colonal times. Although there are great inter-tribal variations in SCT, the HbS gene has been reported from nearly all sub-Saharan African countries including the neighbouring ocean islands, except the mainly Cushite Ethiopia and Somalia. Recent studies have shown the gene to be present in tribes in which it was originally found to be absent 30 years ago. This type of change in the HbS spread is attributable to increased and improved inter-ethnic communication and resultant intermarriage. Although SCT and SCD have been reported in some Mediterranean white populations, the current HbS prevalence is unknown in South African whites. The HbS prevalence in the non-white South African population ranges from 0 to 5. South Africa is becoming a forceful demographic multiracial nation. As has been seen in Kenya and elsewhere, increased and improved inter-ethnic relationships resulting from such major changes may also result in an increase in intermarriage. This may lead to the introduction of the HbS gene into tribes or races that did not have it. Although the impact of such changes will remain limited for a considerable length of time before manifestation of frank SCD, we should be aware of the trend, not only in South Africa but also in other parts of Africa where HbS was known to be absent in some ethnic groups. When possible within the framework of various national health priorities, fresh surveys are recommended for reassessment of HbS frequency and the prevalence of SCD in various African countries.

Joash Aluoch
Department of Medicine
College of Health Sciences
University of Nairobi
Nairobi
Kenya

Peter Jacobs
Haematology Clinic
Wynberg Hospital
Wynberg
Cape Town

The therapeutic value of visual-perceptual training and its effect on scholastic achievement

To the Editor: The value of visual-perceptual training, or vision training as it pertains to optometry, has been controversial for decades. This controversy was investigated by means of seven internationally recognised psychometric tests. The internal consistency coefficients of these tests in the present study ranged from 0.62 to 0.95. A factor analysis of test intercorrelations revealed a common factor. Six tests were primarily visual-perceptual, while the Goodenough (1926) scale determined intelligence. Additionally, pupils' performance in their first language, mathematics and writing, was used to assess the therapeutic effect.

Subjects were diagnosed as visually-perceptually impaired by an educational psychologist at a visual training centre in Pretoria, where experimental pupils received therapy. These diagnoses were confirmed by the Test for Visual Analysis Skills, which significantly differentiates between the normal and visually-perceptually impaired. This test's validity for South African circumstances was determined in a pre-study. One hundred and six 9-year-old subjects (82 boys and 24 girls) of normal intelligence, visual acuity and hearing, were involved. Fifty-three formed the experimental group, which was subdivided into 32 who completed vision training and 21 who did not. These pupils were individually matched with controls of similar sex, age, home language, socio-economic status and school standard.

Experimental pupils received vision training within a broader group context for 1 hour per week. Training periods ranged between 4 and 15 months.

The experimental design was a pre-test/post-test two-group design; t-tests for dependent (matched) groups were conducted on the differences between pre- and post-test scores, as well as differences between the experimental and control groups.

None of the primarily visual-perceptual tests revealed significant results. This highlights the ineffectiveness of vision training for rectifying the deficits at which it is directed. The value of such training is, on the contrary, restricted to an overall improvement in conceptualisation and intellectual maturation within the subgroup which completed training. Writing was the only subject which improved significantly within the same group. However, this result is dubious, given the evaluation deficits.

O. J. Schoeman
Clinical Psychologist
41 Piekewaan Road
Bloubergstrand, W. Cape

Medical research in South Africa — a psychiatric perspective

To the Editor: We read the recent editorials on medical research in the new South Africa with great interest. MBewu argued convincingly that medical research in this country can be "the fairy godmother who provides a brighter future for Cinderella". In contrast, in answer to his question, "Can we support high-tech research in South Africa", Van Rensburg argued...
states that ‘the logical answer to the title question . . . [is] a negative one’. We would like to comment on this debate from our perspective as researchers in the field of psychiatry.

If high-tech research refers to 'advanced technological innovations made in a systematic search for new knowledge, skills and means', then there has been relatively little such work on psychiatric disorders in South Africa to date. From Van Rensburg’s stance, this is perhaps laudable. Our own position, however, is that this lack of research correlates with significant lacunae in our knowledge of how to diagnose and treat highly prevalent psychiatric and substance abuse disorders in our communities. Research in psychiatry (and in many other academic areas also) needs to be encouraged to expand and to advance in order to keep pace with international developments.

It seems clear that, throughout the world, research proposals are increasingly being viewed within the context of national objectives and priorities. MBewu therefore encourages the research community to make greater efforts to demonstrate its vital role in the new South Africa. In terms of psychiatry, it can readily be argued that advanced and innovative psychiatric research in the fields of epidemiology, diagnosis, psychotherapy, and psychopharmacology, among other areas, is of paramount importance for facilitating and strengthening the goals put forward in recent national health care policy documents.

Dan J. Stein
Robin A. Emsley
Department of Psychiatry
University of Stellenbosch
Tygerberg, W. Cape


Smoking among health care students

To the Editor: Tobacco smoking is an addiction with massive effects on all aspects of modern life and by limiting this habit at the level of primary health care, phenomenal results could be achieved. Health care workers are in a unique position to play a positive role in this regard by example and advice to the community. Students are an important target group in the solving of the tobacco problem, since they are the future effectors in the medical field.

With this in mind a study was launched to determine the attitudes toward knowledge and habits of students with regard to smoking and the health effects thereof. Undergraduate students from all different courses at the Faculty of Medicine, University of Pretoria, were included in this study. A questionnaire was distributed to a representative random sample of 12.5% of the abovementioned students and analysed statistically after a response rate of 74% was obtained. In this manner, a smoking prevalence of 12.1% was found with an expected higher percentage among the male students. Academic stress proved to be the major factor influencing the habit of 71.4% of the students who smoked. Ignorance about tobacco-related health effects was limited mainly to bladder cancer. Smokers as well as non-smokers had a very positive attitude towards advising and encouraging patients to stop smoking. They were also well aware of their example to the community.

We would recommend that similar studies be performed at other medical faculties in South Africa, since this type of study is extremely useful given the current trend of banning smoking in the workplace.

Franz F. Birkholtz
Sarita Louw
5th-year medical students
Faculty of Medicine
University of Pretoria

In vitro susceptibilities of field isolates of Plasmodium falciparum to chloroquine in Mpumalanga

To the Editor: Resistance of Plasmodium falciparum to chloroquine in South Africa is a topical subject. We have recently undertaken an in vitro study of chloroquine resistance in Mpumalanga province. All blood samples submitted for routine malaria diagnosis to the South African Institute for Medical Research laboratory at the Rob Ferreira Hospital in Nelspruit between 4 March 1996 and 14 March 1996 were screened. Of the 61 positive specimens, 27 were considered suitable for chloroquine susceptibility testing. A modified version of the World Health Organisation standard test was used; incubation was terminated after 24 hours, irrespective of whether growth had occurred or not. Tests were done in duplicate. Of the 27 isolates examined, 6 failed to mature to schizogony within 24 hours. Three isolates were found to have a minimum inhibitory concentration (MIC) for chloroquine of 0.16 μM and were considered to be sensitive to the drug by WHO criteria; 18