Health Literacy Assessment in a Juvenile Corrections Population

Barbara A. Holstein, MS, FNP-BC, Jennifer M. Clifton, DNP, FNP-BC, and Jia-Wen Guo, PhD, RN

ABSTRACT

A serious public health issue, health literacy must be integrated into all patient encounters. Given a paucity of evidence, formal health literacy assessment also should be considered for at-risk subgroups, including incarcerated adolescents. This study reflects such an assessment, undertaken in 5 juvenile justice facilities, using the REALM-Teen screening tool to target subgroups for interventions. REALM-teen scores of 174 youth had a mean of 60.2 (SD 7.7, range 31-66). Participants who were non-Caucasian, male, and Hispanic tended to have lower scores. Tailored provider-client communication is recommended for these subgroups.

Keywords: adolescent, incarcerated, literacy, Realm-Teen

Limited health literacy is a serious public health issue. Poor health literacy is a stronger predictor of a person's health status than age, income, employment status, education level, and race.[1] Health literacy issues are associated with a higher use of health care services and greater health care costs.[2] From a societal view, low health literacy costs the United States economy between $106 and $238 billion annually.[3] Health literacy is defined as "the degree to which an individual has the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[2] In order to be health literate, a person must have functional, interactive, and critical literacy. Nurse practitioners (NPs) can be leaders in the realm of health literacy by understanding the needs of a population and incorporating an appropriate communication approach.

Historically, health literacy has been assessed in the adult population. Recently, however, Terry Davis et al[4] addressed adolescent health literacy through development and validation of the screening tool Rapid Estimate of Adult Literacy in Medicine-Teen (REALM-Teen). Davis et al understood that the adolescent population represented a group of soon-to-be-adults who would navigate the health care system in their near future and that transition to adulthood was an ideal time to introduce health literacy interventions. Such interventions would provide these youth with the knowledge and skills to become informed, health-literate adults. A baseline health literacy assessment must be made first, either by direct testing or through an understanding of previous population studies.

WHY TARGET SPECIAL POPULATIONS OF ADOLESCENTS FOR HEALTH LITERACY ASSESSMENT?

According to a 2012 survey by the Data Resource Center for Child and Adolescent Health, 25.1% of children age 12-17 have special health care needs.[5] Special health care needs precipitate the likelihood that these youth will interact with the health care system. Chronic illnesses among adolescents include asthma, diabetes, mental illness, and cystic fibrosis.[6] Targeted health literacy interventions, such as material from the Children's Health Fund, are available for practitioners who encounter these youth.[7]

Incarcerated youth, another subgroup of adolescents, also have risk factors that predispose them not just to targeted health literacy intervention but recidivism, which, according to the Sentencing Project, can occur at a rate of 50%-70% statewide and cost $57 billion annually.[8,9] These factors include low school achievement, poor parental supervision, disrupted families, low IQ, physical abuse, attendance at schools with high delinquency rates, residence in high crime rate neighborhoods, and low family income.[10]

Conversely, while incarcerated, these youth have interactions with medical, nursing, and health department personnel that otherwise may be lacking. Additionally, many juvenile offenders obtain their high school diploma because school attendance is enforced. Evidence strongly links educational attainment to better health outcomes.[11,12] Adults with greater educational attainment across racial and ethnic groups, adjusted for age, are likely to rate their health as very good.[13] Such protective factors may increase a youth's level of health literacy.

The health literacy level of incarcerated youth, given the number of risk and protective factors, warrants scrutiny. Previous studies have shown race and gender differences in REALM-Teen scores.[4] A report by the RAND Corporation concluded that adolescent literacy varies by race and socioeconomic status,[14] while a recent study[4] using the REALM-Teen found gender and race differences, emphasizing the need to study specific groups of adolescents in an effort to reduce health disparities. The need to study special groups/populations is validated, according to findings from Brown et al[15] and Manganello.[16]

THE IMPACT OF LOW LITERACY ON ADOLESCENT HEALTH BEHAVIORS

While the effects of adolescent health literacy have been little investigated, the effects of low literacy (reading below grade level) among adolescents are well documented. Low literacy was reported as 46% among adolescents in a study by Davis et al that correlated literacy to health literacy during development of a reading test in which the content was health oriented.[4]

Governali et al[17] reported that many educators believe that health behaviors are influenced by health knowledge. This appears to be substantiated by 4 studies that related adolescent behaviors to their reading grade-level (literacy), such as youth who read below their grade have an increased risk for violent and aggressive behavior compared to peers who are reading at or above grade level.[5,6,18,19] Two other areas of risky health behavior have been associated with adolescents who read at or below grade level: substance abuse and unprotected sex.[20,21]

The risk for violent or aggressive behavior due to a below-grade reading level is borne out by the number of youth in this study who were in the gang-related secure care facility and read at a level 1-3 grades below their current grade in school. The last grade these youth completed often was lower than what was expected for their chronological age as a result of a high rate of school dropout. This failure to remain in school could be related to gang affiliation of youth in this particular facility.

INFLUENCING FACTORS OF HEALTH LITERACY

Studies have borne out the idea that many factors influence health literacy. For example, adolescent health literacy varied according to race and socioeconomic status in a study by McCombs et al.[14] The previously mentioned study by Davis et al,[4] which validated the REALM-Teen tool, found significant health literacy differences in gender and race among participants.

Additional factors that are potentially influential on health literacy include cultural bias, either perceived by the patient or exhibited by the provider, and issues that are "psychosocial in nature and related to health disparities such as gender, race or ethnicity, income or education, disability, living in a rural locality, or sexual orientation."[22] Among influences that are societal in origin, which may disproportionately affect vulnerable populations, is the emphasis placed on patient awareness and an understanding of processes that enable access to complex health systems and social services.[23] Closely related influences to the former are payment for services and an associated inability to make that payment because of low income or lack of insurance.

Mental and physical health conditions are other factors that place an individual at a higher risk for poor literacy, which, in turn, correlates to low health literacy. Among a sample of 1829 incarcerated youth in a 2002 epidemiological study, Abram et al found that as many as 3/4 of females and nearly 2/3 of males had at least 1 psychiatric disorder.[24]

Health care clinicians (and the health care system as a whole) who show discrimination toward and attach stigma to certain cultural groups feed the mistrust of health care institutions and often are instrumental in keeping patients from seeking health care.[25] Cultural biases that promote barriers to health care need to be redressed by NPs who care for diverse