

### International

#### Study scotches 'left-brained, right brained' stereotyping

Brain scans show no evidence that people are predominately right or left brained, University of Utah researchers report. The new findings challenge the widely held belief that people use one side of their brain more than the other, and that this influences their personality traits. For example, left-brained people are said to be logical and detail orientated, while right-brained people are creative and thoughtful. For the study, University of Utah neuroscientists analysed brain scans from more than 1 000 people aged 7 - 29. The researchers examined thousands of brain regions for indications that people are more likely to use either the right or left side of the brain, but found no signs that this was the case. The study was published in the 14 August online edition of *PLoS One*. 'It's absolutely true that some brain functions occur in one or the other side of the brain. Language tends to be on the left, attention more on the right. But people don't tend to have a stronger left- or right-sided brain network. It seems to be determined more connection by connection,' Dr Jeff Anderson, lead author, said in a University of Utah Health Sciences news release. These findings may change the way people think about the right-brain versus left-brain theory, said study co-author Jared Nielsen, a graduate student in neuroscience. 'Everyone should understand the personality types associated with the terminology "left-brained" and "right-brained" and how they relate to him or her personally; however, we just don't see patterns where the whole left-brain network is more connected or the whole right-brain network is more connected in some people.' Nielsen said it might well be that personality types have nothing to do with one hemisphere being more active, stronger or more connected.

#### Vitamin C kills TB bacteria in experiment

Scientists say they have managed to kill lab-grown tuberculosis (TB) bacteria with good old vitamin C – an 'unexpected' discovery they hope will lead to better, cheaper drugs. A team from Albert Einstein College of Medicine in New York made the accidental finding while researching how TB bacteria become resistant to the TB drug isoniazid. The researchers added isoniazid and a 'reducing agent' known as cysteine to the TB in a test tube, expecting the bacteria to develop drug resistance. Instead, the team 'ended up killing off the culture', according to the study's senior author William Jacobs, who said the result was 'totally unexpected'.

### Africa

#### MSF finally pulls out of deadly Somalia

After working continuously in Somalia since 1991, the international medical humanitarian organisation Doctors Without Borders (MSF) recently terminated all its programmes in the country because of 'extreme attacks' on its staff. A spokesperson said armed groups and civilian leaders increasingly supported, tolerated, or condoned the killing, assault, and abduction of humanitarian aid workers. In some cases, the same actors – particularly, but not exclusively, in south central Somalia – with whom MSF had to negotiate minimum guarantees to respect its medical humanitarian mission, actually played a role in abuses against MSF staff. This happened either through direct involvement or tacit approval. 'Their actions and tolerance of this environment effectively cuts off hundreds of thousands of Somali civilians from humanitarian aid,' MSF said.

Over its 22-year history in Somalia, MSF has negotiated with armed actors and authorities on all sides. The exceptional humanitarian needs in the country had pushed the organisation and its staff to tolerate unparalleled levels of risk – much of it borne by MSF's Somali colleagues – and to accept serious compromises to its operational principles of independence and impartiality.

The most recent incidents included the brutal killing of two MSF staff in Mogadishu in December 2011 and the subsequent early release of the convicted killer; as well as the violent abduction of two staff in the Dadaab refugee camps in Kenya that ended only two months ago after their 21 months of captivity in south central Somalia. 'These two incidents are just the latest in a series of extreme abuses,' the spokesperson said. Fourteen other MSF staff members had been killed, and the organisation had experienced dozens of attacks on its staff, ambulances, and medical facilities since 1991.

'In choosing to kill, attack, and abduct humanitarian aid workers, these armed groups and the civilian authorities who tolerate their actions, have sealed the fate of countless lives in Somalia,' said Dr Unni Karunakara, MSF's international president. Beyond the killings, abductions, and abuses against its staff, operating in Somalia meant MSF had to take the exceptional measure of using armed guards, which it did not do in any other country. Humanitarian action required a 'minimum level of recognition of the value of medical humanitarian work' and therefore the acceptance by all warring parties and communities to allow for the provision of medical assistance, as well as the operational principles of independence and impartiality. 'Furthermore, these actors must demonstrate the capacity and willingness to uphold negotiated minimum security guarantees for patients and staff. This acceptance, always fragile in conflict zones, no longer exists in Somalia today,' Karunakara said.

### South Africa

#### Public private partnerships may answer doctor shortage

Public private partnerships are the answer to South Africa's growing shortage of healthcare professionals, political leaders and health policymakers said at the opening of the Board of Healthcare Funders (BHF) conference in Cape Town recently.

Western Cape Premier Helen Zille led the charge, saying, she'd been 'amazed to see how great the shortage of nurses potentially is in our country – we need to forge public private partnerships to deal with this challenge because more than 40% of our nurses are above 50 years old'. The Public Health Association of South Africa estimated an overall shortage of 80 000 healthcare professionals country-wide, emphasising that 70% of doctors worked in the private sector, which served just 16% of the population. Said the head of the University of Cape Town's Department of Medicine, Professor Bongani Mayosi, 'The bottom line is that we are producing the same amount of healthcare professionals as 1990s levels'. He said a doubling of the estimated 1 300 annual campus doctor output was needed. Economist Roelof Botha warned: 'The population is growing all the time and that's not going to turn around in our lifetime. Africa's population will outstrip China by

2030.' The number of doctors and nurses needed to grow commensurately, he said. Zille said public private partnerships could help medical schools increase their capacity to produce doctors. 'Such partnerships in our medical schools are something we really need to roll out as much as we can. I was shocked to hear at the [then recent] Cabinet *lekgotla*, that we send more medical students to Cuba to train than in all South Africa's medical schools put together.' According to Mayosi, public private partnerships have been successful in 'training highly specialised doctors.' Registrars, or specialists-in-training, work in academic, and therefore state hospitals. However, said Mayosi, only a certain number of government posts were available for training at these hospitals. For example, at Groote Schuur Hospital in Cape Town there were just six neurologists. 'There is the capacity to train at least twice this number but there are only two government-funded posts there,' he explained.

Private organisations have responded to this by funding some of these posts in state hospitals. 'A cardiologist might be sponsored one year and a nephrologist the next but these initiatives are currently too small to have any visible impact,' said Mayosi. However, the Life Healthcare Foundation, a private corporate social investment project, had recently scaled up their investment.

Mayosi said 36 specialists from different departments would be funded over a period of two years at academic hospitals around the country. 'They funded half of this year's round of 36 and will do the same next year,' he said. Although the funding of specialists would not increase the number of general practitioners (GPs), Mayosi said this investment was vital because the specialists would become trainers in their own right. 'Over a short period of time we'll get a large number of teachers – and new schools need professors,' he emphasised.

### Two hundred doctors found guilty of misconduct

Medical aid fraud, theft and shoddy treatment of patients continue apace among doctors, according to the Health Professions Council of South Africa (HPCSA)'s misconduct figures. The council said that of the 3 000 complaints received in the 12 months to March 2013, 120 had been referred to the police for investigation as the practitioners involved were not registered with the HPCSA. Of about 1 830 cases it considered, 734 were finalised during that financial year, with 200 doctors guilty of misconduct.

More than 400 complaints were referred to the Office of the Ombudsman for mediation, while 200 cases were referred to the council's Professional Conduct Committee. Forty-nine doctors were found guilty of theft and fraud, while 41 doctors were found guilty of providing insufficient care or treatment and of mismanagement of patients. At least 30 doctors were penalised for overcharging their patients or charging for services not rendered, while 15 were found to have been negligent. A further 15 were found to have brought their profession into disrepute. Council spokeswoman Lize Nel expressed concern about the increase in the number of fraudulent claims for money – many of them from medical aids – that were made by doctors. 'Not only is committing fraud strictly against the council's good practice guidelines, but it is a criminal offence. The council supports the authorities in imposing the appropriate sanctions on practitioners found guilty of this unethical and disgraceful conduct,' she added.

### High-tech translation tool eases doctors' task

It's an ever-present dilemma for most healthcare workers in our multilingual society: how to translate medical questions

and ailments into another language accurately enough to provide correct diagnosis and treatment. It's one that 6th-year medical student and president of SHAWCO Health Saadiq Moolla tackled head-on when treating isiXhosa-speaking patients at SHAWCO's mobile clinics. His mobile Xhosa website/mobisite is a 'technologically innovative and neat solution,' providing free English/isiXhosa translations, via cellphone, for commonly used medical phrases. Access is via an URL, and once on the site, users can search according to groups of commonly asked phrases such as 'presenting problem,' 'heart,' 'respiratory' or 'social'. It also has a dictionary. The idea came to Moolla two years ago, when the vital need for medical translations became apparent during his volunteer work at SHAWCO clinics. It was also fuelled by an interest in web design and communications developed as a schoolboy at Rondebosch Boys' High School.

'Language proficiency is part of our medical training. We learn Afrikaans and isiXhosa through the Department of African Languages in the School of Languages and Literature, which teaches us the basic skills needed to communicate with patients.' But many students like Moolla struggled with isiXhosa. 'So I built the site as an aid for myself, a handy reference on my phone. It helps so much to be able to explain to a patient that you will be taking blood, for example, so that they understand what you're doing and why. It reduces anxiety and improves the quality of care.' In 4th year he showed the site to one of his tutors, who encouraged Moolla to flesh it out. This he did with the help of the African languages and literature team who became instrumental in the site's development. It's still a work in progress. The department provides new translations on an on-going basis – and Moolla keeps discovering new phrases he has trouble communicating. He'd also had a first-hand 'lost in translation' experience when he visited a doctor during a trip to Egypt. 'They spoke only Arabic. I didn't get the proper treatment – or reassurances. In South Africa, patients experience this in their own country.' He'd like to include sound bites to help students with pronunciation, and he'd like to see the site expand to include other vernacular languages.

**Chris Bateman**

*chrisb@hmpg.co.za*