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Health Literacy and Cancer Prevention: It's Not What You Say It's What They Hear

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Background: A growing body of literature documents the relationship between health literacy and important health behaviors and outcomes. Most research to date has focused on print literacy—few studies have examined literacy with respect to spoken information (“spoken health literacy”). We sought to examine the extent to which responses to physician advice about cancer prevention and screening were associated with spoken health literacy.

Methods: Participants listened to 3 simulated physician-patient discussions addressing: 1) Prostate Specific Antigen (PSA) testing; 2) tamoxifen for breast cancer prevention; and 3) colorectal cancer (CRC) screening. The physician provided information on risks and benefits but did not endorse one course of action. Post-vignette questions assessed understanding and reactions to the physician’s advice. Participants had previously completed the Cancer Message Literacy Test-Listening (CMLT-L), a measure of spoken health literacy. Bivariate analyses examined the relationship between CMLT-L scores and comprehension, attitudes, and behavioral intentions.

Results: Four hundred thirty-eight adults from 3 HMORN sites participated. *Comprehension:* Post-vignette comprehension scores were correlated with CMLT-L scores ($r=0.62$, $p<.001$) and those scoring in the lowest CMLT-L quartile scored significantly lower on the vignette-specific comprehension scales ($p<.001$). *Attitudes:* Participants scoring in the lowest CMLT-L quartile were more likely to report their views had become more favorable on PSA testing ($p<.001$) and CRC screening ($p<.001$) as a result of the vignette. *Behavioral intentions:* Participants who scored in the lowest CMLT-L quartile expressed stronger intent than higher scoring participants to undergo PSA testing ($p=.028$) and to take tamoxifen for chemoprevention ($p=.017$).

Discussion: The ability to understand spoken information is a critical component of health literacy. In this study, spoken health literacy influenced patients’ comprehension of, and reaction to spoken health information provided by a physician. The findings that participants scoring in the lowest quartile on the CMLT-L were more likely to respond favorably to physician

advice on cancer prevention but were less likely to comprehend content of the vignettes, may indicate that physician mention of a prevention service is interpreted as endorsement of a prevention service in the absence of a full understanding of its risks and benefits.