

# THE MENTAKAB HYPERTENSION STUDY PROJECT. PART II - WHY DO HYPERTENSIVES DROP OUT OF TREATMENT?

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## ABSTRACT

Sixty hypertensives admitted into medical wards were interviewed in depth to determine reasons for their previous drop out of treatment. Eighty five percent of the patients were lacking in motivation. This was related to patients' lack of understanding concerning hypertension and its treatment, erroneous beliefs concerning hypertension held by patients and patients' perceived barrier to treatment. The evidence for these reasons were as follows : 95% of the patients were unaware that hypertension is a long term condition requiring life-long treatment, 60% were unable to state the likely consequences of uncontrolled hypertension, 78% equated relief of symptoms like headache, dizziness with control of hypertension, 52% believed long term consumption of 'western' medication was harmful, 12% believed they had been cured by traditional (bomoh or sinseh) treatment, 72% complained of long waiting time required to obtain care. Economic reasons however were unimportant.

Patient education and more convenient clinic locations are necessary but insufficient to ensure compliance. They are particular elements, among others, of a 'good' doctor-patient relationship, which fundamentally is the critical determinant of compliance.

Keywords : Hypertension, compliance, drop out, patient education.

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## INTRODUCTION

In a previous study on complicated hypertensives<sup>(1)</sup>, drop out of treatment for hypertension was found to be the most important factor contributing to ineffective blood-pressure control.

Before one can devise a strategy to overcome the problem of drop out, it is necessary to understand the reasons for it. Intuitively, one can easily think of many possible reasons for drop out. It is however pertinent to consider the patient's point of view. According to health belief theory<sup>(2)</sup>, a patient's compliance with health advice depends upon the extent to which the person perceives that he or she is susceptible to the illness, that the illness is serious, that the treatment is beneficial or harmful, and that the barriers to treatment can be overcome. Influence of external factors however is also recognised. In other words, the patient's perception of his health or lack of it is critical in determining his compliance with treatment, rather than his knowledge or his actual state of health.

We present our findings on the reasons for drop out in a group of hypertensives.

## METHODS

Study subjects were hypertensives who had dropped out of treatment prior to their admission into hospital with or without complications of hypertension. Some of these patients were selected from participants of another study which examined hospitalized complicated hypertensives<sup>(1)</sup>, others were

subsequently recruited from patients admitted into medical wards.

Drop out was determined by direct questioning of patients and their relatives, and subsequently verified by checking with their doctors and/or by examining their case-notes retrieved from the clinic where patients had received treatment before they dropped out. Blood pressure recordings of patients while under treatment were also obtained. Their blood-pressure control while under treatment was judged to be adequate if the mean of their blood-pressure recordings met the target level (diastolic  $\leq 90$  mmHg) as recommended by WHO/ISH<sup>(3)</sup>.

Study subjects were initially approached in a non-judgemental and non-threatening manner and the purpose of the interview was explained in the following fashion, "Many people who have hypertension find it difficult to remain for long under treatment. They stopped their treatment after a while, like you did. We are interested in finding out any problems that occur so that we can understand them better." (or a similar version in Malay or Chinese, as appropriate) Subjects were then interviewed by a trained interviewer using a structured questionnaire. Each patient was assured of the confidentiality of his response.

The questionnaire was designed to determine the various reasons leading to their dropping out of treatment. The reasons specifically sought for were :

- (1) Personal reasons concerning patient's attitude, knowledge and social circumstances.
- (2) Economic reasons concerning access to care, transportation cost, ability to take time off for treatment, and ability to afford private care (if under treatment by private practitioner).
- (3) Drug related problems like patient's belief concerning drugs and side effects of drugs.
- (4) Health services related reason concerning patient's perception of and satisfaction with the services provided, information supplied and expectation of being involved in his own care.

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## RESULTS

Sixty patients who had dropped out of treatment of hypertension prior to their admission into hospital were included in this study. Their duration of drop out varied from one month to five years. Their mean blood-pressure at admission was 186/115 and only one patient had adequate blood-pressure control

while under treatment in the past.

A common reason for dropping out of treatment cited by 85% of patients is their lack of motivation to continue treatment. Common expressions used by patients to describe their attitude toward continuing treatment were 'acuh tak acuh' by Malay and 'sian' by Chinese. These expressions roughly mean tiresome or tedious, resulting in loss of interest. This is of course no more than another way of saying that the patients did not like or were not keen on continuing treatment and therefore dropped out. Three key factors that affected the patient's attitude towards continuing treatment were (1) patient's lack of understanding concerning hypertension and its treatment, (2) erroneous beliefs held by patient concerning hypertension and its treatment, (3) patient's perceived barrier to treatment as provided by the health services.

Many patients were poorly informed concerning hypertension. Ninety three percent of the patients said that they felt well and did not see the need for continuing treatment. Almost just as many patients (95%) were not aware that hypertension is a long term condition requiring life-long treatment. The reason for this as cited by 92% of the patients was that they had not been informed of this. Sixty percent of the patients were also unable to state the likely consequences (stroke/heart disease) of uncontrolled hypertension.

Three common erroneous beliefs were widely held by patients. For 78% of the patients, the initial symptoms, like headache, dizziness and tiredness, which led to the detection of their high blood pressure, were relieved by treatment. This, they believed, implied that their hypertension was controlled, and therefore the lack of need for continuing treatment, at least until the symptoms relapsed. Fifty two percent of the patients also believed that long term consumption of 'western' medication was 'harmful' as was implied by the expression used to describe its effects being 'panas' (by Malay/Indian) or 'san' (by Chinese). (The words 'panas' and 'san' are commonly used by Malay/Indian and Chinese patients respectively to describe generally their perceived ill-effects of 'western medicine' in contrast to the natural goodness of traditional herbal medicine). Twelve percent of the patients believed that they had been 'cured' by traditional treatment.

The most common perceived barrier to treatment as cited by 72% of the patients was the long waiting time required to obtain treatment at each visit (which was usually monthly, as prescription was rarely written for more than one month and even if so, the medications would not be supplied by the dispensary to last more than one month). A few patients (5%) also cited other dissatisfactions like too short a time spent with the doctor and the doctor's apparent lack of concern for their problems. Interestingly, no patient expected to be actively involved in their own care.

Economic reasons were relatively unimportant. Ten percent cited inability to take time off for treatment and only 5% cited lack of access to care.

## DISCUSSION

Hypertension is a well-recognised risk factor of cardiovascular diseases<sup>(9)</sup>. The benefits of its treatment are also well documented<sup>(4,7)</sup>. However, there are considerable problems in getting the benefits to the patients. Hypertensives are frequently undetected, otherwise, their compliance with treatment may be poor.

There are two elements in compliance with anti-hypertensive treatment. One is that patients must attend regularly. If they fail to do so, they are referred to as drop outs. The other element is that patients must consume the medication as prescribed. The two elements are usually considered and studied separately. However, from one of our

studies done on drug compliance<sup>(8)</sup>, the drop out problem appeared the more critical of the two. Almost all patients who were poorly compliant with drugs eventually dropped out of treatment. Those who stayed, almost invariably complied reasonably well with the prescribed medication.

The problem of drop out is serious. In a study<sup>(9)</sup>, 100% of patients found to have elevated blood pressure at screening and referred for further observation dropped out after two visits. Fifty six percent of hypertensives admitted into hospital with cardiovascular complications had previously dropped out of treatment<sup>(1)</sup>. Many other studies had found similarly disappointing results<sup>(10,12)</sup>.

Achieving and maintaining compliance is not entirely the patient's responsibility, though it is tempting to regard it as so. Doctors, and the health care system must be partly responsible for they have the primary responsibility for removing barriers to compliance. Drop out represents the patient's failure as much as medical failure.

There is no evidence from this study to demonstrate that drop out hypertensives were unconcerned about their health or were socially irresponsible. They however were ill-informed and confused concerning hypertension and its treatment. Their motivations were further limited by various treatment barriers. Economic reasons appeared unimportant, which is testimony to the availability of free and accessible health services in this country.

From the study, it would seem that greater educational effort directed at improving patient's understanding of hypertension and correction of erroneous beliefs and more convenient treatment regimes for hypertension are required to overcome the problem of drop out. Are these measures, however, sufficient to ensure compliance? The answer, from the literature, is no<sup>(13,14)</sup>. This is perhaps not surprising considering that hypertension is essentially asymptomatic, its treatment is of long duration, often inconvenient and may not be well-tolerated, its health benefit is only a statistical possibility sometime in the future. Providing more information and increasing convenience of treatment are necessary, but insufficient. There are other elements that characterize a 'good' doctor/provider-patient relationship. This is concerned with more than just patient education and a convenient clinic, but also, the level of communication and supervision, attention to barriers to compliance, level of trust engendered, affective tone of the relationship and recognition that patients need to assume more active responsibility for their own care. All these, of necessity, must occur within the setting of the health care delivery system which largely dictates the contents and processes of care given.

The failure of traditional health care delivery system, which is oriented towards acute, symptomatic and episodic disease, to ensure patient compliance and deliver long term effective blood pressure control has led to a fundamental questioning of its capacity to deal with chronic illnesses<sup>(15,16)</sup>. Treatment programmes, with fundamentally different organizational and conceptual characteristic, which were specifically designed to care for chronic illness like hypertension have been shown to be more effective<sup>(17,18)</sup>. The principal characteristic in these programmes was its ability to provide an ambience that foster 'good' provider-patient relationship. The providers who need not be doctors, nurses or paramedical personnel were found to be equally capable if not better at encouraging patient compliance with long term treatment<sup>(18,19)</sup>.

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