Drug management and use: patients' knowledge and perception

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To the Editor: This study aimed to establish patients' understanding about the management and use of drugs that were prescribed for them, and in particular their effects and side-effects, and the level of practitioner counselling on drug management and use.

Most of the patients studied had been informed about the nature of their illness. Most took their drugs correctly, but a substantial number had little knowledge of the effects and side-effects of their medication. The study results suggest that those caring for the patients did not consider it necessary to inform them about their management, and underline the need for additional counselling of patients about prescribed or dispensed drugs.

Drug consumption in developing countries is steadily increasing, as a result of increased prescribing, dispensing and self-medication.[1-3] After examining pharmaceutical use in rural populations, it was found that between one-half and two-thirds of medicines taken were used irrationally,[4] and one-third of the medicines taken were potentially dangerous. There was little awareness of possible hazards from modern medicines, and the general view was that they could be used for any sickness or discomfort.[5] Such inappropriate use of drugs results in wastage of resources, increased resistance of pathogens, serious health hazards, adverse reactions and prolonged suffering.

Both prescribers and patients play important roles in the choice of medicines and whether to comply with the treatment as prescribed. Many patients do not comply with the prescribed duration. Non-compliance is at least in part the result of inadequate communication between prescribers, dispensers and patients.[6]

Methods

Knowledge about their medication was examined in 100 randomly selected adult patients, in a prospective cross-sectional study using a structured open-ended questionnaire. The study was conducted at 5 facilities in the Waterberg District of Limpopo Province: Mokopane Provincial Hospital, where patients were seen by specialists; Voortrekker District Hospital, where patients were treated by general practitioners; Mogalakwena TLC Clinic; Mookgophong Health Centre (which has a doctor); and Mookgophong Clinic, where care was provided by primary health care registered nurses.

A data collection sheet and a descriptive logistic regression analysis were utilised.

Results

The median age of the patients was 39. Fifty-three per cent were male, 75% black, 19% white, and 6% Asian. Eleven per cent had no formal education. Twenty-seven per cent had primary, and 49% high school, education. Twenty-one per cent had tertiary education. Forty-two per cent were unemployed. Twenty-nine per cent lived in informal housing. Sixty-two per cent lived in urban or semi-urban areas. Most respondents were aware of the diagnosis of their illness. Forty per cent had been informed about their symptoms (Fig. 1).

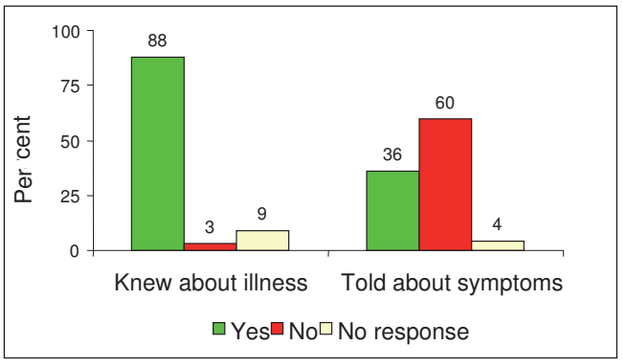

Fig. 1. Knowledge about disease.

However, while 71% were taking their medication correctly, nearly 80% had not been told of the effects or side-effects of treatment (Fig. 2).

Gender, age or marital status did not influence knowledge of drug usage. However, the level of education, class (informal settlement/urban) and race contributed to the level of knowledge. Patients with tertiary education, those coming from urban areas, and whites had significantly more knowledge than the remainder of the cohort ($p<0.05$).

Discussion

The majority of the patients in this study were informed about their illnesses by their doctor or nurse. More than 70% took their medication correctly, which included those with the lowest levels of education and the poorest socio-economic backgrounds. However, when asked about the side-effects

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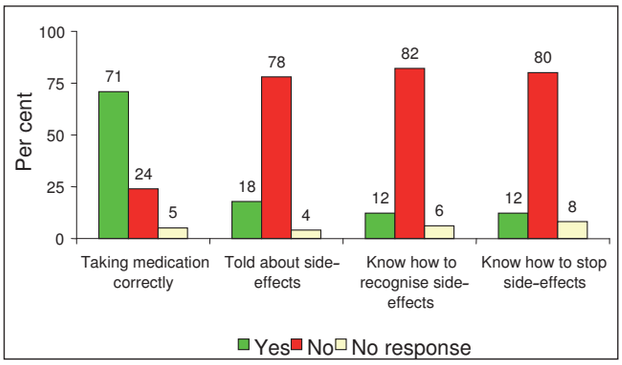

Fig. 2. Knowledge about medication.

of the drugs they were taking, most of the respondents were uninformed. In contrast to their more-than-adequate level of communication about their patients' illnesses, most practitioners seemed to avoid counselling patients on the effects and side-effects of therapy. It is hoped that this study will increase awareness of the need for effective counselling on drug effects and side-effects.

I thank Professor J Snyman (Head of the Department of Pharmacology, University of Pretoria (UP), Dr Steve Olorunju (MRC), Dr A Berg (UP), and nurses, pharmacists and physicians of the Voortrekker and Mokopane hospitals and Mogalakwena and Mookgophong Clinics; and the Limpopo Department of Health and Social Development.

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Accepted 4 January 2008.

Iron deficiency anaemia in healthy South African women despite iron fortification

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To the Editor: The prevalence of iron deficiency in a South African urban environment is probably in keeping with European and USA findings of around 10%. Although our results present the prevalence of iron deficiency anaemia among urban females, a more detailed study that includes ferritin levels is needed for confirmation. Awareness of and attention to screening for iron deficiency remain essential for improving the quality of life and productivity of women in South Africa.

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Method and findings

We used data from a study on the prevalence of HIV infection among health care workers in South Africa,[1] to evaluate and revalidate the current automated full blood count reference ranges for the Gauteng region. A striking finding was the large number of samples that had to be excluded from the statistical analysis because of the presence of anaemia.

Samples were obtained from 631 HIV-negative adult females working at the Helen Joseph and Coronation Hospitals in Gauteng. The demographics were representative of the urban population in South Africa.

The current National Health Laboratory Service (NHLS) full blood count reference range for adult females in the Gauteng region for haemoglobin (Hb) is 12.1 - 16.3 g/dl, haematocrit (HCT) 0.37 - 0.49 l/l, and mean cell volume (MCV) 79.1 - 98.9 fl. Using these reference ranges, the criteria for possible iron deficiency were defined as a combined Hb level below 12 g/dl, an HCT below 0.37 l/l, and an MCV of less than 79 fl. Approximately 10% of the 631 participants had microcytic