

# Probing the secrets of mind, body and soul

By <u>Jeanne van der Merwe</u> 3 Aug 2018

Professor Soraya Seedat joined Stellenbosch University's Department of Psychiatry in 1992, fresh from her MBChB internship and keen to become a medical researcher, but not sure whether to specialise in psychiatry or paediatrics.



Professor Soraya Seedat. Photo: Damien Schumann

One year as a medical officer at Lentegeur Hospital convinced her to become a psychiatrist and she enrolled as a registrar in 1993. Excluding two years of research abroad, she has been with the psychiatry department ever since, becoming its executive head in 2012.

She has a B2-rating from the National Research Foundation (NRF) and more than 300 peer-reviewed journal articles and book chapters to her name, in which she sought to illuminate a host of causes, treatments and cross-cultural manifestations of psychiatric disorders.

She still does original research and collaborates across multiple academic departments both inside and outside the Faculty of Medicine and Health Sciences. She has also directed multi-institutional research as co-director of the Medical Research Council (MRC) Anxiety and Stress Disorder Unit, director of its post-traumatic stress disorder (PTSD) Unit, and currently as chair of the PTSD project of the South African Research Chairs Initiative (SARChI). The latter is a flagship project of the NRF and focuses on the interplay between trauma, PTSD and genetics.

I think what drives me is being able to ask very pertinent, but also very creative questions about why diseases and psychiatric disorders manifest in the way they do, why they manifest at all, and in what novel ways we can treat these disorders

"I am also interested in capacity-building – how do you train researchers; what skills do you impart to them; how do you do that in a country with limited resources? Research is incredibly competitive. You are competing internationally, therefore you have to advance yourself and your skills to a point where you are in that playing field."

#### **Awards**

Seedat has received a number of prestigious national and international research awards, but she considers them as recognition of a body of research rather than of her own efforts.

Research today is all about networking and collaborating with people from other disciplines. When you open your field and expertise up to like-minded, but also very differently-skilled individuals, it makes for a far more robust research environment that is much more nuanced and interesting.

The award that means the most to her personally is the 2013 Mail & Guardian Women in Science award.

"It was a privilege to meet so many talented masters and doctoral students – women who are studying in traditionally maledominated fields in science, technology and engineering, being recognised for their extraordinary achievements."

### Children and trauma

Seedat mentions that her interest in psychiatry grew from her practical undergraduate training in psychiatry at King George Hospital in Durban, whilst studying medicine at the University of KwaZulu-Natal. "We were given the opportunity to interview patients, both supervised and unsupervised. We often sat outside in the hospital gardens and interviewed patients who had been in the hospital for lengthy periods of time. I found them fascinating. I was also fortunate to be taught psychiatry by tutors and lecturers who were very passionate about their field."

She has collaborated with her fellow-chair of the MRC's Anxiety and Stress Disorder Unit, Professor Dan Stein, since her days as a registrar. Their work in trauma led them to establish the MRC's Bathuthuzele Youth Stress Clinic at Tygerberg Hospital in 1999.

"Bathuthuzele means 'comfort them'. I became quite involved in the clinic, going out to schools, recruiting children and raising awareness of the mental health effects of trauma.

"Trauma often manifests through physical symptoms. If a woman suffered sexual abuse as a child, her scars may manifest physically in adulthood as, for example, repeated urinary tract infections, gastro-intestinal infections or chest infections. She may consult several health professionals for varied symptoms, but it is only upon inquiry and examination that a doctor may actually uncover that trauma is at the root of the problem.

"This is why it is very important to focus on the youth, because that is where the most fruitful early intervention can happen, even in youths who have already developed problems. Young people are far more malleable than adults – you can positively influence their bodies and minds far more easily, because their biological systems are still in flux and developmentally less matured."

## The gene puzzle

Under the NRF's SARChI programme, Seedat leads research on how environmental and biological factors affect an individual's genetics, and the broader implications for trauma and post-traumatic stress symptoms and treatment.

Conventional wisdom in science held that we are born with static genes inherited from our parents. However, in the last 10 years we've come to knowthat our genetic architecture is actually amenable to influence, both biological and environmental.

This is known as epigenetics. While the actual structure of the DNA is stable, through environmental impacts like trauma, poverty, family and societal influences, as well as biological factors, the expression of that genetic architecture can change.

"In a condition like Down's syndrome we know what the genetic abnormality is. But psychiatric diseases are far less clear cut, which is why it is taking science and medicine so long to unravel the causation of these disorders. Therefore, we are now undertaking very sophisticated studies, trying to unpack how much of a psychiatric disorder is caused by the environment. We have lots of pieces of the puzzle, but we haven't been able to fit all of those pieces tightly together yet."

## Care and funding

Although she hasn't worked in a psychiatric hospital for many years, Seedat supervises numerous researchers and research studies conducted in hospitals and clinics and in other settings, and she sees both dire need and cause for hope.

"South Africa faces challenges around human, financial and skills resources as well as access to healthcare and medications. Many medications that have already been approved and indicated for use in treating psychiatric disorders in the United States and European Union, are just not available here because of cost constraints. In many instances we therefore resort to older medications with more side-effects.

"I think the most psychiatric hospitals and district hospitals that treat psychiatric patients function under very difficult circumstances. Unfortunately psychiatry has traditionally been the orphan of the health disciplines – it only receives some 3,5% of the health budget. More recently, however, the Department of Health has begun to highlight the issues and challenges that mental health services face, and is making a greater commitment to supporting these services. I am positive that we are going to see improvements going forward," Seedat says.

**Source:** Stellenbosch University

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