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The impact of health literacy on chronic pain

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Purpose

Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions. Unfortunately, limited health literacy is a pervasive issue in the United States, affecting an estimated 90 million Americans, and can have serious health consequences. Despite the impact pain has on health care, very few studies have evaluated the importance of health literacy in chronic pain. The purpose of this study is to characterize the prevalence of low literacy in a chronic pain population and assess correlations with demographics and medication use.

Method

This was a cross-sectional study conducted at an outpatient chronic pain clinic. Consenting subjects completed the Rapid Estimate of Adult Literacy in Medicine - Short Form (REALM-SF). During this assessment, participants were given a list of 9 words commonly seen in health literature and are asked to read them aloud. A score of 0 indicates a reading level of third grade or below. A score of one to 3 demonstrates a fourth to sixth grade level; scores of 4 to 6 correlate with seventh to eighth grade, and a score of 7 indicates a high school reading level. Data on demographics and prescribed medications were obtained through chart review and included sex, ethnicity, age, educational level, pain location and severity, history of depression or drug abuse, insurance status, employment status, and current opioid use. Data was compared to health literacy status to determine possible correlations.

Results

A total of 51 subjects completed the study. Subjects were on average 55 years old, 61% were female and 45% had a concomitant diagnosis of depression. The majority of participants scored at a high school reading level (68.6%) followed by seventh to eighth grade (27.4%) and forth to sixth grade (4%). Compared to those reading at an eighth grade level or below, higher literacy subjects were more likely to have completed college or graduate school (37% vs 6%) and had a higher percentage of subjects who were currently employed (34% vs 25%) and on disability (34% vs 25%). Diagnoses of chronic pain complaints were similar between reading groups except for postlaminectomy syndrome (50% of subjects with a <eighth grade reading level vs 14.3% of >ninth grade) and facet arthropathy (6.3% of <eighth grade readers vs 25.7% of >ninth grade). Both groups were on a similar number of pain medications (3.25 vs 3.51), with the lower literacy group on a higher oral morphine equivalent (OME) dose compared to the high school literacy group (49.6 mg vs 32.4 mg). Pain scores in the lower literacy group also trended higher (average pain score at clinic visit 7.2 vs 6.3).

Conclusions

Pain is the most common reasons patients seek medical care and is also a leading cause of disability. These patients are often exposed to large amounts of medical information, including opioid agreements, informed consents for procedures, and medication guides that require sufficient health literacy to decipher. Although the majority (69%) of subjects in this study were able tested at a high school reading level, interesting trends developed between these subjects and those with an eighth grade reading level or less. More study is needed to confirm these results and determine if health literacy interventions may assist with improving pain management.