

COLLEGE OF FAMILY PHYSICIANS SINGAPORE



The SINGAPORE FAMILY PHYSICIAN



THE DOCTOR, HIS PATIENT AND HIS FAMILY

- The Therapeutic Alliance
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THE NEXT LAP

The College Journal was born in 1973, two years after the College was founded. The humble inaugural issue of the 'GP' was mainly a record of the event and the publication grew into the 'Singapore Family Physician' in 1975 under the Editorship of Dr Gordon Horne. The job was passed on in turn to Dr Koh Eng Kheng, Dr Leong Vie Chung, myself, Dr Goh Lee Gan, and then me again. It is with great confidence that I hand over the responsibility of the publication to the next Editor.

Having been involved with the College Council since 1977 and drafted into the Publications Committee/Journal Editorial Board since 1978, I now make way for new blood and fresh minds, with a promise to stay on and help as long as I am wanted and as long as I possibly can. At this point, I take the liberty of recording some comments about the Journal.

Articles Submitted by GPs

Apart from a small number, the majority of practising GPs, ever over-worked, find little time or inclination to write scientific articles for publication. To this end, the College has held a course on Research Methodology, and the MMed (Family Medicine) Examinations Board has included publication of articles as one of the continuing requisites of graduates. However it stipulates that the papers must be published in a journal listed in the Index Medicus, which the Singapore Family Physician (SFP) is not. The Examinations Board should consider including the SFP in its list of approved journals, and the SFP Editorial Board take all the necessary steps to upgrade the publication so as to enable it to be included in the Index. A daunting task, no doubt, but not impossible.

Publication Costs

Advertisements from pharmaceutical firms are the only source of revenue for the SFP. Recently, support from these firms has declined somewhat for various reasons, not the least important of which is the increased prescription of generics by GPs under the pressures of managed health care systems. One possible answer is to open the advertisement pages to banks, financial institutions, motorcar distributors, fashion houses, etc. Another idea which can be explored is to appoint professional canvassers for advertisements, who will certainly achieve better overall results (even after their commission is subtracted) than at present with the job being done by the College Secretariat and members of the Editorial Board.

The Post of Editor

Successive College Councils, in their wisdom, have maintained that the Editor of the SFP be a member of Council, duly appointed by the elected members of Council. That the Editor is in touch with College and Council Affairs and is answerable to Council have been cited as reasons. The appointed Editor *de facto* becomes the Chairman of the Publications Committee of the Council.

Perhaps this situation needs to be reviewed. One possible approach is for an elected member of Council to be appointed Publications Committee Chairman. This person could also, if he or she desires, be the Editor of the Journal, or alternatively could recommend to Council a responsible member of the College outside the Council for appointment as Editor. The Publications Committee Chairman would be able to convey Council's views and concerns on to the Editor, perhaps even sit on the Editorial Board. This arrangement would open up

the job of Editor to a larger number of possible candidates who might be willing to take on the task but who also have scant time to attend Council meeting as well. Such an arrangement would also circumvent the Constitutional requirement that any key position in Council be held by the same person for a finite number of terms (three terms in the case of the Editor). If we have an excellent Editor who is willing to carry on, why should he or she be limited to six years in that post?

Secretarial Support

For many years, a number of the College Secretariat staff was assigned to help and to coordinate the work of the Editorial Board. However Ms Rose Hoon retired some years ago, and with continued Secretariat staff problems, the Executive Secretary has been doing as much as possible, given her many other responsibilities.

The Editorial Board needs to have proper secretarial support, to distribute submitted articles for review to different people, to follow up and retrieve the reviews, to contact the advertisers for their copy, and to liaise with the printer. Members of the Editorial Board have their own fulltime jobs, and must have assistance from a delegated member of the College staff.

In conclusion, I would like to thank Dr Leong Vie Chung for his guidance and help, Prof Goh Lee Gan for his continued support and contributions and Ms Rose Hoon for her excellent secretarial assistance during her tenure. I welcome your next Editor, Dr Hong Ching Ye of the Department of Community, Occupational and Family Medicine at NUS, and trust she will enjoy the experience as much as I have.

Dr Moti Vaswani

PHYSICIAN STRESS AND SOLUTIONS

FOOD FOR THOUGHT

*If you are waist deep in alligators,
do you have time to find the map
out of the swamp?*

Anonymous

The physician has to cope with a gamut of stressors that are physiological, family, spouse, household and social related. In addition, he has to deal with work-related stressors that are peculiar to being a doctor.

WORK STRESSORS

In his/her work, the physician faces the following stressors:

Workload, time pressure and fear of making mistakes

Two characteristics of the work of the family physician in Singapore are the large number of patients that need to be seen and the absence of an appointment system. There are consequently peaks and troughs in the number of patients waiting to be seen. When work needs to be cleared at a high pace, fear of mistakes may be substantial. Small wonder then, that the top three reported work stressors in a study on work stress in general practitioners in 1990¹ were workload, time pressure and fear of making mistakes. Difficult diagnostic problems add to the fear of making mistakes; medicine is often not an exact science where everything is black or white. It is often necessary to make clinical decisions on the basis of conflicting or incomplete data. In general practice where early serious disease may be difficult to differentiate from self-limiting ones, the uncertainty can be stressful.

Difficult patients

Doctors will discover that contrary to what they would expect, not all patients are easy to deal with nor grateful for the care provided. Many are anxious, uncomfortable and frequently hostile. Dr Patrick Kee in his paper in this issue² describes four types of difficult patients. In addition, the "worried well" are often tiring and unpleasant to deal with as they question and doubt what they doctors have told them, preferring to speculate and over-read what is told to them. These difficult patients are a source of stress. They ranked fourth in the list of reported stresses in the 1990 study.

Unrealistic expectations

Not only do physicians usually enter medicine presuming they will cure but also the patients share the same belief. The public is bombarded by the media daily with information about miracle cures and new technology that will save them. Thus, they expect to be healed, when generally cures are not possible. The physician cannot live up to the expectations placed on him/her, and stress results.³

Death

Although death is the natural outcome of many of the illnesses physicians treat, death is still seen as a failure by the medical profession. It is an emotional issue at any event. Some may even feel a sense of guilt of not having done enough. Physicians are also responsible for making life-and-death decisions. Having to make such decisions is never pleasant.

Hostile families

Death or ongoing illness can be seen as failures of the physician by the patient's family. It is not uncommon for a family member to turn on the physician with verbal hostility and threats of suit when the patient outcome was not ideal, for

whatever the reason. We need to remind ourselves that the family is traversing Kubler Ross' stages of grief to feel consoled ourselves.

Sexuality

The stress of dealing with human sexuality and the resultant embarrassment is always present, no matter how experienced the clinician is. There is always a desire to preserve modesty accompanied by the need to acquire clinical information. A paper in the Practitioner by Diana Sanders⁴ suggests a variety of ways in which GPs can help both themselves and their patients to talk about sex. The ways are: being aware of our own attitudes and adopting a non-judgmental attitude, dealing with embarrassment, finding an appropriate language, and asking the right questions.

Changing medical milieu

Finally, changes are stressful, and the world of medicine is changing rapidly. Medicine is becoming more businesslike, industrialised and, the decisions are frequently made on an economic basis. This means the physicians will have less control of their work lives. Managed care can be stressful if the role of carer conflicts sharply with the role of resource allocator.

FAMILY AND HOUSEHOLD STRESSORS

In addition to the stresses peculiar to doctoring, physicians also need to balance the demands of work and family. In this context, female doctors may find life quite demanding particularly in their early years as they struggle to perform the tasks of professional, spouse and mother. The amount of family related stresses for the male doctors depend on the family culture. In families where the norm is that both spouses contribute to household responsibilities, the male spouse may have to shoulder the responsibilities of house husbands. In other families, the male spouse has fewer household responsibilities and hence has more time to devote to professional work.

Levinson et al^{5,6} list four strategies often used by women physicians to balance career and personal life: change the structural aspects of personal or professional life e.g. hiring household help, not cooking and limiting personal and social activities

to balance career and family; increase efficiency; change personal expectations and set priorities; and use available social supports such as talk with other women physicians, schedule personal time for spiritual, emotional and physical wellbeing, and find a spouse with similar values and goals in life.

COPING

Physicians, like all human beings, learn to cope with stress. Coping is the way that the individual adapts or deals with the stress encountered. The mechanisms chosen are determined by his or her resources⁷, which include health and energy, existential beliefs as for example about God or general belief about control, commitments, which have a motivational property that can help sustain coping, problem solving skills; social skills; social support and material sources.

Broadly, coping mechanisms can be divided into two groups, namely, problem-focussed and emotion-focussed^{7,8}. Problem-focussed strategies in turn can be subdivided into those that involve confrontational processes (e.g. *I scrutinise the problem and attempt to solve it in the best way*) and those that involve planful processes (e.g. *I set aside evenings or weekends for the family*). These are all positive coping mechanisms. Some emotion-focussed processes such as positive reappraisal (e.g. *I accept the situation and learn to live with it* or *I look at the bright side of things*), distancing (e.g. *I refuse to think about a problem too much* or *I laugh or joke to release tension*) and exercise are positive. Other are negative. Resorting to alcohol, drugs or extra-marital sex are examples. Although these may lead to temporary relief of stress, they compound existing stresses, leading to further impairment.

A THREE STEP SOLUTION TO PHYSICIAN STRESS

Step 1. Know your chief stressors

Life has its stresses. How do we cope with them and keep smiling, most of the time? The first step towards handling stress is to recognise where the stressors are coming from. Are they from work or from the family or personal relationships?

- **Work overload**

Having too much work to do will naturally eat into the time allocated for other areas of our lives, such as time for the family and self. There may be a need to reduce work volume either temporarily or for longer periods of time. Delegation may be needed.

- **Time pressure**

Having too many things to do in the space of time available can generate a lot of stress. A familiar example is in the consultation room with case sheets piling up. The best thing under the circumstances is to concentrate on the job at hand and refuse to feel harassed. This is an example of distancing. An appointment system or employing an assistant to help out during the peak hours of patient consultation may need to be considered.

- **Fear of making mistakes**

This may be related to workload or time pressure preventing an adequate appraisal. It may also reflect the need for updating of knowledge and application skills. Asking colleagues will also help to resolve difficult diagnostic problems. Discussing one's mistakes with a trusted friend leads to healing of the spirit and helps one to avoid similar mistakes in the future.

- **Time conflict**

Having two or more equally important things to be done at the same time is often a problem. This may have arisen out of an oversight of an already promised commitment or things may have arisen unexpectedly. A well managed diary is an asset.

- **People problems**

People problems can be hard to solve. These may come from patients, colleagues at work or people at home. Perceptions, motivations and agendas differ from one another. There is a need to clarify these as the first step in problem resolution.

- **Family and work conflicts**

There will be always be a need to juggle the priorities between work and family. This is particularly so for physicians with young or school going children.

Step 2. Know your stress warning signals

The second step in handling stress is to know the

early signals that you should heed.³

- **Personal neglect**

This the first unconscious compromise that one makes. Work is allowed to take up personal time for relaxation, repair and reflection. If compromised too far, one becomes irritable in the work place. It is a clear sign to stop and think of a better way to cope with things.

- **Family neglect**

This is also an early compromise that one often makes. One withdraws from family activities. This may be necessary time and again. Again, it is a matter of judgement when this is unacceptable. It is pertinent to point out that neglect of the family may lead to secondary negative results: family relationship problems arise and social support may be withdrawn. One therefore needs to check out how the family is getting along.

- **Psychosomatic symptoms**

Symptoms of stress may result in headaches, backaches, epigastric pain or chronic fatigue. Diarrhoea is another common symptom. These are useful early warning signs.

Step 3. Develop positive coping mechanisms

Do not wait until you are waist deep in alligators. Like all problems, prevention is better than cure. We need to be proactive in dealing with stress. There are many positive coping mechanisms that we can use. These may be all that we need. Sometimes, we may need professional counselling help.

The following are some positive coping mechanisms that we can use in our daily life:

- **Time management**

Getting things done. These are some useful tips: plan each day -- the more harassed one is the more necessary to plan; adopt the DIN principle (Do it now); put your things always in one place so that time is not spent hunting for missing things; get it right the first time; make use of your productive times; use the titbits of times; and finally depend on yourself whenever you can. Save the favours you ask of others for times when you really cannot help yourself.

Declining work. If accepting a request makes it difficult to comply, we should politely but firmly decline.

Delegating work. There will be need to delegate work, particularly when we are faced with time conflicts. This is where good friends are vitally important. It is important to explain clearly what is desired. Accept that people may do things slightly differently. Remember to thank sincerely the delegatee for doing the delegated work.

• Relaxation

No one can work optimally with a tired mind in a tired body. There is a need to relax time and again. Listen to some soothing music. Take up a hobby. This may range from rearing birds, animals or fish to painting, sculpture or writing.

• People management

Be assertive. Be clear about what is important and cannot be compromised. Decide what can be done and what cannot be done through people. Work on those things that can be done. Try to understand others. Be willing to negotiate to achieve a win-win situation.

• Social support

In this world each of us needs good friends and a family at peace with ourselves if are to cope successfully with the trials and tribulations of life. It is of paramount importance that our homes are safe harbours and not another war zone. We need good friends who can bail us out of difficult situations. Friends and family are the two groups of people we need to support well so that in turn they can and will support us when we need them.

• Dealing with difficulties

A problem shared is a problem halved. Difficulties should not be hidden but discussed with mentors and trusted colleagues. It is only when mistakes are discussed that healing from guilt can take place. Also, one learns how to avoid similar mistakes in the future.

• Commitment to whatever you do

Commitment has a motivational property in helping us cope. Commitment is pushing oneself to complete important but boring and mundane tasks, particularly when we are tired out or demoralised.

If we remember the verse "Render therefore unto Caesar the things which are Caesar's..." (Mathew 22:21) we will be surprised how much can be done and once these awesome task are out of the way, the stress of outstanding work is quickly dissipated.

One quotation that is motivational is that by Stephen Grellet:

I expect to pass thorough the world but once. Any good therefore that I can do, or any kindness that I can show to any fellow creature, let me do it now. Let me not defer it or neglect it, for I shall not pass this way again.

• Challenge

We should challenge ourselves with self talk. Much self confidence can be bolstered and performance stress can be dissipated by challenging ourselves that we have coped with such situations before successfully and therefore, surely, we can do just as well this time. We may be surprised how much this can help ourselves.

CONCLUSION

There is no doubt that stressors of various kinds will stalk our lives. We need not be crippled by them. What we need is to come to grips with what are our stressors, early warning signs and positive coping mechanisms. We can then take those "alligators" in our stride. We will have "the map out of the swamp."

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A/Prof Goh Lee Gan

TOWARDS AN EFFECTIVE THERAPEUTIC ALLIANCE IN GENERAL PRACTICE

or "How to win patients and influence them"

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SUMMARY

Counselling techniques commonly used in psychiatry and psychotherapy are not confined to these specialities. With some training and increased awareness and confidence in Doctors they can be successfully adapted for everyday use in general practice. Both patient and doctor would benefit by getting the most of each and every short consultation.

This article describes the communication skills of verbal and nonverbal listening, attending and influencing of others. Examples are given of illness behaviour and the processes of interaction between the patient and his doctor. Issues of empathy, transference and countertransference are considered. Increased sensitivity of the doctor to his patient's complaints can enhance the therapeutic alliance in invaluable ways and improve outcome of management strategies.

Keywords: Psychiatry, General practice, Therapeutic alliance, Counselling techniques

INTRODUCTION

Most general practitioners are aware that there is a high prevalence of psychiatric morbidity among patients attending their practice. Goldberg and Huxley estimated this to occur in up to 250 per 1000 adults. Yet there appears to be quite a low rate of detection and subsequent referral of these cases. This is not entirely surprising perhaps

considering that in psychiatry, there is a lack of precisely defined diagnostic criteria and patients often present with indefinite and unclassifiable symptoms.

A busy practice may handle more than 50 patients a day, averaging 10 minutes or less per patient of consultation time, during which the doctor must decide why the patient is there, the nature of the problem, and implement the appropriate management strategy. With these constraints, it is impossible to delve into many of the problems that the patient may bring up at each visit. To compound matters patients are often reluctant to divulge the real problem, preferring to offer an "organic" symptom as they believe that doctors will be more receptive to symptoms of physical illnesses. Patients may also think it shameful to admit to psychiatric problems, mistakenly believing these to be "character weaknesses". Also, many general

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practitioners are not confident about handling psychiatric problems, fearing they will inadvertently "open a can of worms" with which they cannot cope. They may unconsciously collude with these patients to "chase physical symptoms" and deal with them at face value. In the long term, this can lead to discouragement and frustration on the doctor's part when they fail to "cure" patients of their symptoms.

Doctors (and psychiatrists) are only human and they will differ in their sensitivity to and interpretation of psychiatric symptoms in their patients. Even if GPs do not choose to undertake formal "counselling" in their practice, using the "counselling techniques" of listening and influencing patients can increase the effectiveness of each consultation and the follow up management plan.

This article seeks to raise the level of sensitivity of doctors to their patients' complaints. It focuses on common illness behaviour and doctor-patient relationship process in the consultation that contribute to an effective therapeutic alliance.

"ILLNESS BEHAVIOUR" OR "THE SICK ROLE"

This term describes the individual's reaction. Suchman describes four stages in the perception of a symptom:

1. The symptoms experience stage:
A decision is made that something is wrong.
2. The assumption of the sick role stage:
A decision is made that one is sick and needs professional care. Locally, such a person may choose treatment from the *sinseh*, *bomoh*, reflexologist, temple medium etc, depending on their attributional frame work.'
3. The medical care contact stage:
A decision is made to transfer contact to the medical doctor and **if a therapeutic alliance develops**, to follow prescribed treatment.
4. The recovery or rehabilitation stage:
A decision is made to give up dependence on the doctor and give up the patient role.

THE DOCTOR-PATIENT RELATIONSHIP (DPR) IN DEVELOPING THE THERAPEUTIC ALLIANCE

Prevailing the DPR model is often dependent on the personality, needs and expectations of both the patient and the doctor. Often both may be unconscious of the pattern of the interaction but the sensitive and self-aware physician can be alert in order to utilise the most appropriate model in each situation for the most efficient consultation.

The Active Passive Model

The Active Passive Model occurs when the patient assumes completely no responsibility for the treatment and the doctor is in full control. This model is only appropriate for delirious or comatose patients or an acute surgical emergency.

The Teacher Student Model

The Teacher Student Model sees the dominance of a paternalistic and controlling doctor over a dependent and accepting patient. In the earlier days of general practice in Singapore, many patients accepted unquestioningly the authority of the GP and this model is still seen among the less well educated or an authority-conscious generation of patients today. The asymmetric DPR satisfies any initiative on the patient's part to seek clarification or to question his doctor.

The Mutual Participation Model

The Mutual Participation Model is based on a more interactive relationship between the patient and doctor. In this type of model, the patient's knowledge and acceptance of the illness and treatment regimen contributes greatly to its success. It is most appropriate for chronic patients with diabetes mellitus, chronic renal failure, hypertension or ischaemic heart disease. The present generation of patients increasingly prefer this kind of a therapeutic alliance.

The Friendship Model

The Friendship Model of DPR is considered dysfunctional and even unethical because of the blurring of professional boundaries. It points to underlying psychological problems in the doctor who may have an emotional need for the patient to share mutual information, concern and love.

THE THERAPEUTIC ALLIANCE

Establishing a healthy and effective therapeutic alliance requires a sensitivity to the chosen model of DPR and essential skills in listening and attending.

NON-VERBAL FACTORS IN THE DPR

Nursing and medical staff are not often conscious that the DPR begins even before the patient is actually seated in the consultation room. The location and exterior decor and lighting of the clinic, the presence of religious icons or artifacts in the waiting area, the display of the credentials of the doctor, all contribute to the patient's impressions even before he meets the doctor. The patient is also affected by the rapport and friendliness of frontline staff like receptionists and nurses, the waiting time and reading materials provided, health education leaflets and videos or even a children's corner with toys provided to keep children amused. Patients draw conclusions about the doctor's consideration and degree of concern for their welfare from these cues.

After the patient enters the consultation room to see the doctor, another set of non-verbal factors are in operation. Patients gain unconscious information about the attitudes of the doctor from his dress, the degree of natural eye contact and the greeting and introduction rituals employed. Patients should be seated at right angles to the doctor at the edge of the desk rather than across the table from him. The latter arrangement "puts a distance" between the two persons. It is reminiscent of board interviews and while it serves to make the defensive physician more comfortable, it does nothing to put the patient at ease. With practice and supervision, and videotaped interviews, doctors can be made aware of their body language. A stance that communicates interest and concern for the patient facilitates history taking.

Excessive note-taking, frequent interruptions by the ringing of the telephone, movement of nurses in and out of the consultation room, other patients coming into the room before the end of the consultation chip away at the formation of the therapeutic alliance.

Finally a thorough and professional physical examination by the doctor (properly assisted and chaperoned by a nurse) is much appreciated and valued by most patients.

VERBAL FACTORS IN THE DPR

The vocal intonation of the doctor in conducting the interview sets the pace and mood of the consultation. The ability to communicate in the language of the patients is a definite asset in our multicultural society. This does not only apply to the dialect used but also to the cultural beliefs of illness in each patient.

Lipkin described a method of assessing patients sensitive to these cultural factors. He emphasised the need to be aware with the patient of his:

- * Prior illness episodes
- * cultural degree of stoicism
- * cultural beliefs concerning the specific problem
- * personal meaning or beliefs about the particular problem.

Lipkin advocated the practice of eliciting the patient's own explanatory model of the illness by putting a number of specific questions to a patient, namely:

- * What name does the problem have?
- * What do you think caused it?
- * Why do you think it started when it did?
- * What does the sickness do to you?
- * How severe is it? Does it have a long or short course?
- * What are the main problems the illness has caused you?
- * What kind of treatment do you think you should receive?
- * What are the results you hope to achieve with treatment?
- * What have you already done to treat this illness?

The style of eliciting information should not be like an interrogation but should be tempered by interested concern with the use of both closed and open ended questions. Open questions begin with "What", "How", "Why", "Could" and constitute an invitation to talk and provide useful information. "Encouragers" like "and then...", "tell me more..." and "uh huh" can be used with paraphrasing

and reflection of feelings. At the end, the doctor should try to summarise what the patient has said and feed it back to see if he has heard the patient correctly. This helps to prevent miscommunication and clarifies the expectations of treatment.

After "listening and attending" to the patient, the doctor formulates a diagnosis and intervention plan. To implement this plan the GP then needs to employ "influencing skills".

INFLUENCING SKILLS

Interpretation

Interpretation provides a new view of the problem to the patient. This can lead to a change in thinking and behaviour if used wisely.

Advice and Information

Advice and information on health education is very much a part of everyday practice and gives the patient useful suggestions and instructions on how to get better. However advice and instruction can be over-used and if the doctor notices the patient replying "yes...but..." to his suggestions, it is probably time to listen more and give less advice.

Self Disclosure

Self disclosure occurs when the doctor shares his personal information or opinion with the patient. Used judiciously and within professional boundaries this technique can be very helpful in persuading patients to accept the needed referral, admission or treatment. One such example may be a gentle statement like "if this had happened to myself or my own child/mother/father I would definitely get admitted to hospital."

Logical Consequences

In logical consequences the patient is helped to understand the logical outcome of a course, thinking or behaviour.

Feedback

Feedback may be given to the patient in whom an adequate rapport has developed. The patient is helped to see how others see him and thus modify his own behaviour as he gains an insight into the problem at hand.

Influencing Summary

The influencing summary is often used to conclude the consultation. It clarifies what has been discussed, summarises the agreed plan of action and helps to motivate the patient to implement the plans.

THE EMPATHIC ATTITUDE

It must be emphasised that counselling techniques, however sophisticated and skilful, are hollow and false when not combined with 'the empathic attitude.' Unfortunately very little can be done to teach the attitude but the genuine motivation to understand patients and care for them can help to develop it.

Components of the empathic attitude comprise positive regard and respect for the patient. Sensitivity and self awareness will allow recognition that it is impossible for GPs to like every patient. In fact active dislike or fear of some patients is only human. Failure to recognise this emotion in oneself is detrimental to the DPR because one will not be conscious of the underlying hostility in one's tone and body language. The patient will. If the doctor is aware and can rise above such emotions by recognising that the patient is behaving in this way because he is anxious or distressed, his handling of the situation would be more sensitive, and positive. He can convert the DPR from one of mutual antagonism to at least grudging respect.

TRANSFERANCE IN THE DPR AND COUNTERTRANSFERANCE

Transference

This can be defined as the set of expectations and beliefs that the patient brings into the DPR. This is usually based on his previous experiences with other important authority figures. Every patient is entitled to basic expectation of competence in his doctor, lack of exploitation, objectivity, comfort and relief from suffering. Some patients however may bring unconscious expectations of the DPR that are unrealistic. Some expect the doctor "to do something" meaning a surgical or invasive intervention. Others may come with expectations that the doctor will rescue them from unhappiness,

take care of them or even to love them unconditionally. Some expect the doctor to be all knowing and all powerful or "omnipotent".

Countertransference

Doctors however are human and will experience "counter-transference" which is defined as the personal response of the doctor to the patient. Doctor's reactions may either be positive e.g. liking, respect or sexual attraction, or negative e.g. dislike or fear.

Some doctors have strong unconscious needs to live up to patient's expectations of omnipotence. Many of us after all, became doctors with the altruistic urge to "make people feel better". An awareness of our own human failings, limitations and needs can prevent this kind of countertransference. While doctors do need to empathise, they do not need to assume the burdens of the patients or to be their saviours. They should not be workaholics who use their patients to fulfil their own needs for intimacy as a substitute for meaningful relationships that are missing from their personal life.

DIFFICULT DOCTORS AND DIFFICULT PATIENTS

Just as patients have basic expectations of their doctors so too do doctors have expectations of their patients.

Good Patients

"Good patients" tend to be those that help to boost our own self esteem:

- a) those whose symptoms conform nicely to a diagnosable illness.
- b) those who respond quickly and satisfactorily to our treatment.
- c) those who are compliant and non challenging.
- d) those who are emotionally controlled during the consultation.
- e) those who are suitably grateful.

Bad Patients

"Bad patients" tend to be those that threaten our self esteem:

- a) those who repeatedly defeat our efforts to help them e.g. continued smoking in IHD.
- b) Uncooperative patients who question or refuse

treatment.

- c) those who request a second opinion.
- d) those who fail to recover to our prescribed treatment.
- e) those who use somatic symptoms to mask emotional problems.
- f) those who are senile.
- g) those who are dying or in chronic pain.

Self-understanding and self awareness help doctors handle "difficult patients" more easily and effectively when confronted with this type of patients, it helps to understand the covert emotions, fears and conflicts that the patient's overt behaviour represents. This understanding will allow empathic communication and effective interventions by the doctor instead of feelings of anger, frustration, anxiety or contempt--all of which do not contribute to management and can cloud clinical judgement, cause mistakes and possible serious medico-legal problems.

The following are some examples of "difficult patients" and guidelines on appropriate management strategies.

Narcissistic People

Narcissistic people present as superior to everyone around them including the doctor, they have a tremendous need to appear perfect and may appear rude, abrupt, condescending and arrogant. The underlying fear is that others will see through them and know that they are really inadequate, helpless and empty. The doctor should be careful to give the appropriate respect with reasonable limits.

Obsessive and Controlling Patients

Obsessive and controlling patients are orderly, punctual and overconcerned with details. The underlying anxiety is the fear of losing control, needing to depend on others and becoming helpless. The doctor should try to increase the patient's sense of control by including them in the treatment regime and to take the trouble to explain everything in detail.

Hypervigilant and Paranoid Patients

Hypervigilant and paranoid personalities present as suspicious and mistrustful of their caregivers. They are excessively critical and fear that others

have ulterior motives in helping them. They fear that others want to harm them or profit from them. The doctor should maintain a formal and respectful distance and be scrupulous when explaining the illness, investigations and treatment plan including expected charges.

The Passive Aggressive Martyr

The Passive Aggressive Martyr often presents with a litany of complaints about how others have taken advantage of his or her self-sacrificing and obliging nature. The underlying problem is usually the inability to express anger and resentment in a healthy manner. The patient tends to somatise or adopt the sick role to make others guilty for not doing enough. The doctor should handle the patient with great tolerance and patience while recognising the function of her symptoms. One should not investigate excessively but should take the patient's concerns seriously. Give regular, scheduled appointments to enable the patient to ventilate real problems. Involvement of family members would be helpful.

Histrionic Patients

Histrionic patients present in a seductive, inappropriately intimate and overly emotional manner. They have unconscious needs for reassurance that they are attractive and will be taken seriously even if ill. They do not seem to know any other way of getting what they need from others. The doctor should be strictly professional in all dealings and avoid flirting back with the patient. Give calm reassurance and necessary attention.

Demanding and Dependent Patients

Demanding and dependent patients will often make repeated urgent calls for help, housecalls or special attention. The underlying problem is an inability to handle anxiety and fear about their illness. The doctor should help them voice and contain their anxiety by being available to listen and reassure within strict professional limits.

Demanding and Impulsive Patients

Demanding and impulsive patients usually want immediate attention to eliminate their discomfort. If rejected or thwarted by the doctor they may threaten self-harm or become aggressive. The underlying problem is usually the fear that they

will never receive necessary attention unless they are aggressive. They know no other way of getting what they need. The doctor needs to set firm limits, on acceptable and nonacceptable behaviour. He needs to emphasise that while he will do all that is necessary to care for the patient, the patient himself is held responsible for any bad behaviour.

Sociopathic and Malingering Patients

Sociopathic and malingering patients will often present in your consultation room feigning illness for their own ends. They may wish a medical certificate, admission to hospital or certain drugs like benzodiazepines, opiates etc. They may present in a very charming way initially only to become aggressive and hostile if demands are not met. The doctor needs to understand that the true sociopath does not experience guilt or remorse and thus cannot see that his actions are wrong or self-destructive. Doctor must be vigilant in handling these patients and not hesitate to ask for the help of other colleagues or police to remove him. It must be emphasised that the doctor should first be thorough and exclude and treat any treatable illness.

CONCLUSION

It must be emphasised that both doctors and patients are complex human beings. Personality types are highly diverse and GPs encounter a wide variety every day. Self-knowledge of our own personality helps us understand and empathise with other personality types in our patients (and staff).

GPs are not called upon to change or treat such personalities, that is the realm of the psychiatrist in insight-oriented psychotherapy. GPs need to recognise maladjusted personality traits and then see past them to any underlying illness or disorder. GPs have to diagnose and treat these patients in spite of their maladjusted personalities. These patients do not realise that they adopt behaviour that appears to hinder efforts to help them. They can arouse many strong emotions in doctors and other staff involved in their care. The natural human response may be to turn away or be unavailable to these personalities. However this only serves to make their behaviour worse and demands more vehement. The GP has to rise above these negative emotions, look for the illness

and treat it. Sharing of these emotions in regular staff-support groups or staff meetings helps to give a much needed perspective on these patients and improve staff morale and patient care.

General practice can be a lonely life. Much of the day is spent behind a closed door, alone with a long stream of patients, with complex problems virtually insoluble, but expecting help nonetheless. Doctors should not neglect their psychological own well-being and should look for and utilise sources of support in the form of group practices and the wider community to help them in the difficult and taxing role of a primary health care physician.

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THE DIFFICULT PATIENT

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ABSTRACT:

"Difficult patients" are a group of patients who tend to arouse feelings of helplessness, irritability and frustration in their doctors. Such feelings evoked in the doctors lead to anger, anxiety, withdrawal or passive aggression with adverse consequences for the patients. Instead of a healthy doctor-patient relationship which is healing, the doctor and patient are drawn into a conflict situation which is stressful and counter-productive.

"Difficult patients" can be categorised into four types: those who reject help, those who demand help, those who manipulate help and those who are beyond help. To manage such patients more effectively, doctors need to be in touch with their feelings, to develop an empathic understanding of their patients and to recognise the nature of the transaction between the patients and themselves.

INTRODUCTION

The human relationship between a patient and a doctor has been described as the centre of medicine and the unchanging core of medical work regardless of whatever technical advances that have been made¹. As in all human relationships, problems often arise especially with individuals who have personality problems.

The encounter with the "difficult patient" is not uncommon in general practice. In U.K., it has been estimated that a family doctor with an average list of 2,500 patients will have between 5 and 10 such patients to care for². These patients are called by a variety of names as shown below:^{2,3}

"obnoxious patients"	whining "self-pitier"
"hateful" patients	"heart-sink" patients
frequent attenders	help-rejecting "crocks"
hypochondriacs	help-rejecting complainers
fat folder patients	doctor addiction syndrome
GOMER (Get Out of My Examination Room)	

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DEFINITION OF THE DIFFICULT PATIENT

"Difficult patients" have been described as those patients who arouse helplessness and exasperation leading to irritability, anger, frustration, fear and even hatred in most physicians^{3,4}. Before diagnosing a patient as "difficult", it is important for the doctor to exclude other causes for the difficulties encountered in the relationship.

Firstly, the "irritability quotient" of the doctor may be high because of some other personal problems. Secondly, there may be language barrier between the patient and the doctor. Thirdly, the patient may be suffering from an illness which is difficult to treat such as a terminal cancer.

It is also important to bear in the mind that the objective of identifying the "difficult patient" is not to label that patient but to recognise the need for special skills to manage such patients.

ADVERSE EFFECTS OF POOR MANAGEMENT OF THE DIFFICULT PATIENT

Poor management of the "difficult patient" has a number of adverse consequences. For the patient, there is a higher risk of errors in diagnosis and a higher incidence of unnecessary referrals to specialists, unnecessary investigations and unnecessary procedures and operations.

When the doctor fails to manage the "difficult patient" effectively, he may experience feelings of helplessness and frustration leading to other negative emotions such as anger, fear, insecurity, guilt and depression. There is also an increase in stress arising from anxiety about missing an organic disease and a lowering of his self-esteem.

Unpleasant confrontations between the patient and doctor results in an unhealthy patient-doctor relationship. Very often, the patient and doctor are drawn into what is known in Transactional Analysis as "Games Transactions." Such transactions are characterised by a repeated set of behaviour by one person, an unconscious but expected response by the other person, and a predictable outcome consisting of negative feelings in both persons.⁵

THE GAME TRANSACTION AND THE DRAMA TRIANGLE

Another way of denoting the game transaction is what is called the drama triangle. This is formed by three positions known as Rescuer, Victim and Persecutor.⁵ For example, a woman presents with abdominal pain, headache and general weakness and is in the position of a Victim. After a careful history and medical examination, the doctor begins trying to find a way to help her and enters into the game transaction as a Rescuer.

Unfortunately, if the patient is a "difficult patient" who does not want to be rescued, she will reject all his suggestions such as seeing a gastroenterologist or neurologist and taking any medication.

The doctor comes to his wits' end and may end up as a victim feeling frustrated at his failure to help the patient. One doctor in such a situation became a persecutor by rejecting the patient and telling his

nurse, "Do anything to her, pills, referral. Just don't let her see me. She expects doctors to do things that they are not able to do."⁶

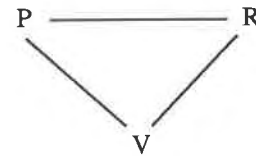


Fig 1. The Drama Triangle

One important lesson from the above case is that with problems arising in the patient's life and relationships, rather than in his systems and organs, it is the patient, not the doctor who is "the one who knows more".⁷

TYPES OF DIFFICULT PATIENTS

The "difficult patient" may be divided into four types:

- a. The patient who rejects help
- b. The patient who demands help
- c. The patient who manipulates help
- d. The patient who is beyond help

a. The Patient Who Rejects Help

This group of patients has been described as Manipulative Help-Rejectors³. They will return again and again to the doctor to complain that treatment does not work and tend to play the "Why don't you..., Yes but..." game⁸. Their objective of the consultation is to seek attention rather than relief of symptoms and this tends to provoke frustration in the doctor.

b. The Patient Who Demands Help

Another description of such a patient is "entitled demander"³. They try to control the doctor through the use of intimidation, devaluation and guilt induction. This is a reflection of fear and insecurity in the patient. In Transactional Analysis terms, such patients often draws the doctor into the game, "NIGYSOB" or "Now I've Got You, Son Of a Bitch"⁸. The end result is the evocation of guilt and anxiety in the doctor.

c. The Patient Who Manipulates Help

These are the "dependent clingers"³ who tend to make repeated requests for all forms of attention.

They have inexhaustible need for love and attention and provoke aversion and resentment in the doctor. The game which they may play is "Poor Me."⁸

d. The Patient Who Is Beyond Help

Such a patient has been called a "self destructive denier".³ Their behaviour is often a chronic form of suicide as exemplified by the incurable alcoholic or non-compliant diabetic. These patients have given up hope of having their dependency needs met and resist treatment. It is therefore not surprising that they tend to provoke rejection in the doctor. The game transaction which they tend to be involved in is "Kick Me."⁸

RECOGNISING THE DIFFICULT PATIENT

It is important to realise that the emotions the patient elicits in the doctor are important clinical data as they are the clues to the kind of difficult patient that one has to deal with. Furthermore, any attempt to deny normal negative emotions only serves to place a heavy psychological burden on the doctor.⁴ Table 1 shows the different emotions evoked by the different groups of "difficult patients." Treatment strategies can then be formulated accordingly.

Table 1. Different emotions evoked in doctors by different types of difficult patients.

Type	Effect
Patients who reject help	Frustration
Patients who demand help	Guilt, Anxiety
Patients who manipulate help	Aversion, Resentment
Patients who are beyond help	Depression

MANAGEMENT OF THE DIFFICULT PATIENT

To manage the difficult patient effectively, the doctor needs a repertoire of communications skills and strategies⁴. This involves the recognition of the important role of the doctor as a drug, listening to the patient's story and understanding the fundamental principles of supportive psychotherapy.

1. The Doctor As A Drug

Michael Balint has described the doctor's most powerful drug as the doctor himself. He further suggested that the doctor's use of himself or herself should be as conscious and considered as the act of proscribing a drug with due regard to the frequency, dosage and possible side effects.⁹

Just as doctors can use their feelings as a diagnostic tool to recognise the kind of difficult patient, they also need to cultivate a greater awareness of their own behaviour, feelings, and relationships so that they can master them and use them therapeutically.⁶ It is unfortunate that the healing effect of an empathic doctor-patient relationship tends to be labelled as the placebo effect.

At the same time, it is also important for doctors to recognise the significance and consequences of our interaction with patients. For example, an indiscreet statement by a doctor about the possibility of a heart attack may induce a cardiac neurosis in an anxious patient.

2. Listening To The Patient's Story

We need to see patients as human beings who are intelligent, free, social, artistic and symbolic beings rather than just being organs, cells, bones, tissues and immune systems. This means that medical treatment has to be more than objective and scientific. As patients have personalities, character, virtues, vices, fears, thoughts, projects and loves, we need to learn to listen to the patient's story instead of just taking a medical history of their illness.¹⁰

It is only when doctors have an understanding of "the story" of the patient, that they will be able to reframe their observations and information and thereby interpret the patient's behaviour in a new, more understandable way.

For example, a 36-year old female factory worker was thought to be a malingerer as she was reporting sick very often. It was only when the doctor took time to listen to her that he was able to empathise with her. The patient had been struggling with the bereavement of her 8-year old son who had died from leukaemia nine months ago. Furthermore, her husband was a drug addict in detention at the Drug Rehabilitation Centre.

Rabinowitz et al have noted that family doctors need a mode of intervention that is different from normal, exploratory psychotherapy, which is often time-consuming and inapplicable in the context of family medicine. They found that sometimes, merely listening to a patient's story with its expression of emotions and meaning can produce desired changes¹¹.

Indeed, the most important message for doctors is, to quote Norell, "Understand your patients if you can; love them if you must; but for Heaven's sake, notice them"¹².

3. Supportive Psychotherapy

The objectives of supportive psychotherapy are to support the patient's optimal ego functioning, to help the patient reframe his cognitive functions, and to take appropriate action in dealing with the problem in external reality¹³.

Supportive psychotherapy is not giving personal advice, the dispensing of friendliness, or the automatic expression of encouragement and reassurance. It involves two simple techniques. Firstly, the doctor needs to help the patient to clarify the problems that are bothering him. Secondly, it involves confronting the patient with his or her defensive "not-thinking" behaviour with a non-threatening approach. "Not-thinking" behaviour limits the awareness of reality and reduces the capacity to think of ways to solve the problem¹³.

The goal of supportive psychotherapy is more to effect healing rather than a cure. In this regard, Nouwen has defined healing as "the humble but also very demanding task of creating and offering a friendly empty space where strangers can reflect on their pain and suffering without fear, and find the confidence that makes them look for new ways right in the centre of their confusion"¹⁴.

CONCLUSION

The difficult patient can be regarded as a nuisance - as someone we want to get out of our consultation room as quickly as possible. Or we can learn to see the difficult patient as a challenge to improve our communication and management skills. The problems we encounter with such patients serve to remind us of the fundamental truth that medicine remains essentially a question of interpersonal relationships.

Needleman has rightly observed that doctors have been trained to master technology and to use it to make diagnoses and to give answers. However, 90 per cent of the people who go to see a doctor do not come for such technological answers. The patient comes for some kind of a relationship, whether teacher-student, parent-child, or friendship. And this is especially true for those patient who doctors feel are difficult¹⁵.

His description of the relationship between the question of caring for the patient and the development of medical technology is an apt summary of the problems and benefits of managing the difficult patient:

"What was clear was that with all the technology in the world, medicine remained almost entirely a matter of human relationships. With all the science in the world, the actual treatment of illness remained a matter of human relationships, without which the science was not only powerless but even destructive. To sacrifice the right quality of human relationship was actually to sacrifice the quality of science itself! The work of a doctor was right action and clear, impartial thinking. And all of this was impossible without the mastery of one's emotions - in other words, the growth of inner being that is and always has been the true context of what nowadays bears the tedious name of *ethics*."

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MARRIAGE PATTERNS: BENEFITS AND PITFALLS WITH SPECIAL REFERENCE TO DOCTORS

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SUMMARY

The author reviews the implications of traditional and peer patterns of marriage, and links the evidence for poor mental health in doctors with their marital relationships. She concludes with a call for doctors to examine and heal themselves and their marital relationships.

INTRODUCTION

This paper looks at patterns of marriage and their possible impact on marriages and families with special reference to doctors. However, it should be borne in mind that doctors' lives, whilst special in that the practice of medicine makes unique demands on their lifestyles, parallel the lives of other professionals in the long and irregular hours of work, the pursuit of excellence and higher qualifications and the quest for more money and status. On a larger perspective, the society which they live in, namely, the small, young and "hot-house developed" island-nation of Singapore, exerts its pressures, norms and expectations on doctors in the same way that it does on the rest of the population.

On the whole, doctors are strongly focussed on their careers and on keeping up with recent advances in medicine. This is undoubtedly necessary and is strongly promoted by the profession. However, doctors would do well to examine themselves and give priority to the

maintenance of their own physical and mental health, and the "health" of their marriage and family relationships. The mental health of doctors is not the subject of this paper, but it is well documented and known to be poor (Hsu and Marshall¹). The doctor's mental health and work pattern have a major impact on his or her marital relationship and parental function.

THE TRADITIONAL MARRIAGE PATTERN

In this pattern of marriage, the husband's career is seen to be pre-eminent by both partners. His life is largely devoted to his work and career advancement and his individual special interests. Typically, the couple socializes almost entirely with his friends.

The wife and her career are regarded as secondary in importance. She willingly subordinates her own interests to the needs of her husband and children. She often abandons her own career to promote her husband's advancement by "helping" in her husband's clinic or office. This help is usually extended to helping him in his club or special interests. At home, she takes full responsibility for all the needs of the household. Thus, all family affairs, family activities and

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interactions revolve around her like a wheel around its hub.

This pattern of marriage provides major advantages for the couple and their children, especially when the children are young. It provides a stable and workable structure for bringing up the children. The husband is free to concentrate on his career without distractions so that he can make maximum progress on the road to worldly success, whilst his wife and children enjoy the advantages of his good income. Such families move smoothly for 10 to 15 years.

The disadvantages for wives in a traditional pattern of marriage are that their needs for personal growth often go unnoticed and unmet. They experience a lack of support in the task of raising children even though they understand that the husband is very busy or doing important work. Their contribution to the family and their husband's career is given a low value by society because it does not attract an income. Wives who do not hold an independent job outside the home do not have personal money nor a social status which is their own. All these factors combine to produce a state of low self esteem which often results in depression. Wives who hold jobs outside the home fare better in self esteem but feel extremely burdened with their dual workloads. They experience a high level of stress and fatigue and feel even more unsupported by their husbands because their need for help is greater. They, too, are susceptible to depression.

Many wives, although not all, become dissatisfied with the quality of their lives when the busiest phase of child rearing is done. The wise couple will review and adjust their roles within the family at this time so that the wife is enabled to take up suitable employment or training, and so make her own way in the world outside the home. This may help to elevate her self esteem, improve family income and relationships and make it easier for her to allow the children to become independent when they grow up.

There are disadvantages for traditional husbands too. With their total commitment to work, they often become emotionally isolated from wife and children. Sometimes, it seems to them that they work very hard to provide all the good things in life

for their families without themselves getting anything in return. Far from being grateful, the wife and children feel that the father is only interested in his work and not at all interested in them. Often, the children grown up without a close relationship with their father which is a loss to father and children. The wife, too, may discover other interests and friends to provide the support which she needs. In extreme cases, the man does not realize his loss until he retires from work when he wishes to spend time with his family only to find that they have by then no more wish to spend time with him.

PEER MARRIAGE

The egalitarian marriage is an ideal which is very attractive to many couples. The characteristics of these couples are a fairly equal division of household and child rearing duties, equal influence over important family decisions and the family economy and mutual respect for the importance of each other's work (Schwartz²). Most couples who have a peer marriage relationship are also equals in academic qualifications, but this does not need to be so. Schwartz found that couples in peer relationships give priority to their relationship over their work and other relationships. In so doing they experience a high level of mutual support, intimacy and friendship. With strong and equal parental involvement in the family, their children experience a sense of security and stability which is associated with being close to both parents, and knowing that their parents are close to each other.

The equality of the partnership makes it easier to adjust to changing roles and responsibilities when the need arises. For example, if the husband loses his job and the family has to depend on the wife to be the breadwinner, he is less likely to feel insecure and diminished in his own eyes and that of the family members.

The disadvantage of an equal division of family tasks is that both partners, rather than only one, may find it necessary to forego taking jobs which will not fit their domestic life. The choice of jobs could become difficult, and the stress level high when both undertake to work outside the home as well as share the tasks of minding young children

at home. Income may have to be sacrificed for marital happiness. It may be that this problem can be overcome by mutual agreement to accept an unequal division of household tasks during the years when they are raising young children, recognizing that paying and non-paying tasks are of equal value to the family. The other alternative is to "take turns" to spend more time at home and less time pursuing careers. These options are attractive but often not easy to put into practice because it goes against the common way of doing things.

COMMENTS

The marriage relationship is not static but changes over time. When they are newly married and each one holds a job, it is not difficult to have a peer marriage, sharing all the income and all the household work. The main barrier seems to be that of male hangups about their role in a marriage. The strain of keeping this arrangement when the babies arrive may induce the couple to reconsider their division of labour. Typically it is the wife who slows down her career or puts it on hold to devote more time to the family. However, when the children are older, it may be feasible for the wife to pay more attention to her career again. This is when good and generous support from the husband will pay high dividends for future marital happiness.

The choice of marriage pattern is determined by the relationship which the couple wishes to have, but their wishes are also influenced by their family backgrounds, their personal ambitions and the norms of the society in which they live. Men who do half the housework may find themselves regarded as "hen-pecked" by their friends and their parents. It takes a secure man to enter a peer marriage, and it takes a couple who are secure in their relationship to be able to change the pattern of their marriage.

THE WIDER ENVIRONMENT

The desire to upgrade is very strong and universal in Singapore, whether it be for housing, education or job status. In the case of doctors, there is heavy pressure from peers as well as the state to specialize as early as possible. There is no place for the

doctor who wishes to have a break from study, or who wishes to meander professionally for a while. Even general practitioners feel the need to study for a higher degree to practise as family physicians. Bear in mind that, in the first place, a medical graduate has been through a gruelling five-year course, equivalent to six years if the vacation clinical work is included; a period of training which would gain a student a master's degree in other disciplines. This is surely a case of overkill. Meanwhile the doctor who works long hours and is simultaneously studying for a specialist degree carries a distinct handicap for family life.

Doctors are trained to strive for high standards and to examine themselves for faults and mistakes whenever there has been a failure of treatment. The postmortem is a medical word which has found its way into general usage. This propensity is now further fuelled by the Singapore ethic of "to be the best that we can be" and "zero defect". It is this mindset which makes hospitals and individuals in private practice impose impossible workloads on doctors, especially the junior ones. It is the unfounded assumption of limitless energy and concentration which withholds support for them from their seniors when they make mistakes at work. The misuse of doctors at work cannot but create poor physical health, resentments and anxieties which have an adverse effect on their home lives.

DISCUSSION

Published papers about doctor's mental health are fairly abundant, and they point to an adverse state of health among the people who carry the responsibility of caring for the health of others. From a study of 1800 questionnaires returned out of 2600 doctors surveyed in Ontario, Canada, Hsu and Marshall found that 23% of respondents reported experiencing depression which ranged from mild to severe. The incidence of female doctors who suffered from depression was 50% more than for the male doctors. This significant finding is related to the usual situation of married women doctors, like other married women, who carry the main work of managing their families and households even when they are working at a fulltime job and training for specialization.

Depression and marital well-being is a "chicken and egg" situation. Keitner and Miller³ found that the marriages of depressed women were significantly worse than those of control subjects, and that depressed wives had greater need for both intimacy and support. Conversely, Birtchnell⁴ in his study of young married women concluded, among other findings, that it seemed likely that a poor marital relationship contributed to depression. It is therefore not a surprise to find that half the physicians in Vaillant's study had unsatisfactory marriages compared with a third of the control group. The first possible explanation which comes to mind is that doctors work much longer hours than most other professionals. However, Gabbard et al⁵ in his study of 134 physicians and 125 physicians' spouses found that the main sources of conflict in medical marriages appeared to be associated with differences in the partners' needs for intimacy and differences in styles of communication rather than the number of hours at work. This makes it easy to believe Sakinofsky's⁶ finding that Canadian doctor's wives have a high incidence of illness, high drug and alcohol abuse and a very high suicide rate.

In the author's personal experience in counselling wives of doctors, it is common to find poor communication and support from their husbands and depression in the wives.

CONCLUSION

Given that Singapore doctors have similar but more intense career paths and harder patterns of work than doctors in developed countries from which the studies have been reported, it seems reasonable to suspect that their physical and mental health and the well-being of their marital and family relationships are less than optimal. It

would be wise for doctors to examine themselves and make better prescriptions for their own lives. Physician, heal thyself!

Individual doctors do have a choice for a better quality of life. They need to convince themselves that they do. If they wish to make a choice for less work stress, more family time and a better marital relationship, they need to accept that it may not be profitable in monetary terms or in climbing the professional ladder. This will go against the Singapore way of life, where "no choice" means that one automatically chooses the path which offers the most income and the fastest job advancement. But if the doctor, upon reflection, decides that his or her priority for a good marriage and good family life is higher than earning more or getting promoted faster, then it is time for him to say: "I have a choice".

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WORK STRESS IN GENERAL PRACTITIONERS

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INTRODUCTION

This study of work stress of general practitioners (GPs) was part of a research project^{1,2} to conduct a cross-national survey of six occupational groups (the others being engineers, insurance agents, lawyers, nurses, and teachers). The survey was started in 1988 and completed in 1992. One of the objectives was to identify strategic points for clinical as well as organisational intervention in reducing work stress, strengthening social support, and training skills in stress management.

Two years were spent reviewing the literature on stress and coping and developing a questionnaire that would address key questions on work stress. It was found necessary to adapt many published instruments in the existing literature on work stressors and ways of coping to achieve local relevance and applicability. The finalised self-administered questionnaire had nine sections. With minor modifications, this questionnaire was applicable to all six occupational groups.

General practitioners were chosen as one of the six study populations partly because they form a fairly large homogeneous group, accounting for about one quarter of all registered medical practitioners in Singapore in 1988. The nature of their work requires long hours and interaction with a large number of people.

MATERIALS AND METHODS

SURVEY QUESTIONNAIRE AND DATA ANALYSIS

This study attempted to examine the following concerns in regard to the GP population: level of work stress as a proportion of total life stress; identification and ranking of work stressors; identification and ranking of mediating variables (personal, family and social) relevant to coping; identification and ranking of coping mechanisms; and the level of job satisfaction. To cover these

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aspects of the survey, a self-administered questionnaire was constructed based on a literature review of stress and coping, supplemented by feedback interviews conducted during the exploratory stage of this study. The self-administered questionnaire asked for information on the following:

1. Socio-demographic characteristics: age, sex, race, education, religion and marital status.
2. Work experience: length of working experience, condition of present employment, and income.
3. Personal mediating variables were assessed by 33 statements: the first 10 assessed locus of control, the next 13 statements assessed personality type, and the remaining 10 statements assessed self-esteem. These statements were adapted from Rotter JB³, Bortner RW and Rosenman RH⁴, and Rosenberg M⁵ respectively. Adaptation was necessary to achieve relevance and applicability to our survey. For each statement, the respondent was required to state whether he agreed or disagreed with it on a 4-point scale: 'strongly disagree', 'disagree', 'agree' and 'strongly agree'. From the responses, the total scores for locus of control, Type A personality, and self-esteem were computed. The respondents were divided into three roughly equal subgroups by their scores, designated as high, medium and low.
4. Family relationships were assessed by 5 statements taken from the Family APGAR questionnaire of Rosen, Geyman and Layton⁶. One statement each questioned the family's degree of adaptation, partnership, growth, affection, and resolve (commitment) as seen by the respondent. Unlike the original scoring given by Rosen et al which allowed the respondent one of three choices, 'Almost always', 'some of the time' or 'hardly ever', we allowed the respondent one of 4 choices: 'Never' (score of 0), 'rarely' (score of 1), 'sometimes' (score of 2), 'often' (score of 3) or 'all the time' (score of 4) so as to be in line with the format used in the rest of the questionnaire. The total scores were divided into three sub-groups of 0-3 as 'low', 4-6 as 'medium' and 7-10 as 'high'

scores.

5. Level of work stress was assessed by a direct question on work stress as percentage of total stress experienced as well as by a list of 37 statements which assessed the respondents on various work stressors encountered at work. The respondent was asked to indicate 'X' if he had never encountered the stressor or the stressor was not applicable (e.g. working under a supervisor). If the stressor was experienced, but not as a source of stress, the respondent was required to enter '0' against the statement. The differentiation between stressor not encountered and stressor encountered but with no stress was important for determining the appropriate denominators for data analysis. Where the stressor was encountered, the respondent was asked to indicate the severity of the stressor for him or her on a four-point scale: 'extreme stress' (which was scored as 4 points), 'considerable stress' (scored as 3 points), 'moderate stress' (scored as 2 points), and 'slight stress' (scored as 1 point). The score for each stressor was obtained by the formula: stressor score = $(ES \times 4 + CS \times 3 + MS \times 2 + SS \times 1) / \text{Total}$, where ES = number reporting extreme stress, CS = number reporting considerable stress, MS = number reporting moderate stress and SS = number reporting slight stress; Total = total number of respondents.
6. Ways of coping were assessed by a list of 35 statements based on the works of Moos and Billings⁷ on coping mechanisms. The respondent was required to circle the most appropriate frequency of application of each way of coping as: 'never' (score 0), 'rarely' (score 1), 'sometimes' (score 2), 'often' (score 3), 'all the time' (score 4). The frequency scores for coping were computed using a formula: frequency score for way of coping = $(AT \times 4 + OF \times 3 + ST \times 2 + RA \times 1) / \text{Total}$, where AT = number using the way of coping 'all the time', OF = number using the way of coping 'often', ST = number using the way of coping 'sometimes' and RS = number using the way of coping 'rarely', Total = total number of respondents.
7. Social support was assessed by asking about

the categories of persons from whom social support was sought by the respondent, and also about three confidants whom the respondent confided in over six months prior to the survey.

8. Habits and general health were assessed by information on exercise, smoking, drinking, medical care received and a 12-item General Health Questionnaire (GHQ).
9. Job satisfaction which was assessed by asking the respondent his or her agreement or disagreement on 6 statements on job satisfaction.

SAMPLING

The Government Gazette of 1988 formed the sampling frame of the study on doctors. Doctors were included in the study if they received their MBBS qualifications during 1960-1986 and were known to be GPs. This yielded 897 names. Of these, a random sample of 450 was constructed. Of those not included in the sample, 25 were selected to test the questionnaire; no changes were found necessary.

The survey was conducted from June to September 1990. Of the 450 questionnaires sent out, 120 replies were received. Ten student assistants were employed to call up the remaining 330 doctors who had not returned the questionnaires. These calls yielded 26 more returns. The total number of responses was 146, giving a total response rate of 32%. Data entry and data processing were done using the SPSS package.

RESULTS

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Table 1 summarises the socio-demographic characteristics of the 146 respondents. The mean age was 41 years. There were 72% males. Ninety-four percent were Chinese. Slightly over half (56%) were Christians. Ninety percent of subjects were married, 8% were single, and 2% were divorced or separated. Of those who were married, 61% had spouses working full-time and 16%, part-time. A quarter of the subjects had spouses who were also doctors.

Table 1. Socio-demographic Characteristics of Respondents

CHARACTERISTIC	NUMBER (%)
TOTAL	146(100.0)
AGE DISTRIBUTION (YEARS)	
25-29	2(1.4)
30-34	40(27.4)
35-39	27(18.5)
40-44	27(18.5)
45-49	21(14.4)
50 & above	29(19.8)
Mean age	41.06 years
SD	8.41 years
Minimum age	29 years
Maximum age	61 years
MALE	105(72.0)
ETHNIC GROUP	
Chinese	138(94.5)
Indians	7(4.8)
Others	1(0.7)
RELIGION	
Christians	81(56.0)
Buddhists/Ancessor worship/Taoists	17(12.0)
Hindus/Sikhs/Muslims	6(3.0)
Nil	42(29.0)
MARITAL STATUS	
Married	132(90.4)
Single	11(7.5)
Separated/divorced	3(2.1)
OCCUPATION OF SPOUSE	
Not working	14(9.5)
working -- same profession	35(26.5)
working -- different profession	97(64.0)

PROFESSIONAL CHARACTERISTICS AND WORK EXPERIENCE

Table 2 summarises the working experiences of the respondents. The mean number of years of working experience was 15.7 years. Fifty percent had worked over 10 years and 28% more than 15 years. Only 22% were working under someone. Thirty percent were in solo medical practice. Twenty percent had more than 10 subordinates. The mean gross monthly income was \$8,591, while the range was from \$1,000 (4 out of 146) to above \$15,000 (19 out of 146).

Table 2. Professional Qualifications and Work Experience

CHARACTERISTIC	NUMBER (%)
NUMBER OF RESPONDENTS	146(100.0)
PROFESSIONAL QUALIFICATIONS	
MBBS only	129(88.4)
Higher degree	17(11.6)
WORK EXPERIENCE	
Mean years	15.7 years
SD	7.4 years
Job changes in last 6 months	4(2.7)
NUMBER OF SUBORDINATES	
Nil	45(30.8)
GROSS MONTHLY INCOME	
Mean	\$8590
SD	\$4570
Minimum	\$1500
Maximum	\$17000

HABITS AND GENERAL HEALTH

Table 3 shows the habits and general health of respondents.

Habits

Exercise

Three-quarters of the respondents exercised at least once a week. The mean duration of exercise period was one hour. In order of frequency, forms of physical exercise these GPs took part in were jogging/running (34.3%), swimming (17.6%), golf (12%), walking (10.2%), squash, tennis and cycling (4.6% each), body-building (2.8%), aerobics (1.9%) soccer, badminton, table tennis and gardening (1% each).

Smoking

Only 7.6% of doctors (11 out of 146) smoked. Of these, only two smoked more than 10 cigarettes a day.

Drinking

Twenty percent of doctors (32 out of 146) had a habit of drinking. The majority had less than 10 drinks a week.

Table 3. Habits and General Health

VARIABLE	NUMBER (%)
HABITS	
EXERCISE (last six months)	
Never	33(23.0%)
1 - 4 times a week	100(69.0%)
5 or more times a week	13(8.0%)
Total	146(100.0%)
SMOKING - Cigarettes per day	
Non-smoker	135(92.4%)
Smoker	11(7.6%)
<10	9(6.2%)
10 or more	2(1.4%)
Total	146(100.0%)
DRINKING - Drinks per week	
None	114(79.0%)
<10	26(6.2%)
10 or more	4(2.7%)
Unspecified	2(1.4%)
Total	146(100.0%)
MORBIDITY	
GENERAL HEALTH QUESTIONNAIRE SCORE (GHQ 12)	
Scored positive on <3 items	143(97.9%)
Scored positive on 3 and more items (i.e. minor psychiatric morbidity)	3(2.1%)
Total	146(100.0%)
OUTPATIENT VISITS (last six months)	
None	117(80.1%)
1 - 2 times	24(16.5%)
3 - 4 times	5(3.4%)
Total	146(100.0%)
HOSPITAL ADMISSIONS (last six months)	
None	143(97.9%)
1 time	3(2.1%)
Total	146(100.0%)

General health

General Health Questionnaire Score (GHQ-12)

On the GHQ-12, only 2.1% scored positive of 3 or more out of the 12 questions, indicating the presence of minor psychiatric morbidity.

Outpatient visits and hospital admissions

Twenty percent of doctors had had outpatient treatment in the preceding six months; the reasons included chest pain, respiratory illnesses, musculo-skeletal disorders, and medical check-ups. Three doctors had hospital admissions, but none were related to stress.

STRESS EXPERIENCED AT WORK

Table 4 shows the work stress perceived as a percentage of total life stress experienced by the respondents. In 60% of respondents, work stress accounted for less than 30% of the total stress; 14 percent felt work stress was 80% or more of the total life stress experienced.

MEDIATING VARIABLES TO WORK STRESS

The distribution of mediating variables of work stress amongst the respondents is shown in Table 5.

Table 4. Work Stress perceived as Percentage of Total Life Stress

Work stress perceived as a percentage of total stress	Number	Percent
0%	4	2.7
10%	28	19.2
20%	24	16.4
30%	30	20.5
40%	3	2.1
50%	13	8.9
60%	10	6.9
70%	13	8.9
80%	11	7.5
90%	10	6.9
100%	-	-
Total	137	100%

Table 5. Distribution of Social Support Sought by Respondents

Category of persons	Number who sought (%)
Spouse	122 (83.8%)
Friends (outside of work, of no or different religion)	85 (58.9%)
Work colleagues	82 (56.2%)
Siblings	76 (52.1%)
Friends (outside of work, of same religion)	70 (47.9%)
Parents	66 (45.1%)
Helping professionals or para-professionals (eg. psychologist, social worker, pastor, etc.)	43 (29.5%)
Other relatives	34 (23.6%)
Superior at work	17 (11.6%)
Steady boy (girl) friend	9 (6.5%)
Others	8 (5.5%)

Personal attributes

Locus of control

Only one quarter felt that they had low control over events in their lives (that is, an external locus of control). Eighty-six percent of respondents agreed with the statement that 'in the long run, people get the respect they deserve in their work'. Sixty-one percent disagreed with the statement that 'chance or luck plays an important role in their lives'.

Personality type

Moderate and high Type A personality scores were found in 93% of the respondents. Seventy-three percent agreed with the statement 'that they try to make themselves competitive'. Forty-one percent felt that they are 'always rushing, as if not having enough time'.

Self-esteem

Nearly all the subjects had high or medium levels of self-esteem. A large majority of our respondents

felt that they have a number of good qualities (97.9%); that they are people of worth, at least on an equal basis with others (97.9%); that they take a positive attitude towards themselves (96.6%); and that they are able to do things as well as most people (95.9%).

Family relationships

Only 6% of the subjects had dysfunctional families (that is, having a family relationship APGAR score of 3 or less). The rest had family relationships that were satisfactory or good. At least 67% of the respondents were satisfied 'often' or 'all the time' with respect to adaptation (67.1%), partnership (69.2%), growth (71.2%), affection (71.2%) and resolve or commitment (78.5%) in the family relationship.

Table 6. Personal Mediating Variables

PERSONAL MEDIATING VARIABLES	RESPONDENTS NUMBER (%)
LOCUS OF CONTROL SCORES	
Low (0-3)	33 (22.6%)
Medium (4-6)	59 (40.4%)
High (7-10)	54 (37.0%)
Total	146 (100.0%)
TYPE A PERSONALITY SCORES	
Low (0-5)	25 (17.1%)
Medium (6-10)	96 (65.8%)
High (11-15)	25 (17.1%)
Total	146 (100.0%)
SELF-ESTEEM SCORES	
Low (0-3)	3 (2.1%)
Medium (4-6)	16 (10.9%)
High (7-10)	127 (87.0%)
Total	146 (100.0%)
FAMILY RELATIONSHIP SCORES	
Low (0-3)	9 (6.2%)
Medium (4-6)	23 (15.7%)
High (7-10)	114 (78.2%)
Total	146 (100.0%)

Table 7. Stepwise Multiple Regression Analysis of Stress Levels (Dependent Variable) by Locus of Control, Type A Personality, Self Esteem and General Health Questionnaire Scores

	Stress Level	Locus of Control	Type A Personality	Self-esteem	GHQ
Stress level	1.000	-0.013	0.121	-0.040	0.329
		1.000	0.181	0.200	0.162
			1.000	0.185	0.125
				1.000	0.139
					1.000

Variables entered at Step 1: GHQ

R squared: 0.11 Significance of F < 0.0001

Social support

Ninety percent of the respondents were married, Spouses were a source of social support in 84% of the respondents. Friends, work colleagues and siblings were a source of support for a little over half of the respondents. Only about 30% of them sought help from helping professionals or para-professionals. Over the preceding 6 months, respondents confided in, in descending order of frequency, spouses (87%), work colleagues (51%), parents (29%), friends (outside of work, of no or different religion) (28%), siblings (24%), friends (outside of work, of same religious group) (13%), and helping professionals (30%).

WORK STRESSORS

Doctors were asked to indicate the extent to which each on a list of 37 stressors was a potential source of stress for them. Table 8 show the distribution of stressors ranked by mean score of severity as perceived by the respondents. The top five stressors were work overload, time pressure, fear of making mistakes, difficult patients, and work affecting home and personal life.

Table 8. Level of Work Stress ranked by Mean Score of Severity

Rank STRESSOR No	ES	CS	MS	SS	NS	Total	Stressor score
1 Work overload	5	26	40	37	29	137	1.569
2 Time pressure	3	31	32	41	27	134	1.567
3 Fear of making mistakes	9	26	27	46	32	140	1.529
4 Difficult patients	5	23	38	47	29	142	1.493
5 Work affects home and personal life	8	20	28	39	34	129	1.450
6 Career at expense of home and personal life	3	14	30	32	25	104	1.404
7 High staff turnover	2	17	18	36	27	100	1.310
8 Life too centred on work	8	13	26	33	42	122	1.279
9 Maintaining relationship with patients	5	13	36	43	39	136	1.279
10 Unfair assessment from superiors	2	9	9	12	21	53	1.226
11 Lack promotion prospects	3	6	11	20	19	59	1.220
12 Administrative work, meetings and coordination	2	16	23	29	38	108	1.213
13 Jealousy and competition amongst colleagues	4	13	18	35	34	104	1.212
14 Uncooperative colleagues	4	13	18	35	34	104	1.212
15 Work to achieve expectations	5	14	25	26	44	114	1.211
16 Red tape causing work delay	3	7	24	33	29	96	1.188
17 Feeling job is insecure	4	5	8	24	19	60	1.183
18 Feeling underpaid	2	9	13	29	24	77	1.169
19 Discrimination and favouritism	3	8	10	19	26	66	1.136
20 Unable to use skill and ability on the job	3	13	18	30	41	105	1.114
21 Incompetent colleagues	4	11	15	42	38	110	1.100
22 Inadequate time for self-development	4	15	19	38	50	126	1.087
23 Ethical conflict	5	13	15	33	49	115	1.061
24 Work requires too much thinking	2	6	20	42	37	107	1.009
25 Belief conflict with superior	1	8	11	13	30	63	1.000
26 Difficulty of relationship with superiors	2	5	11	13	28	59	0.983
27 Working outside competence	3	6	10	32	33	84	0.976
28 Do unnecessary tasks	2	7	13	21	35	78	0.974
29 Lack of support from superiors	1	5	10	16	25	57	0.965
30 Relationship with colleagues	1	6	19	35	41	102	0.931
31 Insufficient resources and equipment	0	4	23	28	38	93	0.925
32 Lack of participation	2	5	9	23	33	72	0.889
33 No emotional support from family	1	4	13	33	34	85	0.882
34 Lack authority to carry out job duties	1	4	8	21	27	61	0.869
35 Work underload	2	7	13	35	48	105	0.857
36 Society does not think highly of profession	1	5	8	22	48	84	0.679
37 Emotional attachment to patients	0	5	8	46	55	114	0.675

Footnote: ES = extreme stress; CS = considerable stress; MS = moderate stress; SS = slight stress; NS = no stress. See section on methods for computation of stressor scores.

Table 9. Ways of Coping ranked by Mean Score of Frequency

Rank	WAYS OF COPING	ALL the time	Often	Some- times	Rare- ly	Never	Total	Frequency score
569								
567	1 I scrutinize problem and attempt to solve it	28	92	21	5	0	146	2.979
529	2 I examine myself to prevent repeat of problem	33	79	28	4	1	145	2.959
493	3 I set aside evenings or weekends for family etc	32	70	36	6	2	146	2.849
450								
404	4 I find out more from persons involved	22	62	49	6	3	142	2.662
	5 I adjust my volume of work	23	65	40	15	1	144	2.653
310	6 I accept situation and learn to live with it	12	73	57	4	0	146	2.637
279	7 I look on the bright side of things	19	67	48	11	1	146	2.630
279	8 I manage my time properly	14	70	50	11	1	146	2.582
226	9 I exhaust all avenues before asking others for help	24	55	47	17	3	146	2.548
220								
213	10 I look for more important things in life than work	19	59	49	19	0	146	2.534
212	11 I work harder than usual at dealing with problem	11	65	53	11	4	144	2.472
212	12 I read books to motivate or inspire myself	16	51	60	18	1	146	2.432
211	13 I attend seminars or courses	13	54	59	16	4	146	2.384
188	14 I listen to music	11	60	48	21	6	146	2.336
183	15 I do not let work affect my family or social life	13	46	60	22	4	145	2.290
169								
136	16 I seek advice from others	5	40	80	17	2	144	2.201
114	17 I exercise or play sports	16	44	45	30	11	146	2.164
	18 I keep my feelings to myself	1	46	68	26	5	146	2.082
100	19 I go for a holiday or take a short break from work	6	33	69	27	10	145	1.986
087								
061	20 I pray	23	31	40	18	33	145	1.952
009	21 I laugh and joke to release tension	5	27	80	24	10	146	1.952
000	22 I swallow my anger and suppress my emotions	1	33	67	38	7	146	1.884
983	23 I seek emotional support from others	3	30	56	45	11	145	1.786
976	24 I get mad at people	0	14	62	47	23	146	1.459
974	25 I put off attending to the problem	2	7	54	66	17	146	1.390
965	26 I blame others for the problem	1	6	40	83	16	146	1.267
931	27 I think of leaving the job	0	10	40	38	58	146	1.014
925	28 I sleep and/or eat more than usual	0	10	34	42	60	146	0.959
889	29 I bring problem to professional association	1	7	21	58	58	145	0.862
882	30 I cry to let my feelings out	0	6	23	46	71	146	0.753
869	31 I use prescribed drugs or herbal medicine	0	2	17	43	84	146	0.568
857	32 I have an alcoholic drink	1	3	17	19	106	146	0.452
879	33 I seek professional or psychological help	0	2	5	26	113	146	0.288
875	34 I take medical leave to alleviate my work stress	0	2	4	18	121	145	0.221
	35 I smoke	0	2	7	7	130	146	0.185

Note: See section on Methods for computation of frequency scores.

Table 10. Ways of Coping showing Description of Coping Category*

(* After Lazarus and Folkman, 1988)

Rank	WAY OF COPING	Coping Category	Mean score
1	I scrutinize problem and attempt to solve it	P-CO	2.979
2	I examine myself to prevent repeat of problem	P-CO	2.959
3	I set aside evenings or weekends for family etc	P-PL	2.849
4	I find out more from persons involved	P-CO	2.662
5	I adjust my volume of work to suit my ability	E-PR	2.653
6	I accept situation and learn to live with it	E-PR	2.637
7	I look on the bright side of things	E-PR	2.630
8	I manage my time properly	P-PL	2.582
9	I exhaust all avenues before asking others for help	P-CO	2.548
10	I look for more important things in life than work	E-PR	2.534
11	I work harder than usual at dealing with problem	P-CO	2.472
12	I read books to motivate or inspire myself	P-CO	2.432
13	I attend seminars or courses	P-CO	2.384
14	I listen to music	E-EA	2.336
15	I do not let work affect my family or social life	E-SC	2.290
16	I seek advice/direction from others	E-SS	2.201
17	I exercise and/or play sports	E-EA	2.164
18	I keep my feelings to myself	E-SC	2.082
19	I go for a holiday or take a short break from work	E-EA	1.986
20	I pray	E-EA	1.952
21	I laugh and joke to release tension	E-DI	1.952
22	I swallow my anger and suppress my emotions	E-SC	1.884
23	I seek emotional support from others	E-SS	1.786
24	I get mad at people	E-EA	1.459
25	I put off attending to the problem	E-EA	1.390
26	I blame others for the problem	E-EA	1.267
27	I think of leaving the job	E-EA	1.014
28	I sleep and/or eat more than usual	E-EA	0.959
29	I bring problem to professional association	P-CO	0.862
30	I cry to let my feelings out	E-EA	0.753
31	I use prescribed drugs or herbal medicine	E-EA	0.568
32	I have an alcoholic drink	E-EA	0.452
33	I seek professional or psychological help	P-CO	0.288
34	I take medical leave to alleviate my work stress	E-EA	0.221
35	I smoke	E-EA	0.185

Footnote: P-CO = problem-focussed-confrontational; P-PL = problem-focussed-planful; E-PR = Emotion-focussed-positive reappraisal; E-EA = emotion-focussed-escape avoidance; E-DI = emotion-focussed-distancing; E-SC = emotion-focussed-self control; E-SS = emotion-focussed-social support.

RELATIONSHIP OF WORK STRESSORS AND PERSONAL MEDIATING VARIABLES

A stepwise multiple regression of stress level (dependent variable) by locus of control, Type A personality level, self-esteem and General Health Questionnaire Scores as independent variables showed that the correlation between stress level and the GHQ scores was 0.329, which was highly significant at < 0.0001 , and that the GHQ scores contributed 10.7% to the variation in the stress level. The correlation between stress levels and the other variables such as locus of control and self-esteem were negative and rather low.

WAY OF COPING

Respondents were also asked to indicate the frequency in which they used the 35 ways of coping in their work. Ranking of the ways of coping by mean score of frequency shows that the top 5 ways were; scrutinising the problem and attempting to solve it; examining oneself to prevent a repeat of the problem; setting aside evenings or weekends for the family; finding out more from persons involved; and adjusting volume of work (Table 9). These are all problem-focussed strategies. Emotion-focussed strategies are used less often. The five ways of coping with least mean scores were: taking prescribed medicines; taking alcoholic drinks; seeking professional or psychological help; taking medical leave; and smoking.

JOB SATISFACTION

Ninety percent of the respondents agreed that they were satisfied with their jobs. Only 11% felt that most of the time they had to force themselves to work, and 14% felt that each day of work seemed like it would never end.

DISCUSSION

LIMITATION

This study is useful in empirically identifying and defining work stressors among general practitioners. It also provides information on doctors' ways of coping with stress at work. One limitation to the usefulness of the study is the response rate: only 32%. Fifty percent of the respondents had worked for 10 years or more as general practitioners and 28% had worked for more than 15 years: so the information obtained

on work stress reflects that of a seasoned group of doctors. The rest were in general practice for less than five years.

WORK STRESSORS

The work stressors reported by respondents in this study are consistent with existing empirical knowledge reported in the literature. They had to cope with a heavy work load of treating minor ailments like coughs, cold, aches and pains as well as serious cases on some occasions where an error of judgment or a misdiagnosis can have gave consequences. In addition, for those whose clinics were busy, the heavy work load results in less time available for each patient and the fear of making mistakes. Among American private practitioners, time pressure caused the greatest dissatisfaction at work.⁸ The ability to modulate workload may therefore help reduce stress at work. The judicious use of an effective appointment system for follow-up patients may be useful here.

Difficult patients are a well-recognised phenomenon in the medical literature. Groves⁹, for instance, describes four types of patients that make life difficult for the doctor: the hostile patient, the oppositional patient, the dependent patient, and the malingering patient.

Among the Singapore doctors, a common problem in their lives was the lack of time for themselves or their families. Compared to other professionals, general practitioners work inordinately long hours, and a young GP may, and does, open daily during 9.00 am - 12.30 pm, 2.00 - 5.00 pm, and 7.00 pm - 9.00 pm. In their first few years they keep such hours daily and would gradually cut down on night sessions, although most would continue with their 7-day work week. The impact of having to work long hours on residents has been studied by May et al¹⁰. They found that interference of work with family life was a serious problem. Those who had greater levels of support and internal control suffered less, as did those who had high family and peer support.

For those doctors working in group practices (22%), interaction with superiors and subordinates may be an added source of stress. Factor analysis of the stressors experienced by the respondents showed that problems with work-related people

(superiors and colleagues) accounted for 34.1% of the variance. With the increasing trend towards group practice, this area of work stress should be studied further.

MEDIATING VARIABLES (PERSONAL ATTRIBUTES AND SOCIAL SUPPORT)

It is known that some mediating variables play a crucial role in determining how individuals perceive particular stressors, how they react to those stressors, and what health consequences those reactions produce. Most notably, a variety of personal attributes (e.g. personality, existential beliefs, general beliefs about control, and self-esteem) and social conditions (e.g. the support of social networks) are likely to influence the association between stressful events and health changes. Several of these mediators were examined in this study.

Locus of control

In this study, the statements on locus of control were adapted from the abbreviated Rotter IE Scale. It was found that 77% of the Singapore GPs perceived themselves as having medium to high internal locus of control. This helps explain the low level of perceived work stress found in this group of GPs.

Type A personality

In this study, the majority of the respondents had medium to high scores on the type A scale, but the correlation with stress level was low. Lazarus¹¹ has shown that personality influences the way in which individuals perceive their environment. In doctoring, certain amount of time urgency cannot be dispensed with. The moderately high scores for Type A personality in the majority of the doctors may indeed be desirable and useful for their work.

Self-esteem

In this study, the findings indicate that the level of self-esteem in the subjects was very high, with 98% scoring in the medium and high ranges. This is not a surprising finding, considering that the medical profession is generally well regarded by the population at large. Self-esteem has been emerging as an important aspect of mental health; positive self-esteem is necessary for the development of a healthy personality structure. Self-esteem can be viewed as a coping resource, a

predispositional factor, a dimension of ego strength, or a way of predicting coping style. Ho et al¹² showed that a low level of self-worth contributed to the risk of developing a high level of psychosomatic symptoms.

Family relationships

In this study, family relationships were satisfying in about 80% of the doctors; only 6% perceived themselves as having severely dysfunctional families. This is important as good family relations moderate or reduce work stress.

Social Support

It was found in this study that spouses provided the necessary social support for the subjects, and the support of the helping profession was sought by less than 30%. The importance of spouses as a source of social support for the subjects is indicative of the strength of the marital relations. Spouses have been found to be the major source of support in other studies, providing strength in dealing with the stresses of life (Brown et al¹³, Pearlin et al¹⁴, Lin et al¹⁵).

WAYS OF COPING

As was pointed out by Lazarus and Folkman¹⁶ and Chan¹⁷, the way a person copes is influenced by his or her resources, which include health and energy, existential beliefs (for example, about God) or general beliefs about control; commitments, which have a motivational property that can help sustain coping; problem-solving skills; social skills; social support; and material resources.

Folkman & Lazarus¹⁸ group the coping strategies into two categories: problem-focussed processes and emotion-focussed processes. Problem-focussed processes can be subdivided into **problem-focussed-confrontational process** (e.g. *I scrutinise the problem and attempt to solve it in the best way*) and **problem-focussed-planful process** (e.g. *I set aside evenings or weekends for family*). Emotion-focussed processes have been classified into six subtypes, namely, **positive reappraisal** (e.g. *'I accept the situation and learn to live with it', or 'I look on the bright side of things'*), **escape-avoidance** which includes eating, drinking smoking, using drugs or medications, or sleeping, **distancing** (e.g. *'I don't let it get to me', 'I refuse to think about it too much' or 'I laugh or*

joke to release tension'), **self-control** (such as *'I swallow my anger and suppress my emotions'*), **social support**, and **accepting responsibility or blame**.

In the Singapore GPs problem-focussed processes were used most often. This may in part be the result of the nature of training of doctors, which is ability to solve patients' problems, but it may well be a general trait. Thus, other occupational groups in this multidisciplinary study were found also to use problem-focussed processes most often.

Successful apportioning of time between work, home and self would be important in modulating the stress due to perceived neglect of the family or being tied to one's work. It is noteworthy that 70% of respondents set aside weekends and evenings for the family. The family was the doctor's social support system and he had wisely not neglected it.

Various emotion-focussed strategies were also used, chief of which were cognitive redefinition and emotional discharge. These have an important role in stresses where nothing can be done.

HABITS AND GENERAL HEALTH

Habits

Overall, doctors in this study led quite a healthy lifestyle. Less than 10% smoked and less than 11% drank. Seventy-seven percent of them exercised at least 1-2 times a week. Contrary to popular belief, golf was played by only 12% of the respondents and jogging was the most popular form of exercise. That unhealthy habits like smoking and drinking were uncommon in these doctors may be the result of their medical training and having to give advice to patients. In addition this could be related to occupational status. It was also found by Haynes et al¹⁹ that tension was significantly related to smoking.

General health

One health outcome of stress is psychiatric ill-health. The General Health Questionnaire by Goldberg²⁰ has been extensively used as a screening instrument for population studies of minor psychiatric morbidity. Several versions are available, namely, the 60-item, 30-item, 28-item and 12-item ones. In Singapore an extensive study

of mental morbidity in the community was carried out by the Singapore Association of Mental Health in 1989²¹ using the 28-item version. In this present study, the 12-item version was used instead. Respondents were asked to compare their present state with what they usually felt. A Likert type of scoring was used.

This 12-item version has been validated by Tampolsky et al²², and Banks et al²³. Mari et al²⁴ found that length was not the most important factor and the 12-item questionnaire was better than the 30-item one.

The results of this present study showed that the general practitioners had a much lower lever of psychiatric morbidity than the Singapore population at large (5% compared to 18%). As the correlation of the level of stress was highest with the General Health Questionnaire scores, it indicated that stress levels were not high and were reflected in few symptoms of psychological distress reported by the general practitioners.

CONCLUSIONS

The following were found about the GPs:

- Work stress accounted for less than 30% of the total life stress in 60% of the respondents.
- The majority of respondents had an internal locus of control; most had type A personality and reported a high level of self-esteem.
- The respondents as a group had much lower psychiatric morbidity when compared to the general population.
- Family support was high; amongst the married doctors, the spouse was the most important source of social support; friends, work colleagues and siblings were a source of support for a little over half of the respondents.
- The top five work stressors ranked by mean score of severity were: work overload, time pressure, fear of making mistakes, difficult patients and work affecting home and personal life.

- Respondents used mainly problem-focussed strategies in coping with work stress. Emotion-focussed strategies were used less often.

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IMMUNISATION FOR ADULTS

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SUMMARY

Immunisation for adults is important especially for travel, in special occupational groups, for the elderly, those with chronic diseases and in HIV and immunocompromised individuals. There is a lot to offer to the adult population and this should be given due importance. The family doctor should keep up with new developments in immunisation both locally and internationally.

Keywords: Vaccines, Adults, Occupational, Chronic illnesses

INTRODUCTION

Immunisation programmes for children in developed countries are well organised and accepted. In developing countries too, the immunisation programmes and services for children are well provided and are given top priority through the Expanded Programme of Immunisation of the World Health Organisation.

Contrary to children, immunisation for adults has often been neglected and not given its due importance. The thinking is that many infectious diseases commonly occur during childhood and when vaccines are given to children the immunity can last till adulthood. Some of the infectious diseases are also not common in adults, such as pertussis and measles. There is a tendency to think that prevention of infectious diseases with vaccines is a strategy for children only.

However, there are certain illnesses like influenza and pneumococcal infection, where the elderly and the chronically ill are more at risk of mortality and morbidity. Also, the use of vaccines differ in special circumstances like in pregnancy, specific occupational groups, immuno-compromised individuals, high risk groups and for those intending to travel abroad.

The knowledge and understanding of these different circumstances is very important for doctors and especially for the family physicians who are more likely to deal with these situations. Immunisation for adults can be described under the headings of specific occupational groups; travel; catch-up immunisations and boosters; elderly and those with chronic diseases; HIV and immuno-compromised individuals and other high risk groups like haemophiliacs, renal dialysis patients and infants of Hepatitis B carrier mothers.

SPECIFIC OCCUPATIONAL GROUPS

Food handlers

Typhoid vaccine should be given to food handlers, hawkers, canteen workers, hotel kitchen and restaurant staff, both as primary doses as well as boosters every 3 years.

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Health workers

Health workers dealing with blood products, and surgeons, should be immunised with Hepatitis B vaccine. Many medical institutions give Hepatitis B vaccine to all health care workers, medical, dental, nursing staff and also laboratory technicians. Transmission of rubella in medical facilities to and from health care workers particularly in paediatrics occurs as well. Health care workers who might transmit rubella to pregnant patients should therefore be immune to rubella and it is prudent to screen them for antibodies to rubella and immunise all susceptibles. Health care workers caring for patients with chronic diseases can transmit influenza to them; such workers should be vaccinated yearly with influenza vaccine.

Sex workers

Those occupations in the sex industry, or those who have sex with multiple partners, should be vaccinated against Hepatitis B.

Police, emergency services personnel and morticians

Police, emergency services personnel and morticians are also at risk of Hepatitis B infection.

TRAVEL

The World Health Organisation (WHO) regulates vaccine requirements for entry into member countries. At the present time, only yellow fever vaccine is required of international travellers travelling to or from yellow fever endemic areas by international health regulations.¹

The WHO removed smallpox from the list of diseases subject to regulations in January 1982, and in 1987 the WHO recommended that the cholera vaccination certificate is no longer required by any country.

Table 1 shows the approach to vaccine selection for international travel. Up to date information on requirements for each country can be found in the International Travel and Health Vaccination Requirements which are published yearly by the WHO¹. The list for 1994 is given in Appendix 1 of this paper. Dosages for primary and booster doses are given in Table 2.

Table 1. Approach to vaccine selection for international travel

TRAVEL INFORMATION

Countries to be visited
Duration of stay
Date of departure
Likely lifestyle and accommodation
Urban versus rural travel

TRAVEL (PERSONAL HEALTH)

Previous vaccination history
Age
Pregnant or not
Medications at present
Medical illnesses
Allergy to drugs, vaccines or eggs
Impaired immune response owing to disease, medications or treatment

VACCINE CATEGORIES

Required vaccines (e.g., Yellow fever, meningococcal)

Recommended vaccines (Hepatitis A, Japanese encephalitis B)

Routine immunisations (bring up to date, appropriate for age)

Source: Jong EC. Immunisations for international travellers. Medical Clinics of North America 1992; 76:6:1280 (Adapted)

Immunisation requirements for those travelling from Singapore to other countries

Travellers from Singapore need a valid certificate of immunisation for yellow fever if they are going to Central Africa or South America. Those travelling to Saudi Arabia for their Haj Pilgrimage need a valid certificate of immunisation for meningococcal vaccine.

Immunisation for incoming travellers

A valid vaccination certificate for yellow fever is needed for those who are coming from Central Africa or South America.

Table 2. Dosing schedules for travel immunisations

VACCINE	PRIMARY	BOOSTER
Yellow fever	One dose (0.5ml SC)	10 years
Meningococcal	One dose (0.5ml SC or IM)	3 years
Hepatitis B Hepatitis A	Three doses (1ml IM) 1st dose -- stat 2nd dose -- 1 month later 3rd dose -- 6 month after 1st dose	10 years 10 years
Japanese encephalitis B	Three doses ≥ 3 years old -- 1ml SC; < 3 years old -- 0.5ml SC 1st dose -- stat 2nd dose -- 2 weeks later 3rd dose -- within 3 months of 1st dose	2-3 years
Rabies	Three doses 1ml SC on days 1, 7 and 28	3 years
Typhoid (injectable)	Two doses ≥ 10 years old -- 0.5ml SC or IM < 10 years old -- 0.25ml SC or IM	3 years
Typhoid (oral)	One capsule on days 1, 3, 5 for those > 3 months old Precaution: Cannot be on concomitant oral antibiotics or antimalarials	5 years
Cholera	Two doses 0.5ml SC or IM 1 week apart	6 months

Source: Jong EC. Immunisations for international travellers. *Medical Clinics of North America* 1992; 76:6:1280 (Adapted)

Compulsory or required travel vaccines

Yellow fever vaccine

Yellow fever is a serious and potentially fatal disease but the risk of transmission to travellers is very low under non-epidemic conditions. Because of the widespread presence of *Aedes aegypti* mosquitoes in the tropical and subtropical regions of the world, the risk of transmission is great if the virus is brought into such an area by an infected person. Thus many countries have kept an entrance

requirement for yellow fever vaccination despite years of no reported cases of yellow fever. In the jungles of equatorial South America and Africa, the yellow fever virus is maintained in a jungle or sylvatic cycle between monkeys and *aedes aegypti* mosquitoes². Endemic or sporadic cases can occur in human populations living or working in close proximity to sylvatic areas. The incubation period is 3 to 6 days. If an infected person travels to another area, epidemic outbreaks of yellow fever can occur when *aedes aegypti* mosquitoes carry

the virus from person to person. The yellow fever vaccine is a live attenuated viral vaccine. A single dose of vaccine is given deep subcutaneously for primary immunization and the immunization becomes valid after 10 days. Booster doses are required at 10-yearly intervals.

The contraindications to yellow fever vaccination are:

1. Current febrile illness.
2. Severe reaction from a previous dose.
3. The vaccine is cultured in chick embryo so the vaccine is contraindicated in people with a history of severe allergy to eggs.
4. Severe sensitivity to neomycin and polymyxin.
5. Immuno-deficiency:
Those individuals with underlying disease, e.g. malignancy, congenital immune deficiency, HIV infection or those under medical therapy e.g. cancer chemotherapy, radiation therapy, organ transplant therapy or those on long term oral corticosteroids.
6. Pregnancy.
7. Children under 6 months of age because of higher risk of adverse effects like encephalitis.

Meningococcal vaccine

The vaccine protects against meningitis caused by meningococci of groups A and C. Those travellers wishing to visit Saudi Arabia need a certificate of vaccination for meningococcal vaccine, usually during the annual Haj pilgrimage to Mecca, and this has to be issued at least 10 days prior to arrival in Saudi Arabia. The vaccine is also recommended for travellers going to live and work in areas with recognised epidemic meningococcal disease, e.g. sub-Saharan Africa. Vaccination consists of a single deep subcutaneous or intramuscular injection. Protective antibodies appear within 5 days of vaccination. A booster dose is recommended every 3 years.

The contraindications to meningococcal vaccines are:

1. Current febrile illness.
2. Severe reaction to a previous meningococcal vaccine.
3. Pregnancy.

Recommended travel vaccines

Although there are no vaccination requirements, the following immunisations are however recommended to travellers who are travelling to areas endemic to hepatitis B, hepatitis A, Japanese encephalitis B, rabies, typhoid and cholera.

Hepatitis B immunisation

Hepatitis B infection is prevalent in many parts of Asia and Africa and asymptomatic hepatitis B virus carriers may constitute up to 15% or more of the population. The immunisation regime consists of 3 doses of vaccine, the first dose followed by the second dose at 1 month and the third at 6 months after the initial dose by intramuscular injection except in patients with haemophilia in whom the subcutaneous or intradermal route may be considered. The deltoid muscle is the preferred site of injection in adults and the anterolateral thigh in infants and children.

The contraindications to hepatitis B vaccination are:

1. Current febrile illness.
2. Severe reaction to a previous dose.

Hepatitis A immunisation: active

Hepatitis A virus is endemic worldwide and spread by the faecal-oral route; protection from symptomatic infection can be provided by active immunization or from immunoglobulin³. Many people may be immune already as majority has asymptomatic subclinical infections. Hepatitis A in children is usually mild and often asymptomatic. Before vaccination, it is wise to check for the presence of hepatitis A antibody in those with a history of jaundice, with probable exposure or those who are around 40 years old. When hepatitis A IgG antibody is present the person is immune for life and immunisation is unnecessary. Hepatitis A vaccine is given like hepatitis B vaccine, the first

dose followed by second dose at 1 month and third dose 6 months after the initial dose by intramuscular injection.

Hepatitis A immunisation: passive

Immunoglobulin (passive vaccination) is another alternative for protection against hepatitis A. It gives immediate protection which is an advantage when the traveller is too late for 2 doses of active vaccine. For adults, 250 mg intramuscularly will protect for eight weeks and 500-750 mg intramuscularly will protect for about 6 months. Children under 10 years can be given half the above doses.

Japanese encephalitis B

Japanese encephalitis is a viral infection spread by mosquitoes in Asia, South East Asia and some Pacific islands. This arboviral infection is transmitted by the bite of an infected culex mosquito that normally breeds in rice fields. Pigs and certain species of wild birds serve as a natural reservoir for the virus and the virus is transmitted to humans through infected culex mosquitoes which feed on domestic animals, birds and humans. In temperate regions and northern tropical zones of Bangladesh, China, Northeast India, Japan, Kampuchea, Korea, Laos, Myanmar, Nepal, Northern Thailand and Vietnam, the risk of transmission is greatest during the monsoon months of May through October.

Rabies

Animal bites, especially dog bites present a potential rabies hazard to international travellers who travel to rural areas in Central and South America, the Middle East, Africa and Asia. Pre-exposure rabies immunisation is recommended for rural travellers, especially adventure travellers who go to remote places and also recommended for high risk groups such as veterinarians working in areas where rabies is a recognised risk. Rabies vaccine is a human diploid cell vaccine and inactivated rabies vaccine is given as a course of 3 doses within a month on days 1, 7 and then either day 21 or 28. The series may be given intramuscularly or intradermally. Post-exposure prophylaxis with human diploid cell vaccine is also effective. A pre-exposure course should always be followed by post-exposure boosters as soon as possible after a suspect bite.

Typhoid

The spread of typhoid fever is usually faecal-oral. The risk of infection is increased in areas of high carriage rates and poor hygiene. Travelling or living rough, living in rural areas or eating out makes faecal-oral transmission of any pathogen more likely.

There are two types of typhoid vaccine:

Injectable typhoid vaccine

This typhoid inactivated vaccine requires 2 doses given 4 weeks apart for primary immunization and a booster dose after 3 or more years. The injectable typhoid vaccine has been associated with troublesome side effects such as soreness at injection sites, headache, low grade fever and general malaise for 1-2 days following immunisation. Typhoid vaccine is not recommended under 1 year age because of the risk of adverse reactions. Typhoid Vi vaccine, Vi capsular polysaccharide vaccine, is also given subcutaneously or intramuscularly. It is given as a single 0.5 ml dose repeated every 3 years for those at risk. This vaccine has fewer side effects than the inactivated vaccine.

Oral typhoid vaccine

The new oral typhoid vaccine (Vivotif) which contains a live attenuated strain of *Salmonella typhi* has become widely available over the past few years. The oral typhoid vaccine is reported to have comparable or better efficacy than the injectable vaccine and the currently recommended booster interval is 5 years. The vaccine is in capsule form and the primary (or booster) series consists of 3 capsules taken on days 1, 3 and 5. The three-capsule series is required even for those who have previously received injectable typhoid vaccine, but who require boosting. The oral typhoid vaccine cannot be taken by people being treated concurrently with antibiotics or within 7 days after finishing the antibiotics course. Antimalarial chemoprophylaxis should not be initiated until 2 weeks after the last dose of oral typhoid vaccine has been taken. Oral polio vaccine should not be taken at the same time as oral typhoid vaccine; OPV should be given 7 to 10 days before or 10 to 14 days after the oral typhoid vaccine. Avoid in pregnancy and immunocompromised patients.

Cholera immunisation

Cholera is a bacterial infection that causes severe watery diarrhoea. The spread of vibrio cholerae occurs by faecal-oral transmission in environments where hygienic preparation of food and sanitary disposal of human wastes are lacking. Although cholera presents a continuing health risk to travellers to Asia, Africa as well as Latin America, the risk is low if safe food and water guidelines are followed. Cholera vaccine is not highly efficacious providing only about 50% protective immunity. Immunity is also short-lived and vaccine should be given every 6 months. The WHO no longer endorses a requirement for this vaccine for entry into any country. The basic course consists of two doses of vaccine given subcutaneously or intramuscularly separated by a period of at least 1 week and preferably 1 month.

CATCH-UP IMMUNISATION AND BOOSTERS

Adults incompletely or not immunised in childhood against tetanus, diphtheria, polio, measles, mumps, rubella and hepatitis B may remain susceptible to these infections and primary immunisation or completion of the primary course should be considered.⁴

Diphtheria and tetanus vaccines

Having had routine childhood immunisation programmes for the last twenty five to thirty years, many adults should be immune to diphtheria and tetanus. If adults are not previously immunised, they require a primary immunising course of 3 doses of DT with the second dose 4 to 6 weeks after the first dose and the third dose at 12 months, and boosters administered every 10 years thereafter. Many individuals remain immune to tetanus into adulthood because they have received tetanus toxoid when they had injuries, but they are commonly at risk for diphtheria.

Poliomyelitis

Routine immunisation against poliomyelitis is not recommended for adults unless they are at particular risk of exposure as when travelling to endemic parts of the world. Inactivated polio vaccine (Salk) is preferred to oral polio vaccine (Sabin) for adults without previous polio

immunisation as this group has a very small risk of paralytic disease due to the live vaccine virus.

Rubella

Rubella vaccine should be given to all women of childbearing age as the infection is primarily a threat to the foetus. The infection in young infants and children is quite mild. Rubella vaccine is given in most countries to girls at age 10-12 years and now as part of the universal childhood immunization programme at 12 to 15 months age together with measles and mumps. The goal is to ensure immunity before females enter the reproductive age group.

Hepatitis B

The degree of endemicity of hepatitis B varies widely from country to country. Hepatitis B is endemic in South East Asia. In areas of high endemicity, infection is commonly acquired at birth (from a carrier mother) or in early childhood. In Singapore, routine hepatitis B immunisation for babies started in 1987. The first dose is given at birth, followed by second dose a month later and third dose 5 months later. Those who were born earlier than 1987 are encouraged to have hepatitis B immunisation. Table 3 shows the indications for hepatitis B vaccination in adults.

Table 3. Adults who should be given hepatitis B vaccine

Susceptible household or sexual contacts of HBs Ag positive individuals

Promiscuous homosexuals or heterosexuals
Those handling human blood products
Drug users
Those in epidemiologically defined high risk geographical areas

High risk groups - Haemophiliacs, renal dialysis patients.

Source: Lang S & Singh KP. *Complete Guide to Immunisation. Part III: Adults, Elderly and Immuno-compromised. Medical Progress, Sep 1990:27.*

THE ELDERLY AND THOSE WITH CHRONIC DISEASES

Some vaccines like influenza vaccine and pneumococcal vaccine are now primarily used for adults, especially in the elderly and those with chronic diseases to prevent deaths. Chronic diseases include those cardiopulmonary causes, renal, metabolic, haemoglobinopathies, splenectomised patients and those with immunodeficiency.

Influenza vaccine

Influenza viruses A and B are a frequent seasonal cause of morbidity and mortality in the elderly, chronically ill and the immunocompromised. Vaccination with purified components confers protection against vaccine-related type A and type B strains. The immunity obtained from immunisation is short-lived compared with that following natural infection. Influenza vaccine is typically 60 to 80% effective in healthy young adults. Protection against infection in the elderly is much reduced because vaccine responses may be diminished because of the natural waning of the immune system. Hence larger amounts of an antigen may be required to produce the desired response.

Pneumococcal vaccine

Polyvalent pneumococcal polysaccharide vaccine is similarly recommended for the elderly and the chronically ill. *Streptococcus pneumonia* is a common cause of pneumonia and also for chronic bronchitis, sinusitis, otitis media. It can also be responsible for meningitis and osteomyelitis. Overall mortality is about 20% and can range from a few percent in children to about 50% in adults over 65 years of age. Other susceptible people are those with chronic diseases and splenectomised patients and other immunodeficiencies⁵. Pneumococcal vaccine and influenza vaccine can be given at the same visit but into different sites.

Table 4. Indications for pneumococcal vaccine

Age > 65 years
Chronic illness, e.g. cardio-pulmonary, diabetes mellitus, alcoholism, cirrhosis, cerebrospinal fluid leak.
Immunocompromised e.g. hyposplenism, Hodgkin's disease, lymphoma, multiple myeloma, chronic renal failure, nephrotic syndrome, immunosuppressive therapy.
Symptomatic or asymptomatic HIV infection
Other high risk groups

Source: *Immunisation Practices Advisory Committee (ACIP) 1989.*

HIV AND IMMUNO-COMPROMISED INDIVIDUALS

Limited studies in HIV-infected individuals have not shown an increased risk of adverse events from live or inactivated vaccines⁶. In general live vaccines should be avoided in severely immunocompromised patients. However MMR as well as inactivated polio vaccine (IPV), diphtheria, tetanus, pertussis (DPT), influenza and pneumococcal vaccines are recommended for both symptomatic as well as asymptomatic HIV-infected persons. Only BCG vaccine and oral polio should be avoided in HIV-infected persons.

OTHER HIGH RISK GROUPS

Hepatitis B vaccine is particularly recommended for haemophiliacs, renal dialysis patients and those health workers who are going to work in areas of the world where there is a high prevalence of hepatitis B infection. Children born to mothers who are both HBsAg and HBeAg positive are at greatest risk and are best protected by being vaccinated at birth or as soon as possible thereafter, preferably within 12 hours and not later than 48 hours. At the same time, hepatitis B

immunoglobulin should be given at a different site.

VACCINES FOR THE FUTURE

Chickenpox vaccine

Recently the United States Food and Drug Administration approved Merck and Co's Varivax vaccine for chicken pox. In Singapore this newly approved vaccine for chickenpox will be made available to high-risk individuals exposed to the virus. This group includes new-born babies, leukaemia patients, cancer patients and immunosuppressed individuals exposed to the virus.

Other vaccines under trial

These are the HIV vaccine, acellular pertussis vaccine, group B streptococcus, respiratory syncytial virus, rota virus, and Hepatitis C vaccines.

CONCLUSION

Immunisation for adults is important especially for travel, in special occupational groups, for the elderly and those with chronic diseases and in HIV

and immuno-compromised individuals. There is a lot to offer to the adult population and this should be given due importance. The family doctor should keep up with new developments in immunisation both locally and internationally.

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THE TEACHING OF OTOLARYNGOLOGY

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INTRODUCTION

"I don't know the first thing about ENT!". This remark, often heard in lighthearted conversation between family practitioners and ENT specialists at social gatherings, carries more than a grain of truth: in fact it raises legitimate misgivings regarding the adequacy of teaching of otolaryngology (ENT) at undergraduate level. Although every emerging medical graduate possesses a reasonable knowledge of general medicine and surgery, a corresponding grasp of ENT is unusual, if not exceptional. Yet, in family practice, the sick patient is surely entitled to expect a comparable level of competence from the medical practitioner irrespective of the site or nature of the disease.

In a recent survey based on a questionnaire completed by 184 Singapore-based GPs, no fewer than 82% of the respondents regarded their undergraduate training in ENT as less than adequate from the point of view of general practice. Furthermore, as half of the replies were received from doctors graduating within the past decade, there is no indication that the trend is changing, at least up to the early 1990s. However, the results do not take account of recent innovations in the NUS teaching programme, resulting from the far-sighted appointment of a full-time academic with responsibility for undergraduate training to the Department of Otolaryngology. (*Editor's Note: The results of the survey have yet to be published*)

Interestingly, the survey showed that the percentage of doctors expressing dissatisfaction was higher in

Singapore-trained graduates than in the group - admittedly a small one - who received their education elsewhere. However, deficiencies in ENT teaching programmes are universal and have long been a source of concern to those involved in the academic aspects of the specialty.

DEFICIENCIES IN TEACHING

Personal observation of the NUS and other teaching programmes, supported by our survey results and by current student opinion, suggest that deficiencies fall under four main headings namely, inadequate teaching time in the curriculum, insufficient practical training, poor teaching standards and lack of student motivation.

Teaching time

Historically, undergraduate clinical teaching was the responsibility of the 'big three' - medicine, surgery and obstetrics - so that curricular arrangements were controlled by their professorial staffs. The teaching of ENT received scant attention despite its importance in family practice, where various surveys have shown 5-20% of cases to be ENT-related. In the author's student days in Scotland the ENT course comprised around 3-4 lectures and a small number of attendances at the outpatient clinic, with no form of assessment either at the end of the course or in any subsequent professional examination. With the passage of time, and possibly as a consequence of increasing academic recognition of both ENT and family medicine, certain universities have since accorded greater undergraduate importance to ENT teaching. The current pattern, however, is far from uniform, with marked variations from country to country and even within individual countries. In Scandinavia, for example, where ENT appears to enjoy a better-than-average academic status, undergraduate postings are lengthier than

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elsewhere, an allocation of around 120 hours being common. Elsewhere the pattern is less encouraging and in many instances woefully inadequate. One undergraduate student, recently on elective posting from Australia, came to NUS to supplement a university course of only 25 hours, while a Canadian student on a similar attachment, reported a mandatory exposure of only 4 hours at her home university. The pattern in the United Kingdom varies widely, the duration of posting often depending on the local academic standing of the ENT department concerned. The lengths of courses range from 35 to 120 hours, 50-60 hours being common. In the USA, ENT training for family practice is currently in a state of flux and lacks a well defined pattern. In most medical schools ENT is categorised as an elective subject in the undergraduate course although all students are likely to receive a brief exposure to ENT at some point in the curriculum. Additionally those graduates embarking on general practice will get some postgraduate instruction as part of their family practice training programme. This, in most instances amounts to a few outpatient clinic attendances, possibly supplemented by lectures. The present posting at the NUS covers 65 hours but this will be increased to around 120 hours when the revised curriculum becomes operative in ENT in 1996.

Practical training

A major problem in past and present programmes, highlighted in our survey by no fewer than 81% of GP's, is a lack of direct involvement between student and patient coupled with limited opportunities to practise techniques of examination. In nearly all ENT postings, including that in NUS, the bulk of the instruction is carried out in the outpatient clinic. As this inevitably slows down patient turnover, there is a reluctance on the part of many teachers to encourage or even tolerate student participation in view of the inconvenience to themselves, the patient and the nursing staff. The problem is aggravated in NUH by an acute shortage of space in the outpatient clinic which places physical restrictions on independent examinations by students. Furthermore, with a limited medical and nursing staff, it is not possible to allocate sessions specifically for teaching purposes, without interfering with the throughput of the clinic. In

addition, the present remuneration system, which takes no account of teaching commitments but rewards the doctor according to the number of patients examined, conflicts with a good clinical teaching regime. In view of these problems, many teachers relegate the student to the role of observer with little opportunity to take case histories or to examine and detect clinical findings in the patient. Recent feed-back indicates that at the end of our undergraduate postings a number of students have taken as few as one case history and examined the nose or throat in less than five patients. It should be appreciated however that this failing is by no means confined to Singapore. Indeed in some countries such as Egypt the problem is virtually insoluble because of the size of university undergraduate classes, often amounting to as many as 1000 students in a single year. No such problem exists in Singapore however, where with careful planning, it is possible to reduce the student: teacher ratio to 2:1.

However even in the most favourable setting, practical ENT instruction abounds in problems. In most other disciplines, if structures cannot be seen, they can at least be palpated or auscultated. In otolaryngology however, access to areas such as the nasopharynx and larynx using standard techniques may at times prove impossible even to the expert. In order to balance these difficulties, the effort expended in training must be correspondingly intensified, making the role of the instructor more demanding. Despite these problems, a conscientious and patient teacher, prepared to devote time to the student in the initial stages of training to ensure that his examination technique is correct and that he knows what to look for and how to interpret what he sees, will be amply rewarded for the extra effort.

The teacher, at the same time, should retain a clear concept of how much to expect of the student within the limitations of each posting programme. In NUS the average undergraduate student is expected to acquire competence in the following procedures: history taking, examination of the ears, nose, mouth, pharynx, facial skeleton and neck, hearing assessment and tests for giddiness. We are fully aware that, in a short training course, expertise in mirror examination of the nasopharynx and larynx is most likely beyond the capacity of

the average student. Nevertheless, the opinions expressed in our survey encourage us to continue teaching these techniques, since no fewer than 92% of the respondents held the view that mastery of head mirror/headlamp techniques would be an asset in their practice and, indeed, were prepared to undergo additional ENT training to achieve this. Furthermore, we believe that an introduction to these techniques also promotes an appreciation of their value in other aspects of routine ENT practice, including nasal and pharyngeal inspections and selected ear procedures. However, expertise cannot be achieved without practice - hence the importance of ensuring that adequate opportunities are made available to every student.

One other potential problem, currently in the news, concerns obtaining patient consent for student examinations. In university teaching hospitals there is an obligation, indeed necessity, to reach a satisfactory solution to this problem. A reluctance on the part of the patient to submit to repeated examinations by undergraduates is understandable but the patient must also be reminded of the obligation to train the next generation of doctors. There is no easy answer to this dilemma but the writer has found the vast majority of patients willing to cooperate, provided they are approached with tact and understanding and student numbers are reasonable. At the same time, the teacher should keep a watchful eye on the proceedings and be ready to intervene and protect the patient if the student's attempts at examination are causing distress.

Teaching standards

Irrespective of the length of any course, student teaching will remain ineffective if standards of instruction are low. In Singapore, where education plays a central role in society, there is a growing interest in monitoring teacher quality in all branches of education. This, ironically, is an area which in the past has been sadly neglected by universities. In the writer's experience lecturer and professorial appointments are awarded for almost every reason other than the ability to teach! A good research record, a mass of publications, good clinical skills or immaculate surgical technique, all important in their own right, are invariably the factors which determine the selection of an applicant for an

academic post; yet how often is teaching ability considered as a major, or even minor, factor in deciding academic appointments in clinical medicine?. As a consequence, the appointee may be a prestigious figure in the medical world but totally lacking in the ability to impart knowledge, so that from the students' point of view he may be a complete disaster. To make things worse such an academic is usually blissfully unaware of, or - even worse - not interested in, his shortcomings and would be the last to consider attending a course aimed at improving teaching skills.

In the writer's opinion, one of the main problems of lecturers is a tendency to feed the student with too much information, thereby clouding his perspective of essential issues. Although, in Singapore, this might be looked on as a national *kiasu* trait, it is in reality a universal problem especially with younger lecturers. The effective teacher must be selective as students cannot be expected to cope with limitless information. Curriculum planners are well aware of this and are currently involved in streamlining the entire NUS medical curriculum to its essential core.

In recent years feed-back of student opinion in NUS (although not an entirely reliable yardstick) has proved a useful parameter in assessing the quality of lecturers and clinical instructors. There is little doubt that monitoring teacher quality will attract much more attention in future years.

Student motivation

An otherwise adequate teaching programme may fail, if for any reason, the student is not interested in, or receptive to, what is presented. While motivation should ideally be a spontaneous process arising from within, external factors can act as important catalysts in generating motivation. Obvious examples include inspiring and entertaining teachers, stimulating question-answer sessions and provocative problem-solving exercises.

However, less obvious indirect factors may also exert a significant influence on student motivation. For example, the timing of a course within the curriculum may be an important determining factor. The optimal placement of a clinically

orientated subject such as ENT would be late in the medical course, during a period free from the distractions of important examinations. However the same criteria could apply to the majority of clinical subjects, so, with a multiplicity of competing interests, satisfying the optimum requirements of each specialty would, for logistical reasons, not be possible.

Perhaps the most effective method of generating student motivation in any subject is the inclusion of some form of mandatory assessment, especially if it constitutes a potential barrier to the student's onward progress. In a subject with no examination one can guarantee that student interest will rapidly evaporate irrespective of its importance and relevance after qualification. Under present arrangements in NUS an assessment is included to monitor student performance at the end of each ENT posting. This undoubtedly has a salutary effect in motivating the examination-conscious Singaporean despite the fact that a poor result does not necessarily preclude further progress. Furthermore, the inclusion of ENT-related questions in the final surgical professional examination ensures continued student interest up to the time of qualification.

DISCUSSION

The trend in some universities towards categorising ENT as an elective rather than an obligatory undergraduate subject is open to question. Firstly, a good basic knowledge of the specialty is essential immediately after graduation to enable the newly qualified doctor to cope with ENT-related tasks or emergencies as a hospital medical officer. Lack of training at this stage could pose serious problems for the fledgeling doctor. Furthermore, as two-thirds of all undergraduates eventually enter general practice, it serves little purpose to delay training to postgraduate level as the numbers preclude individual instructional programmes, at least for the vast majority, due to lack of personnel and facilities. Postgraduate training of large numbers of candidates merely tends to duplicate undergraduate courses and therefore offers no advantages. In contrast, the ideal postgraduate training involves an attachment to an ENT unit to observe and participate in the routine work for a minimum of 3 weeks and preferably for 2-3 months

(as in GP postgraduate electives in UK). However shorter GP attachments (3-weeks-half day refresher courses) have also proved useful and popular in NUH. Additionally the family practitioner should be periodically updated by attendances at CME presentations.

It is abundantly clear from the foregoing evidence that otolaryngology training still leaves much to be desired. However the introduction of the revised medical curriculum in Singapore provides an ideal springboard for improving the training format. The extended ENT posting should afford greater opportunities for interaction between student and patient. Furthermore, proposed alterations to the examination system, with the addition of a professional exam in the minor specialties' in the fourth year, should serve to upgrade otolaryngology in the mind of the undergraduate.

The provision of an improved training format, however, does not automatically guarantee a successful training. The teachers themselves must meet the challenge and show dedication, enthusiasm and effort, as without these attributes successful training is hard to achieve. In particular, teachers must avoid the easy answer of reducing the role of the student to that of observer. This achieves little, yet it is the formula in most centres and in our opinion the main reason for inadequate training. The growing interest in monitoring teacher performance is to be welcomed as it is likely to improve teaching standards, not only in otolaryngology, but throughout the entire curriculum.

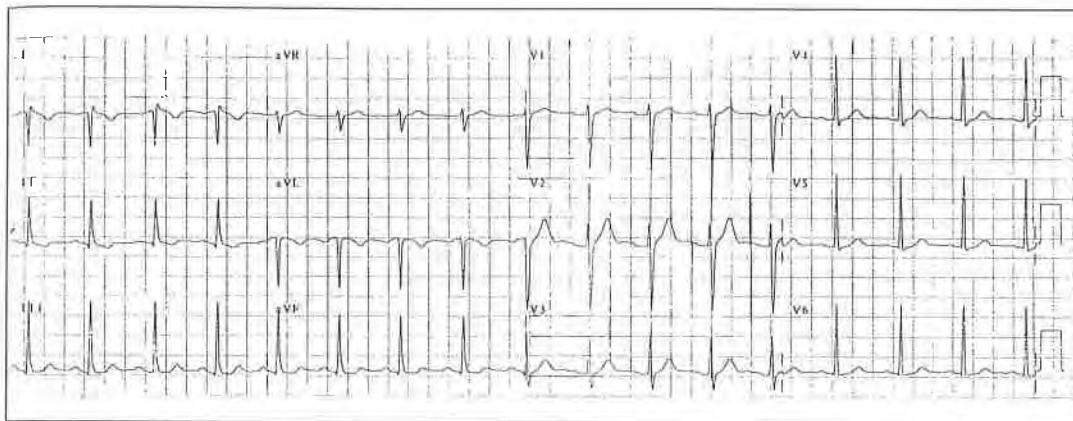
Finally attitudes must change. At present it is universally accepted that the average family practitioner is nowhere near as competent at examining the nose as compared to the heart, lungs or abdomen. Yet, as mentioned at the outset, the patient is entitled to the same degree of expertise irrespective of the site or nature of the problem. The complacency which leads to a general acceptance of these double standards must therefore make way for a fresh outlook, aiming at higher levels of teaching in those areas which are at present deficient to ensure that the family practitioner of the future is soundly trained in all aspects of medicine.

HOME STUDY SECTION

ECG QUIZ

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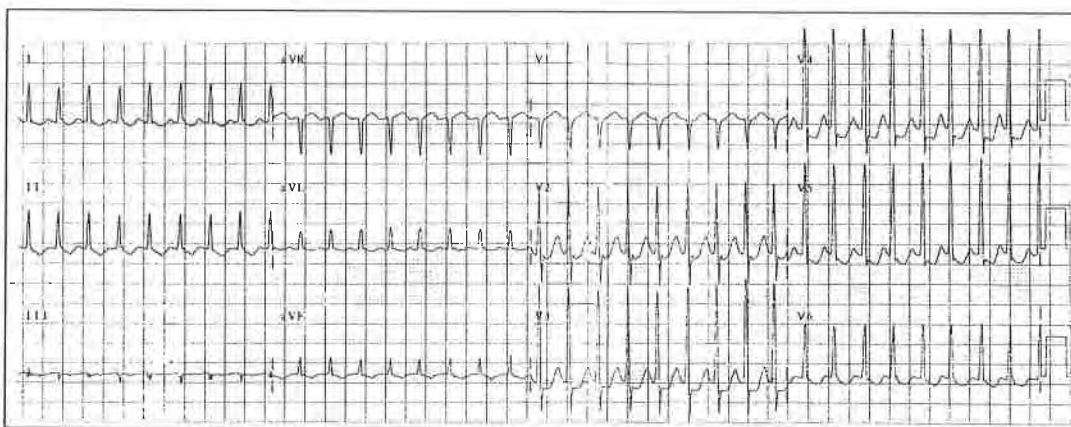
ECG 1



Questions on ECG 1

- What is the diagnosis?
- List one differential diagnosis.

ECG 2



Questions on ECG 2

- What is the rhythm?
- How do you treat the rapid heart rate?

Answers on page 98

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CHILDHOOD ASTHMA

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DEFINITION

Bronchial asthma is a condition characterised by recurrent or chronic wheeze and/or cough, with recognisable variable airway obstruction due to bronchial hyper-reactivity secondary to airway inflammation.

DIAGNOSTIC APPROACH

History

Diagnostic pointers:

- recurrent episodes of cough, or chronic cough
- chest tightness and wheezing
- nocturnal cough
- exercise-induced cough
- family history of atopy
- triggering factors: viral infection, allergens, smoke, dust, furs, cats and dogs.

The history is most important in the diagnosis of asthma. Grading of severity from the history is shown in Table 1.

Clinical examination

Features of asthma include:

- features of atopy such as eczema
- tachypnoea, accessory muscle use
- inspiratory and expiratory wheezing
- hyperinflated chest that is hyperresonant to percussion (if severe)
- severe attacks: tachycardia, increased respiratory rate, silent chest, cyanosis.

Investigations

Investigations are usually not necessary, unless

the diagnosis is in doubt or complications suspected.

Peak Expiratory Flow Rate

Assesses degree of obstruction and response to bronchodilators.

Chest X-ray

Normal between episodes. Hyperinflation, increased lung markings appear in acute asthmatic attacks. A Chest X-ray should be taken in severe or unusual cases to exclude foreign body, chest infection or pneumothorax.

Full blood count

Generally normal but increased eosinophils suggest atopic disease. Leucocytosis suggests infection.

Sputum examination

Tenacious and with eosinophils; purulent sputum suggests infection.

Differential Diagnosis

Other common causes of wheezing and/or cough should be considered such as:

Bronchiolitis

In infants, bronchiolitis caused by respiratory syncytial virus is a very common cause of wheezing.

Foreign body

A foreign body in the airway or oesophagus should be considered in patients over 1-2 years of age who have sudden onset of wheezing. Diminished breath sounds localized to one region on examination of the chest will help diagnosis.

MANAGEMENT

The scope of management depends on the severity of asthma. The treatment of mild, moderate and severe asthma is shown in Table 1 and Fig 1.

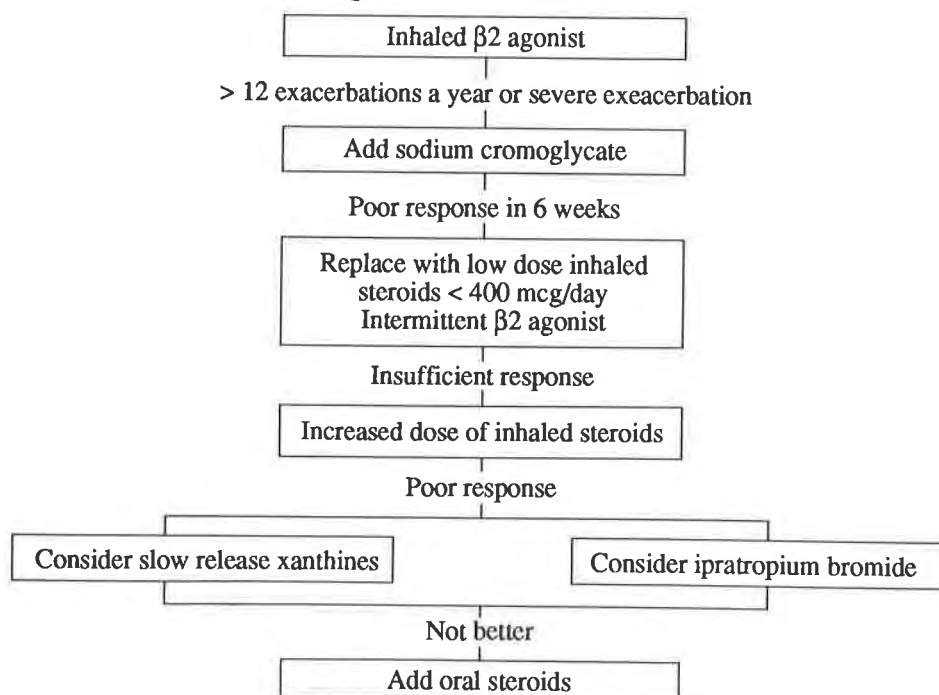
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Table 1. Severity of Asthma and Management

Severity	Management
<p>Mild Asthma Intermittent, infrequent attacks, occurring not more than once a month. Asymptomatic between episodes and has normal PEFR $\geq 80\%$ of predicted value.</p>	Intermittent bronchodilator therapy alone. An inhaled β_2 agonist (with spacer device if necessary) is recommended.
<p>Moderate Asthma</p> <ul style="list-style-type: none"> - Intermittent but frequent attacks (more than once a month) - Not responding to bronchodilator therapy alone - Has attacks which require hospitalisation. <p>The child is also well in between attacks with PEFR $\geq 80\%$ of predicted value.</p>	<p>Inhaled β_2 agonist and sodium cromoglycate (spinaler 5 mg tds) x 6 weeks.</p> <p>If there is a poor response after 6 weeks of sodium cromoglycate, substitute with low dose inhaled steroids < 400 mcg / day.</p>
<p>Severe Asthma A child with severe asthma has very frequent attacks, occurring more than once a week, or has persistent symptoms. Pulmonary function is persistently abnormal or PEFR $\leq 80\%$ of predicted value. A child who has had one severe life-threatening attack should be included in this group.</p>	<p>Inhaled steroids ≤ 400 mcg/day is recommended. Methyl xanthine may be added. If control cannot be achieved, add oral steroids: Prednisolone 1-2 mg/kg (maximum 40 mg) is usually given for about 5-7 days.</p>

Fig 1. Treatment of Asthma



Source: Singapore Paediatric Asthma Consensus, 1992.

OTHER MEASURES

Environmental control

Environmental control plays an important role in reduction of allergens and irritants. Avoidance of pets, furry toys, household smoking and the implementation of anti-dust measures (e.g. regular vacuuming, changing of bedsheet and curtains) may be very helpful.

Other treatment

Antibiotics, antihistamines, mucolytics, anti-tussives, and immunotherapy have no special role in asthma therapy.

Education

Asthma care is co-management between the doctor, patient and family. The day-to-day management of asthma falls upon the patient and the family. Therefore patient and parent education are important.

The four elements of co-management are:

- understanding the condition and medication, use of inhalers and spacer devices.
- monitoring symptoms, peak flow and drug usage
- a pre-arranged action plan and a crisis strategy
- written guidelines.

REFERRAL

Referral to a specialist is indicated in children with the following:

1. Requiring high dose steroids > 400 mcg/day or on prolonged steroid therapy.
2. Persistently abnormal pulmonary function.
3. Not responding as expected to usual therapy.
4. Requires steroid therapy and below 3 years of age.
5. A past history of acute life threatening asthma.

SPECIAL CONSIDERATIONS

Asthma in the first two years of life

Mild symptoms usually do not require treatment. If symptoms become more troublesome, oral β_2 agonist may be used although studies suggest that it is not so effective in infants. If treatment fails, consider referral.

Recurrent severe acute episodic asthma

There is a group of children aged between 1 and 5 years, who develop recurrent severe acute episodes of asthma and yet are free of all symptoms between those episodes. These episodes can occur quite infrequently and seem usually to be associated with intercurrent respiratory infections. Prophylactic therapy in this group often is disappointing. Further, the attacks are so infrequent that regular therapy seems unjustified. A practical approach is at the first sign of a cold, and dry cough or slight wheeze, to institute regular inhaled β_2 agonist. If after a few hours the attack progresses, then oral corticosteroids should be commenced. Parents should have these drugs at home and be instructed to commence them once frequent inhalations of β_2 agonist become necessary. If despite this therapy, distressing wheeze and other symptoms continue, consider referral.

Hypersecretory asthma

In this situation cough and excessive secretions, rather than wheezing, are the primary problems. Anti-inflammatory therapy (such as inhaled sodium cromoglycate or steroids) is useful here.

Exercise-induced bronchoconstriction

Exercise induced bronchoconstriction can be quite a distressing symptom. In most children and teenagers a practical approach is either an inhaled β_2 agonist drug or sodium cromoglycate immediately prior to sport. The inhaled β_2 agonist drug seems to be more effective. In children on maintenance therapy for persistent asthma, additional doses of inhaled β_2 agonist drug, preferably using a metered aerosol can be given immediately prior to and during physical activity.

Night cough

Night cough is a common symptom in children with all patterns of asthma. There is a group of children aged between 2 and 6 years who have recurrent episodes of dry, night cough. It often wakes the child and other members of the family from sleep and can be very distressing. It seems probable that children with this sole symptom do have a variant of asthma as the cough is virtually identical to that which occurs in children who have associated wheeze. There is often evidence of allergy in the child or family. Treat with β_2

agonist.

Night dippers/early morning dipping

While in many children and teenagers with asthma, symptoms are worse at night, there is a small group in whom very severe airways obstruction develops between 1 am and 4 am. This can occur either regularly or intermittently. It is probably an accentuation of the normal diurnal rhythm of airways calibre. While more commonly this pattern occurs in children with persistent airways obstruction, children with truly, episodic asthma may present with quite severe nocturnal symptoms. Inhaled β_2 agonist drugs in combination with inhaled steroid before bedtime may reduce 'night dipping'.

Asthma in the adolescent age group (14-18 years)

There are several special problems:

- Some teenagers smoke but may not admit this to their doctor. The importance of smoking as a trigger factor should be highlighted and the habit aggressively discouraged.
- Non-compliance and abuse of aerosols is a particular problem.
- Most childhood asthma deaths occur in adolescents.
- Body image is important in adolescents and if asthmatic symptoms are not adequately controlled, these children may suffer additionally from psychosocial problems.
- Severe chronic asthma may stunt growth and delay puberty.

The general principles of management apply but there is a need for counselling and the following:

- Adolescent asthmatics should participate in sports but should take prophylactic drugs where necessary.
- Inhaler techniques should be taught and checked regularly as even in adolescents inhalers are often used incorrectly.
- When symptoms are not relieved by regular treatment or peak flows are consistently reduced, teenagers should follow an emergency

crisis plan. This is an action plan which should be written; usually consists of increasing the doses of routine drugs and if necessary adding oral steroids.

- Patients should be counselled to seek help when response to their emergency therapy is inadequate.

Severe acute life-threatening asthma (status asthmaticus)

This can be defined as asthma persisting for 24 hours and unresponsive to bronchodilator therapy. Acute life-threatening asthma is manifested by marked respiratory distress and the use of accessory muscles of respiration. Institute emergency treatment and send immediately to the hospital.

Emotional problems in childhood asthma

Studies have shown that asthmatic children exhibit more emotional disturbance than non-asthmatic children. Many children and their families have difficulties and anxieties in adapting to and coping with the problems associated with asthma. It is probable that most of this worry and anxiety is a reaction to the threat and uncertainty of asthma rather than to any serious disturbance in the child or parent-child relationship. The continuing educational role of the doctor is a key one in the management of all asthmatic patients. Once the parents and child understand what asthma means, develop confidence in managing attacks and learn that it need not be a major handicap, then much of the worry and anxiety disappear.

References

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2. Warner JO et al. Asthma: a follow up statement from an international paediatric asthma consensus group. Archives of Disease in Childhood, 1992;67:2, 240-248.
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ECG QUIZ -- ANSWERS

ECG 1

- (a) Diagnosis: Wrong lead placement, arm leads reversed.
- (b) Differential diagnosis: Dextrocardia -- would expect the progression of R wave in chest leads to be different.

ECG 2

- (a) Rhythm: Supraventricular tachycardia.
- (b) Treatment: Carotid sinus massage.
If haemodynamically compromised, electrical cardioversion.
If haemodynamically stable, IV verapamil or adenosine.



NEW BOOK ANNOUNCEMENT

Cost Analysis in Primary Health Care

A Training Manual for Programme Managers

Edited by *A Creese* and *D Parker*

1994, x + 147 pages

ISBN 92 4 154470 8

This training manual provides a highly practical guide to the use of cost analysis as a tool for improving the efficiency of primary health care, whether at the national, regional or district level. Addressed to programme managers, the book responds to the urgent need for information that helps make the best use of scarce resources. With this need in mind, the book uses abundant explanations, examples, exercises, and timely reminders to demystify economic concepts and show how they can be used to measure programme costs, assess efficiency, and guide wise decisions, particularly when managers face alternative ways of achieving an objective.

While the basic concepts and methods described can be used to gather data on sophisticated problems, the manual gives particular attention to simple methods and simple calculations in line with the reality of managerial options in district programmes. The inclusion of numerous training exercises makes the material suitable for either individual study or a short training course. No past experience or technical expertise in economics is needed, and all calculations can be performed without the use of a computer. By anchoring concepts in the context of common managerial problems, the manual also helps readers relate specific methods to real situations, and thus appreciate the value of cost analysis as a practical managerial tool.

The manual, which was finalized after three years of field testing, contains twelve training modules presented in three parts. Information in each module is supported by a series of training exercises offering practice in collecting data and solving problems.

Modules in the first part introduce the basic concept of financial costs and look at the factors that influence programme efficiency. Readers learn how to classify costs, prepare cost profiles, plan a cost study, collect relevant data, and calculate unit financial costs. Modules also explain how the methods of cost analysis can be used to measure the extent to which objectives are being met and thus guide decisions about the efficiency of a programme or service.

Modules in the second part, on cost-effective analysis, introduce the concepts of economic costs and household costs and explain how cost-effectiveness analysis can be used as a decision-making tool. Particular attention is given to the use of cost-effectiveness studies as a method for measuring the costs and results of different programme or service options.

The final part discusses and illustrates several important uses of cost and cost-effectiveness data for planning and management. Modules describe methods for estimating future costs, preparing a budget, using cost data in financial analysis, and improving managerial efficiency.

The book concludes with a series of 37 training exercises designed to help managers think through problems and acquire practice in collecting and interpreting data. Exercises range from a 30-minute calculation of the total annualized capital costs of different health centre vehicles, to an hour of practice in determining how data from household surveys can explain variations in the use of health facilities.

GUIDELINES FOR AUTHORS

THE SINGAPORE FAMILY PHYSICIAN

Authors are invited to submit material for publication in the Singapore Family Physician on the understanding that the work is original and that it has not been submitted or published elsewhere.

The following types of articles may be suitable for publication: case reports, original research work, audits of patient care, protocols for patient or practice management and review articles.

PRESENTATION OF THE MANUSCRIPT

The whole paper

- * Normally the text should not exceed 2000 words and the number of illustrations should not exceed eight.

Type throughout in upper and lower case, using double spacing, with three centimetre margins all round. Number every page on the upper right hand corner, beginning with the title page as

1. Make all necessary corrections before submitting the final typescript.
Headings and subheadings may be used in the text. Indicate the former by capitals, the latter in upper and lower case underlined.

Arrange the manuscript in this order: (1) title page, (2) summary, (3) text, (4) references (5) tables, and (6) illustrations.

- * Send three copies of all elements of the article: summary, text, references, tables and illustrations. The author should retain a personal copy.

The title page

- * The title should be short and clear.
- * Include on the title page first name, qualifications, present appointments, type and place of practice of each contributor.
- * Include name, address and telephone number of

the author to whom correspondence should be sent.

- * Insert at the bottom: name and address of institution from which the work originated.

The summary

- * The summary should describe why the article was written and give the main argument or findings.
- * Limit words as follows: 100 words for major articles; 50 words for case reports.
- * Add at end of summary: an alphabet listing of up to 8 keywords which are useful for article indexing and retrieval.

The text

The text should have the following sequence:

- * Introduction: State clearly the purpose of the article.
- * Materials and methods: Describe the selection of the subjects clearly. Give references to established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known. Describe new or substantially modified methods, giving reasons for using them and evaluate their limitations. Include numbers of observations and the statistical significance of the findings where appropriate.

Drugs must be referred to generically; all the usual trade names may be included in parentheses. Dosages should be quoted in metric units.

Laboratory values should be in SI units with traditional unit in parentheses.

Do not use patient's names, initials or hospital numbers.

- * Results: Present results in logical sequence in the text, tables and illustrations.

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