Ethnicity and pharmacokinetics: misconception or confusion?

Jennifer Koenig¹, Olusola Olafuyi¹, and Rakesh Patel²

 $^1 \rm University$ of Nottingham Faculty of Medicine and Health Sciences $^2 \rm Affiliation$ not available

June 19, 2023

Abstract

Aims: To explore the impact of a teaching resource on student's understanding of variation in drug disposition between ethnic groups. Methods: A questionnaire was administered to students from medical and medical sciences undergraduate courses immediately before and after a teaching session on inter-individual variation in pharmacokinetics. Responses were analysed using a Wilcoxon signed rank test. Results: Students were most likely to define ethnicity in relation to culture, traditions, and place in contrast to use of the term in the pharmacokinetics literature where it refers to large-scale continental racial groups, e.g., Black, white, Asian. There was a tendency for students to assume a genetic mechanism for ethnic differences and there was a change in this assumption after they participated in the teaching session. Conclusions: Confusion around the use of the term ethnicity may contribute towards lack of clarity in teaching and in student understanding. Teaching about a range of mechanisms that can underly inter-individual variation in pharmacokinetic processes reduces the tendency of students to ascribe genetic mechanisms to differences in drug metabolism, clarifies some of the ways in which individuals can vary.

Hosted file

Ethnicity and PK 20231906.docx available at https://authorea.com/users/603320/articles/ 650332-ethnicity-and-pharmacokinetics-misconception-or-confusion