The role of the advanced clinical nurse in a hypertension clinic

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Summary

The use of advanced clinical nurses (ACNs) has enabled expansion of the Hypertension Clinic at the Johannesburg Hospital. The ACNs care for elderly patients whose hypertension is stable and who require a minimum of drugs. Blood pressure control in this group of patients is satisfactory and the default rate is low. The ACN therefore appears acceptable, at least to the patient. However, problems of continuing education, evaluation and official recognition remain. The case for allowing the ACN to prescribe from a limited pharmacopoeia is presented.

Hypertension is recognized as a major cause of mortality and morbidity among Blacks in South Africa, but studies on its prevalence among Whites in this country are limited. At the 1979 Congress of the Medical Association of South Africa, Professor J. E. Rossouw noted that the preliminary results of a survey in the south-western Cape indicate that the prevalence of hypertension is 26.6% among the rural adult Afrikaans population. This common medical problem therefore accounts for a large number of visits to outpatient departments at both White and Black hospitals. Most of these patients can be simply treated with long-term antihypertensive therapy, and there is good evidence that the complications of hypertension can be prevented or at least reduced in severity if adequate therapy is maintained. Many workers agree that in a large proportion of the hypertensive population the disease is not satisfactorily controlled on a long-term basis.

A local study of urban Blacks highlighted this problem when it was noted that less than a third of the patients who started antihypertensive therapy were receiving treatment a year later. Others with documented hypertension were not treated at all. The management of large numbers of hypertensive patients has drawn attention to the need for a more efficient and expanded patient care service. In 1975 the report to the Hypertension Information and Advisory Committee recommended that model hypertension care programmes which make greater use of non-medical personnel be developed and evaluated. Many such projects have been developed in the USA. These programmes vary in both the amount and the educational content of the training undertaken and the degree of independence expected from the nurse practitioners.

Nurses in South Africa have been working in extended roles for a number of years. One of the more recent developments has been the expansion of the role of the nurse in tertiary health care. Tertiary health care is long-term or ongoing care, particularly catering for the management of patients with chronic diseases such as hypertension and diabetes mellitus. In contrast, primary health care constitutes the first contact a patient has with a health service.

The staff of the Johannesburg Hospital Hypertension Clinic and the Department of Continuing Medical Education recognized that the increasing demands being made on the service could be met by specially trained tertiary care nurses. During April 1977 it was therefore decided to develop and implement a short in-service training programme to enable registered nurses to manage patients with stable, uncomplicated hypertension. The programme, based on mastery learning techniques, consists of various self-contained modules which range from pathophysiology and drug therapy through to patient compliance. Clinical skills and interviewing techniques were taught under supervision in the clinic. In addition, a decision chart was developed which laid down the methodological and sequential collection of data and the subsequent appropriate alternatives and actions which should be taken in the management of the patients by nurses. Once the training programme had been completed and the nurses were considered competent, they were known as advanced clinical nurses (ACNs) in hypertension.

The Hypertension Clinic at the Johannesburg Hospital was established in 1971; its medical staff now consists of 6 doctors and 5 trained ACNs, and it operates for approximately 5 hours on 1 day a week. The structure of the clinic has been described elsewhere. An assessment of the available patient data was undertaken for a 27-month period from the date of the introduction of the ACNs to determine the success of this pilot scheme.

Methods

A retrospective analysis of all patient records was undertaken for the period June 1977 - September 1979, but the 100 or so patients involved in therapeutic trials were not included. Descriptive patient and clinic data were collected. The non-attenders were also identified and divided into subgroups for further analysis.

Results

The number of patients attending the clinic increased from 183 in early 1977 to 288 at the end of 1977, 337 in April 1978 and finally to 644 by September 1979. As shown in Table I, the ACNs care for 202 (31.4%) of the total. Eighty per cent of their patients are females, compared with 67% of the doctors' patients. The number of patients attending the clinic increased from 183 in early 1977 to 288 at the end of 1977, 337 in April 1978 and finally to 644 by September 1979. As shown in Table I, the ACNs care for 202 (31.4%) of the total. Eighty per cent of their patients are females, compared with 67% of the doctors' patients.
Tables II and III show the comparative degree of blood pressure control of the patients. Approximately 60% of the ACN patients are over the age of 65 years and only a minority (5%) are poorly controlled. The ACN blood pressure control is less satisfactory in the under-65-year group, but is still better than the doctor group control. Table IV shows that a virtually identical percentage of doctor and ACN patients receive no or one antihypertensive drug. More ACN patients (43.6%) received two antihypertensive drugs than did the doctors' patients (38.2%), but more doctors than nurses were treating more patients with 3 or 4 drugs. This estimate does not take dosages into account.

Included in the total number of patients were 171 clinic non-attenders (Table V) (a non-attender was arbitrarily defined as a patient who had not attended the clinic for more than 6 months). Of the total number of non-attenders, 121 were doctors' patients, compared with 50 ACN patients. Further analysis revealed that true defaulters (of whom no trace could be found) numbered 46 for the whole clinic. The default rate for the clinic was 7.1% of the total number of patients, and there was almost no difference between the numbers treated by doctors and by ACNs. Eleven patients were known to have died, but at least 2 of the 4 ACN patients died of lesions unrelated to hypertension (1 died of carcinoma of the pancreas and 1 after an operation). The large majority of non-attenders had been referred to other clinics, had moved away from the area, or were receiving antihypertensive therapy from their general practitioners. A future study is planned to describe this group.

Discussion

Since the introduction of ACNs to the Hypertension Clinic in April 1977 the patient load has trebled. The ACNs manage the...
patients with stable hypertension, thus enabling the doctors to devote more time to the complicated cases. The majority of their patients are elderly women; the doctors manage proportionately more of the younger male patients.

This study revealed that the overall clinic non-attendance rate since June 1977 has been 26.6%. The true defaulters, of whom there was no trace, constitute only 7.1% and there is little difference between the proportions treated by doctors (7.4%) and by ACNs (6.4%). It appears in this respect that the ACNs are acceptable to the patients.

In the 27 months that the ACNs have been working in the Hypertension Clinic there have been numerous difficulties in administering and developing the service. Some of the problems have been satisfactorily solved, but new issues have also arisen. The first group of ACNs were recruited from within the hospital district nursing corps, but the clinic workload proved too great and consequently the attrition rate was high. Experience has taught that the part-time ACNs recruited from outside the hospital are the most stable group of non-practising nurses who enjoy this type of work and find it challenging and rewarding. The clinic utilizes 3 part-time ACNs and 2 district nurses, who have each given a minimum of 2 years’ service. Another problem considered solved is that of the clinic premises. Originally it functioned in different areas of the hospital in overcrowded conditions, but the move to the new Johannesburg Academic Hospital has enabled it to function physically and administratively in one area for an entire day. This has facilitated co-ordination, efficiency and education. A registered nurse has been appointed to supervise the development and maintenance of the tertiary care programmes. Her responsibilities include in-service education, training and evaluation.

Issues which have been raised and are as yet unresolved revolve largely around expansion of the nursing role. Originally the ACNs managed patients with uncomplicated stable hypertension within strict criteria. In-service education and clinical experience have led to a relaxation of these stringent criteria, and they are now managing patients with more complex multiple problems. The challenge is now one of providing comprehensive patient care and not only concentrating on the primary problem of hypertension. The nature of the disease and the age of the patients which the ACNs manage make it inevitable that increasing numbers of their patients will die while under their care. Mechanisms for obtaining and evaluating the cause of death need to be developed.

Owing to the uncertain status of the ACN it is essential that ongoing assessment, both clinical and theoretical, continue. Some of the clinic research programmes are geared towards evaluation of the care given to patients both by doctors and ACNs.

At present ACNs are unable to prescribe or issue drugs commonly used in the course of their work. As a result, the present system makes it necessary for a doctor to sign every prescription for the ACN. This causes a great deal of interruption and lack of continuity for the doctors, ACNs and patients. An application for the ACN to prescribe drugs has been refused, but it is felt that she should be able to sign prescriptions from a limited pharmacopoeia of drugs commonly used by her. The ACNs are fully trained in the clinically important aspects of the use of these drugs and this permission would greatly increase the effectiveness and efficiency of the Hypertension Clinic.

It is our belief that in the Johannesburg Hospital milieu the expansion of the nurse’s role is inevitable in the provision of health care to chronically ill patients. ACNs working in these extended roles, like their primary health care colleagues, have ill-defined status, career structure and remuneration. The South African Nursing Council is at present giving attention to the recognition of short nursing courses which meet the needs of various geographical locations. It is to be hoped that official recognition of these short courses will be the first step towards the full acceptance of nurses working in extended roles. These issues are of paramount importance for the future of primary and tertiary health care programmes throughout this country.

TABLE V. ANALYSIS OF CLINIC NON-ATTENDERS FROM JUNE 1977 TO SEPTEMBER 1979

<table>
<thead>
<tr>
<th>Reason for non-attendance</th>
<th>No trace</th>
<th>Death</th>
<th>Other clinics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors’ patients</td>
<td>33</td>
<td>4</td>
<td>81</td>
<td>121</td>
</tr>
<tr>
<td>ACN patients</td>
<td>13</td>
<td>2</td>
<td>33</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total No. of patients</strong></td>
<td><strong>46</strong></td>
<td><strong>6</strong></td>
<td><strong>114</strong></td>
<td><strong>171</strong></td>
</tr>
<tr>
<td>* %</td>
<td>* 7.1</td>
<td>* 1.7</td>
<td>* 17.7</td>
<td>* 26.5</td>
</tr>
</tbody>
</table>

* Percentages apply to the total clinic number of 644.

REFERENCES