

COPING WITH THE DIAGNOSIS OF HYPERTENSION: AN ILLUSTRATION OF A CONCEPTUAL MODEL

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Hypertension is a chronic condition with few subjective symptoms or limiting characteristics, but one that requires life-long medication and medical surveillance if cardiovascular sequelae are to be reduced. Advances in the development of efficacious therapy in recent years have greatly simplified the *medical* management of hypertension. However, in terms of the human experience of illness, the demands of adapting to the diagnosis of hypertension are only recently being recognized. Although some effects of the treatment of hypertension on the individual, such as the cost and side effects of medications, are easily understood, other aspects of the disease experience are less apparent and relate to possible adverse psychological and behavioural consequences of the disease label itself. The use of the term labelling in this context refers to the act of telling the patient a diagnosis term for a condition.

This paper, which is based on a much more extensive study (Milne, Logan, & Flanagan, 1983) will review the relevant literature on the adverse effects of labelling individuals as "hypertensive" and offers a model that explains why these effects may occur. The model is based on Lipowski's (1970) conceptualization of coping with a psychological illness, but shows the particular application in hypertension.

LITERATURE REVIEW

A number of studies have demonstrated that labelling individuals as hypertensive, regardless of whether or not they are subsequently treated, can adversely affect their perception of health, psychosocial functioning, and work absenteeism.

Perception of Health

In a national survey mounted by the National Heart and Lung Institute (Harris, 1973), hypertensives who were aware of their diagnosis were found to be significantly less likely than the total

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population to see their own health in positive terms. In addition, aware hypertensives were more inclined to say there were not as healthy as others their age (9% for the total public vs. 22% for the hypertensive group). This finding was particularly marked for hypertensives between the ages of 35 and 64 suggesting that the impact of the diagnosis is felt most acutely in the middle years.

These results were supported by a cohort analytic trial involving 230 hypertensive steelworkers at DOFASCO steel mills (Mossey, 1981). Mossey noted a negative change in health perception which was almost entirely limited to those hypertensive individuals who were told they needed to take medication for their blood pressure. Specifically, when asked whether the taking of prescribed medications was congruent with being healthy, over 90% of the patients indicated it was not. These data would suggest that the need for physician-prescribed medications may evoke distinct responses in individuals leading toward a re-definition of themselves as "sick."

There is also evidence that these changes in health perception may be sustained. In a cross-sectional study of 50 newly diagnosed, treated hypertensives and 50 previously diagnosed, treated hypertensives (diagnosed 1-3 years ago), Milne et al. (1983) found that in both groups their health status ratings were significantly lower than those of age and sex-matched normotensive subjects ($p < .001$). However, there was no significant difference in health perception between the newly diagnosed and the previously diagnosed hypertensive groups.

The powerful effect of labelling was further demonstrated in a study of 71 mislabelled individuals who were told they were hypertensive by a physician but were later judged normotensive on the basis of three blood pressure measures (Bloom & Monterossa, 1981). None of these persons was taking hypertensive medications or was under medical care. Compared to the total normotensive sample and to a control group matched for age, sex, ethnicity, education and marital status, the mislabelled group reported lower present health ($p \leq .034$) and a worsening of their health over the past five years ($p = 0.35$). This study illustrates that judgments made by a powerful status definer, such as a physician, can evoke changes in perception of health regardless of the validity of the judgments.

Psychological and Behavioural Functioning

In Monk's (1981) analysis of data from a national health examination survey (a cross-sectional study of 3,854 adults aged 25-74), psychologic well-being, as measured by the General Well-being Questionnaire, was significantly lower among those people being treated for high blood pressure than among normotensives or hypertensives who were unaware of their condition. People told at some time that

they had high blood pressure but were not currently taking medication also tended to have lower feelings of psychologic well-being than the normotensive/unaware hypertensive group, but the differences were not statistically significant for all of the sex-race groups considered.

Monk's findings were confirmed in a cross-sectional study of 5,948 patients who had a multiphasic health check-up at the Kaiser-Permanente Medical Centre (Soghikian, Fallick-Hunkeler, Ury, & Fisher, 1981). These researchers found that hypertensives who were aware of their diagnosis, regardless of whether they were on medication, had significantly ($p < .001$) higher anxiety scores, as measured by the Cornell Medical Index and the Minnesota Multiphasic Personality Inventory than either normotensives or hypertensives who were unaware of their condition. The results of these two studies seemed to indicate that possibly knowledge of the condition alone has a negative effect on feelings of psychologic well-being. However, because these studies are cross-sectional, other confounding variables must be considered. Part of the difference between the groups may have been the result of generally poor physical health of those treated or informed of their hypertension. In addition, medication side-effects could have adversely affected feelings of well-being in Monk's study. It is also possible that people who come to be informed about their high blood pressure have, for some reason, feelings of tension or depression that are more likely to lead to an investigation of their hypertensive status.

These concerns, however, are partially addressed by Mossey (1981) who used a cohort analytic design to measure psychological function and self-esteem before and after patients learned they had hypertension. In this trial of hypertensive steelworkers, a significant deterioration in marital and home satisfaction, as measured by the Locke Wallace Adjustment Scale, was reported among the newly diagnosed hypertensives at 6 months, and to a lesser extent at 12 months after diagnosis. This deterioration was significantly greater than for a group of age-matched normotensive controls and was correlated with important increases in work absenteeism in the hypertensive group after screening. Furthermore, these changes occurred regardless of whether medication was prescribed, treatment was followed, or blood pressure was controlled.

Mossey's findings are further supported by Bloom and Monterossa's (1981) study of mislabelled hypertensives in which these individuals reported significantly more depressive symptoms than either the total normotensive sample or a matched control group ($p = 0.005$).

In another study, which demonstrated that diagnosis labelling and treatment affect other aspects of daily living, Milne and co-workers

(1983) found that hypertensives rated their worry about health significantly higher and their general activity level significantly lower than normotensive subjects ($p < 0.001$). Significant reductions in time spent at work and in social and sports activities were also noted in hypertensive subjects. These findings persisted across all age and sex categories and could not be explained by increased disability due to symptoms. These results were substantiated by the finding that a large proportion of hypertensives felt they should restrict strenuous exercise, working late hours, emotional excitement, dietary sodium, smoking, and alcohol consumption. In addition, 17% of the hypertensive subjects stated they had made changes in their work activities because of the diagnosis of hypertension. These results are important in view of the fact that they occurred among actively employed, relatively healthy, medicated hypertensives for whom there were no medical contraindications to participate in activities of daily living.

Work Absenteeism

In a cohort analytic study, Taylor, Haynes, Sackett and Gibson (1981) studied absenteeism patterns among 230 hypertensive steelworkers. They found that illness-related absenteeism was higher among those who knew they had hypertension than in either hypertensives unaware of their condition or a normotensive age-matched control group. Furthermore, upon being informed of their hypertension, absenteeism rose dramatically in previously unaware hypertensives, regardless of whether they were placed in therapy ($p < 0.05$). Further supporting data for this phenomenon come from the Harris Poll community survey (1973) in which respondents who were aware of their hypertension admitted missing twice as many days at work as those with normal blood pressure.

In summary, consistent results from several cross-sectional and cohort analytical studies have provided evidence that labelling a person as hypertensive may lead to negative changes in health perception and psychologic well-being which in turn influence marital, social, recreational and occupational role functioning.

A CONCEPTUAL MODEL FOR COPING WITH DISEASE DIAGNOSIS

Why is it that some individuals respond to the diagnosis of hypertension as a life crisis, while others handle it as just another "problem of living"? Understanding the variability of the patient response to disease diagnosis requires that we go beyond the biomedical model of disease. In the biomedical model, demonstration of the specific biological deviation is generally regarded as a specific diagnosis criterion for disease. Yet in terms of the human experience of illness, clinical-laboratory documentation may only indicate disease

potential, not the actuality of the disease at the time. The abnormality may be present, yet the patient may not be ill. Thus the presence of the defect of elevated blood pressure at best defines a necessary but not a sufficient condition for the occurrence of the human experience of the disease, the illness. More accurately, the clinical defect constitutes but one factor among many, the complex interaction of which ultimately may culminate in active disease or manifest illness (Engel, 1977). How the disease diagnosis is experienced by patients and how it affects them requires consideration of psychological, social and cultural factors, not to mention concurrent or complicating biological factors.

Furthermore, "rational treatment" directed only at the biochemical abnormality does not necessarily restore the patient to health even in the face of documented correction or major alleviation of the abnormality. Other factors may combine to sustain sick role behaviour even in the face of biochemical recovery or control. Conspicuously responsible for such discrepancies are psychological and social variables. Thus, some patients under good blood pressure control still experience diminished psychosocial and behavioural functioning.

Some authors have proposed that variation in patient behaviours may be attributed to differences in the ways in which illness is perceived. Lipowski (1970) has conceptualized the complex multifactorial process of interpreting and coping with physical illness. A diagrammatic interpretation of this concept is shown in Figure 1.

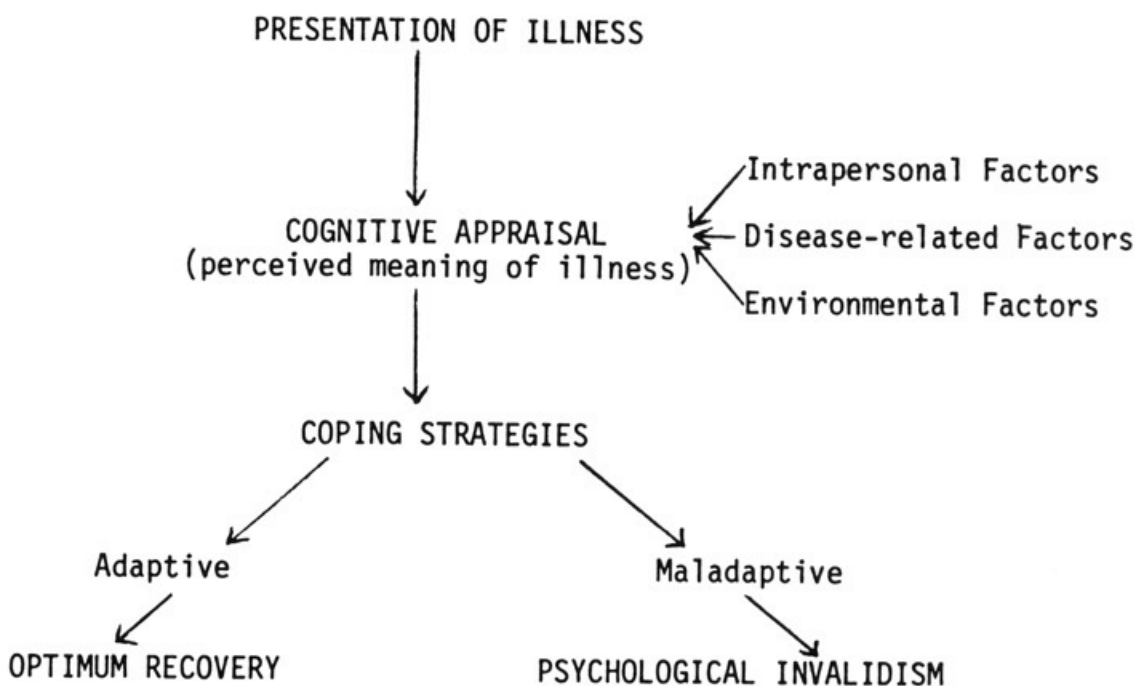


Figure 1. A conceptual model for understanding adaptation to physical illness based on factors identified by Lipowski (1970).

Physical illness, or even the diagnosis of illness, can be conceived of as a form of psychological stress involving threat of suffering and loss; this stress gives rise to a set of adaptational tasks to be mastered. The challenge thus presented precipitates the use of various coping strategies, techniques employed by the sick person to deal with the illness and its consequences. They are an amalgamation of both the individual's habitual coping style and the attempts to try new approaches to the specific challenges posed by the illness.

However, Lipowski maintains that the key concept underlying the coping process is the *meaning* that the individual attaches to the disease. This is a cognitive process which includes evaluations and beliefs that patients evolve regarding their illness and its likely consequences. These interpretations begin with the first perception of a pathological process and continue on a conscious or unconscious level throughout the course of illness. Lipowski (1969) declares that "meaning is the core of the person's psychological response to his disease" (p. 1198).

Lipowski lists a number of factors that contribute to the subjective meaning of an illness and, in turn, help determine the coping strategies. These may be grouped into: 1) Intrapersonal factors such as age, intelligence, cognitive and emotional development, philosophical or religious beliefs, and previous coping experiences; 2) Disease-related factors such as the type and location of symptoms, chronicity, the rate and progression of a disease, occurrence of complications; and 3) Environmental factors such as quality of social support, physical milieu of the home or hospital, ethnic attitudes toward illness.

Coping strategies refer to "intrapsychic activities as well as to communications and actions of the sick person aimed at reduction of distress or suffering caused by the disease" (Lipowski, 1970, p. 97). Lipowski groups coping techniques into patterns of coping strategies which revolve around the particular meaning which the illness holds for the individual. For example, a belief that illness is weakness may provoke feelings of shame and attempts at denial or concealment of the illness. The choice of coping strategies, whether adaptive or maladaptive, has important implications for the course of the outcome of the illness. The use of *active* coping strategies such as seeking expert advice, co-operating with therapeutic regimens, and developing substitute sources of satisfaction usually leads to optimum recovery or adjustment to illness or disability. On the other hand, the use of maladaptive coping strategies such as withdrawal, passive surrender to illness, or excessive dependence on others often leads to psychological invalidism.

In the case of hypertension, the psychological response to the disease is initiated by a doctor's statement (application of the diagnostic label) that a pathological process exists that places the patient at risk for a particular illness (e.g., stroke), even though the patient has no related somatic perception of this process. Through the process of cognitive appraisal, patients will interpret the diagnosis of hypertension in a variety of ways; in some cases, they may see it as a significant threat to life and health. Anticipation of danger, whether realistic or not, is accompanied by anxiety of some degree of intensity. Anxiety in turn tends to set off various cognitive and behavioural responses (coping strategies) aimed at minimization or avoidance of the anticipated danger and thus, elimination of the unpleasant experience of anxiety itself. The strategies used by the individuals to reduce anxiety are numerous and in the studies cited include self-restriction of activities and modification of various life-style habits. Although some of these strategies may be looked upon as healthy adaptative mechanisms for dealing with the diagnosis (i.e., attempting weight loss or ceasing to smoke), others may represent unnecessary restrictions that may hamper the person's enjoyment of a full and active life.

Anecdotal reports of hypertensive study subjects serve to further broaden our understanding of how individuals respond to disease diagnosis (Milne et al., 1983). Study subjects were asked what difference the diagnosis of hypertension had made in their lives. A wide variety of responses were made including worry about finding a marriage partner, recognition of aging, premature retirement, restrictions on social life, sports activities and sexual relationships, and attribution of any illness symptoms to high blood pressure. However, the concern that was mentioned most frequently was the strain on marital and family relationships that had occurred since the diagnosis. A number of reasons for this discord were given including sexual difficulties, nagging about medication or dietary compliance, and the increased self-centredness and body consciousness of the hypertensive individual. These comments correspond with data from Mossey's study (1981) which documented significant deterioration in marital and home satisfaction among newly diagnosed hypertensives.

While the anxiety reaction associated with disease diagnoses may not be totally prevented, it may be amenable to nursing intervention. In counselling the hypertensive patient, the nurse can carefully delineate not only those aspects of the patient's life that will change such as consuming daily medication and reducing dietary sodium, but

also those aspects that need not change. Patients can be specifically advised and encouraged to continue current social and recreational activities and essentially lead normal lives.

In summary, coping with the diagnosis of hypertension, an asymptomatic condition, presents unique challenges to patients. They have no symptoms to legitimate the diagnosis to others (family, friends, employer) or to themselves. Because little feedback in relation to symptoms is experienced, they have difficulty judging improvement or deterioration in their condition. Moreover, some individuals may feel worse than before their condition became known to them. Most importantly, though, hypertension is a condition characterized by risk and uncertainty. To be held at risk of some future intangible event because of a seemingly silent disease and for an indefinite time requires major adjustment.

This article has reviewed the relevant literature on the adverse effects of labelling individuals hypertensive and has offered a conceptual model that explains some of the behaviours commonly seen by nurses in practice.

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RÉSUMÉ

Comment composer avec le diagnostic de de l'hypertension

La constance des résultats provenant de plusieurs études transversales et d'études analytiques de cohortes a démontré que lorsqu'on 'étiquette' quelqu'un comme hypertendu, cela risque d'avoir des effets négatifs sur sa santé et sur son bien-être psychologique, effets qui pourront à leur tour influencer sur la vie conjugale, sociale, récréative et professionnelle de cette personne. Le modèle de conceptualisation de Lipowski relatif aux maladies physiologiques permet d'expliquer les changements qui se produisent lorsque l'individu tente de composer avec son diagnostic parce que l'idée principale à la base de ce mécanisme correspond au sens que chaque personne attache à la maladie.

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