Confirmation bias: why psychiatrists stick to wrong preliminary diagnoses.

Abstract:

BACKGROUND: Diagnostic errors can have tremendous consequences because they can result in a fatal chain of wrong decisions. Experts assume that physicians' desire to confirm a preliminary diagnosis while failing to seek contradictory evidence is an important reason for wrong diagnoses. This tendency is called 'confirmation bias'.

Method: To study whether psychiatrists and medical students are prone to confirmation bias and whether confirmation bias leads to poor diagnostic accuracy in psychiatry, we presented an experimental decision task to 75 psychiatrists and 75 medical students. RESULTS: A total of 13% of psychiatrists and 25% of students showed confirmation bias when searching for new information after having made a preliminary diagnosis. Participants conducting a confirmatory information search were significantly less likely to make the correct diagnosis compared to participants searching in a disconfirmatory or balanced way [multiple logistic regression: odds ratio (OR) 7.3, 95% confidence interval (CI) 2.53-21.22, p<0.001; OR 3.2, 95% CI 1.23-8.56, p=0.02]. Psychiatrists conducting a confirmatory search made a wrong diagnosis in 70% of the cases compared to 27% or 47% for a disconfirmatory or balanced information search (students: 63, 26 and 27%). Participants choosing the wrong diagnosis also prescribed different treatment options compared with participants choosing the correct
diagnosis. CONCLUSIONS: Confirmatory information search harbors the risk of wrong diagnostic decisions. Psychiatrists should be aware of confirmation bias and instructed in techniques to reduce bias.

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