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A Circle of Unintended Effects: A Comment on Persky et al.

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Health disparities is a multifaceted problem that continues to challenge scientists and practitioners alike. Bias in the health care system has been indicated as one facet of the problem, with studies showing that physicians have the same implicit (unconscious) ethnic/racial biases that are found in society at large[1-4]. Such bias has further been associated with lower quality clinical interactions for African American patients[2,5,6] and, in hypothetical scenarios, disparities in treatment decisions[3,7]. All indicators suggest that physicians are largely unaware of differences in their communication or decisions regarding African American patients[1-7].

Persky et al.[8] bring a new perspective to the problem by investigating African American patients' perceptions in a virtual interaction with a physician who appears to be either African American or White. These patients showed no differences in their trust or attention to the physician, yet those who interacted with the race-discordant physician came away with less accurate beliefs of their lung cancer risk than patients with the race-concordant physician, especially if the patients are current smokers. To be clear, the physicians delivered the same information to the patients (an objective, personalized estimate of risk) and the use of a virtual doctor ensured that the manner of delivery was also exactly the same. The findings are made all the more interesting in light of the fact that the patients tended to overestimate their risk for lung cancer and the physician was telling them that their actual risk was much lower. One might imagine that patients would be motivated to discount bad news, but why reject good news?

Taken as a whole, the study findings suggest that the patients may not have intentionally or even consciously ignored the White physician's advice, but instead more subtle psychological processes may have prevented them from fully processing that advice. In response to the everyday discrimination that many African Americans experience, these patients may have developed automatic defenses to guard against the sting of such treatment. These defenses would be particularly likely to be activated in a psychologically threatening situation – such as when a White physician begins to talk about lung cancer to a current smoker – and once activated all communication is blunted, the good along with the bad. Consider further the positive feedback loop that could occur if the physician were to unconsciously express bias during such an interaction, a likely event in real clinical interactions[2,5,6].

With their use of immersive virtual technology, Persky et al.[8] have introduced a sophisticated new method to better disentangle the complexities that occur in clinical interactions. This technology allows for the careful manipulation and analysis of separate factors, yet contains enough realism to elicit fairly natural responses. These advantages are critical for systematic analysis of health disparities and for the development of effective

interventions. Additional research is needed to build upon the present work and delineate the mechanisms through which bias, uncertainty and miscommunication can be addressed from both sides of the room.

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