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How the concept of race influences medical practice. A reflection based on a study about the diagnosis and treatment of upper respiratory tract infections in American children

Scientific evidence has shown that significant, persistent and generalized distinctions take place in children's health status and care based on their skin color, identified in the United States as a racial distinction.

Different studies have demonstrated that child mortality rate, the incidence of deaths in accidents, and the number of deaths from acute lymphoblastic leukemia, congenital heart diseases, Down's syndrome, etc. are all higher among the African-American population.[3]

In addition, a lower incidence of breastfeeding and less access to the health system have also been observed in this population.

The incidence of adolescent pregnancy and of violence among male individuals is also higher in these individuals.

Based on these and many other indicators, skin color-related health differences suffered by American patients should not be overlooked.

A recent study published in *Pediatrics*[1] explored whether there were differences on how a doctor diagnoses and manages an upper respiratory tract infection based on the patient's "racial" characteristics.

Results show that basically there are differences; African-American children less often receive a diagnosis that warrants an antibiotic treatment (especially in acute otitis media and streptococcal pharyngitis), and when such treatment is indicated, doctors choose a narrow-spectrum antibiotic, compared to prescriptions issued for "caucasian" children.

Authors suggest that studying and understanding these differences in the prescription of treatments for common infections may reduce inadequate antibiotic use in an era of increasing resistance and scarce production of new antibiotics by the industry.

Firstly, I will speculate on the possible causes that lead a doctor to make different diagnoses and treatment prescriptions as per his/her patient's skin color; then I will comment on the use of the term "race" in the bibliography in English language, with a focus on American publications; and lastly, I will reflect on the concept of race in Argentina.

Authors make no comment on the cause for such significant differences and propose that future studies should study this issue; however, they make clear that this is not based on any "biological" foundation because African-American children suffer the same, or even higher, rate of acute otitis media and other infections than caucasian children; in this study, we found that antibiotics were prescribed 25% less often to African-American pediatric patients. Moreover, a recent study showed a disproportionately higher incidence of methicillin-resistant *Staphylococcus aureus* infections among African-American children.[2]

Authors estimate that the higher rate of antibiotic prescriptions among caucasian patients accounts for an overtreatment of the caucasian population rather than an undertreatment of the African-American population.

Several studies[3,4] demonstrated that doctors' indications are influenced by parental expectations, and that it is most likely for a child to receive an indication for antibiotics and a diagnosis that warrants such treatment if parents request or expect it. These studies have also shown that parents of African-American children tend to be less demanding than parents of caucasian children and this may serve, at least partially, as an explanation for this study's results.

Some studies also reported that[4]doctors believe that the African-American population will show a lower level of treatment compliance, and therefore end up issuing fewer antibiotic prescriptions compared to the caucasian population.

The fact that such difference in the diagnosis of common infectious diseases such as acute otitis media and pharyngitis does not occur in urinary tract infections, which are diagnosed based on more objective data, or in pneumonia, which could have serious consequences if undiagnosed, proves that doctors have an implicit subjective attitude in the management of upper respiratory tract infections.

An outcome measure that was not included in this study was researchers' ethnic or "racial" origin given that other studies have demonstrated different attitudes according to whether the doctor has the same "race" as his/her patient.[4]

Paradoxically, this study shows that African-American children, who usually have a worse socio-economic level than caucasian children, actually receive a better antibiotic prescription than caucasian patients, who are probably managed with antibiotics for viral infections, especially rhinosinusitis, with the resulting bacterial resistance both in the patient and his/her environment.

A recent study[5] pointed out that out of 50 million antibiotic prescriptions for upper respiratory tract conditions in American children, 10 million are unjustified given their viral nature. Although this may be partly due to the difficulty for distinguishing between a viral and a bacterial condition, other factors also play a role, such as parental expectations or pressure, as suggested by this study.

At this stage of scientific development it is known that there are no genomic differences among individuals with different skin colors other than those observed among individuals of the same skin color, and it should be useful to approach the concept of race from a different perspective other than that of biology.

Although some authors continue to justify that race is related to human nature, most reject this idea and see race as a social construct that cannot be defined in biological terms but as a product of social processes.

The general use of the term "race" in American medical literature has been associated with the strict criteria historically employed to categorize a person as African-American in the United States.

Unlike Latin America, where the term "*negro*" was used to refer to an individual of clear African descent, the United States went by the "one-drop" rule, which established that people with at least one "drop" of African blood in their veins were classified as African-American.[6]

Such contrast lies on the different forms of colonization undertaken by the British and the Iberians, and proves that racial identity is constructed over time and organized by social forces, which have legitimized social hierarchies and therefore, depict the concept of superiority-inferiority implied in any dominance relation as nature-related differences, thereby concealing its historical role.[7]

Based on current knowledge, theories that attributed physical and mental differences to the concept of race no longer stand; however, the concept of "race" is still of significant social importance.

The current evidence sustains that existing human genetic variations cannot be explained in terms of race. The concept of race has no significant biological relevance, other than predisposition to certain diseases, but is of great social importance.

Given the initial concept of Argentina being a "melting pot of races" and considering what is currently politically correct, the concept of "race" has been kept concealed, but inherent prejudices against skin color, indigenous or mixed-race descent, or the culture of certain groups are still present. This leads to categorizing social and cultural differences in racial terms, and consequently, to a chain of attitudes and behaviors built on individuals' ethnic or national origin or skin color.

It is worth reflecting on how such prejudices, which are entrenched in society, introject into our health system, and sometimes lead doctors to offer different approaches, diagnoses and treatments to patients based on a complex social classification system crossed by prejudices related to race, national origin and class that result in the creation of patient hierarchies. Such hierarchical structure can even take place in the specific practice of a doctor who may see patients who attend a public hospital with different eyes than those who attend his/her private practice.

In this regard, the fact that the currently accepted concept of "race" refers to it being a social construct does not rule out the sense of "race" being a deeply rooted concept that has a highly significant impact on how people behave and their access to possibilities.■

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