

NATAL MEDICAL STUDENTS' ATTITUDES TO THE SOCIAL AND PREVENTIVE ASPECTS OF MEDICINE

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With the increasing emphasis being laid by medical educators on the social and preventive aspects of medicine, it is of interest to know students' attitudes to this side of their training. Such attitudes reflect both the students' receptivity and their response to such teaching.

The present study was undertaken towards the end of the 1959 academic year at the medical school of the University of Natal. Students at this school have, since 1955, received instruction in social, preventive and family medicine during the last 3 years of their course. This

training comprises family and community-based practical experience, including the clinical clerking of patients and families, and systematic lectures, case discussions and seminars. The practical teaching is centred at the Institute of Family and Community Health,* which provides a comprehensive health and medical care service for 2 neighbourhood communities. The teaching programme has been described elsewhere in detail by Kark.¹

* This institute closed down on 31 January 1961, after this article was written.

Durban Medical Curriculum

The course at this medical school is spread over 7 years. In the initial, or 'preliminary' year, the subjects taught are history, English or Afrikaans, botany, zoology, physics and chemistry. In the next 3, or 'preclinical' years (the '1st' - '3rd' years), the subjects covered are botany, zoology, chemistry, physics, sociology, anatomy, physiology, psychology, pathology and pharmacological physiology. During the last 3, or 'clinical' years (the '4th' - '6th' years), the subjects are social, preventive and family medicine; medicine; surgery; obstetrics and gynaecology; and special subjects (radiology, forensic medicine and psychological medicine). The students at the school are African, Indian and Coloured.

METHOD

Self-administered questionnaires were used; these were anonymous, and their completion voluntary. The questions dealt with the students' views concerning factors contributing to disease, the rôle of the medical profession and other personnel, tuberculosis control measures, the opportunities provided by general practice, the attributes of a

good doctor, patient management, and career choice. Some of the questions were based on those used by Merton and others in their studies of USA medical students.²

When stating their view of the importance of a factor, the students were asked to indicate whether its importance was major (or great), moderate, minor, or nil. In the results which follow, we use the unqualified term 'important' to indicate 'major' and 'moderate' responses (combined).

Neither the full list of questions, nor the full findings, will be presented. Details are, however, available from the authors.

Forms were returned by 39 (89%) of the preliminary-year students, 50 (54%) of the students in their preclinical years, and 44 (77%) of those in their clinical years. As occasional items were left unanswered, the number of responses to individual questions fell short, in some instances, of these totals.

In assessing the statistical significance of the findings, use was made of the significance tests provided by Armsen,³ or, where these were not applicable, of the chi-square test (with Yates's correction).

TABLE I. STUDENTS' ATTITUDES TO SOCIAL AND PREVENTIVE ASPECTS OF MEDICINE: RESPONSES SHOWING SIGNIFICANT DIFFERENCES BETWEEN VIEWS OF CLINICAL AND OTHER STUDENTS

Statement	Percentage of students making specified statement			P*
	Preliminary year	Preclinical years	Clinical years	
Factors contributing to disease:				
Harmful customs and beliefs are important ..	56	76	95	< .001 (A), < .05 (B), < .01 (C)
Inadequate use of medical facilities is important ..	80	80	95	< .05 (C)
Family disharmony is of great importance ..	13	6	34	< .05 (A), < .02 (B), < .001 (C)
Ignorance is of great importance	45	50	80	< .01 (A and B), < .001 (C)
Medical profession's rôle:				
The medical profession should play:				
an important rôle in organizing crèches and nursery schools	32	69	83	< .001 (A)
an important** rôle in preventing suicides	85	80	98	< .05 (C)
a rôle of major importance in preventing delinquency or crime	16	18	35	< .05 (C)
Rôle of other personnel in improving a population's health:				
Traditional healers play an important rôle ..	13	8	33	< .01 (B and C)
Faith-healers play an important rôle	30	14	42	< .01 (B), < .02 (C)
Measures in combating tuberculosis:				
The following are of major importance:				
Tracing contacts	67	52	88	< .05 (A), < .001 (B), < .01 (C)
Increased wages	49	56	81	< .01 (A), < .02 (B), < .001 (C)
Suitable employment of partially disabled persons	36	31	62	< .05 (A), < .01 (B and C)
Feeding schemes	58	56	71	< .05 (C)
Opportunities provided by general practice:				
A contribution of major importance to more effective practice is made by the opportunity to:				
care for the patient over a long period	42	60	83	< .001 (A), < .05 (B), < .01 (C)
treat the family as a whole	26	37	74	< .001 (A, B and C)
see the patient's house	24	26	50	< .05 (A and B), < .01 (C)
get to know the patient's relatives	5	8	41	< .001 (A, B and C)
treat patients at home	8	8	29	< .05 (A), < .02 (B), < .01 (C)

*As occasional responses were omitted, the number of respondents varies from item to item. The numbers were: preliminary year, 37-39; preclinical years, 46-50; clinical years, 41-44.

* Probability that the difference between the clinical and other students may be due to chance. A = comparison with preliminary year students, B = comparison with preclinical students, C = comparison with preliminary year and preclinical students (combined).

** Including 'of minor importance'.

TABLE II. CLINICAL STUDENTS' ATTITUDES TO SOCIAL AND PREVENTIVE ASPECTS OF MEDICINE: RESPONSES SHOWING SIGNIFICANT DIFFERENCES BETWEEN VIEWS OF FINAL-YEAR STUDENTS AND 4TH AND 5TH YEAR STUDENTS

Statement	Percentage of students making specified statement			P*
	4th year students	5th year students	Final-year students	
Factors contributing to disease:				
Harmful customs and beliefs are of major importance	27	53	75	< .05**
The inadequate use of medical services is of major importance	27	53	71	< .05
Family disharmony is important	36	86	75	< .05**
Rôle of other personnel in improving a population's health:				
Clinical psychologists play a rôle of major importance	33	33	82	< .01
Farmers play a rôle of major importance	21	45	75	< .05
Priests play a rôle of major importance	0	6	41	< .01
Traditional healers play an important rôle	17	15	59	< .01
Measures in combating tuberculosis:				
The provision of suitable employment for partially disabled persons is of major importance	18	64	88	< .01
Home care of patients is important	73	71	100	< .05
Opportunities provided by general practice:				
A contribution of major importance to more effective practice is made by the opportunity to treat the family as a whole	45	73	94	< .05

As occasional responses were omitted, the number of respondents varies from item to item. The numbers were: 4th year, 11 or 12; 5th year, 13 - 15; final year, 16 or 17.

* Unless otherwise stated, the probability that the difference between the final-year students and the 4th and 5th year students (combined) may be due to chance.

** Final-year and 5th year students (combined) compared with 4th year students.

RESULTS

Preliminary and Preclinical Years

The responses of preliminary-year students indicated a considerable awareness of the importance of the social and preventive aspects of medicine. More than 90% regarded poverty, a poor diet, insanitary conditions, and poor housing as being important factors in the production of disease. More than 80% thought that the medical profession should play an important rôle in combating malnutrition, in improving housing standards, in public-health education, and in marriage guidance. More than 80% considered that social workers, teachers, sanitary engineers, food inspectors, clinical psychologists, farmers, and health educators played an important rôle in improving the health of the population. More than 80% considered that, in combating tuberculosis, important measures were the tracing of contacts, social-welfare assistance to patients and their families, improved housing, public-health education, mass radiography, feeding schemes, and the provision of suitable employment for disabled cases. More than 90% stated that an important contribution to effective practice was provided by the opportunities offered by general practice to trace the contacts of infectious cases, to help prevent diseases from spreading, to detect disease early, to encourage healthy living habits, and to play some part in dealing with medical problems on a broad community level.

The responses of students in their preclinical years were, in general, very similar to those of the preliminary-year students.

Clinical Years

The students in their clinical years tended to place considerably more weight on social and preventive aspects

than did other students, the differences attaining significance in a number of instances. Responses showing such differences are listed in Table I.

There tended also to be differences among the 3 clinical years, students who were nearer the end of their course laying greater stress on social and preventive aspects. A number of these differences were significant (Table II); there were no significant differences in the reverse direction.

The clinical students' responses to a series of questions concerning patient management showed that most of them were aware (particularly so in their final year) of the importance to the clinician of the patient's nutrition, his knowledge and attitudes, and his relationship with the doctor, and the value of patient education and of making contact with the patient's relatives. Asked how they would react if their classmates used specified procedures in handling patients, more than 75% said that they would approve of a detailed nutritional examination, of the use of colloquial or lay terms in explanations to patients, and of endeavours to seek out the patient's relatives at visiting hours. Asked whether, in their view, the failure of some patients to carry out their doctors' prescribed treatment was usually the fault of the patient, the doctor, or both, 71% stated 'both', 7% said 'the patient', 5% 'the doctor', and 17% 'did not know'.

Asked their views on the importance of a number of possible reasons for a patient's non-compliance with his prescribed treatment, they stressed the patient's view of his illness and the treatment, and his relationship with the doctor. His understanding of how the treatment would affect his condition was regarded as of major importance by 76% of the final-year students, but by only 31% of the 4th and 5th year students ($P < .01$). Almost all (94%)

of the final-year students regarded an ability to establish rapport as a very important criterion of a good doctor or student, compared with 64% of the 4th and 5th year students ($P < .05$). Asked whether, if they felt especially sympathetic towards a patient, they thought this would have a bearing on his management, only 6% of the final-year students responded 'so far as I know, it would make no difference', compared with 44% of the 4th and 5th year students ($P < .05$).

DISCUSSION

The findings indicated a considerable awareness of the importance of social and preventive aspects in all the years of study, with a progressive increase during the 3 clinical years. It appeared that, with increasing clinical experience, students tended to lay more stress on these factors. The general consistency of the findings was such that this conclusion was not greatly affected by doubts stemming from the small size of the sample, or the cross-sectional nature of the study. This interpretation, namely that students tended to change during their clinical years, was in full conformity with the impression gained by the authors as a result of contact with the students studied, and the 2 groups of students who had previously passed through the department and had already graduated. It was noteworthy that, although some change was apparent towards the end of the 4th (or 1st clinical) year, it was apparently only in the students' 3rd year of clinical training that a number of these changes developed.

Whether this receptivity applies also to students elsewhere, cannot be answered by this study. The students at this school may be particularly receptive. As members of non-White communities, many of them come to their training with personal experience of the social, emotional and cultural problems of underprivileged groups. They are aware of the higher morbidity and mortality in these groups, of their lower standards of living and their shortcomings in health behaviour. The urgent need for health education and other measures to combat malnutrition and infections is widely realized, and often featured in the lay

press. In their own lives, many of the students have come into contact, directly or indirectly, with the problems of poverty, urbanization, industrialization, and migrant labour, and their effects on family solidarity and personal health. Moreover, most of the students intend to enter general practice; this may stimulate their interest in family care and the practical problems of the family physician.

Such predisposing factors apart, the clinical students at this school are repeatedly confronted with cases of pellagra, kwashiorkor, gastro-enteritis, amoebic dysentery, tuberculosis, and other preventable diseases which have obvious social and cultural determinants and important social implications. In addition, throughout their clinical years they have practical experience in social, preventive and family medicine, specifically directed towards sharpening and intensifying their understanding of the social and cultural implications of health and disease.

The question whether the same awareness would have been achieved without specific teaching of this kind can, of course, not be answered by a study of this nature alone. To an extent however, the findings of this attitude study can be considered as providing evidence, as has a recent evaluation of the Aberdeen family-medicine teaching programme,⁴ of the value of specialized teaching of this sort in the medical curriculum.

SUMMARY

A study of medical students' attitudes to the social and preventive aspects of medicine was conducted at the University of Natal, at which clinical students receive a 3-year course in social, preventive and family medicine.

The findings indicated a considerable awareness of the importance of such aspects in all the years of study, with a progressive increase during the clinical years.

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