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HEALTH ANXIETY AND CHARACTERISTICS OF SELF-INITIATED GENERAL PRACTITIONER CONSULTATIONS

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Abstract—Health anxiety has been hypothesized to lead to a cycle of repeated medical consultations. We investigated the relationship of health anxiety to patients' frequency of general practitioner visits, and to their expectations about the index visit in 200 general practice attenders. Health anxiety scores declined modestly with age, and were similar in men and women. Frequency of visits rose from 2.6 per year in the lowest decile of health anxiety to 4.2 in the highest ($p=0.033$). Across the same range, the odds of seeking advice prior to visiting the doctor rose from 0.25 to 0.56 ($p=0.034$), and the odds of believing that a specialist referral would be needed rose from 0.22 to 0.48 ($p=0.008$). There was no association between health anxiety and previous referral for investigation of symptoms that had not resulted in a medical diagnosis, nor with attitudes to prescriptions, possibly because there was little variation in either. In this population, absolute levels of health anxiety were low. Nevertheless, within this "normal" range, there was an association between level of health anxiety and frequency of visiting, and with expectations for the index visit. The findings support the health anxiety model as predicting use of services by psychologically normal persons. © 1998 Elsevier Science Inc.

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INTRODUCTION

There has been concern in many areas of medicine that some patients develop a maladaptive relationship with the medical services, resulting in repeated and unnecessary consultations. Although a small proportion of such patients will have a definable hypochondriacal disorder, most do not meet diagnostic criteria for any psychiatric disorder; however, they are characterized by higher levels of nonspecific symptoms of psychological distress, such as worry. At the level of primary health care, there is a strong tendency among physicians to regard patients who repeatedly consult without a sufficient underlying physical illness as legitimate users of their services, and to view these consultations as primarily psychological in nature. Nonetheless, there remains an unexplored category of consultation in which the patient is primarily concerned about physical symptoms that do not, in themselves, warrant such a level of concern.

The concept of health anxiety has been coined as part of a proposed model of the process underlying repeated consultations of this sort. Health anxiety is defined as

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"concern about health in the absence of pathology or excessive concern when there is some degree of pathology" [1]. In Warwick and Salkovskis's formulation, high levels of health anxiety lead to repeated actions aimed at improving health or ruling out the presence of disease [2]. Persons with high levels of health anxiety may consult multiple practitioners and take multiple remedies. Reassurance-seeking behavior is negatively reinforced the by short-term reduction in anxiety, which it provides.

The development of a scale to measure health anxiety allows the empirical testing of this model. We administered the Health Anxiety Questionnaire [1] to general practice attenders under the hypothesis that higher levels of health anxiety would be associated with a greater frequency of visiting, and especially of self-initiated visiting, as well as differences in both patient and doctor perception of the visit.

METHOD

This study was carried out by face-to-face interview. Patients were recruited from two general practices: the Royal College of Surgeons' practice and another in North Dublin city. All eligible patients attending the practice over a 6-week period were interviewed.

Patients were excluded from study if they were <16 years of age or too medically unwell or distressed to be interviewed. Also excluded were patients who were on visits that had been scheduled by the physician, because one element of the study involved examination of factors affecting self-initiated general practice visits. In the case in which there were more patients waiting for appointments than could be interviewed, the number was reduced by omitting every *N*th patient, based on the appointment schedule. This was done to ensure that, when not all patients at a session could be interviewed, no characteristic of the patient influenced their omission.

Patient consent was obtained before the interview, which was anonymous. The interview consisted of the Health Anxiety Questionnaire [1], which is a measure of concerns and anxieties centered around the possibility of illness. Characteristics of the patients' pattern of service use, and about their expectations for the index visit, were recorded. Age, gender, and age of completion of full-time education were also recorded.

Data were analyzed using DataDesk 6 and Stata 5 statistical packages. A general linear model approach was used to examine the association between scores on psychological measures and respondent characteristics and behavior. The Health Anxiety Questionnaire items were scored on a scale of 0 (not at all, or rarely) to 3 (most of the time), reflecting the frequency with which the respondent experienced symptoms of health anxiety. The total score was divided by the number of items (21) to retain the metric of the original items. Although health anxiety score was not normally distributed, a square-root transformation resulted in a satisfactory fit to the normal distribution (correlation with expected normal distribution $r=0.995$). Relationships with health anxiety were modeled using robust linear regression [3], implemented in Stata's "rreg" command [4]. Robust regression is a family of regression methods for data in which ordinary least-squares methods may be biased by outliers or heteroscedasticity. Binary variables were analyzed using logistic regression.

RESULTS

Two hundred general practice attenders were interviewed, of whom 56 were men (23%). The median age was 31 years (25th percentile=25, 75th percentile=44). Data regarding age on completion of education were available for 172 subjects (the remainder were still in education). Median age of completion of education was 18 (25th percentile=16, 75th percentile=21).

The number of previous visits in the 12 months before interview ranged from 0 to 56. The median number of visits was 3.5, with a median of 3 self-initiated visits.

When the total health anxiety score was scaled using the same response metric as the original items, running from 0 (none) to 3 (most of the time), the mean health anxiety score was 0.5 (median 0.4); 25% of subjects scored at or below 0.2, and 75%