

colonial 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.⁹⁻¹⁰ Recent studies have shown the gene to be present in tribes in which it was originally found to be absent 30 years ago.¹¹ This type of change in the HbS spread is attributable to increased and improved inter-ethnic communication and resultant intermarriage.¹² Although SCT and SCD have been reported in some Mediterranean white populations,^{10,13} 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%.^{4,10,14-15} South Africa is becoming a forceful democratic multiracial nation. As has been seen in Kenya¹² and elsewhere,^{13,16-17} 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.

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- Herrick JB. Peculiar elongated and sickle-shaped red blood corpuscles in a case of severe anaemia. *Arch Intern Med* 1910; **6**: 517-521.
- Konotey-Ahulu FD. Sickle cell diseases: clinical manifestations including the 'sickle crisis'. *Arch Intern Med* 1974; **133**: 611-619.
- Lehmann H. Origin of the sickle cell. *S Afr J Sci* 1954; **50**: 140-141.
- Serjeant GR. *Sickle Cell Disease*. Oxford: Oxford Medical Publications, 1985.
- Davis LR, Huehns ER, White JM. Survey of sickle cell disease in England and Wales. *BMJ* 1981; **283**: 1519-1521.
- Aluoch JR. Survey of sickle cell disease in the Netherlands. *Trop Geogr Med* 1984; **36**: 115-122.
- Gelpi AP. Migrant populations and the diffusion of the sickle cell gene. *Ann Intern Med* 1973; **79**: 258-264.
- Allison AC. The distribution of the sickle cell trait in East Africa and elsewhere, and its apparent relationship to the incidence of subtertian malaria. *Trans R Soc Trop Med Hyg* 1956; **48**: 312.
- Livingstone FB, ed. *Abnormal Hemoglobins in Human Populations*. Chicago: Aldine, 1967.
- Serjeant GR. *The Clinical Features of Sickle Cell Disease*. Amsterdam: North Holland Publishing, 1974.
- Aluoch JR, Aluoch LHM. Survey of sickle cell disease in Kenya. *Trop Geogr Med* 1993; **45**: 18-21.
- Aluoch JR, Aluoch LHM. Sickle cell anaemia in Kenya is ethnologically no more limited to lacustrine or riverine areas. *Blood* 1990; **76**: S54a.
- Aluoch JR, Kilinc Y, Aksoy M, et al. Sickle cell anaemia among Eti-Turks. *Br J Haematol* 1986; **64**: 45-55.
- Bird AR, Ellis P, Wood K, Mathew C, Karabus C. Inherited haemoglobin variants in a South African population. *J Med Genet* 1987; **24**: 215-219.
- Beighton P, Botha MC. Inherited disorders in the black population of southern Africa. *S Afr Med J* 1986; **69**: 247-249.
- Haden RL, Evans FD. Sickle cell disease in the white race. *Arch Intern Med* 1937; **60**: 133-142.
- Rogers ZR, Powars DR, Kinney TR, Williams WD, Schroeder WA. Nonblack patients with sickle cell disease have African β -S gene cluster haplotypes. *JAMA* 1989; **261**: 2991-2994.

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 6 - 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.

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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. MBewu¹ 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 Rensburg²

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',² 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 also³) 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.⁴ MBewu¹ 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 argued⁵ 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.⁶

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1. MBewu AD. South African medical research — ugly stepsister or fairy godmother? (Opinion). *S Afr Med J* 1996; **86**: 515-516.
2. Van Rensburg HCJ. Can we support high-tech research in South Africa? (Issues in Medicine). *S Afr Med J* 1996; **86**: 516-521.
3. Makgoba MW. Academic standards - myth or reality? *Higher Education Review* 1996; 2 June: 5.
4. Kirschnner MW, Marincola E, Teisberg EO. The role of biomedical research in health care reform. *Science* 1994; **266**: 49-51.
5. Stein DJ, Emsley RA. Psychiatric research in the new South Africa. *S Afr Med J* 1995; **85**: 1365-1366.
6. African National Congress. *The Reconstruction and Development Programme — a Policy Framework*. Johannesburg: Umanyano Publications, 1994.

Post-test counselling after an HIV test for insurance purposes is positive

To the Editor: The insurance industry is concerned about the lack of response by doctors to letters written to them asking them to contact their patients for confirmatory testing and/or post-test counselling, when the client has been refused a policy because of HIV positivity. In this situation the industry pays the fee of one post-test counselling consultation, where the salient details can be discussed.

We appeal to our colleagues for a very pro-active stance to be taken, since this will facilitate the containment of the AIDS epidemic.

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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.

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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 test¹ 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;² 18