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The biopsychosocial model and Clinical Decision Science in the age of Black Lives Matter: A clinical reflection

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REFLECTION ON CLINICAL DECISION SCIENCE:

The biopsychosocial model and Clinical Decision Science in the age of Black Lives Matter: A clinical reflection

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A patient presented to the family medicine clinic for a blood pressure check-up. After reading his chart, the resident physician and I learned that he was an African American teenager with a previous blood pressure of 138/80. Repeat measurement confirmed the elevation. Using the pathophysiology I was taught during my preclinical medical education, I brainstormed a list of differential diagnoses for elevated blood pressure (EBP) in a young individual. I then read about their associated pharmacological treatments and prepared myself for the patient visit. Little did we realize we might not be completely prepared for the visit just moments away.

In the patient's room, we spoke with the patient about why his blood pressure may have been elevated. We learned that his biological father committed suicide over a year ago and that he was physically abused by his former stepfather several months ago. The resident suggested we screen the patient for anxiety with the generalized anxiety disorder scale (GAD). The patient screened positive for moderate anxiety. We asked the patient, "Would you be interested in counselling to help with the anxiety?" He was initially hesitant but told us, "Yeah." As a result, we connected the patient to the social work services available at the clinic. We asked him to schedule a follow up visit in one week.

Walking out of the patient's exam room, I asked the resident physician why we did not consider a medical intervention for his EBP. The resident explained to me the well documented relationship between anxiety and EBP, a topic I had little prior exposure to in medical school.[1] It is then that I learned about the complex psychobiological considerations of managing patients. Precepting the case to the attending physician, I mentioned that the patient's EBP may be secondary to his anxiety and therefore appropriate management may be cognitive behavioral therapy instead of antihypertensive medication. The preceptor didn't simply accept "anxiety" as the cause of EBP and asked, "Why might this patient have anxiety?" I mentioned his high GAD score and previous traumatic psychological experiences. The preceptor asked us to also consider the current sociopolitical situation. As an African American teenager, he is directly affected by ongoing social unrest, such as the Black Lives Matter protests and the COVID-19 pandemic. As a result of this interaction, I realized that not only had I failed earlier to consider the psychological factors that may be impacting the patient's health, but also the social factors.

Through the suggestion of the preceptor, I turned to the medical literature, particularly Dr. Engel's work on the biopsychosocial model of health, to supplant any gaps in my medical knowledge. The biopsychosocial model of health was proposed in 1977 by Dr. Engel.[2] The model suggests that in order to appropriately manage the health of a patient, you must consider the psychological and social dimensions of disease manifestation in addition to the biological.[2-3] Dr. Engel's model is often hailed as having prompted a revolution in medical care, yet 40 years later, much of what I have learned as a medical student has remained strictly biomedical.[4] The study of clinical decision science bridges this gap between preclinical pathophysiology and clinical practice.

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The preceptor mused what the patient saw when he turned on the television or what it felt like for this patient to walk home in the darkness of night. Our patient was the same age as Trayvon Martin when he died. How scary was that experience for our patient? Is that "generalized anxiety disorder" or a realistic fear of life in America? What is the effect of a hyperadrenergic state on a young person's blood pressure? Is there a medication for that? Clinical decision science studies the how decisions are made for patients when analyzed within their psychosocial context.[5] With more clinical decision science exposure, students, such as myself, and learners of all ages may be more equipped to consider the patient's holistic experience of wellbeing.

In the end, the vulnerable patient described earlier did not show up for the follow-up and did not connect with therapy services leaving us with the question: did we fail this patient as his providers by not understanding his psychosocial circumstances? Perhaps if the field of clinical decision science is incorporated into the social science curricula taught in medical schools, doctors could adequately build stronger therapeutic alliances with their patients and enable improvements in medical treatment.

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