Medical psychology — its growth and development in South African medical schools

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Summary

New training models and programmes in the teaching of clinical psychology associated with medically applied psychology at medical schools are developing in South Africa. However, a recent survey showed that a minimum number of full-time clinical psychologists is employed by medical schools in South Africa. How the few who are so employed fare away from their ‘home base’ is also explored as well as what their contributions are in such settings and in providing medical psychological services in general hospitals. These findings are discussed with reference to a developing country such as South Africa. Methods are proposed to further enhance the development of medical psychology and the effective contribution of clinical psychology to medical and related education, and its functioning as a bridge across the body-mind dichotomy within promotive and preventive healing systems.

The relevance of clinical psychology in medicine is widely neglected. In the USA, about 15% of the population is affected by mental health problems, with 20% of these people seeing mental health professionals, 60% being treated by primary care physicians, and a further 20% going untreated. Patients with known psychiatric and psychological problems make twice as many visits to general physicians as other patients. About 30-60% of medical or surgical inpatients have a psychiatric or psychological problem sufficiently severe to interfere with their functions with such psychologists showing a move away from their ‘home base’. In response to these needs mental health professionals are moving beyond their usual boundaries — an established trend overseas.

International developments

Although for nearly a century a variable, albeit loose, link existed between psychology and clinical medicine, moves in the UK and the USA, for example, to co-ordinate psychology and general medicine became more purposeful in the last 20 years, resulting in a substantial volume of literature on the subject. This trend towards the biopsychosocial view of ill-health and its management represents a rediscovery of what was typical of proper medical practice for centuries — holistic in the sense formulated by Smuts.

Several factors contributed to this, including: (i) psychologists demonstrating competence in a wide range of relevant skills; (ii) awareness that, at least in First-World settings, an increasing proportion of physical disease seen by physicians is related less to physical causes and more to unwholesome behaviour; (iii) recognition that modern psychology has powerful explanatory and therapeutic concepts; (iv) realisation that psychologists are useful members of the health care team, delivering fee-generating services; and (v) general acceptance of the importance of psychological factors in disease and recovery processes.

Systematic studies in the USA highlighted the new roles played by psychologists in high-level positions in public mental programmes, working in fee-for-service health service practices, and as professional staff members of university teaching hospitals, with more direct involvement in health care delivery. In the UK, Johnston explored the role of the clinical psychologist in primary care, and Nichols the role of psychology in disease in general hospitals, while recommendations for the area-based organisation of clinical psychology within the National Health Service were that it should be linked to district general hospitals.

Organisationally, and in respect of the emergence of representative journals, these developments are also increasingly clear. The late 1970s saw the establishment of the Society of Behavioural Medicine, the Division of Psychology within the American Psychological Association (APA), and journals such as the Journal of Behavioral Medicine, Health Psychology, and Rehabilitation Psychology.

As early as 1911 an APA symposium on ‘The relations of psychology and medical education’ discussed the inclusion of psychology in the teaching of medicine. Initially, growth was slow, and by the 1930s only a few psychologists worked in applied neurology and psychophysiological research in medical schools. But psychologists working in medical psychology in the USA increased by 916% from 255 in 1953 to 2336 in 1976, while a marked increase in the growth rate of medical psychology in general hospitals, while recommendations for the area-based organisation of clinical psychology within the National Health Service were that it should be linked to district general hospitals.

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Developments in South Africa

Clinical psychology associated with frankly medically applied psychology is also developing within South African medical faculties. A plethora of terms have emerged from the medical-psychological rapprochement, many describing perceived portions of the phenomenon. Our broadly defined view, based on definitions by Gentry and Matarazzo, and Schlebusch, retains conceptual unity while being wide enough to encompass the range of areas within which professional psychologists provide a valuable function. It sees medical psychology as the practice of psychology within the medical school establishment, including the provision of clinical services in relation to any medical specialty, medical education, and clinically relevant research.

The shift in emphasis on what psychologists should do, to focus on where they should be doing it, applies particularly to South Africa with its diverse ethnicity and needs. Tracing the growth and development of medical psychology in precise terms in the RSA is difficult because of the paucity of survey data and formal organisation of professional psychologists thus far.

Before 1974 the former Department of Health, the provinces, and the universities functioned independently in providing psychiatric services, only 2 university departments of psychiatry existed and 2 general hospitals treated acute psychiatric patients, but expansion occurred markedly with the tripartite system, including the establishment of general hospital psychiatric units and the development of consultation-liaison psychiatry. Today all medical schools have departments of psychiatry employing clinical psychologists. Although clinical psychologists became more active in teaching hospitals at the start of the 1980s, only 3.7% worked in general hospitals. Thus far only 2 major articles on medical psychology document its practice in a specific department. The practice began in 1975 and training therein started in 1979. These developments evolved over several years, culminating in the founding of the first specialised department of medical psychology in a faculty of medicine in the RSA in 1984 at a university where a department of psychology existed — the Sub-department of Medically Applied Psychology, established within the Department of Psychiatry, Faculty of Medicine, University of Natal, Durban. Primary aims were to: further develop an educational service in medical psychology for undergraduate and postgraduate medical students; increase clinically applied research; and provide clinical services in associated teaching hospitals, and training in medical psychology.

This development, it is hoped, will set a trend in South African medical schools similar to those well established elsewhere, and is bound to effect the teaching of a biopsychosocial model of disease within the crucial medical school/teaching hospital partnership, and the future training of clinical and other psychologists specialising in medical psychology. Since current decisions are likely to influence the future nature of psychologists’ work in medicine, we deemed it valuable to explore these trends and the current position of clinical psychology within medical psychology in our medical schools.

Material and methods

This study, complementing a previous preliminary communication, is based on a local survey. Each head of the department of psychiatry at the 7 faculties of medicine in South Africa received at the end of 1984/beginning of 1985 a questionnaire which, with the clinical psychologist in charge of psychology at the relevant faculty, they were requested to complete. The response rate was 100%. After receiving the completed questionnaires, these clinical psychologists were contacted by telephone to check the responses for full clarity. With the exception of 1 (MEDUNSA), the psychologists were attached to the departments of psychiatry at their medical schools.

The questionnaire dealt with the employment and activities of full-time clinical psychologists at faculties of medicine and general teaching hospitals. Clinical psychologists involved in purely psychiatric psychology and sessional work as well as intern, psychometrists, non-clinical psychologists, etc., were excluded. Although a number of clinical psychologists have joint appointments between university, state and/or province (i.e. tripartite or bipartite appointments), where they are not actively involved in medical psychology or teaching at faculties of medicine, they too were excluded.

Results

Table I shows the number of clinical psychologists registered from 1981 to 1984. From 1981 to 1983 the number of clinical psychologists increased from 530 to 648. By the end of 1983 there were 1663 registered psychologists, 38.9% of whom were clinical psychologists (personal communication — Registrar, Professional Board for Psychology, South African Medical and Dental Council, 1985). Figures for 1984 were not available and were estimated on the basis of the growth rate for the preceding 2 years (2.7%), thus giving a projected number of 742 clinical psychologists.

![Table I: Growth in the Number of Registered Clinical Psychologists in South Africa](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>No.</th>
<th>Annual growth (%)</th>
</tr>
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<tbody>
<tr>
<td>1981</td>
<td>530</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>579</td>
<td>9.2</td>
</tr>
<tr>
<td>1983</td>
<td>648</td>
<td>11.9</td>
</tr>
<tr>
<td>1984</td>
<td>742</td>
<td>14.6</td>
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*Yearly average = 11.9%.

*Estimate based on expected 2.7% growth rate.

Table II reflects the distribution of work sites of clinical psychologists whose clinical and teaching functions are related to medical psychology. When comparing this to the actual and projected number of clinical psychologists shown in Table I, we note that for the last 2 years on average less than 2% either specialised in medical psychology or were actually based full-time at a faculty of medicine, about 5% were involved in some teaching at faculties of medicine, and about 4% were employed on a full-time basis in a general teaching hospital. Functions often tended to overlap so that for example the same people who worked in a psychiatric hospital would teach medical psychology at the local faculty of medicine. In some cases where clinical psychologists were not based at a faculty of medicine, they were involved, nevertheless, in the training of undergraduate and postgraduate medical students.

Those few clinical psychologists who specialised in medical psychology worked mainly in the following areas: neuropsychology, stress and hypertension, pain management, surgery, obstetrics and gynaecology, cardiovascular disorders, oncology, paediatrics, and psychonephrology. Those working in general hospitals who were not considered specialists in medical psychology typically dealt with a variety of medical in- and outpatients from medical wards, including parasuicides.

Discussion

Despite clear evidence of the usefulness of medical psychology in general teaching hospitals, little or no growth is evident in the number of clinical psychologists employed full-time in
such situations in the RSA — 3.7% of those surveyed in the late 1970s, and still less than 4% in the present study. Although there seems to be an increasing involvement in teaching, less than 2% of clinical psychologists are based full-time at a medical faculty or specialise formally in medical psychology. Although 3 out of 7 the medical schools (43%) have at least 2 clinical psychologists working on a full-time basis (Table II), this compares unfavourably with, for example, 98% of American medical schools. The ratio between full-time psychologists and medical students at our medical schools is extremely high. Overseas standards would consider the numbers small if a medical school employs less than 10 psychologists, moderate if there are 16–30, and large if there are more than 30. Our medical schools are at the lowest end of the ‘small’ scale.

Such psychologists as there are specialising in medical psychology, work mainly within departments of psychiatry, as in most instances in the USA. Discussion with those psychologists involved confirmed that the benefits of association with medical schools outweighed the disadvantages. Their experiences were similar to those noted some time ago by the Committee on Psychology in Medical Schools of the APA. Difficulties they encountered include: (i) problems associated with finding an accepted ‘home’ for medical psychology in an educational and clinical environment essentially committed to the training of professionals of another discipline; (ii) variable recognition by others of their status as members of an independent professional discipline; (iii) potential conflict between psychology and psychiatry; (iv) potential discomfort from functioning in a multidisciplinary environment; (v) potential conflict with the department of psychology located outside the medical school; and (vi) inequalities in salaries and policies regarding academic status.

Perceived advantages include: (i) the potential to learn from the medical school environment with its unique range of disciplines; (ii) extended responsibilities and functions; (iii) more freedom to pursue areas of personal applied academic interest; (iv) a variety of chances for applied research with good facilities and opportunities for collaboration among colleagues from medical disciplines; and (v) opportunities for applied and multidisciplinary teaching. Problems may arise if psychologists are unable to adapt to this new environment and overcome resistance to the teaching of behavioural sciences within medical schools. Implications for their own training and preparation of this new role must be critically evaluated if they are to gain credibility, especially in view of a changing South Africa. They must be able to demonstrate the relevance of their teaching and an understanding of the realities and constraints of medical practice. Otherwise, by offering solutions to problems the physicians do not perceive themselves to have, they may be perceived as specialising in the cure for which there is no known disease. Medical students may be sceptical of teachers who do not represent a potential career role model. Non-clinical teachers are rarely credible. The material presented must be pertinent and clinically vivid.

Clearly, medical psychology — like the complementary field of consultation-liaison psychiatry — plays an increasingly important role in medical practice, research, and medical education. A primary aim is the achievement of an appropriate biopsychosocial model in patient care allowing for productive co-operative possibilities through the joint contributions of consultation-liaison psychiatry and medical psychology. For psychology the best basis for developing such programmes would be in a department of medical psychology within the faculty of medicine, retaining close co-operation with both departments of psychiatry and psychology within the university. In this way optimum development is likely. Alternatives, such as a diaspora of clinical-, neuro-, and other psychologists in different medical school departments, of necessity loosely linked with a department of psychiatry or psychology with substantially different interests, would be far less functional.

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REFERENCES
Selection of medical students — are all matriculation examinations equivalent?

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Summary

The marks achieved by students vary significantly with the type of matriculation examination written. In particular, students who write the examination set by the Transvaal Education Department score significantly higher matriculation marks than other students but score the same in the first year at medical school as other students. These students have an undeserved advantage in the selection process.

Subjects and methods

The analysis was based on the marks achieved by the 997 students admitted since 1980 who had completed their matriculation examination in the year preceding the year of admission. The matriculation mean mark and the mean mark of the first-year courses of each student were used in the analysis. Six different matriculation examinations were analysed: Transvaal Senior Certificate (TSC), TSC-project schools, Natal Senior Certificate (NSC), Joint Matriculation Board (JMB), Cape Senior Certificate (CSC) and Indian Senior Certificate (ISC). These 6 examinations provided the faculty with 93% of its current matriculants. The remaining 5% of applicants wrote 6 other acceptable examinations. The number of applicants in each of these groups was too few to allow analysis. Student's t-test was used to assess significance.

Results

Table I shows the average mark achieved by students in each of the 6 types of matriculation examination analysed for the years 1980 - 1985. Statistical analysis of these marks reveals that the mean matriculation mark for TSC students was not significantly different from that of students from TSC-project schools. The TSC mean matriculation mark and the TSC-project school mean matriculation mark were, however, significantly higher than that of students who wrote the other 5 matriculation examinations. No other significant differences between the examinations could be shown. The difference between the mean marks obtained by the TSC students and those who wrote the other examinations is shown in Figs 1 and 2. NSC, JMB, CSC and ISC students scored significantly less in the matriculation examination than those at TSC and TSC-project schools. Moreover, the difference between the 2 TSC matriculations and the other matriculations is consistent for all years analysed.

Table II shows the average mark achieved by students in their first university year. Statistical analysis of these marks shows that there were no significant differences between the mean first-year marks of students from different educational authorities. In particular, the mean mark of TSC students and TSC-project students