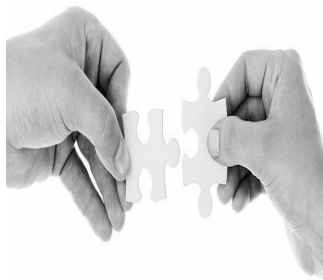

Collaboration Improves Medical Students' Diagnostic Accuracy



Medical students are more accurate in selecting a correct diagnosis for simulated patient cases when they work in pairs, according to new research from Berlin, Germany. Collaboration improves error correction, bridges gaps in knowledge, and decreases flawed reasoning, the study suggests. The findings are reported in the January 20 issue of *JAMA*.

Colleagues at the Charite Campus Mitte and Campus Birchow Klinikum in Berlin, led by Wolf E. Hautz, MD, MME, recruited 88 fourth-year medical students to investigate whether teamwork improved diagnostic performance. 60 students were randomly assigned to work in pairs, while 28 worked individually.

The students were presented with six simulated cases of patients with breathing difficulty. Each case began with a video, after which participants had to select any number of 30 diagnostic tests. They were told to be as quick and accurate as possible in their decisions. In order to complete each case, the students were required to select a diagnosis from a list of 20 options, and to rate their confidence with their choice.

Students who worked collaboratively in pairs were more accurate than solitary workers in correctly diagnosing the test cases. Despite all students having comparable knowledge of the topics and selecting an equal number of diagnostic tests, 68 percent of paired students chose the appropriate diagnosis, compared to 50 percent of students who worked alone.

The paired students took more time to arrive at their decisions, but the researchers point out that the actual tests would have taken less time to perform in an actual clinical setting. Furthermore, the paired students rated their decisions more confidently compared to individual students.

Diagnostic errors are a significant contributor to preventable medical errors. According to the article, one of the main factors contributing to diagnostic error is cognitive error from flawed data synthesis. By working collaboratively, the students had some advantages over working alone.

"Similar to other studies, collaboration may have helped correct errors, fill knowledge gaps, and counteract reasoning flaws," said the authors.

Source: [JAMA](#)

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