Background: Health literacy has increasingly been viewed as a patient safety issue and may contribute to medication errors.

Objective: To examine patients' abilities to understand and demonstrate instructions found on container labels of common prescription medications.

Design: Cross-sectional study using in-person, structured interviews.

Setting: 3 primary care clinics serving mostly indigent populations in Shreveport, Louisiana; Jackson, Michigan; and Chicago, Illinois.

Patients: 395 English-speaking adults waiting to see their providers.

Measurement: Correct understanding of instructions on 5 container labels; demonstration of 1 label's dosage instructions.

Results: Correct understanding of the 5 labels ranged from 67.1% to 91.1%. Patients reading at or below the sixth-grade level (low literacy) were less able to understand all 5 label instructions. Although 70.7% of patients with low literacy correctly stated the instructions, “Take two tablets by mouth twice daily,” only 34.7% could demonstrate the number of pills to be taken daily. After potential confounding variables were controlled for, low (adjusted relative risk, 2.32 [95% CI, 1.26 to 4.28]) and marginal (adjusted relative risk, 1.94 [CI, 1.14 to 3.27]) literacy were significantly associated with misunderstanding. Taking a greater number of prescription medications was also statistically significantly associated with misunderstanding (adjusted relative risk, 2.98 [CI, 1.40 to 6.34] for ≥5 medications).

Limitations: The study sample was at high risk for poor health literacy and outcomes. Most participants were women, and all spoke English. The authors did not examine the association between misunderstanding and medication error or evaluate patients' actual prescription drug-taking behaviors.

Conclusions: Lower literacy and a greater number of prescription medications were independently associated with misunderstanding the instructions on prescription medication labels.
Editors' Notes

Context

• Low literacy contributes to medical and drug nonadherence.

Contribution

• The authors tested patients in indigent communities to see how well they understood pill bottle labels. Patients with lower literacy levels and those taking a greater number of medications were less able to understand the meaning of the labels. Even among patients who understood the labels, only a minority could correctly demonstrate how to take the pills.

Cautions

• Patients' actual drug-taking behaviors were not observed, so the authors could not demonstrate a link between misunderstanding and medication errors.

Implications

• Lower literacy and a greater number of medications being taken were associated with patient misunderstanding of pill bottle labels.

—The Editors

Author and Article Information

From Louisiana State University Health Science Center, Shreveport, Louisiana; Northwestern University, Chicago, Illinois; University of North Carolina–Chapel Hill, Chapel Hill, North Carolina; Western Michigan Area Health Education Center, Jackson, Michigan; and Emory University, Atlanta, Georgia.

Note: Drs. Davis and Wolf contributed equally to the creation of this manuscript.

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Requests for Single Reprints: Terry C. Davis, PhD, Department of Medicine–Pediatrics, Louisiana State University Health Science Center–Shreveport, 1501 Kings Highway, Shreveport, LA 71104; e-mail, TDavis1@lsuhsc.edu.

Current Author Addresses: Drs. Davis and Bass: Department of Medicine–Pediatrics, Louisiana State University Health Sciences Center–Shreveport, 1501 Kings Highway, Shreveport, LA 71130.

Dr. Wolf and Mr. Thompson: Health Literacy and Learning Program, Center for Health Care Studies, Northwestern University, Suite 200, 676 North St. Clair Street, Chicago, IL 60611.

Dr. Tilson: Public Health Leadership, University of North Carolina, School of Public Health, Public Health Leadership Program, Suite D-4a, 220 North Greensboro Street, Chapel Hill, NC 27510.

Ms. Neuberger: Western Michigan Area Health Education Center, 3443 Zion Road, Jackson, MI 49201.

Dr. Parker: Emory University School of Medicine, Faculty Office Building, 49 Jesse Hill Jr. Drive, NE, Atlanta, GA 30303.

Author Contributions: Conception and design: T.C. Davis, M.S. Wolf, P.F. Bass, M. Neuberger, R.M. Parker.

Analysis and interpretation of the data: T.C. Davis, M.S. Wolf, H.H. Tilson, R.M. Parker.

Drafting of the article: T.C. Davis, M.S. Wolf, P.F. Bass, J.A. Thompson, H.H. Tilson.

Critical revision of the article for important intellectual content: T.C. Davis, M.S. Wolf, P.F. Bass, J.A. Thompson, H.H. Tilson, M. Neuberger, R.M. Parker.

Final approval of the article: T.C. Davis, M.S. Wolf, J.A. Thompson, H.H. Tilson, R.M. Parker.

Provision of study materials or patients: T.C. Davis, M.S. Wolf, R.M. Parker.

Statistical expertise: M.S. Wolf, J.A. Thompson.

Administrative, technical, or logistic support: M.S. Wolf.

Collection and assembly of data: M.S. Wolf, M. Neuberger, R.M. Parker.