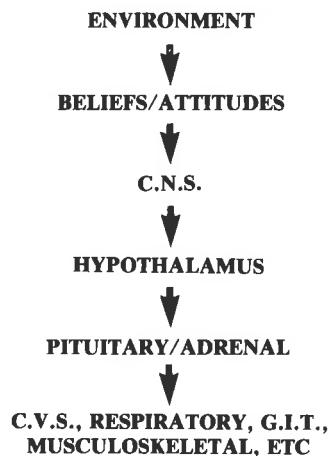


Fig 1

Endogenous Opioid Peptides

Research on the mechanism of action of morphine and opiate drugs led to the discovery of specific receptor sites for these alkaloids in the central nervous system. Soon after, peptides with opiate-like activity were isolated from brain and pituitary extracts. These have been called endogenous opioid

peptides and two groups, the endorphins and enkephalins, have been identified.

These endogenous substances with analgesic properties provide the possible mechanism for the analgesia produced by the placebo effect. It has been found that the analgesic effect of placebos can be blocked by naxolone in those patients who benefitted from placebos.

The opioid peptides have also been found to stimulate the secretion of growth hormone, prolactin, antidiuretic hormone and to inhibit ovulation and the secretion of luteinising hormone.

The discovery of endorphins and enkephalins has opened the door to further research into drug receptors and for other endogenous substances which bind onto these sites. Such research may provide further clues into the mechanisms of the placebo effect.

Meditation

In his research into meditative practices, Herbert Benson elucidated an innate physiological response which he called the "relaxation response". He found that meditation could induce electroencephalographic changes and a lowering of the metabolic rate. The relaxation response was also found to be effective in reducing the frequency of premature ventricular contractions as well as relieving symptoms associated with anxiety such as headache, nausea, diarrhoea, insomnia, rashes and mouth sores. Benson pointed out that the beneficial changes resulting from the relaxation response had previously been attributed to a positive placebo effect. He advocated further research into the phenomenon of placebos as this enables the non-specific effects to be translated into definable, predictable and useful therapies.

THE COMPONENTS OF THE PLACEBO EFFECT

At every consultation, the placebo effect is an important consideration. This is affected by the patient's mood, attitudes and expectations at the time of consultation and the doctor's response to his patient's behaviour.

The complex interaction between the patient, doctor and the environment determines the significance of the placebo effect in the success of the doctor's treatment. The

various factors involved are represented in the diagram below:

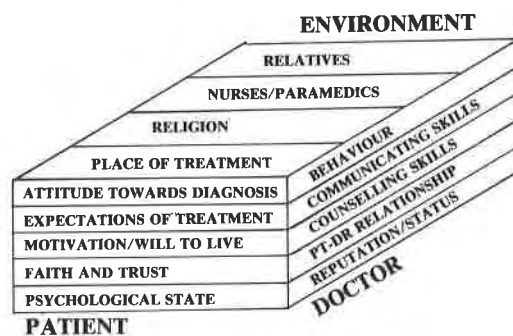


Fig. 2

CASE No. 4

A woman was stung by a scorpion one night and developed severe pain over the site of the sting. She became very anxious and began to hyperventilate. The ensuing paraesthesia aggravated her anxiety and she was in acute distress.

On the arrival of the doctor, she was much relieved and exclaimed: "I feel so much better now that you are here, doctor!"

The above case demonstrates the fact that the placebo effect is most pronounced during conditions of acute stress, as in the patient who is very anxious about his illness or in acute pain.

The patient's faith and trust in his doctor are the two most important reasons for the success of the therapy. These are, to a considerable extent, dependent on the beliefs of the patient, the reputation of the doctor and a sound patient-doctor relationship.

It is important to realise that the patient's expectations of the treatment he is to receive and his attitude towards the illness can affect the healing response of the body. It is often more difficult to cure a pessimistic patient than an optimistic one.

Many doctors are not aware of the deleterious effects of their negative attitudes and behaviour on the efficacy of their therapy. Balint introduced the concept of the doctor as a potent drug. Doctors who are hostile and

resentful towards their patients will inevitably find their judgment impaired and their treatment unsuccessful.

Benson postulated that the thoughts and behaviour of the doctor have profound effects on the outcome of treatment. Doctors who are self-confident, who have faith in the effectiveness of their treatment, and who are able to communicate effectively with their patients have greater therapeutic success. An empathic patient-doctor relationship is crucial for a positive placebo effect.

Environmental factors are also important variables in the response of the patients to treatment. The hospital setting, with its ward rounds and gadgetry, has a considerable tranquillizing effect on some anxious patients. However, the tension of being in an intensive care unit can be stressful to some patients.

The family and relatives must not be forgotten in one's management of the patient. A twelve year old girl with a chronic cough as well as hyperanxious mother was only cured after the mother's anxiety was allayed by referral to a chest physician.

CASE No. 5

An eighty-four year old lady complained of weakness and nausea one month after a successful cholecystectomy. The relatives thought that her death was imminent and the doctor was called to see the patient. However, the patient did not appear to be critically ill. After several visits, the doctor decided to tell the old lady that she was not going to die and that she would live if she wanted to. The relatives were also told that there was no reason to think that the patient's condition was terminal. The patient recovered and is still alive four years later.

Religion and spiritual conflicts can also affect the patient's health and a cure is possible in these cases only if such issues are addressed.

CASE No. 6

A forty year old man complained of palpitations, insomnia and fatigue. After a few consultations, it transpired that the patient had become confused and uncertain about his religious doctrines after reading certain books. As a result, he felt that his mental

condition was a punishment from God and that he was going to have a nervous breakdown.

The patient was given counselling and his spiritual conflicts gradually resolved after he was exposed to other doctrines in another church. Ten months after his initial consultation, he was free from his anxiety attacks.

Albert Schweitzer was quoted as saying: "Each patient carries his own doctor inside him. They come to us not knowing the truth. We are at our best when we give the doctor who resides within each patient a chance to go to work." To win the fight against disease, there needs to be a healing partnership between the patient and the doctor.

Arnold Hutschnecker asserted that everyone has a powerful positive force within them — the will to live; and that this mighty ally is ever ready to help those whose profound wish is to be well, and in response to a rational conscious effort, the will to live rises to their aid in a thousand big and little ways.

CONCLUSION

The science of medicine will produce new drugs and new technologies, but it is the skill of recruiting the will to live in our patient that is the art of medicine. In the final analysis, as Jaffe pointed out, "the essential element in all healing relationships may not be knowledge or technique, but rather care, love, and concern for the patient".

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HOME NURSING SERVICE FOR THE ELDERLY

A joint project survey done with the Home Nursing Foundation and a Youth Group in the Community

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SUMMARY

We live in a century of ageing population. Adequately planned community-based care of the elderly requires to be developed in order to keep the elderly in optimum physical and mental state of health and away from institutions. With this objective in mind, the Home Nursing Foundation (HNF) conducted a survey jointly with a youth group to identify the elderly requiring home nursing, home visits and rehabilitation within a small community group of 180 households. The youth group then underwent a training programme and then undertook home visiting to provide the necessary care. The characteristics of the elderly at risk in this group are discussed in this paper. There is a need to develop a systematic programme of identifying the elderly needing care, and the community groups able to provide this care. It is essential to have a focus of activity in the community to facilitate provision of this care.

INTRODUCTION

We live in the twentieth century, of ageing population. Between now and the year 2000, the number of persons aged 60 years and above would grow faster than any other age group in both the developed and the developing worlds. This group is expected to increase by 96.9% in the more developed regions, 39.3% in the less developed regions with a world average of 69.%¹. How can we cope with the growing medical and social needs of the elderly in the community in Singapore?

Persons aged 60 years and above in Singapore will increase proportionately com-

pared to other age groups (Table 1)². The medical, social and recreational needs of this group would differ from the younger age groups. Programmes would be required to maintain the elderly active, within the community. It is the responsibility of all concerned to participate actively in this important activity.

Table 1: Persons aged 60 years and above 1985 — 2030

Year	Persons Aged 60 Years & Above (using central projection)	
	No. (in 000s)	% of Total Population
1985	198.8	7.8
1990	234.6	8.7
1995	274.1	9.6
2000	326.9	10.9
2005	373.9	12.0
2010	472.8	14.8
2015	589.4	18.0
2020	719.6	21.6
2025	815.1	24.1
2030	840.8	24.8

There is a growing interest spreading worldwide of a movement in search of non-institutional long-term care alternatives for the elderly to remain in the community rather than end up in institutions³. The ever soaring financial encumbrances of institutional care have proved to be crippling both for the families of the elderly and the Health Care Providers. Hence community-based health care provision for the elderly appears to be

one practical avenue of hope. We require an appropriate strategy in equipping the community with an effective plan for this care provision.

In Singapore, isolated voluntary groups and religious organisations have been actively involved in providing varying types of service for the elderly living in the community. This requires co-ordination. The Home Nursing Foundation, a society registered with the Registrar of Societies in 1976, embarked on the expansion of its services in 1984 as recommended in the report on the 'Problems of the Aged'⁴. It is to function as a catalyst to provide well organised community based services to the elderly. How can HNF proceed from where it is to provide well organised community-based services for the elderly? It is crucial to do a systematic planning of the care provision with the assistance of selected community groups to identify the elderly requiring help, and matching them with the appropriate volunteer helpers in the community.

The Kampong Ubi Constituency Youth Group members' keenness in caring for the elderly spurred HNF to embark on a joint survey to identify the elderly needing home-nursing care and rehabilitation in that community.

OBJECTIVES OF THE SURVEY

The aim of the survey was to identify the number of persons aged 55 years and above who required

- (i) nursing care at home.
- (ii) supportive care at home, rehabilitation, home help and companionship for loneliness.
- (ii) rehabilitation, health promotion and health education in a Day Care Centre if developed in future.

METHODOLOGY

Through meetings between HNF and youth group representatives, it was decided that the Youth Group should

- (i) conduct a simple survey within a small community group to assess the needs for the home nursing service, home visits and rehabilitation.
- (ii) undergo a simple training programme on the care of the elderly.

- (iii) plan provision of care in a systematic manner.

53 youth members of the Kampong Ubi Youth Group made house-to-house visits covering 180 households (in blocks 1, 2 and 3 in Geylang and blocks 1 and 2 in Eunos Crescent) of one and two roomed HDB flats occupied by the socio-economically poorer sector of the community. A simple one-page questionnaire was used. 163 households with elderly persons aged 55 years and above were interviewed. The other 17 households had persons younger than 55 years old but handicapped due to disability resulting from early stroke, hereditary disease or road traffic accident. Although this study is confined to the particulars of the 163 elderly persons aged 55 years and above, the Youth Group members decided to visit all the members of the community who required assistance.

SURVEY RESULTS

General Profile of the Elderly

It is a well known demographic fact that women predominate over men in old age (5). In the group studied here, women in the two younger age groups, 55-59 years and 60-64 years, formed 60.3% of the total females, with much smaller proportions in the age groups 65 years and above. 2.4% of the total of 73 women were aged 80 years and above. Males exceeded females in all age groups, except the groups 60-64 years and 85-89 year which were dominated by females. (Table 2).

Table 2: Respondents by Age and Sex

Age Group (Years)	Males		Females		Persons	
	No.	%	No.	%	No.	%
55-59	29	32.2	18	24.7	47	28.8
60-64	22	24.5	26	35.6	48	29.5
65-69	13	14.4	11	15.1	24	14.7
70-74	15	16.7	12	16.4	27	16.6
75-79	8	8.9	5	6.8	13	8.0
80-84	3	3.3	0	0	3	1.8
85-89	0	0	1	1.4	1	0.6
Total	90	100.0	73	100.0	163	100.0

Ethnic Groups

73.6% of the respondents were Malays, 25.8% Chinese and 0.6% Indians. There was more or less an even distribution of the sexes

Table 3: Respondents by Age and Ethnic Group

Ethnic Group \ Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
	No.	No.	No.	No.	No.	No.	No.	No.	%
Chinese	11	7	7	12	3	1	1	42	25.8
Malays	36	40	17	15	10	2	0	120	73.6
Indians	0	1	0	0	0	0	0	1	0.6
Others	0	0	0	0	0	0	0	0	0
Total	No.	47	48	24	27	13	3	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6	

Table 4: Respondents by Age and Employment Status

Employment Status \ Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
	No.	No.	No.	No.	No.	No.	No.	No.	%
Employed	18	17	4	6	1	1	0	47	28.8
Unemployed but not retired	5	6	2	5	4	0	0	22	13.5
Retired and unemployed	9	6	8	5	3	2	0	33	20.3
Full-time Housewife	15	19	10	11	5	0	1	61	37.4
Total	No.	47	48	24	27	13	3	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6	

within the Chinese and Malays ethnic groups. The only Indian female patient belonged to the age group 60 to 64 years (Table 3).

The predominance of the Malays in the community showed a clear deviation from the national ethnic distribution where the Chinese form 79.3%, Malays 11.7%, Indians 7.1% and others 1.9%⁷.

Employment Status

28.8% of the respondents were employed on a full-time basis, of whom only 6 were women and 41 were men. 29 of these 47 respondents were aged 60 years and above. The housewives, the retired and the unemployed constituted 71.2% (Table 4). While the majority in this group indicated that they required a more relaxed mode of life, some agreed to provide part-time voluntary assistance if necessary, in a day care centre for the elderly if one was set up in their neighbour-

hood.

Living Arrangements

45.4% of the respondents had no spouse and hence lived alone or with their children (Table 5). Among this group, two thirds were females. This may have been contributed to by the practice among Malay males of marrying younger women after the death of their spouse on the one hand, and the trend of more older women surviving their husbands as they grew older, due to the longer expectation of life for females as compared with males.

It is important to note that 18.4% of the respondents had no children living with them in the same household. Among the rest, 75.5% had 1 to 5 children living with them. One aged between 55 to 59 years had 14 children and one aged between 65 to 69 years had 11 children living in the same household (Table 6).

Table 5: Respondents by Age and Whether Living with Spouse

With or Without Spouse	Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
		No.	%	No.	%	No.	%	No.	%	No.
With Spouse		28	30	13	12	5	1	0	89	54.6
Without Spouse		19	18	11	15	8	2	1	74	45.4
Total	No.	47	48	24	27	13	3	1	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6		

Table 6: Respondents by Age and Number of Children Staying in the Same Household

No. of Children	Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
		No.	%	No.	%	No.	%	No.	%	No.
None		7	9	5	4	4	1	0	30	18.4
One		6	11	8	6	2	1	1	35	21.5
Two		9	9	5	9	4	1	0	37	22.7
Three		8	5	2	1	2	0	0	18	11.0
Four		9	6	2	3	0	0	0	20	12.3
Five		5	3	1	3	1	0	0	13	8.0
Six		0	1	0	1	0	0	0	2	1.2
Seven		1	3	0	0	0	0	0	4	2.5
Eight		1	1	0	0	0	0	0	2	1.2
Eleven		0	0	1	0	0	0	0	1	0.6
Fourteen		1	0	0	0	0	0	0	1	0.6
Total	No.	47	48	24	27	13	3	1	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6		

Table 7: Respondents by Number of Children Living in the Same Household and With or Without Spouse

No. of Children	With Spouse	Without Spouse	Total		
			No.	%	
None	20	10	30	18.4	
One	14	21	35	21.5	
Two	21	16	37	22.7	
Three	11	7	18	11.0	
Four	10	10	20	12.3	
Five	8	5	13	8.0	
Six	0	2	2	1.2	
Seven	3	1	4	2.5	
Eight	1	1	2	1.2	
Eleven	0	1	1	0.6	
Fourteen	1	0	1	0.6	
Total	No.	89	74	163	100.0
	%	54.6	45.4		

Ten elderly persons with no children did not have a surviving spouse living together in the same household (Table 7). This group would be at risk of being exposed to a greater chance of isolation, thus promoting dependency developing from physical deterioration and personal neglect. It would be essential to follow up this group with active health promotion and socialisation programmes with a view to reducing the dependency state.

Generally, the higher floors in the flats were occupied by persons who were fit and able to walk. The bedridden female patient lived on the second floor and the 11 who were partially mobile, occupied up to the 11th floor (Table 8). Generally, no dissatisfaction was expressed due to their residing in higher floors.

pared with females. Three medical conditions were present concurrently only in 1.8% (3 males) of the respondents (Table 13).

Table 13: Respondents by their Number of Concurrent Medical Conditions

No. of Medical Conditions	No. of Persons	%
None	75	46.0
One	71	43.6
Two	14	8.6
Three	3	1.8
Total	163	100.0

Loneliness

8.6% (14 elderly) expressed that they were lonely within their homes, although 9 of them had their spouses living with them (Table 14). It is assumed that their lack of closeness in relationship with family members could be a contributory factor in their loneliness. Only further questioning would reveal the exact reasons for feeling lonely. On the other hand, 5 out of the 10 elderly with no spouse and no children living in the same household did not express they were lonely. This demonstrates the state of subjectiveness of the feeling of loneliness. This lonely group would benefit from interaction with members of the youth group during their home visits.

Table 14: Respondents by Whether Lonely or Not Within Their Home Environment

	No.	%
Lonely	14	8.6
Not Lonely	149	91.4
Total	163	100.0

LINE OF ACTION IN CARE DELIVERY

Among the total of 53 members of the Kampong Ubi Youth Group with age ranging from 21 to 45 years, 36 were nurses (17 staff nurses, 10 student nurses and 9 pupil assistant nurses), the rest belonged to non nursing professions. 43 were Malays, 7 Chinese and 3 Indians. This predominantly Malay community of elderly persons and volunteers would be supportive in enabling ease of communication between them.

A training programme for the Group in the care of the elderly was conducted with the contents as listed in Table 15.

Table 15: Training Programme in the Care of the Elderly in the Community

Topic	Duration
The Need for Home Nursing and Community Participation	1½ hours
Healthy Lifestyle Communication with the Elderly	2 hours
Hypertension Diabetes Mellitus	2 hours
Hygiene of Patient Dressing	1½ hours
Urine Testing Injection	1½ hours
Blood Pressure, Apex Beat, Pulse	1½ hours
Exercise for the Disabled Elderly	1½ hours

From the survey, the following were noted

- (i) 22 persons required home visits for various reasons (Table 16)
- (ii) 39 persons required participation in a rehabilitation programme (Table 17) and
- (iii) 6 persons indicated their desire for active participation in part-time voluntary assistance in a day care centre for the elderly, if built within the community.

DISCUSSION

Experiences in many parts of the world have shown that community-based long term care of the elderly requires support from community groups^{5, 6}. Well-planned continued care for the elderly requires active participation of family members, friends and neighbours to enable maximum level of maintenance of physical and mental well-being of the elderly within the community. This should include professional and non-professional assistance from all sectors. It is important then to recognise that a central agency should be responsible in co-ordinating, directing and administering this programme systematically, using all available community resources as best as possible, reaching out to all the elderly needing the care and yet maintaining a comparable standard of care. Most of the centres in Great Britain and Europe with community-

Table 8: Respondents by Their Floor Level of Residence and Mobility Status

Floor Level	Mobility Status	Mobile	Semi Mobile	Bedridden	Total	
					No.	%
02		5	2	1	8	4.9
03		13	2	0	15	9.2
04		17	2	0	19	11.7
05		13	1	0	14	8.6
06		12	1	0	13	8.0
07		18	0	0	18	11.1
08		17	0	0	17	10.4
09		16	1	0	17	10.4
10		17	0	0	17	10.4
11		15	2	0	17	10.4
12		2	0	0	2	1.2
13		2	0	0	2	1.2
14		3	0	0	3	1.9
15		0	0	0	0	0.
16		1	0	0	1	0.6
Total		151	11	1	163	100.0

Table 9: Respondents by Age and Health Status as Perceived by Them

Perceived Health Status	Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
		No.	%	No.	%	No.	%	No.	%	No.
Good		42	39	20	24	9	2	1	137	84.1
Not so Good		4	9	4	3	4	1	0	25	15.3
Poor		1	0	0	0	0	0	0	1	0.6
Total	No.	47	48	24	27	13	3	1	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6		

Health Status

84.1% of the respondents perceived that they were keeping in good health (Table 9). 15.3% perceived that their health was not good, and the only bedridden person in this group indicated that she was in poor health.

92.6% of the respondents could move on their own, 6.8% (11 persons) required some form of assistance to move while 0.6% (1 person) were bedridden (Table 10). In the mobile category, the 16 persons aged 75 years and above would be at risk of developing physical dependency with ageing unless actively involved in a rehabilitation programme. The 11

persons requiring assistance to move would require active rehabilitation to prevent reaching the stage of total dependency.

18.4% of the respondents had been hospitalised before. The 81.6% who had never been hospitalised attended private doctors' clinics or government clinics (Table 11) for the treatment of minor ailments or routine follow-up for chronic diseases like Hypertension and Diabetes (Table 11).

Among those hospitalised, two thirds were males and one third females. The reverse was true among those not hospitalised with

Table 10: Respondents by Age and Mobility Status

Mobility Status	Age Group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	Total	
		No.	%	No.	%	No.	%	No.	%	No.
Mobile		42	45	24	24	12	3	1	151	92.6
Requires Assistance*		5	2	0	3	1	0	0	11	6.8
Bedridden		0	1	0	0	0	0	0	1	0.6
Total	No.	47	48	24	27	13	3	1	163	100.0
	%	28.8	29.5	14.7	16.6	8.0	1.8	0.6		

*Requires assistance in moving like wheelchairs, crutches or walking sticks.

Table 11: Respondents by Whether Ever Hospitalised or Not

	No.	%
Ever Hospitalised	30	18.4
Never Hospitalised	133	81.6
Total	163	100.0

only 6 males and 10 females. 20.3% of the respondents suffered from Hypertension, 6.1% from Diabetes Mellitus, 6.7% from heart disease and 2.5% from stroke. The above conditions constituted 35.6% (58 persons). 5.5% (9 persons) had Rheumatism or weakness of legs and 46% (75 persons) were free from any chronic disease (Table 12). The

35.6% already suffering from chronic diseases should be exposed to a systematic health education programme to enable them to maintain stable health and prevent complications arising that may necessitate future hospitalisation.

The sex distribution showed little difference among patients with Hypertension, Diabetes and stroke. In the case of heart diseases, however, males predominated the group with 10 males compared to 1 female, Rheumatism was found only among females. Generally, more females suffered from chronic illnesses, as compared with males.

While 43.6% suffered from only one chronic illness, 8.6% had two conditions concurrently, seen more among the males as com-

Table 12: Respondents by Sex and Medical Condition

Diagnosis/ Disease Condition	Male	Female	Total	
			No.	%
Hypertension	16	14	30	18.4
Hypertension with complications	1	2	3	1.9
Diabetes Mellitus	4	6	10	6.1
Heart Disease	10	1	11	6.7
Stroke	2	2	4	2.5
Bronchitis/Asthma/Cold	4	5	9	5.5
Cataract	1	2	3	1.9
Rheumatism	0	7	7	4.3
Weakness of legs	2	0	2	1.2
Senility	1	1	2	1.2
Others	4	3	7	4.3
Nil	45	30	75	46.0
Total	90	73	163	100.0

Table 16: Persons Requiring Home Visits

S/No	Age	Sex	Diagnosis	Assessment of Care/Investigations
1.	61	M	Stroke, 6 months ago	Recent Stroke, requires rehabilitation
2.	88	F	Diabetes (5-6 yrs.) (Not seeing Dr. for her Diabetes)	Can she pay for treatment? Does daughter care for her? To motivate pt. to see doctor. Investigate family environment.
3.	56	F	Hypertension (1 yr)	Cerebro-Vascular Accident. Pt. in wheelchair. Any rehabilitation required at home?
4.	72	M	Diabetes, PTB	Lonely. Why? Staying with son.
5.	68	F	Oedema of Legs, Blood Pressure (High)	Very lonely, difficulty in walking; neighbour helps her in everything. What kind of home help required?
6.	55	M	Hypertension and Stroke	Using walking stick. Unable to walk for long distance. Does not visit doctor. Why?
7.	80	M	Nil	Patient's son mentally defective. What diagnosis? Income? Who is working to support the family?
8.	75	M	Cerebro-Vascular Accident (5 yrs)	Right Hemiparesis. Feeling lonely. Why? Rehabilitation required?
9.	70	F	Nil	Lonely. Why? Staying with daughter. Investigate family environment.
10.	78	M	Nil	At risk. Any help required?
11.	72	M	Hypertension	Handicapped Son. More particulars of family? Any help for both?
12.	80	F	Down Syndrome/ Ventricular Septal Defect	What help is needed? At risk due to age.
13.	30	M	Generalised-weakness Congenital Muscular Dystrophy	Able to attend to personal needs with assistance. Able to move about by crawling. What kind of help needed?
14.	28	M	Nil	Mentally defective. Any help required?
15.	24	F	Deaf & Dumb	Any help required?
16.	64	F	Hypertension (3 yrs)	Confined to bed. Any home help required?
17.	69	F	Weakness of Bone	Lonely. Wants nurses to visit her.
18.	73	M	Stroke/Cataract/ Hypertension	Lonely.
19.	60	F	Weak Heart	Lonely.
20.	56	F	Nil	Lonely.
21.	55	F	Stroke	Passive exercises required. Supportive care required.
22.	60	F	Hypertension	Is she on treatment?

Table 17: Number of Elderly Suffering from Chronic Diseases who would Benefit from Health Education Programme/Health Promotion/Rehabilitation

Disability/Disease	Number*
Semi-Mobile (Due to Stroke)	11
Hypertension	33
Diabetes	10
Weakness of Legs	26

*As some of the above suffer from more than one condition, the total number requiring this service totalled 39.

based elderly care programmes, channel their services through a home nursing service, day care centres, day hospitals, and even hospices³.

It is important to identify the elderly at risk of becoming handicapped and bedridden if not actively involved in mental and physical

rehabilitation. The groups of elderly at risk, requiring special attention would be⁶

- (i) those aged 75 years and above
- (ii) those living in one-roomed households
- (iii) the single, divorced and unmarried women
- (iv) those living in institutions with no active rehabilitation programme
- (v) those undergoing social isolation forcefully as a matter of choice
- (iv) the childless group
- (vii) the handicapped
- (viii) couples, one of whom is handicapped or seriously ill
- (ix) those in poor economic circumstances hence having minimal support

J H Barber in his paper on "Screening and Surveillance of the Elderly" noted that

while about 5% of the elderly population needed institutional care, 15% required some medical and social support⁸. The closest report locally available is from a study done with 5,538 persons aged 55 years and above in the community, excluding 3,237 persons living in nursing homes and institutions, which showed that 0.6% of the elderly in the community were bedridden, 4.2% required assistance to move and 95.2% were mobile⁹. In our study, the groups at risk formed 10.4% (33) consisting of those aged 75 and above, those living alone, the bedridden person and those who required assistance to move. It is necessary then to identify all those elderly in Singapore at risk of becoming disabled and bedridden in a systematic programme. Towards the end of the century, in Singapore, the elderly aged 75 years and above would form 6.9% of the population or 233,900 persons (Table 18)². Some of them are likely to become physically and mentally dependent. Are we ready to face the new challenges that will face us?

Identifying community groups able and willing to support the provision of care to the elderly may require the appropriate skills. The Home Nursing Foundation was earmarked to be a catalyst to promote well organised community-based services for the elderly, co-ordinating the presently existing groups already serving the elderly with the potential groups willing to serve like the Retirees' Club, Women's Groups, Youth Groups, community centres and the religious bodies. This would require appropriate planning, evaluation and updating¹⁰.

Table 18: Persons aged 75 years and above in Singapore 1980-2030

Year	Number in 000s	% of Population Aged 75 Years and Above
1980	31.3	1.3
1985	41.1	1.6
1990	52.1	1.9
1995	61.3	2.1
2000	70.8	2.4
2005	87.0	2.8
2010	103.4	3.2
2015	124.4	3.8
2020	138.4	4.1
2025	183.0	5.4
2030	233.9	6.9

To facilitate working actively with community support, one needs to develop

- (i) a focal point of activity for the care of the elderly providing rehabilitation, day care, health promotion and health education;
- (ii) a network of liaisons establishing continuity of care to and from the institutions to the community;
- (iii) systematically-planned fund raising drives to enable maintenance and updating of the services;
- (iv) a systematic health education programme for the community at large to adopt healthy lifestyles to enable a maximum potential of maintenance of positive health till ripe old age;
- (v) training programmes for the care of the elderly for all sectors of the community to assist in the delivery of domiciliary care confidently.

One should not, however, nurse the mistaken notion that institutional care of the elderly may be dispensed with or reduced remarkably. Effective programmes to keep the elderly in the community may only serve to prevent the rapidly rising demand for institutional care of the elderly.

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RISK FACTORS IN ATHEROSCLEROTIC DISEASES

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The World Health Statistics Annuals 1978, Volume I pointed out that approximately 40% of the deaths in men aged 45-64 years are attributed to Coronary Heart Disease (CHD). In most developed countries this is the biggest killer.

The United States and many European Countries have been involved in more than a century of research on their nature, etiology, and pathogenesis without coming to any clear-cut conclusions. The whole thing is shrouded in controversies and doubts. One is amazed at the voluminous literature on the subject.

In 1971 the National Heart and Lung Institute Task Force on Arteriosclerosis released its first report. It evaluated the currently available information of arteriosclerosis and formulated recommendations and long-range programs. It cast doubt on many beliefs now accepted as gospel. It implied that we do not understand the basic mechanisms underlying development of the arteriosclerotic lesion, nor how various risk factors bring about development of clinical disease, and that the major means of preventing and treating heart disease have yet to be elucidated.

Soon the American Journal of Cardiology, Volume 35, February 1975, came out with an Editorial under the title "Prevention of Heart Disease by Control of Risk Factors: The Time Has Come to Face the Facts". It pointed out the following:-

Recently there have been several challenges to the view that correcting risk factors will prevent, retard or reverse coronary arteriosclerosis. A principal architect of the Framingham study, which established coronary risk factors, has declared: "There are few prophylactic measures of proved efficacy

in coronary prevention. Neither hygienic, pharmacologic nor surgical measures have been shown conclusively to delay acute episodes or to prolong life".

A recent editorial in Lancet (1974) casts this doubt: "So far, despite all the effort and money that have been spent, the evidence that eliminating risk factors will eliminate heart disease adds up to little more than zero in terms of preventing heart disease on a public health scale".

Hyperlipidemia is not always associated with arteriosclerotic lesions. For example, patients with chronic rheumatic heart disease with very high blood cholesterol levels resulting from induced myxedema underwent autopsy years later and were found to have coronary arteries free of atherosclerosis. Possibly too much emphasis has been placed on lipids as a cause of atherosclerosis; only about 20% of patients admitted to a coronary care unit have an "abnormal" serum lipid profile. The Lancet editorial (1974) also stated: "On the other hand, severe coronary atherosclerosis post mortem is compatible with a full three-score years and ten and more of symptom-free life. In farming communities subject to prolonged exposure to diets dominated by dairy produce and therefore on the current thesis severely at risk of atherosclerosis and heart-disease, the expectation for life is good or better than average". The Lancet editorial (1974) concluded: "A key test is to show that electively reducing serum cholesterol reduces clinical atherosclerotic cardiovascular disease. The evidence in man is hopeful, but miniscule in comparison with the general aura of faith in such therapy".

Kannel (1974) has stated: "There is as yet no confirmed efficacy in lowering blood lipids".

The Working Group on Atherosclerosis of the National Heart, Lung and Blood Institute, U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, has published its second report, *ATHEROSCLEROSIS 1981 Volume 2*. In this Report a Section on Behavioural Research is included because of "The heightened national awareness of behavioural factors in health and disease. The influence of behavioural processes on atherosclerosis is evident in pathogenesis of the basic process, management of clinical manifestations and prevention of atherosclerotic cardiovascular diseases". The Section on Prevention covers great detail and comprehensive studies. It records the recent changes in lifestyles and lifestyle-related risk factors by the American people with regard to changes in eating patterns, changes in serum cholesterol, changes in cigarette smoking, changes in physical activity, and progress in the control of high blood pressure. In its conclusion it says: "It is a reasonable inference that the positive changes in lifestyles and risk factors among Americans have contributed, at least in part, to the decline so far registered in the coronary mortality rates". But it adds, "Of course, it is very hard to prove unequivocally the validity of that inference". It also admits, "The course of coronary mortality in the United States, going back to 1940 — the steady rise, particularly for men, both white and black, that began in 1940 or even before — and then the dramatic break in the curve, the steady decline from 1968 on, continuing through 1978, the year of latest record".

Ray Rosenman of the Stanford Research Institute, Behavioural Medicine Program, U.S.A., writing in the chapter on "Current Status of Risk Factors and Type A Behaviour Pattern in the Pathogenesis of Ischemic Heart Disease" in *Karger Biobehavioural Medicine, Series 2, Biobehavioral Bases of Coronary Heart Disease, 1983*, pointed out the following:-

Coronary atherosclerosis (CAD) and IHD have multifactorial etiologies whose pathogenetic links are still imperfectly understood, but it has become clear that environment factors must play a dominant role in the twentieth century incidence of IHD. It is generally believed that dietary fat intake, physical inactivity, cigarette smoking and risk factors such as the blood pressure and serum

lipidlipoprotein levels are most relevant. However, it has become clear that such variables fall far short of fully explaining the new incidence of IHD.^{3, 5}

There are many inconsistencies in the correlations of saturated fat intake and either serum lipid levels or rates of IHD in different populations. Indeed, no relationship has been found within populations between diet and either lipids or occurrence of IHD in any prospective study, despite the wide variance of both dietary fat and serum lipids, as for example in Framingham²⁰. The study of Irish siblings found that those remaining in Ireland had lower serum cholesterols and lower IHD incidence compared to those who had migrated to Boston, despite the former's higher intake of calories and percentage of dietary saturated fats²³. Serum cholesterol and IHD rates are higher in East than West Finland despite closely similar dietary intakes^{22, 46}. Bedouin Arabs with little IHD in their nomadic existence begin to acquire IHD when they migrated to Israeli cities, despite ingesting a diet higher in polyunsaturated fats, confirmed by analysis of their subcutaneous fat composition²⁹. From North to South Italy there is a decrease of serum cholesterol and rate of IHD that cannot be ascribed to dietary differences or other risk factors, and the recent decline of IHD mortality in Italy occurred in the face of marked increase of dietary meat intake^{17, 42}. The low rate of IHD in France can hardly be ascribed to low intake of saturated fats⁹. For many decades in the USA the lowest IHD rates occur in the farm belt region where habitual intake of saturated fats in meat and dairy products must be at least as high as in the densely populated, industrialized regions with much higher rates of IHD. IHD mortality continues to fall in Japan despite marked increase of dietary saturated fat and of smoking. Nor do dietary differences explain the higher rates of IHD in Japanese-Americans in Hawaii and California compared to Japan^{26, 27}. The rarity of IHD in the 19th century cannot be explained either by lower dietary saturated fat intake or by greater indulgence in aerobic activity by millions of upper class subjects at risk for IHD. Physical activity does appear to afford some protection against IHD³⁷. It favourably influences other risk factors, reduces fatigue, improves endurance, diminishes emotional anxiety and depression, and induces a sense of

well-being. However, there is little evidence that aerobic conditioning enlarges coronary arteries, promotes collateral circulation, dissolves atheromatous plaques, improves myocardial blood flow, or reduces rates of either IHD or reinfarction. It would seem that physical conditioning promotes well-being at all ages and enables subjects with IHD to tolerate their disease far better, but that the effects are largely if not entirely functional in nature¹¹.

Chandra Patel of the Department of Epidemiology, The London School of Hygiene and Tropical Medicine, writing in the same series, in the chapter on "A New Dimension in the Prevention of Coronary Heart Disease", pointed out the following:-

Many studies conducted over the last 35 years have identified numerous risk factors: amongst them are high blood-pressure, raised serum cholesterol, cigarette smoking, diabetes, obesity, sedentary life and positive family history. The first three are known as the major risk factors because of the stronger and more consistent association.

However, many studies reported in the literature also indicate the weakness in predicting future CHD from the level of risk factors. For example, Gordon et al. compared incidence rate of CHD from studies which had used uniform methods in Framingham, Honolulu and Puerto Rico. The incidence of CHD in Framingham was 2-3 times higher than that in Puerto Rico and Honolulu. Even when the studies were controlled for B.P., serum cholesterol and smoking, the excess in Framingham persisted. In other words, the higher rate in Framingham could not be accounted for by the conventional risk factors. Smoking, for example, had no effect on the incidence rate of CHD in Puerto Rico. Similarly in the Seven Countries Study, smoking was not found to be a significant risk factor²³. There is no dearth of such discrepancies in the literature for every single conventional risk factor.

Hypertension Intervention Trials

Earlier studies of drug treatment hypertension were shown to reduce the incidence of uremia, strokes and heart failure, but not of myocardial infarction^{1, 55, 56}. Recently, two studies from the USA and Australia^{18, 25} respectively showed that drug treatment of

mild hypertension reduces the incidence of all complications including MI, while at least one study in Lancet (1979)⁵² claimed that hypotensive therapy had not only failed to restrain the onset of CHD but it may even have been responsible for increased risk of precipitating MI in patients treated too energetically to bring their final diastole BP to less than 90 mm. It is important to remember that if we are to treat all patients, including those with mild hypertension up to a third of an adult population may qualify for a life-long treatment¹⁶ and mild hypertensives constitute approximately 70% of the total hypertensive population¹⁸. We do not yet know whether the treatment will be acceptable by the patient and what the long-term safety record will be. The Lancet editorial (1974) asked: "Whether it is ethical to intervene in the lives of individuals who are clinically well on the basis of evidence which is suggestive, associative, but not provenly causative?"⁵³.

Sir James Mackenzie warned in 1925 in his Diseases of the Heart that: "It is a mistake, and one made not infrequently, to consider the high blood pressure as if it were a disease; that it may be a physiological process for the benefit of the organism is seldom considered". Luckily, Mackenzie observed, the efforts which had been made to find ways to lower blood pressure artificially were usually of little effect".

Cited in New Scientist, February 23, 1978, Sir Henry Miller warned: "What we do know from our experience of insurance examinations is that its detection can cause disabling anxiety".

Lipid Intervention Trials

A number of intervention trials using dietary methods showed conflicting results^{7, 24, 30, 40, 41}. Either they did not show significant reduction in mortality, or the benefits seen were marginal. In some, trials, although the mortality from CHD was significantly reduced, the total mortality was not. Some of these dietary trials as well as cholesterol lowering drug trials showed some disturbing side effects^{6, 10, 39} like increased incidence of cancer, gallbladder, liver and other intestinal diseases in interventional groups, in spite of the fact that most of them were effective in reducing serum cholesterol. An editorial

article in the *Lancet* (1978) summed up: "The treatment was beneficial but unfortunately the patient died"⁷⁴.

Cigarette Smoking

Doll and Hill⁸ observed encouraging results in 10-year follow-up of British doctors who gave up smoking and this lower mortality in ex-smokers was observed in other observational studies^{15, 19}. However, Rose and Hamilton⁴⁴ pointed out the difficulties in interpreting that mortality was due to smoking cessation from these studies, as people who stop smoking often come from higher social classes and they probably change other behaviours at the same time. In a controlled trial of smoking cessation they failed to show a difference in mortality between the groups at 8-year follow-up. However, in a secondary trial, smoking cessation was associated with reduction in the incidence of sudden death⁵⁷.

Physical Activity

Physical activity was suggested to be a protective factor on the basis of lower incidence of CHD in people with active jobs like those of bus conductors and postmen, or those who pursue vigorous leisure time sports and exercise. On the other hand, it is well known that CHD mortality in East Finns is the highest in the world, despite the fact that most of them are farmers or lumber jacks involved in most strenuous exercises, often consuming over 4,000 cal. a day and who are lean and tall. Jogging has been widely advocated and enthusiastically pursued in North America but is not without its dangers. Burch, a cardiologist from New Orleans², commented on jogging as a dangerous fad, quoting American Automobile Association's reports of 8,300 joggers killed and over 100,000 injured by automobiles in 1977. He added: When automobiles kill thousand of joggers, their jogging becomes a serious and dangerous disease of the environment. The reported incidence of sudden deaths in sportsmen³⁵, marathon runners³⁴, soldiers in action^{12, 31, 60}, or during diagnostic exercise testing⁴³ questions the wisdom of prescribing exercise in those who are already showing some signs of myocardial ischemia.

Multiple Risk Factors Intervention

When single risk factor intervention proved disappointing, it was suggested that as many risk factors as possible must be con-

trolled together to have an appreciable effect. Accordingly, a comprehensive community program was started in North Karelia, a county in Finland with the highest CHD mortality in the world. It was relatively successful in reducing risk factor levels compared with those of the control county of Kuopio (38). However this did not result in greater reduction in mortality in North Karelia⁴⁹. It was explained that this was due to general decline in CHD mortality in all countries in Finland⁵⁴.

In the UK, which is one of the countries participating in the European multifactorial intervention trial⁵⁸, the heart disease prevention project team randomly allocated 24 factories or occupational groups, comprising 18,210 men aged 45-59 years, into intervention or control groups. Men in the intervention groups received advice on dietary reduction of fat and cholesterol, stopping or reducing cigarette smoking, regular exercise and reducing weight in the overweight, while people with hypertension were treated with antihypertensive drugs. In addition to the group campaign, the top 10-15% of the higher risk group received personal counselling and personal letter of advice and follow-up. At the end of 5-year follow-up, there were no clear differences between the intervention and control groups in the total risk estimates⁴⁵. In a subanalysis of men with elevated risk factors, the estimated reduction in risk, calculated from the changes in risk factor levels using multiple logistic function, was 9% at the end of 5 years or an average of 11% over the last 3 years of follow-up. It was pointed out that the above trial does not have the statistical power to detect such small differences, and thus, it is possible that when the trial is finally concluded, it may not show significant reduction in CHD mortality and miss a difference as important as 10-15%²⁸.

Cholesterol-lowering Diets, Cancer and Gall Bladder Disease

The Los Angeles Veterans Administration Study first raised the suggestion that cholesterol-lowering diets and in particular those high in polyunsaturated fatty acids might be associated with increased rates of cancer. The Los Angeles Study also provided some evidence for an increase of gall stones in patients on the diets high in polyunsaturated fat.

To date we know coronary disease (CHD) is associated with increased plasma concentrations of LDL, IDL and VLDL and the sums of the major constituent lipids, cholesterol and triglyceride. None of these lipoproteins has proven to be primarily responsible for atheroma formation.

100% Pure Corn Oil contains high poly-unsaturates.

COMMENT

The causation and maintenance of all diseases are multifactorial. Thus the practice of good medicine involves a knowledge of not only biological but also psychological and social factors.

It is not surprising that the Working Group on Atherosclerosis of the National Heart, Lung and Blood Institute included in its second report a Section on Behavioural Research. The influence of behavioural processes in the pathogenesis of diseases, their manifestations and their prevention and management has been well acknowledged. Biobehavioural Medicine is now an established Science.

We, the General Practitioners, have long been aware of these things. Colleges of General Practitioners have been established in many countries throughout the world for more than a decade. We understand that the practice of sound medicine must be the holistic approach which involves biological, psychological and social forces.

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TREATING HOMOSEXUALS AND THEIR PSYCHOLOGICAL PROBLEMS: A GUIDE FOR THE FAMILY PHYSICIAN

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The status of homosexuality as a sexual disorder or deviation is at present controversial. While still categorized as such in the International Classification of Diseases, 9, it was removed from the list of diagnoses by the American Psychiatric Association in 1974, and today, is viewed by some psychiatrists as a mode of sexual orientation preferred by a minority of people, rather than as a disease or a disorder.

In the treatment of homosexual patients, what is being treated is often not 'homosexuality' as such, but problems associated with a homosexual orientation or lifestyle. In every case, the family physician should find out from the patient what really is troubling him, and what sort of help he needs.

Types of Problems

A) *Sexual orientation problems*

The patient presents many doubts about his identity and orientation. He may not be sure whether he is a homosexual or not, but realises, perhaps with dismay and guilt that he is attracted to men and not to women. In seeking the help of his family physician, he may want reassurance or permission, or would just like to talk his problems over with someone he trusts. The attitude assumed by the doctor is all important and should be that of someone who is non-judgmental, kindly and empathic. In dealing with this problem it is useful to remember that homosexuality is not an either/or phenomenon, and that there are many shades of grey. Kinsey, in his scale of 0 (heterosexual) to 6 (homosexual) exemplifies this concept as the grades between 1 to 5 are varying stages of bisexuality. It is also impor-

tant to bear in mind that a person need not be fixed at any particular level, but can shift up or down the scale, depending on the situation he is in, or the relationship he has formed. If the patient is an adolescent for example, he may be just undergoing a phase in his development when he hero worships a handsome senior in his school, or a teacher, and may be aroused when thinking of his idol. Often this phase passes, but if there has been some intimacy the patient may be confused and ashamed and wonder whether he is really a homosexual or not.

Other patients may come with a history of having heterosexual relationships, but of being secretly attracted to men, or of having married to run away from a homosexual orientation, and find out after the marriage that the attraction is still there.

In managing these patients the family doctor should be prepared to give of his time to these patients. Firstly a good history is essential and should include a family history and detailed personal and psychosexual history. The main task for the doctor is really to help the patient clarify for himself what he wants to be and what sort of help he wants. Sometimes mere reassurance may be sufficient. At times several counselling sessions may be required, during which the problems and difficulties he encounters has to be worked through. It is of utmost importance for the doctor to remember that ultimately the decision is up to the patient to be what he himself really wants to be. Sometimes a trial period of keeping away from homosexual contacts may help to resolve the uncertainty and indecision of the patient.

B) Changing from a homosexual to a heterosexual orientation

An effective treatment for this problem is that based on behavioural principles. In the local setting, because of the difficulty in obtaining treatment material it is easiest to adopt the *in vitro* method, using fantasies. Various approaches can be used. One is the aversive method, whereby the patient imagines himself in a homosexual situation with a favourite partner and then introduces an aversive imagery eg. a policeman at the door, about to arrest him. In order to eliminate this fear provoking picture from his mind, he has to fantasize being with a female partner.

Another method is to use 'fantasy shaping', whereby a female is gradually introduced into his homosexual fantasies and the homosexual element is gradually phased out. Yet a different method is to introduce a heterosexual fantasy just before he reaches orgasm with a homosexual fantasy. The heterosexual fantasy is then introduced earlier and earlier in the homosexual fantasy.

If the patient has an associated phobia of women he has to be desensitized, using the systematic desensitization method. Sometimes he may not be aversive to females, but is lacking in the social skills to carry out an interaction with them. In such cases, a social skills training programme has to be initiated, so that the subject becomes more confident in dealing with women and is slowly encouraged to interact with members of the opposite sex, initially on a group basis, and subsequently as a twosome.

C) Problems related to homosexual practices

Common problems encountered by those who wish to continue with an absolute or partial homosexual lifestyle are:

1. Guilt about being a homosexual
2. Difficulty handling the social stigma
3. Infidelity of the partner
4. The aging process and the inability to attract younger partners
5. Fear of AIDS

Guilt about leading a homosexual lifestyle is often associated with religious beliefs held by the patient. In such cases, it is best for the family physician to deal factually with irrational fears or beliefs that the patient

may have (eg. that he will go blind, or become impotent, or if he is bisexual, that his offspring will have an incurable disease) and to refer the patient to a sympathetic cleric or such equivalent, who can help him with his religious dilemma. If there can really be no compromise, then he has to decide one way or another.

Regarding the fears about the social stigma of having a homosexual orientation, the doctor should find out from the patient what he is actually afraid of, what sort of lifestyle he leads, whether he is quite open about his homosexuality and tells friends and colleagues about it, or tends to hide the fact. Where employment is concerned, in general, many employers do not probe into the private life of their employees, and if the patient is discreet about his activities, no problem should arise. The exception would be teachers and those working in sensitive areas (eg. military) or who hold very responsible offices. In such cases, the prospect of dismissal can be quite real. The doctor can best help by discussing the problem with the patient and exploring alternative modes of employment with him, to prepare him for the eventuality of a dismissal. If it is ostracization by the straight society that upsets the patient, then he should be advised to be discreet in his activities and appearance so that he does not stand out from the crowd.

Sometimes patients are worried about the legal consequences if they are found out. In Singapore, a homosexual can be prosecuted under Section 377 or 377A of the Penal Code and can be sentenced from 2 years to life imprisonment (depending on the charge). In practice, action is usually taken only if minors are involved and the parents bring charges against the patient. Thus the patient should be careful that he does not have an intimate relationship with minors.

Problems like infidelity of the partner and aging in a homosexual with consequent loss of attractiveness can lead to depression, suicidal behaviour, anxiety neurosis or other psychiatric disorders. The doctor then has to spend time giving supportive therapy to the patient and getting him to adjust to the situation. Often antidepressants, or minor tranquilizers may have to be prescribed.

At present there is a great fear about AIDS in the homosexual community. The

family physician is the best person to advise the patient about this — and should educate him about what the illness is, and how to minimize the risks (the handbook by the Training and Health Education Department gives a short and handy account of this). If one of his patients should actually get AIDS, and is dying then the doctor has to be at hand to help him through the final stages of his life. Like many other dying patients, he will very likely pass through a process of denial, guilt, depression, hostility, anger and finally resolution, and perhaps peace, and the family doctor may have to be the one to hold his hand through all the stages.

Suggested Reading List

1. Human Sexuality and its Problems
John Bancroft
2. Male and Female Homosexuality
Marcel T Saghir and Eli Robins
3. Homosexuality
D J West
4. Deviant Sexual Behaviour: Modification and Assessment
John Bancroft
5. Comprehensive Textbook of Psychiatry, Chap 23.4: Homosexuality. Ed. Kaplan and Sodock.
6. Behaviour Therapy: D C Rimni and J C Masters.
7. Death: Current Perspectives
Edwin Schneidman.



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HOME STUDY SECTION

PICTURE QUIZ

CASE NO 1 — History: This 25 year construction worker presented with itchy rash on his hands of recent onset. Clinically there was subacute dermatitis on his hands with erosive lesions.



Question:

1. What are the likely causes of his hand dermatitis?
2. How would you differentiate irritant from allergic contact dermatitis in this patient?
3. Would you conduct a patch test with the cement that the worker brought along to confirm allergy to cement?
4. What is the likely allergen in allergic cement dermatitis?
5. If the patient is found to be allergic to chromate on patch testing what would your final diagnosis be and what advice would you give to this worker?

CASE NO 2 — History: This is an electroplater who complained of itchy rash over his hands and forearms of 2 weeks duration.



Question:

1. What is your diagnosis?
2. What is the distinguishing feature?
3. If allergic contact dermatitis is suspected how would you investigate this patient and what is the likely allergen here?
4. What are the common occupational irritants and allergens encountered in the electroplating industry?
5. How would you advise this patient?

CAS NO 3 — History: This 45 year old worker in a medicated soap factory developed depigmentation of his hands of 2 years duration.



Question :

1. What are your differential diagnoses?
2. Do you expect to find similar depigmented lesions on other parts of his body?
3. What is a simple bedside procedure to differentiate post inflammatory hypopigmentation from vitiligo or chemical leucoderma?
4. Name a few chemicals that can cause chemical leucoderma.
5. What is the likely cause of depigmentation on this man?

ANSWERS

CASE NO 1

- 1 & 2 The most likely diagnosis is Contact Dermatitis. This can be irritant or allergic contact dermatitis. The presence of erosive lesion and short history is more suggestive of irritant contact dermatitis but allergic contact dermatitis should be excluded by a patch test.
- 3 & 4 No. Cement should never be used for patch testing as it is strongly alkaline when wet and produce erosive reaction and false positive results. Allergic contact dermatitis to cement can be indirectly confirmed by a positive reaction to pot. dichromate 0.5%. This is because most cement contain chromates as impurity and these chromates are responsible for skin allergy in most construction workers with allergic contact dermatitis to cement.
5. A positive patch test reaction to chromate in a construction worker handling cement confirms allergic contact dermatitis to cement. This worker should be advised to avoid cement permanently. He can be transferred to do steel work or carpentry work as alternatives. He should also avoid using leather gloves and leather boots as these are often tanned with chromate and can cause dermatitis in a worker sensitive to chromate.

CASE NO 2

1. He has allergic contact dermatitis to rubber gloves.
2. This is distinguished by the distinct cut off line of dermatitis on the mid forearms. He wears rubber gloves at work. Allergic contact dermatitis to gloves, finger cords and boots should be suspected when patient presents with dermatitis with distinct cut off line.
3. A patch test with rubber chemicals and a piece of the rubber glove should be done to confirm the diagnosis. The allergens in rubber apparels allergy are usually rubber chemical additives such as anti-oxidants, accerelerators, and retarders used during the manufacture of rubber products.
4. Acids and alkalis, especially cyanide salts are strong irritants encountered. Allergens include nickel and chromate salts.
5. If patch test confirms allergy to rubber chemicals he should be advised to avoid rubber apparels permanently. He should be given plastic gloves instead.

CASE NO 3

1. The differential diagnoses here include vitiligo, chemical leucoderma and post inflammatory hypopigmentation. The former two conditions are more likely in view of the even ivory white discolouration and distinct margin. Post inflammatory hypopigmentation tends to be less white and the margin is usually more ill defined.
2. Similar depigmented lesions elsewhere are not uncommon in idiopathic vitiligo; the genitals are often affected. Chemical leucoderma can also appear on skin remote from area of contact with the phenolic chemicals; this is due to systemic absorption of these chemicals.
3. Examination under Woods light is a useful procedure to distinguish post inflammatory hypopigmentation from vitiligo and chemical leucoderma. The latter two conditions will appear ivory white under Woods light due to complete absence of pigment and pigment cells whereas some pigmentation is present in post inflammatory hypopigmentation.
4. Agents causing chemical leucoderma are hydroquinone and monobenzyl ether of hydroquinone. These are bleaching agents used in some bleaching creams used for the treatment of melasma. These chemicals are also used as antioxidant in rubber products such as gloves and boots. Other phenolic chemicals capable of causing depigmentation are found in disinfectant, photographic developers, some resins, and some oils.
5. He most probably has occupational chemical leucoderma from phenolic chemicals which he comes into contact with at work. Some of the medicated soaps contains phenolic compounds as disinfectant. There is no useful laboratory test available to distinguish chemical leucoderma from idiopathic vitiligo.

FROM THE SEMINARS

STOMA CARE

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The word STOMA in Greek means mouth. It refers to an artificially created opening on the surface of the body for the purpose of evacuating body wastes, such as faeces and urine.

There are various types of stoma, depending on which organ they are created on. They are:

- 1) Colostomy — which is an artificial opening in the large intestine or colon.
- 2) Ileostomy — which is an artificial opening in the terminal portion of the small intestine or ileum.
- 3) Urostomy — which is an artificial opening in the urinary system.

There are temporary and permanent stomas. A temporary stoma is usually performed for obstruction in the intestine and which will be closed at a later date. A permanent stoma is usually carried out for cancer of the rectum or the back passage which is completely excised with the anus.

There are thousands and thousands of people in the world who have one form of stoma or another and are living an active and normal life.

In Singapore, cancer is the most common reason for a stoma operation. The other reasons are trauma, inflammatory bowel diseases, such as Crohn's Disease and Ulcerative Colitis. The stoma operation is

most commonly performed for cancer of the rectum. The rectum and the anus are removed and an artificial anus is created on the surface of the body. The bowel motions or faeces are passed out through the stoma into a pouch which is fitted over the stoma. The appliance which can be easily fitted on, is removed at regular intervals and replaced by a new one.

The usual stoma looks like a small red mouth, placed just below the navel on the left side. For most of the day, it says nothing and does nothing. The stoma is different from the natural anus in that it does not have special muscles around it to open and shut it at will. The person with a stoma cannot wait until time or place are convenient. Hence, he or she has to have a pouch on all the time.

It usually takes 2-3 weeks for the patient to be in hospital for the operation and the recovery period. Sometimes, it may be longer when more than one operation has to be performed. Various types of bags are available today. There are the one-piece and two-piece types. Some are drainable and can be used again. The non-drainable bags are discarded when they are full. Some bags come with an attached wafer which is an inert plate that protects the skin and also affords better adhesiveness to the skin. While in the hospital, the patient or ostomate is taught how to wash and dry the stoma before applying the pouch. There are stoma-care nurses to assist in this. The bags should be easy to change, comfortable to wear and leak-proof.

For changing the pouch, these things are essential:

- 1) a small bag to contain all the things for changing the pouch.
- 2) a small plastic bowl or basin for tap water.

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- 3) a mild toilet soap.
- 4) tissue paper or soft toilet roll.
- 5) the right size and type of bag.
- 6) a small pair of scissors.
- 7) a plastic or paper bag to receive soiled tissue paper and used pouch.

A hole is cut on the adhesive bag at least 1/8 inch bigger than the size of the stoma. The soiled bag is removed. The stoma and the skin around it is washed with water and the mild soap, using the tissue paper or toilet roll. The skin is dabbed dry before applying the new bag. If the skin around the stoma is excoriated or sore, apply gentian violet 1% solution on it and leave to dry, before applying a piece of wafer. The pouch is then applied on the wafer which can be left on for 3-4 days before it needs changing.

The ostomate can eat normal food but should avoid certain foods that tend to cause diarrhoea, excessive wind and smell such as alcohol, onions, nuts, ginger and green leafy vegetables. There is no special bed or bedding for the ostomate. It will be convenient to have a toilet nearby for changing of the pouch, though. Any clothes can be worn so long as they are not too tight fitting. Sex can be resumed as long as the desire is there. However, there are adjustments to be made with the spouse. So long as the spouse is understanding and thoughtful, the couple can have a healthy sex life again.

Many female ostomates have delivered normal babies. However, some patients may be temporarily or permanently rendered impotent as a result of the operation for cancer of the rectum. This is unavoidable as the surgeon has to cut widely in order to achieve a

cure for the patient.

Exercises are encouraged so long as the ostomate is fit enough. Cycling, swimming and other outdoor activities can be pursued as long as the pouch is well fitted.

Usually, the ostomate does not need to change his job unless he or she has been doing heavy manual work. In this case, it is advisable for him or her to change to a lighter job.

There should be no smell as long as the pouch is tight-fitting and odour-proof. A well adjusted ostomate can return to normal life. Travelling should pose no problem.

The number of stoma operations are increasing in Singapore because of the increase in cancer of the large intestine.

In Singapore, a Stoma Club has been existing since 1981. It is fully managed by ostomates themselves. The office is in the premises of the Singapore Cancer Society in Enggor Street. The members meet regularly once a month to socialise, exchange ideas, discuss problems, assist one another and new ostomates. All ostomates and their family members are encouraged to join the Club. A full range of pouches and other appliances are on display in the Club for members to be familiar with. Members of the Club take turns to visit new ostomates while they are in hospital pre and post-operatively to encourage them and provide moral support. A well adjusted ostomate who has an understanding family will eventually get over the initial sorrow and depression and finds that life can be normal again after all. A famous ostomate who had a full life was Hollywood actor, Gary Cooper.

SCOPE OF GENERAL PRACTICE/ FAMILY MEDICINE

Dr H S Wong

OBJECTIVE

The objective of the address is to acquaint you with the scope of practice of general practitioners and family doctors. It is a wide field of practice and it involves about half the total doctor population. The pattern of health care in any country is like a pyramid in that the broad base is general practice providing primary or first contact care, the mid-zone of the pyramid providing general hospital practice or secondary care and the apex, the subspecialities providing tertiary care. You will realise the field of general practice must necessarily be wide to cover the whole spectrum of health and illhealth from which the upper zones of the pyramid are fed.

DEFINITION

Before I continue I should define general practice. It is the provision of primary medical care or first contact care which much necessarily be comprehensive being as I said the base of the pyramid of the health care system.

It must provide continuing care, for neither the state nor the public could afford long term hospital care except in exceptional cases.

And it provides terminal care, for the incurable and the chronic sick.

Included in the care along the way is preventive and rehabilitative care.

And the care is mainly if not entirely non institutional.

This is the text book definition — the ideal definition. The average man in the street

expects his family doctor or GP to do all the above for him. It would be interesting to hear the definition by the hospital based doctors. To them the GPs are minor illnesses' doctors (cough and cold doctor) or referral doctors or something similarly disparaging. It is interesting to note that when these doctors enter private practice they soon realise that primary care is much more than what they originally thought.

SCOPE

Having defined general practice or family medicine the scope of practice becomes clearer. However the scope varies, in actual practice, with locality, with facilities available, and with the training received by the practitioner.

A country practice where sophisticated hospital and specialist facilities are not easily available would make more demands on the general practitioner than on his counterpart. I visited a practice in North Wales where a group of general practitioners cover an area of over a 100 square miles (more than 1/2 of Singapore). They have a 30-bedded Cottage hospital, equipped with an operating theatre, an X-ray machine and a laboratory. They do all the uncomplicated obstetrics, simple surgery, including appendicectomies and haemorrhoidectomies and reduction of uncomplicated fractures. They give their own anaesthetics, take and read simple X-rays and interpret the laboratory findings. They do paediatrics, adult medicine and geriatrics. They drive ambulances in emergencies and their cars are equipped with sirens and radio-telephones. And the satisfying part is they are

really loved by the people. Such general practitioners would not have been able to do the work if they had not been given the proper training. In England no one can be employed as a general practitioner, if he has not gone for training and no one by law can commence his own practice unless he has undergone formal training.

The full scope of general practice is to be found therefore outside the cities. It covers most of the disciplines of medicine and is essentially a family practice. It is in such a practice that William Pickering the GP pioneered the study of epidemiology of the childhood infectious diseases.

Therefore in the final analysis the scope of general practice is, as I mentioned before, determined by

- (1) the training received by the general practitioner
- (2) the particular needs of the locality
- (3) the facilities available.

This is amply demonstrated by the situation in Singapore. Training in general practice is entirely the affair of the individual and with variable training the scope of practice varies from doctor to doctor. Some localities need certain types of medical services which others do not. For example in Jurong Town the practice of industrial and occupational medicine is more pronounced than in Queenstown. And in the commercial areas like Shenton Way and Raffles Place contract medical practice is more evident than family practice.

A recent development in general practice in Singapore is the availability of many private medical laboratories and X-ray centres. These have widened the scope of general practice in Singapore considerably. When I first started general practice 30 years ago apart from SATA which offered check X-rays and simple laboratory tests, all other investigations could only be carried out at the public hospitals. Cases requiring such investigations had to be referred, loading the hospitals unnecessarily. This is generally no longer the case now.

TRAINING REQUIREMENTS FOR GENERAL PRACTICE

What are the training requirements needed to achieve the wide scope of general practice?

(A) We must have the knowledge and skills in:

- (1) the disciplines relevant to general practice.

These would include internal medicine, paediatrics, geriatrics, psychiatry, office procedures in surgical disciplines like O & G, general surgery and orthopaedic surgery. Also knowledge in emergency medicine, laboratory medicine, ophthalmology, dermatology and E.N.T., and in Singapore, with rising industrialisation, occupational medicine.

- (2) practice management
 - staff management
 - records of cases and accounting
 - inventory and order of drugs
 - dispensing
 - statutory requirements
- (3) knowledge of the paramedical facilities available in Singapore, e.g.:
 - Social welfare facilities
 - Facilities for the handicapped, the aged and the chronic sick and so forth.
- (4) Various Medical Acts and the Ethical Code.

(B) Continuing Medical Education

Most important if the general practitioner is maintain standards and his self respect among his professional colleagues.

COMPARISON WITH HOSPITAL PRACTICE

The most evident difference between hospital practice and general practice, especially solo general practice, is the stark isolation of the latter. A new general practitioner immediately feels the loss of the comforting protective walls of the hospital he has just left together with the loss of support of his medical colleagues and consultants, and the services of the nursing and other paramedical staff. He has to make his own decisions and he faces the public alone. He also realises that medical practice does not consist only of diagnosing and treating illnesses, but to make it viable he has to master the intricacies of practice management — the question of hiring, training and firing staff, the economics of a business and the legalities attendant to his profession and practice. For all these he is ill-equipped by the present system of training as it exists in Singapore today.

The new general practitioner also soon realises that the cases which come to him are no longer sorted out. Previously when he was attached to certain departments like paediatrics or orthopaedics only the relevant cases were dealt with. Now he has to deal with the unknown and undifferentiated cases.

Another difference from hospital practice is the problem of patient compliance. No longer is the patient captive as in hospital practice and the doctor has to facilitate compliance by developing a rapport with the patient.

And in general practice the care is not episodic, but a continuing affair. The health problem is rarely a single entity, disease or organ orientated, but a series of interrelated problems affecting the individual which needs to be looked at on the whole person basis. The management of the patient does not end at drug therapy alone, but extends to giving the patients psychological and social support, not only to the patient but also to his family as well.

These are the main differences between general practice and hospital practice.

OBJECTIVE OF GP POSTING

The objective of the GP attachment is to give you a brief exposure to general practice. That was the original purpose when it was first introduced in 1970. Despite strenuous efforts by the College to upgrade the so called exposure, little more could be done because of the continuing constraints which we work under and the low priority given to general practice by the University.

The student body and the College alike face the same problems every year. Competing teaching programmes continue to divide your attention. At one time when final year students were made to do their general practice attachments they have the impending qualifying examination to worry about. Now you third year students have Social Medicine to contend with at the same time.

Further, the allocation of a 7 week period to cram in 200 students to individual clinics does not make things easier for the College. You must remember that the College has to depend on volunteers for the exercise. Unlike your institutional teachers who are trained in

their special disciplines and who are given time to teach, without any interruption by their patients, our teachers are self taught in their field of practice, and their teaching takes place in the midst of their busy practice. I can assure you this is often a harrowing and harassing experience. I marvel that each year our doctors continue to volunteer with little in the form of returns, except for their belief that they have something to share with you which hospital teaching does not provide.

I recall that not so long ago paediatrics, psychiatry, orthopaedics and dermatology were similarly regarded, and scant attention was paid to these subjects by students. With due recognition given to their development, separate departments for each discipline were created by the University and now students cannot proceed to their graduation without successfully completing their assignment to each of these disciplines; and I think you all are far better trained in these areas than we were in our time.

Until the University recognises that one needs to be trained and properly taught for general practice, the College is unable to make your present posting as meaningful as it would like.

Your posting now is meant to widen your perspective with regard to the full practice of medicine. Apart from this brief interlude of your GP posting, your entire experience will be confined to hospital practice. More than 90% of health problems are dealt with outside the hospitals and your posting will enable you to see a part of this area.

THE GP POSTING

Your GP posting will consist of six preliminary lectures over six mornings (today being the first) followed by a week's posting which consists of two parts. Over three mornings of the week you will go to a large polyclinic (the Ang Mo Kio Polyclinic) where we will discuss certain selected topics with case demonstrations if possible. For the rest of the one week period you attach yourselves to a general practitioner (in pairs) and see the general practitioner at work.

We have modified our earlier postings to the above arrangement so as to give a certain uniformity of exposure to the students. The

government polyclinic with a large attendance of 500-600 cases in the mornings provides a much wider variety of cases from which we can choose certain cases for teaching. This is not always possible in the individual general practitioners' clinics and students attached entirely to one general practitioner may sometimes form erroneous impressions of the range of work of a general practitioner. To appreciate the full scope of that practitioner's practice the student needs to be posted over a longer period.

Ideally you should spend more time than the present one week and attach yourselves with a general practitioner seeing his cases and going to housecalls. A number of our general practitioners give voluntary services to various medical organisations in the institutions for the handicapped and the homes for the aged. And you may be interested to find out the Continuing Medical Education programme organised by the College.

When my daughter was a fourth year medical student in U.K., she was attached for two weeks to a country practice in England. She stayed with the family of the doctor and for two weeks was totally immersed in general practice. She found the experience not only satisfying and inspiring but thought the work of the general practitioner was in no way less challenging or satisfying than that of the hospital doctor.

WHAT ARE THE PROBLEMS AFFECTING THE SCOPE OF PRACTICE IN SINGAPORE

- (1) The lack of formal training. The implications are obvious and I will not deal with them further.
- (2) The economics of private practice peculiar to Singapore. I cannot think of any country in the world where the rental of premises for private practice is as high as they are in Singapore. Elsewhere, one can understand the high rentals of choice localities, but in Singapore whether your

practice is in Orchard Road or in Hougang, rentals are rarely less than \$3,000/- per month, often in the \$4,000-5,000 region. The need for a high turnover limits the time that may be spent on each patient, and this must necessarily affect the scope of practice. I have done a rough calculation and concluded that a new solo GP needs to see about 50 patients a day to break even. The long working hours needed to make this practice viable means little opportunity or time left for Continuing Medical Education. Happily both these situations are alleviated by general practitioners, combining to form group practices making more time available for each partner.

I am saying all this so that you may be more understanding if your expectations are not met with.

I will sum up by briefly recapitulating what I have talked about.

I have defined general practice and talked about its scope. I have briefly explained the training requirement of general practice. I have listed the differences between hospital practice and private general practice. I have discussed with you the purpose of your general practice posting and what your posting will be like. And finally I have touched upon some of the problems which affect the scope of general practice in Singapore.

Our doctors who take part in your posting do so at considerable sacrifice. Some of the speakers at the morning lectures as well as those who take part in the morning polyclinic sessions have to engage locums to fill the gap while they are away from the clinics.

Those that take you into their clinics will have their routine upset and their patients inconvenienced.

I hope your response will be positive for this is the only tangible return our doctors look forward to.

I wish you all a happy posting.

HEALTH EDUCATION & PREVENTIVE MEDICINE IN FAMILY PRACTICE

Dr V C Leong
MBBS, FCGPS

PREVENTIVE MEDICINE

Health Education is concerned with spreading the message of healthy living and getting people to convert to this way of life. *Preventive Medicine* seeks a total defence of the body, preventing the threat of diseases from without and within. It calls for anticipation and readiness to deal with trouble.

Not all diseases are preventable. Diseases that are preventable include many of the communicable diseases. Diseases that cannot be totally prevented (the non-communicable diseases) may be prevented from getting out of hand (contained or ameliorated). BOTH ASPECTS OF PREVENTION CALL FOR ACTIVE MEDICAL PARTICIPATION.

Sometimes it is not disease that requires preventing. It may be an *unwanted physiological condition* e.g. pregnancy. The foreign female worker may have given an undertaking not to have a pregnancy in Singapore. A young couple may not be ready to provide a home to their child. An elderly couple may not find it socially acceptable to have a child younger than their grandson. They may not want the risk of producing a mongol or a child with genetic deficiencies. The raped victim would certainly not want to bear the insult to her chastity. There are other legitimate and non-legitimate reasons for not wanting a pregnancy.

The GP's Role

To show the *spectrum of preventive medicine* in Family Practice I have chosen the following examples:-

1. the infant,
2. the adult,
3. the industrial worker,
4. the mother-to-be,

5. the high-risk worker
 - a. the food handler
 - b. the social-disease carrier, and
6. the elderly citizen.

Preventive Medicine under the term "*environmental sanitation*" does not come within the GP's role. These are measures directed to ensure clean air, safe water supply, vector control and proper disposal of waste/effluent from homes and industries etc.

1. The Infant

Communicable diseases successfully prevented include:-

Tuberculosis, smallpox, diphtheria, whooping cough, tetanus, poliomyelitis and measles (rubella).

Vaccines for diphtheria, whooping cough and tetanus are often administered together. The reasons for the combination are 2. Convenience is one. The other is on immunological grounds. It has been shown that the combined giving of diphtheria and tetanus toxoids together with the bacterial endotoxin in the pertussis bacteria exerts a better antibody production in the subject than would be the case if each was given separately. This is attributed to the adjuvant effect the pertussis endotoxin exerts on the other 2 antigens. An *adjuvant* is a substance that enhances the formation and persistence of antibody when injected with the antigen.

Hepatitis B inoculation is a recently introduced disease-prevention measure. Data are being monitored to evaluate its efficacy. Given early it promises to wipe out hepatitis B and liver cancer in the population.

Other important diseases of childhood that have been successfully prevented are the

Nutritional Diseases, the *Diarrhoeal Diseases* and at least one of the *Enzyme Deficiency Diseases*. Keratomalacia from avitaminosis A was an important cause of blindness until the introduction of vitamin A enriched milk which is now superseded by breast milk. When infants are breastfed diarrhoeal diseases are concomitantly reduced. With the routine screening of infants for G6PD deficiency at birth many infants have been prevented from developing kernicterus and thus mental retardation.

Nobody is born perfect. A neonate may have congenital heart problems that are not apparent at birth until the second week or even the second month of life. Every infant should receive a medical examination at birth, the second week, the second month and the fourth month of life. Suspicious heart sounds should be evaluated. Cyanosis and heart failure call for immediate referrals. Early diagnosis and treatment mean a lot of meaningful later life to that neonate. *Screening* for other congenital problems is also part of a GP's role in disease prevention or more accurately "disease containment".

2. The Adult

Assessment of *fitness to travel by air* is often the responsibility of the GP. The principal factors to be considered are the effects of reduced atmospheric pressure and consequent reduction in oxygen tension in the airplane. Even with pressurisation in the cabin the pressure equivalent is about an altitude pressure of between 5000 to 7000 feet.

The GP will also advise the traveller on how he can reduce the *risks of diseases abroad*. In the past travel requirements were:-

1. revaccination against smallpox,
2. cholera inoculation &
3. yellow fever inoculation (for certain African states)

The traveller would be well advised to take *prophylactic antimalarial* tablets, and to immunise himself against typhoid and hepatitis. A in countries where these diseases are endemic.

Simple *personal and food hygiene measures* can prevent the likelihood of contracting diseases of the GI tract. Hands should be washed before eating. Certain high risk diarrhoea-causing food should be avoided (half-cooked clams and seashells).

The adult who travels to countries of South East Asia and the Indian Subcontinent is a *potential importer of diseases*. 3 of the most common imported diseases are *malaria*, *enteric fevers* and *viral hepatitis*. Other imported diseases are dengue fever, Japanese encephalitis and cholera. The number of imported sexually transmitted diseases is believed to be quite substantial but no actual numbers are known. The best safeguard against imported diseases is to strengthen the home defences through:-

- a) improvement in environmental sanitation,
- b) vaccination of the population, and
- c) development of a comprehensive system of epidemiological surveillance.

GPs must exercise a high degree of suspicion when a history of travel abroad is given by their patients. Adequate treatment of such patients prevents the imported diseases from gaining a foothold in our country. They should also observe that *many communicable diseases are notifiable*.

3. The Industrial Worker

The industrial worker faces *hazards from his industrial environment* from physical as well as chemical agents. These may be excessive light, heat or noise and biologically active or chemical toxic substances in aerosols, liquids or solids that may affect his eyes, skin and lungs. By virtue of being absorbed internally they may affect the internal organs. *Accident prevention* must take into account the hazards of height, explosive situations and unguarded or poorly guarded machinery. The concept of the "accident-prone" individual has often been suggested. But a better concept is the "*accident-prone situation*" thus putting the blame on the situation rather than the person.

Genetic tests for specific dispositions to illness in certain industrial situations are now available. One group of tests screens for specific inherited genetic traits e.g. G6PD deficiency. The other group of tests enables the doctor to look for enzymatic changes after exposure. An industrial environment with a high concentration of oxidising agents is obviously dangerous to those with G6PD deficiency. In the other example the toxicity of the industrial environment is monitored by examining the blood enzyme levels of the ex-

posed workers. Cholinesterase levels fall by 50% or more before clinical signs of organophosphorous poisoning are manifested. Workers exposed to organophosphorus compounds should be removed from exposure long before the enzyme level falls to these levels. These tests are good preventive medicine.

Foreign workers may bring with them diseases that are endemic in their countries of origin. The *statutory screening of foreign workers* helps to minimise these risks and the GP must be vigilant in the conduct of these examinations.

Statutory notification of certain occupational and industrial diseases is an important disease-prevention measure. No GP should shirk this responsibility. All that is required of him is to supply the necessary data to the Ministry of the Environment. The necessary investigation will be conducted by the epidemiologists.

4. The Mother-to-be

Disease prevention extends to the product of conception in the womb of the mother-to-be. During the first trimester of pregnancy the foetus in the womb is particularly susceptible to *drugs, diseases, dietary items* like alcohol and cigarette smoking and *X-rays*. These are "factors" which the mother-to-be must avoid if harmful effects on the foetus are to be prevented. Before a decision is made to treat a pregnant woman during the first trimester it is prudent to check the list of drugs documented to have harmful effects. Viral infections during the course of pregnancy should be monitored if the rubella status of the mother-to-be is unknown. Smoking and alcohol contribute to low birth weight babies which is a major cause of perinatal deaths. Elderly mothers who run the risk of giving birth to mongols should be sent for antenatal amniocentesis by a geneticist.

Good antenatal medical care by GPs will help to prevent or minimise many risks associated with pregnancy and delivery. These are in the main directed to *screening for covert non-communicable diseases* like PET,

diabetes and renal diseases which have a bearing on the outcome of pregnancy and delivery.

5. The High-risk Worker

Food handlers are required to have immunisation against typhoid. Their stool and urine are cultured for salmonella organisms. The screening of such workers is a public health responsibility which no GP should take lightly. This is preventive medicine at its best.

Workers who entertain sexually are checked regularly for VD under a "yellow-card" scheme devised by the Middle Road Hospital. This scheme which includes the participation of GPs consists of:-

- a) a computer based registry,
- b) fortnightly cervical/vaginal, ano-rectal and oral smears for the detection of the gonococci especially the PPNG gonococci and blood tests for syphilis every 3 months.
- c) treatment based on bacterial sensitivity tests.
- d) contact tracing and
- e) law enforcement

In 1983 there were 10,922 cases of gonorrhoea registered; 2,101 cases of NSU; 1,167 cases of syphilis and 741 cases of chancroid. Compared with the figures in 1982 there was a decline in every category. Prevention of these diseases has been successful.

6. The Elderly Citizen

In the elderly, *accidental falls* resulting in fracture of the neck of the femur are worth preventing. The GP can prescribe *nutritional supplements* to the diet of the elderly and to ensure the necessity of the elderly to continue to exercise his limbs and his mind for optimal health.

Screening and treatment of disabilities associated with old age e.g. poor vision and hearing difficulties and chronic non-communicable diseases e.g. diabetes mellitus, hypertension, arthritis and ischaemic heart disease can help to add quality to the remaining years of life of the elderly. However caution has to be exercised in prescribing for the elderly because tissue response and the organs of excretion are off-peak functionally.

Summary of the GP's role in Preventive Medicine

1. *Immunological enhancement of host vaccination inoculation*
2. *Prophylactic Screening*
genetic deficiencies and chromosomal anomalies (G6PD and Down's syndrome)
covert diseases (VD, TB and Typhoid)
congenital abnormalities (CHD)
antenatal risk factors
occupational/industrial diseases
propensities (G6PD)
toxicities (cholinesterase)
3. *Prophylactic medications and devices*
antimalarial, antiemetic and antibiotics (in special situations)
contraceptive tablets and devices
4. *Prudence in prescribing and investigating*
ensure safety of drug (boon/bane aspects, anaphylaxis, teratogenic effects and drug reactions)
use cautiously in the very young, the very old and the pregnant mother
prescribe according to the needs of the patient rather than the needs of the pocket
avoid unnecessary exposure to X-rays.
5. *Epidemiological Surveillance*
case reporting
ensure statistical reliance of case reporting
contact tracing
6. *Statutory compliance*
immunisations
health screening
reporting of:-
communicable diseases
industrial and occupational diseases
7. *Health Education*

HEALTH EDUCATION

Health education in Singapore is conducted on different scales by different bodies.

On a National Scale

Health Education on a national scale is organised by the Ministry of Health through its Training and Health Education Department (THE Department) manned by fulltime doctors.

The GP needs to know what plans the Ministry of Health has for the populace in Singapore so that he can dovetail his efforts and resources into it. From its publication "Singapore Community Health Bulletin" No. 24 1983, a 5 Year Plan has been published. I have provided each of you with a copy of this plan which is a very comprehensive programme. The problems earmarked for attention are very relevant to the needs of the people of Singapore.

The Ministry of Health makes use of all media to promote health consciousness and good health practices among the population of Singapore.

This includes radio and TV presentations, exhibitions in community centres, shopping complexes, schools and other youth groups, lectures, demonstrations as well as the publication of health literature in the form of short articles and even cartoon strips. The MOH works very closely with the Ministry of the Environment and the Ministry of Labour.

Target Groups

Target groups mentioned in the plan need explaining. They are divided into:-

- a) primary target groups and
- b) facilitator target groups

"Primary groups" are defined as people who need to be reached and "facilitator groups" refer to people who could be trained to provide health education to their corresponding primary groups.

The concept is useful and effective. Every primary group has a corresponding facilitator group i.e. they are matching "pairs". e.g. the primary group identified as school children is matched with the corresponding facilitator group of teachers, principals and school health personnel. Another example would be

the primary group "industrial employees" matching with the facilitator group "employers, trade union leaders and industrial health personnel".

The roots of most chronic diseases extend right back to childhood and adolescence. Children and teen-agers must be the starting point if health education and disease prevention are to be successful. Programmes involving these "primary groups" must make certain allowances which are obvious:-

- a) people belonging to these primary groups are basically "fit". Fit people pay little attention to potential illnesses.
- b) they are sceptical about preventive measures because the time span of their outlook is immediate rather than some remote time (40 to 59 yrs) in the future.

Working amongst those who are between 40 to 50 years of age is easier because most if not all are aware of possible diseases and may have noticed early symptoms if not already afflicted with the disease conditions. The question they have to face is whether the condition they have is reversible.

On a Community Scale

Most medical professional organizations have community health education programmes.

In 1982 a Community Health Education committee was set up by the Singapore Medical Association to educate the public on matters relating to health and the prevention of diseases. Biweekly articles were published in the Straits Times on a variety of medical topics ranging from paediatrics to geriatrics. To-date a total of 65 articles have been published. It is hard to assess how many people have been reached and how many have benefitted from these articles, which are written and pitched at quite a high level of literacy.

The National Kidney Foundation, the Cancer Society, the Diabetic Society, the National Heart Association and so on have important roles to play in the health education of the community.

Not all efforts directed to health education are altruistically motivated. The commercial value of health education has been recognised

by enterprises whose income depends on the sale of consumer medications. As long as the message conveyed in these efforts is not distorted there is no harm in making use of the vast amount of posters and hand-outs urging the target groups to follow a set of instructions designed to educate them on healthy living.

Family and Personal Scale

Health education and preventive medicine form parts of the comprehensive and continuing care a GP provides to his patient and his family. Health education is *tailored to each patient's specific need* and is done in a *very personal way*.

Unless the GP *keeps abreast of medical knowledge* he cannot give the best advice to his patient and family. It is advantageous to know before hand the planned activity of the Ministry of Health to reap maximum benefits through co-ordination, repetition and explaining on a personal level what patients see and hear during the national and community propaganda blitz.

A GP must also *translate* what he learns from experts *into simple down to earth instruction* which his patients can understand. Moving his patients to practise preventive health care is what health education is all about.

Resources and Research

Resources and research into health education come from:-

1. The Ministry of Health
 - a) THE Department
 - b) Committee on Epidemic diseases,
2. The Ministry of the Environment
3. The Ministry of Labour
4. The National University of Singapore
5. The Medical Professional Associations
6. International Medical Bodies

The resources of the THE Department are accessible to all health personnel. The prudent GP will want to avail himself of these facilities. *The HEALTH EDUCATOR* is a very useful publication by the THE Department sent free to any doctor on request. It is published quarterly and is now in its 7th volume. The messages in this publication are ideal for patients because of the simple language used and the wealth of illustrations.

Another 2 excellent publications are the *EPIDEMIOLOGICAL NEWS BULLETIN* compiled by the Committee on Epidemic Diseases and the *COMMUNITY HEALTH BULLETIN* of the Ministry of Health and the Ministry of the Environment.

Medical and research findings from the other bodies mentioned are disseminated through their own publications, the newspapers, medical journals, lectures, seminars and conferences held locally, regionally and internationally. A very rich source book on local diet is the publication by the Association of Private Medical Practitioners of Singapore entitled *LOCAL DIETS IN DISEASES*.

Factors favouring success

A. The *HEALTH MESSAGE* must be:-

- 1) simple and single — simple in language and focusing on a single issue rather than a multitude of issues.
- 2) relevant to the situation — irrelevancy distracts.
- 3) illustrated if possible with photos, diagrams, cartoons — a picture is worth a thousand words.
- 4) short — memory span of most people is short.
- 5) Repeated to create better impact and retention.
- 6) in the same language or “wavelength” of patients.

B. The message must be seen to be practised by the *HEALTH EDUCATOR*. A smoking GP cannot dissuade his patients from smoking. The same applies to other vices of life-style. Virtues are seldom noticed but vices are always remembered and magnified.

C. The *PSYCHOLOGICAL MAKEUP OF THE PATIENT* must be taken into account. The GP can either use the *CARE TECHNIQUE* or the *SCARE TECHNIQUE*. Most patients respond better to the care technique than to the scare technique. It is also prudent to avoid creating disease neurosis in patients from over-preaching.

Limiting Factors and Health Education

To promote more effective health education measures, we need to know more than we do

of:-

- a. The precise causes and mechanisms of the diseases we want to prevent.
- b. The relative contribution and interaction of the environment and genes on pathological processes.
- c. The role and importance of non-medical factors in influencing health and disease. Socio-economic, cultural, traditional, religious and psychological factors all have possible health consequences. Their effects, whether positive or negative, on the inception or cause of a pathological process cannot yet be assessed.
- d. We still lack the experience and expertise in mapping out effective strategies against the chronic non-communicable diseases in populations because it is only recently that this aspect has received due recognition.

Health Education in Comprehensive Care

Every clinical situation has health education as well as disease prevention implications. In dealing with a problem or problems brought to him by his patient, a GP provides the following services:-

1. Resolution of the presenting problem or problems by diagnosis and the provision of care which may be medical, surgical or other modalities of treatment,
2. Health education,
3. Disease prevention,
4. Cost containment,
5. Coping with residual effects of the illness and
6. Sharing of responsibilities with other health professionals.

Areas of Health Education

Health education covers the whole field of medicine. It has to do with birth, death and everything in between. The following are only some areas of health education:-

- a. Sex and procreation
- b. Growth and development
- c. Caring and sharing
- d. Food and health
- e. Life-styles
- f. Work and occupation
- g. Illness and incapacity
- h. Senescence and death
- i. Bereavement and loss

Because it is impossible to cover all these

areas let us take a "holiday" to only two areas. Let us take a trip to old China to look at Food and Health and then back to Singapore to look at a common problem with Health Education implications.

Food and Health

In addition to the Yin-Yang philosophy of Chinese Medicine there is also a significant Chinese medical theory which emphasized *preventive medicine as being superior to the curative aspect of medicine.*

The Han dynasty (2nd century BC to 3rd century AD) mentioned the importance of the Palace Dietician (food physician 食医) as the person in charge of the food provisions for the emperor and his court. It was he who had to bear in mind "the nature of the various foods to be combined into a balanced diet and adopted at the same time to the cycle of the seasons."

Another reference to preventive medicine in China was made by Stephan Pa'los (author of the book "The Chinese Art of Healing", New York: Herder and Herder, 1971). The emphasis on preventive medicine was attributed to:-

"A correct balance between work, relaxation, and sleep and the "golden rules" of a moderate "clean" and correct diet help to prevent illness".

Food restriction and dietary balance seen in the context of the Chinese cultural past should be understood by Singapore's physicians trained in the scientific basis of medicine. In general practice the reference to food in relation to health is more frequently heard than in say institutional practice or even in specialist private medical practice.

The Singapore patient refers to food or drinks as "cooling" or "heaty". These 2 words have no equivalent in English. According to this concept, all food and drinks can be divided into 2 Classes i.e. they are either "heaty" or "cooling". Next even the *Cooking Methods* are similarly regarded. Some ways of cooking tend to produce "heaty" food and other way of cooking make the food "cooling". There is yet a third way of making food more "heaty" or more "cooling". *Certain Ingredients* when added to food have the

property of imparting either one of these two properties. Thus pepper, ginger, onions, tang-kuei (*Angelica sinensis*), gin-seng, red dates and anise are some examples.

You may find this amusing, but looked at from a historical and cultural past, the pre-occupation with food and health makes perfectly good sense. The Chinese who came to Singapore as immigrants came to a harsh, tropical environment where diseases prevailed and medical facilities were almost non-existent. They had to depend on whatever means available to protect their health. Food selection and dietary control in the context of the Yin-Yang theory of diseases function as prudent defensive steps against a hostile environment.

Using our understanding of Chinese concept of food and health, we can introduce modern concepts of calories, of proteins, fats and carbohydrates, of vitamins and minerals in dietary advice. The concept of cholesterol as a risk factor of atherosclerosis can be understood. We can also introduce the concept of high dietary fibre as the basis of prevention of colonic cancer.

The concern with food is not without justification. In recent years cardiologists have identified 5 main risk factors for the genesis of cardiovascular diseases. These are arterial hypertension, smoking, hypercholesterolaemia, excessive weight and physical inactivity. Food certainly contributes to at least 2 of these 5 factors.

These 5 risk factors remind me of *the 5 vices* mentioned by the Chinese. These are fornication, gambling, smoking (opium), alcoholic indulgence and over eating. Consider the number of diseases you can prevent if you will avoid the 5 vices. These include venereal diseases, depression, carcinoma of the lungs, cardiovascular and cerebrovascular diseases, cirrhosis of the liver and diabetes.

The GP's Clinic

A common consultation met with in general practice is the request for a urine examination because of amenorrhoea. The health education implications in this situation are many irrespective of the outcome of the pregnancy test.

The patient may need advice on the many

Methods of Contraception relative to her age, the period she needs to be conception free and her religious following. A young catholic mother may be given advice on the *rhythm method of contraception* if her periods have enjoyed a high degree of regularity. Another mother may need to be advised on the *contraceptive pill or injection*. Some may not mind the physical *cervical barrier caps or chemical barrier creams or foam tablets*. To some the *rubber condom* will not be a problem. Some may need to use the *IUD*.

Some patients may use the "urine examination" situation to seek advice on *Preparing for Pregnancy*. If they have been taking the pill they may want to know when it is safe for them to conceive after cessation of pill? They may want to know their "*rubella status*" because they have heard that rubella during the first trimester of pregnancy may cause foetal malformation. Some may decide to have rubella inoculation and you will have to advise them when it is safe to conceive after rubella inoculation. The situation is ideal to educate them on the *adverse effects of alcohol, smoking and drugs* on the outcome of pregnancy.

The elderly woman may want to know whether pregnancy at her age will produce *Down's syndrome*. Many will want to know

whether *sex* is permitted during pregnancy. A few will express doubts over the desirability of having a baby because a cousin or relative has given birth to a *malformed baby*. The recent discussion on genes and intelligence will prompt some to find out whether they are likely to produce "*normally intelligent children*".

There are more aspects of health education which this clinical situation can generate, e.g.:-

1. Feminine hygiene (tampons & toxic shock syndrome)
2. Leucorrhoea & nylon underwear
3. Self-examination of the breasts in women
4. Breast-feeding

Conclusion

A London times leader writer commented,

"the practice of good medicine is going to depend... on the ability to treat the "whole man" and to take account of psychological and social factors."

General Practice fits the description. Not only does it treat the "whole man" it also takes account of both the psychological and social factors. This it does through Health Education and Disease Prevention.

BOOK REVIEW:

MANUAL OF RADIOGRAPHIC INTERPRETATION FOR GENERAL PRACTITIONERS

Geneva, World Health Organisation, 1984

In line with the concept of primary health care, the WHO has initiated the development of a "Basic Radiological System" to provide better radiological coverage for populations especially in the developing countries. This is necessary if the primary health care system is to be adequately supported with diagnostic services which must include diagnostic radiology.

Based on the fact that eighty per cent of all X-ray examination are essentially simple procedures, the WHO has recommended a three tier radiological network. The first level is at the health centres and rural hospitals which should be equipped to do basic radiological examinations such as those of the chest, abdomen, skeleton and simple (nonfluoroscopic) contrast examinations. At this level radiologists and radiographers would not be required, except for referral, to solve difficult

problems. The next level is the general hospital which should provide general purpose radiological examinations as well as a fluoroscopy unit. Finally, the specialised centres and university hospitals will provide specialised and comprehensive radiological service.

Towards this end, the WHO has introduced a suitable X-ray installation, the WHO-BRS unit. This manual has been produced to help general practitioners working with the WHO-BRS unit to interpret common conditions so as to make the right decisions without delay.

The book with 216 pages is copiously illustrated with more than 400 radiographs and many line drawings. These are grouped under the broad headings of chest, skeleton, skull, spine, abdomen, obstetric X-rays and urinary tract. It also deals with matters such as indications for radiography, choice of projection, problems likely to be encountered in diagnosis and conditions requiring referral.

It is a useful book which can help general practitioners make better use of the radiological services. ■

PK

BOOK RECEIVED

INFECTIOUS DISEASES IN EUROPE — A FRESH LOOK

by **B. Velimirovic**

*Published by World Health Organisation
Regional Office for Europe*

This book surveys common European infectious diseases such as hepatitis, influenza, sexually transmitted diseases, meningitis and the major diseases of childhood. It reviews the routine notification systems that exist in European countries and shows the shortcomings of incomplete reporting and inconsistent classification. A significant drawback is the outdated emphasis on epidemics and mortality as a guide to a disease's importance, which does not recognize the importance of the cost of curing sickness.

This book also looks at a number of other infectious diseases that are not usually seen to be a European problem. Some, such as malaria, leishmaniasis, and cholera, are regarded as imported tropical diseases although many occur normally in small areas of Europe. Other unusual or "new" diseases have become a danger through the increase in international travel. The African viral haemorrhagic fevers are highly infectious and there is no effective vaccine against them. Finally, this book looks at the growing problem of foodborne diseases.

This is a fascinating review of infectious diseases in Europe today. It is a must for health administrators, physicians and all those responsible for the recognition, notification and control of infectious diseases.

Both books are available in the College Library

NEWS FROM THE COUNCIL

1. College Convocation and Sreenivasan Oration

The Eleventh College Convocation and Annual Dinner will be held at the Hyatt Regency Singapore, on Sunday, 24 November 1985.

The Eighth Sreenivasan Oration will be delivered by Mr Justice Lai Kew Chai.

2. Geriatric Medicine Update

The Continuing Medical Education Committee of the College is organising a Geriatric Medicine Update starting from 4 October 1985. The programme is as follows:

Day & Date	Topic	Lecturer
Friday, 4.10.85	Why Geriatric Medicine	Dr Anne Merriman Senior Teaching Fellow Dept of SMPH, NUS
Friday, 11.10.85	Some Medical Disorders: Cardiovascular Disease Diabetes Mellitus Cerebrovascular Disease Parkinson's Disease	Dr Anne Merriman Senior Teaching Fellow Dept of SMPH, NUS
Friday, 18.10.85	Common Presentations: Instability Immobility Incontinence	Dr Anne Merriman Senior Teaching Fellow Dept of SMPH, NUS
Friday, 25.10.85	Clinical Pharmacology of ageing Iatrogenic Disease in old age	Dr T Y Ti Senior Lecturer Dept of Clin. Pharmacology NUS
Friday, 1.11.85	Disorders of the Skeleton	Prof P Balasubramaniam Dept. of Orthopaedic Surgery, NUS
Friday, 8.11.85	NO SESSION	
Friday, 15.11.85	The Psychogeriatric Patient	Dr Kua Ee Heok Senior Lecturer Dept of Psychological Medicine, NUS
Friday, 22.11.85	The Dying Patient and the Family	Dr Anne Merriman Senior Teaching Fellow Dept of SMPH, NUS
SUNDAY, 10.11.85	A TEAM APPROACH IN GERIATRIC MEDICINE	
	Primary Care Physician	Dr Rilly Ray
	Nursing Staff	S/N Teh Pai Ling
	Physiotherapist	Ms Geraldine Tay
	Occupational Therapist	Ms Nah Gek Choo
	Medical-Social Worker	Ms C Nayar
	Chairman: Dr Anne Merriman	

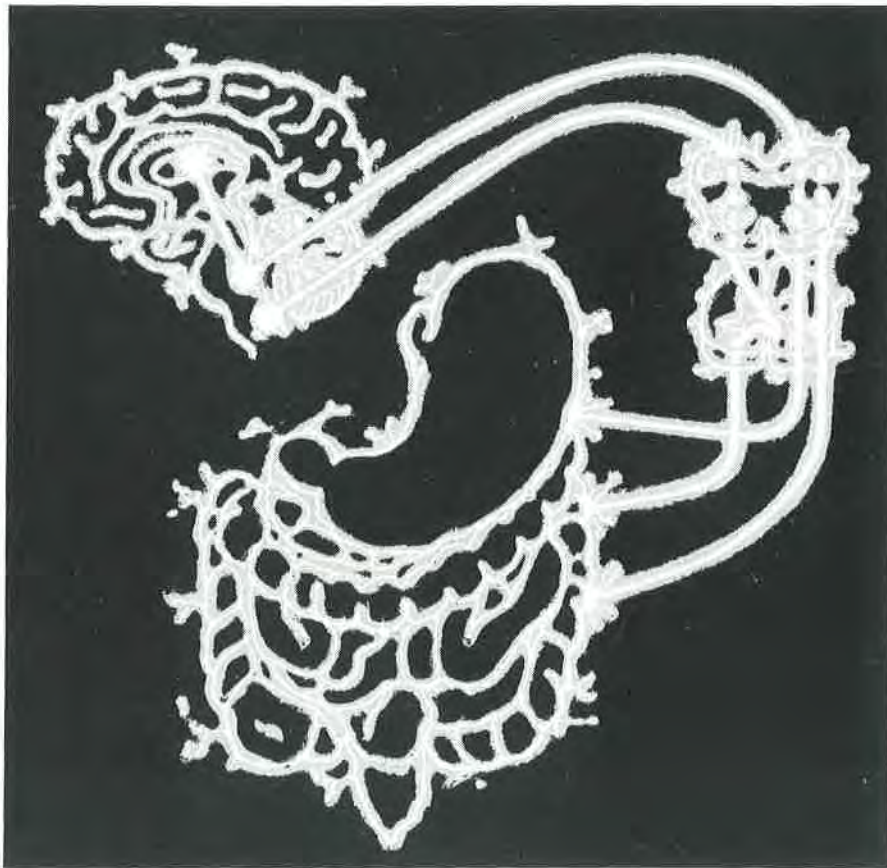
3. New Members

The following have been accepted by Council into membership of the College during July/September 1985:

Dr Koh Gin Poh	Ordinary Membership
Dr Lee Ping Wen	Ordinary Membership
Dr Ong Sing Eng, Steven	Ordinary Membership
Dr Quek Peng Kiang	Ordinary Membership
Dr Wu Eu Heng	Ordinary Membership
Dr Chua Seong Pyn, Peter	Associate Membership
Dr Kenny, Charles T. C.	Associate Membership
Dr Tay Siew Tee, Celena	Associate Membership

We welcome them to the College and hope they will participate fully in all activities of the College.

A NEW THERAPY
FOR
FUNCTIONAL AND ORGANIC
GASTROINTESTINAL
DISORDERS...



LOW-DOSE (0.5 mg t.i.d.)

CLEBON*
(clebopride)

* trademark

Full prescribing information is available on request from:
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Summit Co. (S) Pre. Ltd., 35 Tannery Road #05-10, Tannery Block, Ruby Industrial Complex,
Singapore 1334. Tel: 7473737.



**Lactogen® Full Protein by Nestlé.
Provides the daily protein need for infants
from 4 to 6 months of age onwards.**



Lactogen Full Protein is designed to provide protein, calcium and iron, where a mixed diet may not provide these nutrients in adequate amounts.

500 ml of Lactogen Full Protein provide about half the energy intake required by a 5-month old infant and ensure sufficient

calcium. Additionally, the 1.8 mg of iron per kcal as ferrous sulfate avoid iron deficiency anaemia in infants.

Lactogen Full Protein, for babies where two feedings of follow-up formula — 500 ml per day — constitute the major source of high quality protein in the diet.



**Lactogen Full Protein by Nestlé.
Helping doctors help infants.**

Important notice

The World Health Organization (WHO)* has recommended that pregnant women and new mothers be informed of the benefits and superiority of breastfeeding. Mothers should be given guidance on the preparation for, and maintenance of, lactation, the importance of good maternal nutrition and the difficulty of reversing a decision not to initiate, or to discontinue, breastfeeding. Before using an infant formula, mothers should be advised of the social and financial

implications of that decision and the importance for the health of the infant of using the formula correctly. Unnecessary introduction of supplements including partial bottle feeding, should be avoided because of the potentially negative effect on breastfeeding.*

* WHO - International Code of Marketing of Breast Milk Substitutes, WHA 34.22, May 1981.

**5th BIENNIAL SCIENTIFIC
MEETING
ASIAN PACIFIC ASSOCIATION
FOR THE STUDY OF THE LIVER**

**JANUARY 8 – 11, 1986
SINGAPORE**

SCIENTIFIC PROGRAMME

**POSTGRADUATE TEACHING
COURSE**

Recent Advances in Viral Hepatitis
Histopathology of Chronic Hepatitis B
Detection of Viral Genes and
Antigens in Human Liver Tissue
Delta Antigen
Fulminant Hepatitis
Molecular Virology
Update on Pathophysiology of
Cholestasis
Diagnostic Evaluation of the
Cholestatic Patient
An Overview of Biliary Tract
Disease
Treatment of Biliary Tract Disease
Paediatric Liver Disease
Parasitic Liver Disease
Metals and the Liver

PLENARY LECTURES

Non A Non B Hepatitis
Pathogenesis of Hepatocellular
Carcinoma

**MSD SYMPOSIUM ON
RECOMBINANT DNA HEPATITIS B
VACCINE**

FALK FOUNDATION WORKSHOP

Vaccines for Hepatitis B
New Vaccines for Hepatitis A
Prevention of Chronic Carrier State
for Hepatitis B by Perinatal
Immunization
Longterm Outcome of Hepatitis B
Vaccination — Facts and Figures
Problems and Strategies for Control
in Asian-Pacific Countries

CORRESPONDING ADDRESS: **THE MEETING SECRETARIAT
APASL 1986
ACADEMY OF MEDICINE, SINGAPORE
4-A COLLEGE ROAD
SINGAPORE 0316
TEL: 2238969, 2245166
TELEX: RS 40173 ACAMED**

**“When I get a cold sore
all I want to do
is hide my face”**



Now, there is new Zovirax Cream, an important achievement of Wellcome antiviral research.

Fiddian et al¹ found that treatment with Zovirax Cream achieved impressive results.

When treatment was begun before lesions developed, 42% of lesions were suppressed, compared to only 11% with placebo ($P = 0.04$).

For the best results, treatment with Zovirax Cream should begin as soon as possible during an attack, preferably during the prodrome, so that the "...proportion of lesions effectively aborting may be increased to a third or more."

So when patients come to you suffering from recurrent cold sores, prescribe Zovirax Cream.

With early treatment, the cold sores may not show their face.

¹Fiddian, A.P., et al. (1983), British Medical Journal, **286**, 1699

At the first sign of a cold sore
NEW
ZOVIRAX CREAM 2gm
ACYCLOVIR 5%

Further information is available on request.
Wellcome (S) Pte Ltd
33 Quality Road, Singapore 2261
Telephone 2654922


Wellcome
Zovirax is a Trade Mark

Beta Blockers May Keep Him Out of the Running

"...beta blockers blunt normal cardiovascular response in patients who exercise to a significant degree.

Therefore, the beta blockers are not usually indicated for physically active hypertensive individuals."¹



For active hypertensives
when you want to conserve potassium

PRESCRIBE
Dyazide
50 mg triamterene
and 25 mg hydrochlorothiazide

- permits normal circulatory responses to exercise
- maintains blood pressure within desired limit
- reduces possibility of muscle cramps associated with thiazide-induced potassium loss
- encourages compliance through economy and once-daily dosing

1. Lowenthal D T: Exercise in hypertension: Postgrad Med.: Special Report, Mar 1983.

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