

EDITORIAL

The use of racial classification in medical research

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Racial categories are widely used in medical scientific research both in South Africa and in other countries around the world. Different categorisations of race are used in different contexts and when I encounter these references in articles I read or review, I am often struck by how the use of race, as a category, somehow escapes the normal scientific rigour we use to define any other category. Race is used in various ways in medical research: studies looking at the impact of socioeconomic factors on health; the effect of culture on medical compliance and understanding; the impact of language and, in some cases, a link is made between the race of participants and a perceived common or unusual clinical outcome or clinical pathway.

It is contemporary knowledge and widely accepted that there is no scientific basis for race. Race is a socio-political entity. This is not to say that racism does not exist. Race is often used as a social and political means of justifying and reinforcing oppression of one group of people by another. As Ta-Nehisi Coates so eloquently states in his book, *Between the world and me*: 'But race is the child of racism, not the father'.

Looking into the history of race-based medical research is a sobering exercise. Dr Samuel Morton is known as the father of scientific racism. He was a prominent scientist that lived in the USA in the 19th century. In his widely published craniometry experiments, he stuffed various skulls with pepper seeds which he then decanted to determine the volume of the braincase. His conclusion was that there were five races in the world and they all originated from separate acts of creation (polygenism). Caucasians were at the top of the pile and represented the most intelligent of races. Blacks were at the bottom. His ideas were soon endorsed and popularised by the defenders of slavery. Sadly, from these humble beginnings, the science of race was born, and very infrequently re-examined. It just became gospel. Importantly, Dr Samuel Morton worked before DNA was discovered.

The use of racial categorisation in medical literature is not always benign; it can carry motives of oppression or perpetuating stereotypes. When Morton died, in 1851, the *Charleston Medical Journal* in South Carolina praised him for 'giving to the negro his true position as an inferior race'. And just recently, a 2019 study from Stellenbosch University on intellectual capabilities of Coloured women concluded that Coloured women were cognitively inferior. After a massive outcry, and rightly so, this article has been withdrawn. It is a sad testimony to the unexamined hegemony of race in our consciousness and our research that such a study was approved by the ethics committee and passed a rigorous peer-review process.

Elizabeth Kolbert writes that race as a scientific entity does not exist. She further expands that it is a made-up label that has been used to define and separate people for millennia. But the concept of race is not grounded in genetics. Many of the differences we see are based on skin pigmentation, culture and language, which when combined are often referred to as race. Skin pigmentation simply reflects how our ancestors used melanin to deal with sun exposure, and not much else.

Heather Norton, a molecular anthropologist at the University of Cincinnati who studies pigmentation, remarks that 'We often have this idea that if I know your skin colour, I know X, Y, and Z about you'.

All scientific categories we use in our research are subjected to the rigours of clear definition, yet race is often used with no attempt to define what it is. We are all just expected to know. Human diversity includes skin colour, hair, facial features and all other physical attributes that make us different. These differences are not easily categorised into groups but rather are a complex and beautiful continuum. Creating race from this converts the richness of this *continuous variable* into a falsely simplistic and reductionist *categorical one* in a process that defies any attempts at rational or objective methodology.

Many articles in our own *South African Orthopaedic Journal* still include racial categorisation. Writing in 1986, Cooper and David conclude that 'The pragmatism of medicine and its isolation from social science may account for much of this backwardness'. It has been 33 years since this article was published acknowledging the flaws of racial classification in medical science, but we do not seem to have taken heed of this and moved on.

Even when some studies are not race-related, the demographics section will often include race when defining the cohort almost as a default. Whenever I have asked a speaker or researcher 'How did you decide who was Coloured and who was white or black?', I am always met with shock, awkward silence, rolled eyes and shoulder shrugging, but I have never been given a satisfactory answer. I am just expected to know. Often the response is 'we asked the patients to classify themselves'. Using the self-classification quick-fix card is simply an abdication of scientific responsibility and conflates social identity with race biology. The fact that senior and experienced researchers still do this, and ethics committees approve it and reviewers accept it, does not make the category any more scientific.

In conclusion, aside from the significant issues around race as a social and political vehicle for oppression of one group by another, the inability to define race as a scientific category should make any serious researcher pause. Using race as a proxy for any variable in medical research is at best lazy research. Using race as a biological variable is deeply flawed. My plea to you, fellow academics, scientists and researchers, is to refrain from using racial categories in our research. The fact that most people do it must not be a reason to continue with this practice.

Further reading

1. Coates, Ta-Nehisi. *Between the world and me*. 2015. New York: Spiegel & Grau.
2. Kolbert, Elizabeth. There's no scientific basis for race – It's a made-up label. *National Geographic. The race issue*. April 2018.
3. Cooper R, David R. The biological concept of race and its application to public health and epidemiology. *J Health Polit Policy Law* 1986;**11**(1):97-116.