Breaking the silence on bias: the expectations of being a physician

Christoph Sinning [ID] [1,2] and Monika Aržanauskaitė [3,4]*

[1]Department of Cardiology, University Heart & Vascular Center Hamburg, Hamburg, Germany; [2]German Centre of Cardiovascular Research (DZHK), Partner Site Hamburg/Kiel/Lübeck, Germany; [3]Department of Radiology, Liverpool Heart and Chest NHS Foundation Trust, Thomas Drive, Liverpool L14 3PE, UK; and [4]Cardiovascular Research Center-ICCC, Hospital de la Santa Creu i Sant Pau, IIB-Sant Pau, Carrer de Sant Quintí, 89, 08041 Barcelona, Spain

This editorial refers to 'Aortic dissection masked by psychosis', by G. Ibarra *et al.* doi:10.1093/ehjcr/ytab119.

The daily meeting of physicians and patients has been the everyday practice in medicine. However, physicians and patients have different expectations regarding their interaction. One of the most commonly used expectations outlined by Parson[1] emphasizes that the physician has to be objective and emotionally detached from the situation the patient recounts. Despite this idealistic perspective, the interaction between physician and patients still has many obstacles determined by socioeconomic status, prejudice, ethnicity, and stigmata leading to misdiagnosis and postponing diagnosis and treatment.[2–5]

In their article, Ibarra *et al.*[6] present a case of a 43-year-old patient of African-American ethnicity with a known schizoaffective disorder. He was alerted due to chest discomfort but was transferred from an assisted living facility for patients with psychiatric diseases to the emergency department due to erratic and aggressive behaviour.[6] Despite elevated troponin T levels and non-specific electrocardiogram ST- and T-wave changes on presentation and previous history of essential primary hypertension, the patient received medication with haloperidol and lorazepam to stop the aggressive behaviour and calm him down. The following day, he reported having experienced initial chest discomfort and had an additional diagnostic work-up performed. Transthoracic echocardiography showed a DeBakey Type I aortic dissection flap and severe aortic regurgitation. Despite the diagnosis of a life-threatening disease, the patient refused surgery but was ultimately scheduled for urgent surgical treatment after the lack of capacity was deemed upon psychiatric evaluation.

The case report has several learning points and reminders for healthcare professionals. Regarding the patient's medical history, Nielsen *et al.* and Correll *et al.* have recently reported that patients with severe mental illness have a high likelihood of concomitant cardiovascular diseases.[7,8] Patients with mental illness often have factors making them prone to cardiovascular diseases: a lack of exercise, poor dietary patterns, increased smoking rates, and a higher prevalence of obesity.[7] Rarely, aortic dissection can also present atypically as an altered mental status with or without other stroke symptoms.[9]

On the other hand, physicians are reported to have a negative attitude towards patients with mental illness, resulting in a lower rate of diagnostic procedures and a later onset of treatment.[7] Prescribing medication in patients with mental illnesses to prevent or reduce cardiovascular risk factors or diseases is underutilized in this patient cohort. It is essential to note cardiovascular pharmacological therapy is as effective as in other patients with an underlying cardiovascular disease.[7]

Challenging as it is, this case highlights the aim to establish the diagnosis objectively in patients with mental disorders. The physician also needs to emphasize the need to acquire the medical history and set it into the proper context, although it may be more difficult to talk to the patient.

In addition to mental health, the case underlines additional factors that merit mentioning as they may negatively affect treatment equity.

It is important to note that miscommunication between the patient and the physician can occur not only due to disease but also due to linguistic barriers, thus affecting the quality of healthcare delivery.[10] Awareness of the language issues and application of potential solutions have been encouraged in the medical community.[11–13]

Multiple unconscious biases can affect physicians and patients (*Figure 1*). Examples of such biases include affinity bias—an unconscious tendency to gravitate towards people who look like oneself—or affirmation bias when people make systematic errors evaluating other person's behaviours based on themselves. While normal and often helpful human evolutionary adaptations,[14,15] unconscious
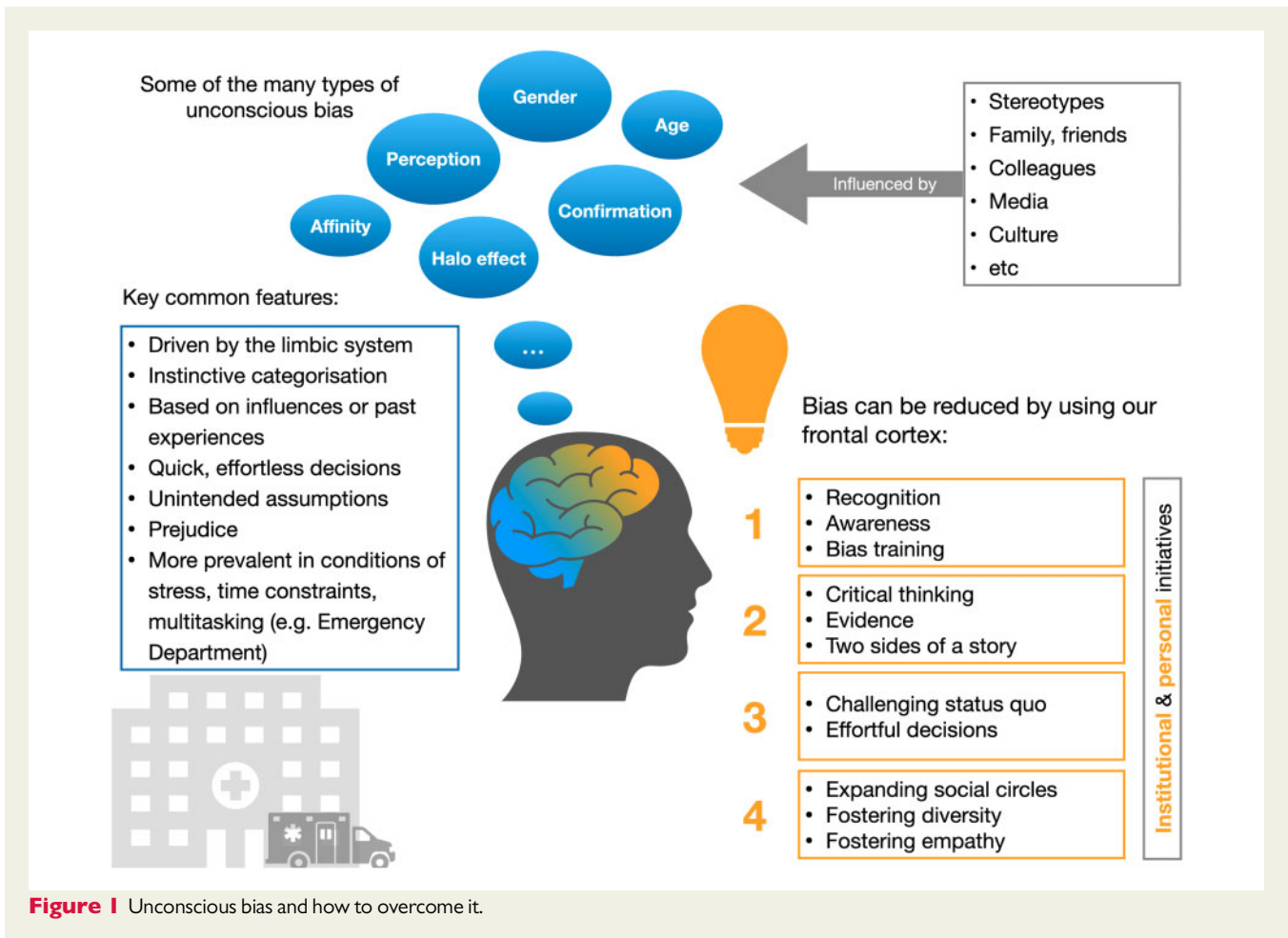
Figure I Unconscious bias and how to overcome it.

biases do not necessarily align with declared beliefs. Such biases can translate into physician's daily practice, as people tend to apply heuristic principles in decision-making in uncertain and complex situations[16]—e.g. when working in an emergency department in conditions of stress, time constraints, and multitasking. Debiasing techniques either provided by the healthcare employers or practiced personally improve equality in healthcare[17] and should be actively encouraged. One of the awareness tools recommended to medical professionals and the general population is the Harvard Implicit Association Test.[18]

Ethnicity, commonly in conjunction with socioeconomic status, is often reported as an important source for bias resulting in a worse treatment or even not establishing a diagnosis at all.[4,5] Addressing these inequalities by medical actions is, as hypothesized, complex. The micro-processes of interactions between patients and professionals together with the macro-processes of population-level inequalities form a missing step in the current reasoning.[4] Medical professionals should be sceptical regarding ethnicity-based diagnoses being true; the same applies to attributing certain social behaviours only to certain ethnicities or socioeconomic status. Furthermore, alliances between physicians and people in charge of the vulnerable

individual (caregivers, safeguards) might help decrease the inequality in treatment in these patients.[4]

Regarding the case report of Ibarra et al.[6] on a patient of an ethnic minority who has a severe mental disorder, there is more than one factor contributing to the different stereotypes. In retrospect, the diagnosis and treatment of acute aortic syndrome could have started when the patient presented to the emergency department with a history of arterial hypertension, an elevated troponin T, and medical history of chest discomfort. Current guidelines recommend additional testing with echocardiography at presentation in patients with the described symptoms.[19] Clinical examination aspects such as wide pulse pressure and aortic regurgitation murmur could have also been assessed. Overall, considering that patients with mental illness have even higher cardiovascular risk, the diagnosis of aortic dissection might have been reached earlier.

In summary, the case report underlines an essential aspect of unbiased healthcare by reminding all physicians to meet their patients without prejudice regarding factors such as ethnicity, socioeconomic status, language, or disease. As taught by the masters, including Hippocrates, the main aim of the physician should be to benefit or help the patient and do no harm.

Lead author biography

Dr Monika Arzanauskaite is a Consultant Radiologist at Liverpool Heart and Chest Hospital and a Deputy Editor for Imaging at European Heart Journal - Case Reports. She is involved in imaging training and works as the Trust Specialty Training Lead for Radiology. As a result of her multisystem and multimodality background, she has already developed multiple academic projects linking cardiovascular and respiratory diseases. Her current clinical and research interests include ischaemic heart disease and cardioprotection, cardiomyopathy, cardiac tumours, congenital heart disease and lung disease. She serves on several committees of professional society boards.

Conflict of interest: None declared.

References

1. Parsons T. Illness and the role of the physician: a sociological perspective. *Am J Orthopsychiatry* 1951;**21**:452–460.
2. Gianattasio KZ, Prather C, Glymour MM, Ciarleglio A, Power MC. Racial disparities and temporal trends in dementia misdiagnosis risk in the United States. *Alzheimers Dement (N Y)* 2019;**5**:891–898.
3. Peterson K, Anderson J, Boundy E, Ferguson L, McCleery E, Waldrip K. Mortality disparities in racial/ethnic minority groups in the veterans health administration: an evidence review and map. *Am J Public Health* 2018;**108**:e1–e11.
4. Acosta D, Ackerman-Barger K. Breaking the silence: time to talk about race and racism. *Acad Med* 2017;**92**:285–288.
5. Bailey RK, Blackmon HL, Stevens FL. Major depressive disorder in the African American population: meeting the challenges of stigma, misdiagnosis, and treatment disparities. *J Natl Med Assoc* 2009;**101**:1084–1089.
6. Ibarra G, Oliva M, Bhatti N. Aortic dissection masked by psychosis. *Eur Heart J Case Rep* 2021;doi:10.1093/ehjcr/ytab119.
7. Nielsen RE, Banner J, Jensen SE. Cardiovascular disease in patients with severe mental illness. *Nat Rev Cardiol* 2021;**18**:136–145.
8. Correll CU, Solmi M, Veronese N, Bortolato B, Rosson S, Santonastaso P et al. Prevalence, incidence and mortality from cardiovascular disease in patients with pooled and specific severe mental illness: a large-scale meta-analysis of 3,211,768 patients and 113,383,368 controls. *World Psychiatry* 2017;**16**:163–180.
9. Yanamadala A, Kumar S, Lichtenberg R. It is a medical emergency! Act fast: a case report of painless aortic dissection. *Eur Heart J Case Rep* 2019;**3**:2.
10. Al Shamsi H, Almutairi AG, Al Mashrafi S, Al Kalbani T. Implications of language barriers for healthcare: a systematic review. *Oman Med J* 2020;**35**:e122.
11. Krystallidou D, Vaes L, Devisch I, Wens J, Pype P. Study protocol of OncoTolk: an observational study on communication problems in language-mediated consultations with migrant oncology patients in Flanders (Belgium). *BMJ Open* 2020;**10**:e034426.
12. Dreisbach JL, Mendoza-Dreisbach S. The integration of emergency language services in COVID-19 response: a call for the linguistic turn in public health. *J Public Health (Oxf)* 2021;**43**:e248–e249.
13. Showstack R. Patients don't have language barriers; the healthcare system does. *Emerg Med J* 2019;**36**:580–581.
14. Vedantam S, Mesler B. *Useful Delusions: The Power and Paradox of the Self-Deceiving Brain.* 1st ed. New York, NY: W.W. Norton & Company Ltd; 2021.
15. Vedantam S. The Mind of the Village: Understanding Our Implicit Biases. https://www.npr.org/2020/06/20/880379282/the-mind-of-the-village-understanding-our-implicit-biases?t=1618426817304 (20 June 2020).
16. Tversky A, Kahneman D. Judgment under uncertainty: heuristics and biases. *Science* 1974;**185**:1124–1131.
17. Ludolph R, Schulz PJ. Debiasing health-related judgments and decision making: a systematic review. *Med Decis Making* 2018;**38**:3–13.
18. Project Implicit. The Implicit Association Test. https://www.projectimplicit.net (14 April 2021).
19. Collet JP, Thiele H, Barbato E, Barthelemy O, Bauersachs J, Bhatt DL et al.; ESC Scientific Document Group. 2020 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation. *Eur Heart J* 2021;**42**:1289–1367.