

WHAT IS WRONG WITH ME?

A STUDY OF THE VIEWS OF AFRICAN AND INDIAN PATIENTS IN A DURBAN HOSPITAL

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It has been said that 'a study of the habits, feelings and beliefs of the individual is becoming an increasingly significant part of the physician's examination of his patient'.¹ A patient's views about the nature and causes of his illness may be of great relevance to his health and management. Ovedoff and Sneider,² for example, have described the high proportion of tuberculous African patients in Johannesburg who discontinue their treatment after their discharge from hospital, and have stressed the importance, in this regard, of the patient's understanding of his disease.

The present study of African and Indian patients' views about the nature and causation of their illnesses was undertaken in a Durban hospital in 1960. The objectives were: (a) to find what the views of this group of patients were; (b) to find whether these views were of medical significance; and (c) to explore the value of educating patients about their illnesses.

SAMPLE AND METHODS

A representative sample of the patients admitted to 2 medical wards was interviewed. The sample was made up of the consecutive admissions to each ward within a defined period, excluding patients under 18 years of age, those not fully rational, and those admitted for research purposes.

There were 91 patients in this sample: 75 African (69 of whom were Zulu), and 16 Indian (of whom 13 were Hindu and 3 Moslem). Since only one of the wards admitted women, the sample was predominantly male (88%). A further 19 patients died, were transferred elsewhere, or were discharged before they had been interviewed. Unless otherwise stated, the results which follow relate to the 91 patients in this sample.

In addition, selected results will be presented for 3 samples of African patients treated for uncomplicated lobar pneumonia (35 patients), congestive cardiac failure (41), and amoebic liver abscess (24). Approximately one-third of the patients in these 3 samples were also included in the representative sample.

The interviews were performed at the bedside soon after admission, in the patient's own language in most cases, by a nursing sister not connected with the hospital (C.M.). Some of the patients were interviewed in an 'overflow' hospital to which they had been transferred after their admission. The interviews were as informal as possible. A questionnaire was used, which included a number of general questions concerning the illness, what the patient thought or had been told about it, and the steps he had taken. The patient was also asked whether he thought his illness was related to his food, work, smoking, drinking, or worries, whether he thought he had a 'Bantu disease' or had been 'tricked', whether he thought he might have inherited it or got it from somebody else who was ill, and whether he thought it might be a punishment, or result from any act or omission on his part. Almost all the patients responded freely.

* Since the article was written, the Institute closed down on 31 January 1961.

Subsequent to these interviews, a number of randomly selected patients were subjected to an experiment in patient education. In the course of an informal discussion, the nature of their disease was discussed with them individually, in order to see whether this procedure (in addition to whatever education might be given in the ward as a routine) increased the proportion of patients keeping their appointments for review after their discharge. For this purpose, patients were chosen who, on the basis of their diagnosis on admission, appeared likely to be asked to return for re-examination or further treatment. Their records were compared with those of control patients, individually matched on the basis of their ethnic group, their final diagnosis, and the ward in which they were treated. There were 67 patients in the experimental group, 16 of whom were also included in the representative sample. However, in the course of the study this number shrank to 34 as a result of deaths, transfers, changes in diagnosis, or difficulties in finding suitably matched controls, or because the patient was not requested to return after his discharge.

In describing the findings, the term 'bewitchment' is used to indicate the processes producing illnesses regarded by African patients as 'Bantu disease' (*isifo saBantu*), and that referred to by Indian patients as 'being tricked'. In most or all cases it refers to sorcery, i.e. deliberate efforts to produce harm, usually by the use of medicines or spells. The term *inyanga* is used in the sense in which it was used by the patients, i.e. to indicate a person skilled in both the diagnosis and the treatment of 'Bantu disease'. This was the only category of traditional diagnostician mentioned by patients.

In assessing the statistical significance of the findings, use was made of the chi-square test, with Yates' correction, or, where applicable, of Armsen's tests for fourfold tables.³

RESULTS

Patients' Views

The patients' views concerning the causation of their illnesses are summarized in Table I. The cause most commonly suspected was bewitchment, relatively little significance being attached to other specific factors.

Of the 75 African patients, 18 (24%) thought they had definitely been bewitched, and 23 (31%) that they had possibly been bewitched. Among the 16 Indian patients, the corresponding figures were 1 (6%) and 4 (25%) respectively. The specific bewitchment syndromes most commonly mentioned by the African patients were *umeqo*, which is caused by walking over or touching a substance strategically placed by an ill-wisher (16 patients), and *idlisio*, which results from the ingestion of a substance placed in food or drink (8 patients). Other conditions or mechanisms mentioned were *ilumbo*, *ufufunyane*, *ibulawo*, *umbulelo*, *amanzi* and *uvalo* (1 patient each). Possible ill-wishers who were named were relatives (6 patients), neighbours (5), romantic rivals (5), and fellow-workers (1). The precipitating situations mentioned were jealousy of the patient's prosperity (7 patients) or of his romantic success (5), and quarrels with his wife (1).

TABLE I. PERCENTAGE OF PATIENTS STATING THAT THEIR ILLNESS IS OR MAY BE RELATED TO VARIOUS SPECIFIED FACTORS

| Specified factors | Percentage of patients | | |
|-------------------------------|------------------------|------------------|--------------------|
| | African (N=75) | Indian (N=16) | Combined (N=91) |
| Bewitchment | 54.7 | 31.2 | 50.5 |
| Drink | 18.7 | 6.2 | 16.5 |
| Work | 18.7 | 6.2 | 16.5 |
| Food | 9.3 | 12.5 | 9.9 |
| Excessive bile* | 8.0 | 0 | 6.6 |
| Worry | 4.0 | 12.5 | 5.5 |
| Punishment | 4.0 | 12.5 | 5.5 |
| Worms* | 4.0 | 0 | 3.3 |
| Smoking | 2.7 | 6.2 | 3.3 |
| Own acts or omissions | 2.7 | 6.2 | 3.3 |
| Miscellaneous* | 2.7 | 6.2 | 3.3 |
| Inheritance | 1.3 | 6.2 | 2.2 |
| Infection | 1.3 | 0 | 1.1 |

* Volunteered by patients; specific questions not asked.

The patients who suspected bewitchment suffered from a wide range of diseases. However, a comparison of the sample of African patients with lobar pneumonia, with those with congestive heart failure and amoebic liver abscesses, revealed that such beliefs were far commoner in the last 2 groups. Of 35 patients with pneumonia, only 8 (23%) thought they were or might be bewitched, whereas of 41 with congestive cardiac failure, 26 (63%) thought they were or might be bewitched ($P < .001$), and of the 24 with liver abscesses, 16 (67%) ($P < .01$) did so. Lobar pneumonia was regarded as being less serious. Only 17 (49%) of the patients with pneumonia replied 'Yes' to the question 'Are you seriously ill?', compared with 39 (95%) of those with congestive cardiac failure ($P < .001$), and 18 (75%) of those with liver abscesses ($P < .1$).

The African patients who thought they had definitely been bewitched tended to say that their relatives or friends agreed with this view. Such a statement was made by 9 of 18 such patients, but by only 2 of the 23 patients who were not convinced that they had been bewitched, and by only 4 of the 34 patients who ascribed their illness to natural causes ($P < .01$ in each case).

There was no relationship between the beliefs of African patients and their standard of school education, except that the few patients with 7 or more years of schooling were slightly, but not significantly, less likely to suspect a supernatural causation. The 'bewitched' patients included one schoolteacher.

Five patients thought their illness might be a punishment, inflicted by their ancestors in the case of African patients, and by divine powers in the case of Indian patients.

Fifteen patients (16%), most of them currently or previously heavy drinkers, thought that drinking had or might have contributed to their illness. Three of these were admitted for direct complications of drinking bouts, and 8 others for conditions to which their drinking might possibly have contributed.

Of the 52 other suspicions which were voiced about the rôle of specific factors, only 19 (37%) could be regarded as possibly justified. Examples were an ex mine-worker with cor pulmonale, who blamed his work, 2 patients with peptic ulcers who thought their worries had caused their illness, a hypertensive whose brother and sister had died of hypertension and who suspected hereditary factors, and a patient who thought that clarinet-playing had produced his laryngitis.

By and large, the patients' views bore little relationship to medical knowledge concerning the aetiology of their disorders. Only 1 patient answered 'Yes' to the question 'Do you think you may have got your illness from somebody who was ill?', and none thought their contacts might get the same illness, although many had infectious disorders. There were, for example, 9 patients with pulmonary tuberculosis, 14 with other respiratory infections, 11 with amoebiasis, and 3 with typhoid, meningitis and gastro-enteritis respectively.

There appeared to be little awareness that many of the diseases were preventable. Only 3 patients said their own acts or omissions might have contributed to their illness, 2 of them blaming their drinking habits. In answer to the direct question 'Do you think you could have prevented your illness?' 90 patients said 'No', and 1 'I don't know'.

Significance of Supernatural Beliefs

In order to assess the significance of the patients' supernatural beliefs, the African patients who believed their illnesses were from natural causes were compared with those who thought they were, or might be, from supernatural causes ('Bantu disease' or punishment by their ancestors). The former group (group N) contained 33 patients, and the latter (S) 42.

Group S included more patients who regarded themselves as being seriously ill. In this group there were 40 (95%) who replied 'Yes' to the question 'Is your illness serious?' In group N, there were only 24 (73%) who said 'Yes' ($P < .05$). Although the prevalence of supernatural beliefs varied with the diagnosis, as pointed out above, this association appeared to be at least partly independent of the diagnosis. In the sample of patients with lobar pneumonia, there were 8 who suspected supernatural causes; of these, 7 said they were seriously ill. Of the 27 patients with pneumonia who ascribed their illness to natural causes, only 10 said they were seriously ill ($P < .05$). A similar association was found in the sample of patients with amoebic liver abscesses.

It was not possible to ascertain whether the belief in a supernatural causation had resulted in a delay in medical treatment. However, 52% of the patients in group S stated that they had had recourse to an *inyanga* or religious sect ('Zionist' or 'Full Gospel') before their admission, compared with only 18% of those in group N ($P < .01$). A highly significant relationship of this kind was found among the patients with congestive heart failure, and a similar, but non-significant, relationship among those with amoebic liver abscesses. These findings suggested that supernatural beliefs did in fact tend to delay medical treatment.

Patients suspecting a supernatural causation appeared less likely to believe the explanations given them by their doctor. In group S there were 16 patients who had been given explanations, of whom only 9 said they believed what they had been told. In group N, there were 15 such patients, of whom 13 believed what they had been told. This association fell short of statistical significance, as did that among Indian patients. However, among both groups combined, the association was significant ($P < .05$).

The patients' records were examined to see whether those who had been advised to return for re-examination or further treatment did in fact do so within 3 weeks of the appointed date. Relatively few of the patients interviewed could, however, be included in this analysis. Many had not been

asked to return, had died, or had been transferred elsewhere. Also, it was necessary to exclude patients with lobar pneumonia and other acute febrile disorders, almost all of whom believed in a natural causation, and most of whom ignored their review appointments. Their inclusion would have obscured any actual relationship among patients with less short-term illnesses, between belief in a natural causation and the keeping of appointments. Further, those patients were excluded who had been educated about the nature of their illness as part of this study. The findings in the small residual sample of African patients were consistent with a relationship between suspicions of a supernatural causation and a failure to keep review appointments. Of 7 patients not suspecting a supernatural causation, 6 kept their appointments; of 21 suspecting a supernatural causation, only 9 kept their appointments. This difference fell short, however, of statistical significance.

Education of Patients

All the patients had been seen by at least 2 doctors before their interview, one in the outpatient department and one in the ward. At least 14 had been treated by other doctors for the same illness. However, only 43 (47%) said that a doctor had told them what was, or what was suspected to be, wrong with them. Of the 75 African patients, 31 (41%) said they had been told, and of the 16 Indian patients, 12 (75%) said so; this difference was significant ($P < .05$).

A number of patients volunteered remarks indicating their dissatisfaction with this situation, such as: 'The doctors don't say anything—they just examine one and then talk among themselves in English'; 'I am very anxious to know what is wrong with me and how it started, but nobody has told me anything'; 'I just see that they write in the chart, and I read, but I don't know what it is', and 'I don't know what they think—they ask me what the matter is'.

Most of the patients who said they had received explanations regarding the name, nature or cause of their illness were apparently satisfied with these. Of 43 such patients, 33 (77%) said they believed what they had been told. Indian and African patients did not differ significantly in this respect.

The results of the experiment in patient education suggested, though they did not prove, an effect on the keeping of review appointments by patients with long-term diseases. The patients who, as part of this study, were given full explanations of their disorders included 23 with long-term disorders (congestive cardiac failure, hypertension, diabetes, amoebic liver abscess, peptic ulcer and anaemia). Of these, 16 (70%) kept their subsequent appointments; of the 23 matched controls, only 11 (48%) did so. This difference was not statistically significant. There was no such difference among the 11 pairs of patients with lobar pneumonia. The proportion of patients suspecting a supernatural causation was the same in the experimental and control groups.

DISCUSSION

It is well known that beliefs in the supernatural causation of illness are prevalent in African communities. The extent of this prevalence is perhaps less well known. In a recent study of 2 large Zulu population samples, Scotch found that 56% of the women in a rural group, and 60% of those in an urban group, answered 'Yes' to the direct question 'Have you ever had a "Bantu disease"?'⁴ It has been stated that 'the majority of field-workers agree that African witchcraft beliefs, far

from having decreased with the advent of Western culture, have actually increased'.⁵ The present findings confirm that such beliefs are widespread, even among patients making use of a Western hospital.

Beliefs of this kind may have important implications for the medical care of African patients, as numerous published case illustrations have shown.⁶⁻¹⁰ Not only may they delay or prevent recourse to medical agencies, but they may impair the patient's relationship with his medical attendants and, as the present findings suggest, reduce the prospects of his continued cooperation in his treatment. The present findings suggest that in a medical ward such considerations are of particular importance in the treatment of long-term disorders. It is in the treatment of such disorders that the patient's continued cooperation in his treatment is of primary importance.

These beliefs have important implications for the mental health of patients. Witchcraft beliefs are, in Marwick's words, a 'safety-valve for the discharge of anxiety'.⁵ A person exposed to stress may be able to minimize his anxiety in a culturally acceptable way by blaming the aggressiveness of others. Such persons are less likely to be disturbed by feelings of shame or guilt. On the other hand, as Marwick pointed out, witchcraft 'acts in a vicious circle, resolving anxiety but at the same time creating more of it'.⁵ A bewitchment belief may itself produce or aggravate ill-health. Whatever the train of causation, there is a high prevalence, among bewitched patients, of 'psychogenic' disease.¹¹ The association found in this study between suspicions of a supernatural causation and a feeling that the illness was serious may be due partly to a lower threshold for such suspicions among patients who feel more ill, and partly to a tendency for the patients with such suspicions to magnify the severity of their illness.

The findings in the small Indian sample suggest that among Durban Indian patients, as well as among African patients, supernatural beliefs are prevalent. Their significance to these patients may, however, be very different. Kuper has stated that whereas 'among the Africans, serious illness is most frequently attributed to an external personal agent (an evil-doer) . . . among the South African Hindu the main responsibility is placed on the moral and religious behaviour of the individual and the reaction of the Divine'.¹²

Both the African and the Indian patients were ill-informed concerning the nature and causation of their illnesses, as seen by their physicians. This may be of considerable practical importance. 'There are many diseases in which the difference between a satisfactory and a poor therapeutic result is determined by the care with which the patient carries out the recommended programme of treatment. Attention to details may gain years of comfortable and productive life, and whether or not a person cooperates to the extent required usually depends on whether or not he understands the need for the measures advised'.¹³

No conclusions could be drawn regarding the extent to which the considerations discussed above influenced the medical care actually given to patients. It was noted, however, that the patients' notes seldom included any comments concerning the patients' beliefs. Also, less than half the patients interviewed stated that they had been told what was or might be wrong with them, by doctors in or outside the hospital. If in fact the attention given to patients did fall short, in these respects, of what might be regarded as desirable, this

could possibly be ascribed to 2 main factors: time limitations, and limitations in the medical profession's awareness of the importance of cultural factors in medical practice. The importance of providing medical students with an adequate understanding of the cultural dimension of medicine has been stressed by many medical educators.^{9,14,15}

IMPLICATIONS FOR PRACTICE

The present findings underline the value of 2 practical measures in patient care: (a) on a diagnostic level, an inquiry into the patient's beliefs concerning his illness; and (b) as a part of therapy, education concerning the nature and causes of the illness.

Inquiry into the Patient's Beliefs

It is often possible, merely by asking a patient what he thinks is wrong with him, what has caused his illness, and what he has done about it, to gain an adequate understanding of his aetiological beliefs. Such questions should form part of the routine interview. Sometimes it is less easy to determine his views, and leading questions may be required. Difficulties are particularly likely if the relationship between patient and doctor is unsatisfactory, or if a cultural or linguistic chasm separates them. Whatever difficulties there are, they are likely to be minimized if the doctor both has and shows an interest in the patient's views, but without setting himself up as an infallible authority whose function it is to give a verdict on their validity.

Only after the patient's beliefs have been probed in this way can conclusions be drawn about his educational needs. With one patient it may be concluded that he need only be told the diagnosis in so many words; while with another, further action may be necessary, either to motivate him to cooperate in his treatment, or because of his fears about the nature, cause, or effects of the illness.

Such an inquiry may not only reveal the patient's educational needs and indicate how educable he is, it may also bring to light the patient's major anxieties. Some patients, for example, fear bewitchment without being convinced that they have in fact been bewitched, and may come to a doctor specifically because they want to know whether, in the doctor's view, they are suffering from a 'natural' disease. Unless the doctor takes the initiative in raising this problem, it may never arise, and such patients may leave as fearful as when they arrived.

In some cases, an inquiry of this sort may bring ancillary benefits also. The patient's response may throw light on the diagnosis, or, more commonly, on the stresses to which he is exposed. A patient who says his illness may be related to his work, diet, or worries, or to bewitchment, for example, will often go on to provide valuable information about his life situation, with important implications for his management.

Questions of this sort appear to be well accepted by most patients, and resented by few. The comments made by the patients interviewed included 'I was pleased to be able to express my point of view', 'All people like explaining about their illnesses', 'I have a lot of worries—it's always nice to talk to people', 'I believe talking about an illness is part of the treatment', and 'I don't mind talking—I hope this will help in my treatment'. By showing an interest in his patient's views, the doctor may lay the foundation for a sound therapeutic relationship.

An inquiry of this sort may be as necessary with patients of other culture groups as with patients of the groups discussed in this report. One New York study has shown how inaccurate physicians may be in their estimates of patients' knowledge about disease.¹⁶ There may be more misconceptions in any community than doctors realize. In a recent study of public opinion, for example, only 66% of a representative London sample stated that they thought that tuberculosis was 'catching'.¹⁷ The predominant beliefs may vary in different cultures, and individual beliefs will vary within a culture, but with any patient of any culture, his beliefs have important implications for his management.

Education of the Patient

In some few cases, it may be deemed inadvisable to inform the patient even of the diagnosis, but in many cases it is desirable to go beyond this, and take active steps to improve the patient's knowledge of the nature or effects of his disease, or of the factors which have produced or are maintaining it. In a recent study of the work of 4 Edinburgh general practitioners, it was found that at 18% of all consultations these doctors felt that it was necessary to explain the nature or implications of the disease, rather than merely to tell the patient the diagnosis.¹⁸

As our results have shown, Durban African and Indian patients welcome information about their illness. This, too, applies to patients of other cultures. A study of outpatients at a New York hospital, for example, showed that most of them wanted information about some fundamental aspects of their condition.¹⁹

The education of patients may present numerous difficulties, which have been discussed elsewhere.²⁰ The methods of choice may vary considerably. At one extreme, a didactic explanation may suffice. At the other, with a psychoneurotic patient for example, it is preferable to lead the patient more subtly to a self-realization of what his trouble is.

The education of 'bewitched' patients presents particular problems, both in determining the educational goals, and in producing educational changes. Should a patient who is convinced he is bewitched, for example, be persuaded (even if this is possible) to go completely counter to his own convictions? In such a case, what are the possible long-term effects? Would it not be preferable to persuade him to have medical treatment as well as treatment for his bewitchment, except where it is considered that treatment for his bewitchment may have positive dangers? Should the doctor 'go along' with the patient in accepting the possibility of a supernatural causation, or should he agree only that the bewitchment belief itself may be pathogenic? Should he deny the possibility of a supernatural causation, or should he (as in most cases seems preferable) suggest that, if the patient thinks that there is a supernatural element in his illness, he should do whatever he thinks necessary for this, while at the same time persisting with his medical treatment? In view of the usual concomitant emotional disturbance, can explanations alone suffice, or should more emphasis be placed on psychotherapy or situational therapy? There are at present no clear answers to such questions. This subject constitutes an important field for research.

Meanwhile, closing our eyes to the problem of bewitchment will not remove it. Bewitched patients abound, and must be treated. Under these conditions, there is much to be said

for a clear and rational explanation of the illness and its causes, as seen by the doctor, but without necessarily suggesting that this is the only possible explanation for the disorder. Unless the patient's mind is completely closed (in which case he is possibly unlikely to have come to the doctor in the first instance), such an explanation may improve his cooperation in his treatment. The results of the experiment in patient education described above were consistent with, though they did not prove, this possibility.

It is advisable, also, to give consideration to the education of the patient's relatives. Family members may profoundly affect one another's views. As the present findings suggest, the relatives or friends of patients who are sure they have been bewitched, tend to share the patient's views. Even in a hospital, visiting hours may provide an opportunity for such education.

Health workers other than the doctor have an important rôle to play in these tasks. Under present conditions in this country, the nurse often acts as intermediary between doctor and patient, particularly between doctor and African patient. Unless she shares the doctor's views and approach, she may hinder rather than help. Equipped with an adequate training in the importance of cultural factors, and in the techniques of health education, the nurse may be able to augment considerably the doctor's own efforts.^{21,22}

In addition, professional health educators, who have adequately demonstrated their ability to produce improvements in living habits,¹ have an important potential rôle to play, both inside and outside hospitals. In an experimental project undertaken in a Durban hospital by the Institute of Family and Community Health, health educators have been able, by holding group discussions with inpatients, to produce appreciable objective improvements both in their knowledge regarding common diseases and their causes, and in their living habits after their discharge.²³

SUMMARY

A study of African and Indian patients' views concerning the nature and causation of their illnesses was undertaken in a Durban hospital in 1960.

A high proportion of patients believed that their diseases might be from supernatural causes, relatively little significance being attached to other specific factors. The patients' views bore little relationship to medical knowledge about the aetiology of their disorders.

A high proportion of patients stated that they had not been told by a doctor what was, or was suspected to be, wrong with them, and many indicated their dissatisfaction with this situation. Of those who had been given such explanations, most said they believed what they had been told.

Patients with long-term diseases were more likely to suspect a supernatural causation. There was an association between suspicions of a supernatural causation and a feeling that the illness was serious, even among patients with a similar diagnosis.

Patients suspecting a supernatural causation appeared less likely to believe doctors' explanations, and possibly less likely to persist with medical treatment after their discharge from hospital.

The results of a controlled experiment in patient education suggested that, among patients with long-term illnesses, those given explanations concerning the nature of the illness were more likely to comply with requests that they attend for further examinations or treatment after their discharge.

The significance of the findings is discussed, with emphasis on the value of 2 practical measures in patient care: (a) an inquiry into the patient's beliefs, and (b) education of the patient.

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REFERENCES

1. Kark, S. L. and Steuart, G. W. (1957): *Hlth Educ. J.*, **15**, 131.
2. Ovedoff, D. L. and Snelder, P. (1958): *S. Afr. Med. J.*, **32**, 1109.
3. Armsen, P. (1955): *Biometrika*, **42**, 494.
4. Scotch, N. A.: Personal communication.
5. Marwick, M. (1948): *Theoria*, p. 115.
6. Cassel, J. In Paul, B. D. ed. (1955): *Health, Culture and Community*. New York: Russell Sage Foundation.
7. Doell, E. W. (1955): *Doctor Against Witchdoctor*. London: Christopher Johnson.
8. McCord, J. B. (1946): *My Patients were Zulus*. New York: Rinehart.
9. Paul, B. D. (1956): *J. Nat. Med. Assoc.*, **48**, 323.
10. Schirmle, F. (1950): *Medicine versus Witchcraft*. Mariannhill, Natal: Mariannhill Mission Press.
11. Lee, S. (1950): *J. Soc. Res.*, **1**, 9.
12. Kuper, H. (1960): *Indian People in Natal*. Pietermaritzburg: Natal University Press.
13. Ernstene, A. C. (1957): *J. Amer. Med. Assoc.*, **165**, 1110.
14. Chesler, J. (1960): *Med. Proc.*, **6**, 112.
15. Kark, S. L. (1959): *J. Med. Educ.*, **34**, 905.
16. Pratt, L., Selligman, A. and Reader, G. (1957): *Amer. J. Pub. Hlth*, **47**, 1277.
17. David, S. T. (1952): *Tubercle (Lond.)*, **33**, 78.
18. Scott, R., Anderson, J. A. D. and Cartwright, A. (1960): *Brit. Med. J.*, **2**, 293.
19. Reader, G. G., Pratt, L. and Mudd, M. C. (1957): *Mod. Hosp.*, **89**, 88.
20. Abramson, J. H. (1960): *S. Afr. Med. J.*, **34**, 364.
21. Cohn, H. D. (1950): *Hlth Educ. J.*, **8**, 178.
22. Kark, S. L. (1950): *S. Afr. Nurs. J.*, **16** (no. 8), 9.
23. Mqadi, M. and Mtero, E.: Personal communication.