Chronic disease management has a new tool: The H&P 360

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The history and physical examination (H&P) is central to the patient-physician interaction and is therefore a foundational element of medical education. But it dates to a bygone era when the primary focus of medicine was diagnosis and management of acute illnesses, and the bulk of medical practice now involves prevention and management of chronic diseases. A recent study looked at the effectiveness of a new expanded H&P—called the H&P 360—that addresses chronic diseases by prompting students to also ask about biopsychosocial factors.

The study, “Expanding the Traditional History and Physical Examination to Address Chronic Diseases and Social Needs: A Multisite Randomized Control Trial of 4 Medical Schools,” published in Academic Medicine, looked at 159 third- and fourth-year students at four U.S. medical school. It found students who used the H&P 360 collected significantly more biopsychosocial information. It also demonstrated strong validity evidence supporting the use of the assessment in medical schools.

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Students in the study were randomized into a treatment group and a control group. The treatment group received brief written instructions on how to use the H&P 360 in a standardized patient (SP) interaction, whereas the control group used the traditional H&P. Each received an objective structured clinical examination on a diabetes case or a hypertension case.

“Diabetes and hypertension are good example conditions because they’re so complex and so common and have many barriers to care,” said Kate Kirley, MD, director of chronic disease prevention at the AMA and one of the study’s authors.

“A common barrier is medication adherence. If a physician writes a prescription but the patient can’t afford the medication or can’t get to a pharmacy, that will create a problem with adherence,” said

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Rupinder Hayer, MPH, senior manager of chronic disease prevention at the AMA and another co-author.

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Performance in collecting clinical information was assessed by the SPs using a 24-item checklist mapped to eight domains—perception of health, goals and priorities, psychosocial concerns, behavioral health, relationships, resources, functional status and biomedical factors. Each item was rated using a dichotomous scale, with a score of one for adequately addressing the domain or item and a score of zero for not addressing it.

Mean scores on the H&P 360 content were significantly higher than the traditional H&P content—15.96 for the treatment group, compared with 10.99 for the control group.

The study also collected validity evidence from content, response process, internal structure relationship to other variables and consequences of testing.

“The results showed us that this approach for assessing students was valid and reliable and it could be readily implemented at the study sites,” Dr. Kirley added.

**Think of it as a relationship tool**

The H&P 360 was first piloted at University of Michigan and later refined by the AMA Chronic Disease Prevention and Management interest group. The study was conducted at University of Michigan, as well as University of North Dakota School of Medicine & Health Sciences, University of California at Davis School of Medicine and University of Connecticut School of Medicine.

The AMA Accelerating Change in Medical Education initiative has since made grants to University of Michigan and three other medical schools—Eastern Virginia Medical School, Florida International University and University of Chicago—to implement the H&P 360 in their curricula.
“Clinicians are not expected to collect the entire range of biopsychosocial data from their patients in a single encounter,” the authors wrote. “Rather, the H&P 360 draws attention to a more descriptive set of domains from which specific information can be elicited over time as appropriate to individual patients, rather than an exhaustive generic checklist.”

There were several limitations to the study, the authors noted. First, it did not consider preexisting chronic disease curricula at the four sites. It also did not analyze whether collecting biopsychosocial information came at the expense of collecting key biomedical information. In addition, more research is needed to determine how the additional biopsychosocial information is incorporated into students’ management plans and how this affects health outcomes.

Read more about revising the history and physical for a new era in medicine.