Screening Question to Identify Patients With Limited Health Literacy Not Enough

To the Editor:

Health literacy is the ability to obtain, process, and understand basic information needed to make appropriate health-related decisions. Limited health literacy has been strongly associated with poor health behaviors and outcomes such as lower rates of medication adherence and poorer self-reported health. Despite its clinical importance, it is often a challenge for physicians to recognize when patients have limited health literacy. While valid and reliable literacy screening tools are available, they are time-consuming and have the potential to embarrass patients. Recent research with veterans and patients at a university-based primary care clinic has found that responses to a single question self-assessing literacy skill may be predictive of individuals’ objective health literacy levels. We are extending this work to assess how effective it is at screening health literacy among low-income Medicaid recipients, a population known for having low health literacy. We examine how predictive the single question is of a validated literacy score and of a task requiring synthesis of health care information.

Methods
Between December 2008 and January 2009, we recruited a convenience sample of 140 adults (ages 18–64) who have Medicaid or a child who has Medicaid. Respondents were recruited through public housing and social service organizations in Lane County, Oregon. Participants were given a pencil and paper survey and received a $5 gift certificate for their participation.

Participants were given two literacy assessments (self-assessed and objective) and a task requiring them to identify high or low quality health plans. As done in similar studies, participants were first asked the single self-assessed health literacy screening question, “How confident are you filling out medical forms by yourself?” with responses scored on a Likert scale (0=always to 4=never). Next, we measured participants’ health literacy skills using a subset (passage B only) of the Test of Functional Health Literacy in Adults (TOEFLA). This literacy measure assesses reading skills using a modified Cloze procedure.

To measure the ability to synthesize health care information, which is known to be highly correlated with literacy skills, participants were shown a chart with comparative health plan quality information. Participants were asked four comprehension questions based on the chart. An example of one of the questions is: “Which plan has the worst customer service?” We developed a comprehension index based on the number of correct responses to these questions.

Using SPSS 17.0, we tested correlations between the three measures. Significance was set at P<.05. This study was approved by the University of Oregon Institutional Review Board, and all participants completed written informed consent.

Table 1

<table>
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<th>Self-assessed Literacy</th>
<th>TOEFLA</th>
<th>Comprehension Index</th>
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<tr>
<td>Comprehension Index</td>
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* P<.05
** P<.01

TOEFLA—Test of Functional Health Literacy in Adults

Results
We found that the screening question was not a predictive measure of health literacy (Table 1). While there was a trend of positive correlation between the screening question and the TOEFLA, it did not meet standard significance thresholds (P=.09). With 140 participants, we should have been able to detect a correlation as small as .25 with 80% power. Additionally, we found no relationship between the screening question and the comprehension index. As expected, the TOEFLA assessment was highly correlated with the comprehension index (r=0.59).

Discussion
In this sample of low-income adults, we did not find the single self-assessed screening question to be predictive of either a standard literacy measure or a task that was dependent on literacy skills. Due to the potential negative consequences that result from having limited health literacy, we believe that there is a great need for future research to develop a relatively fast, practical, and respectful way for physicians to assess patients’ health literacy, especially for low-income populations.

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REFERENCES