Evaluation of the Patient Health Questionnaire-9 Item for Detecting Major Depression Among Adolescents

WHAT'S KNOWN ON THIS SUBJECT: Depression is common among adolescents. In response to the growing evidence for effective treatments for depression among adolescents, the US Preventive Services Task Force now recommends screening for depression among adolescents in primary care settings. However, there is limited information on the performance of depression-screening tools with adolescents in primary care settings.

WHAT THIS STUDY ADDS: This study is the first to examine the sensitivity and specificity of the PHQ-9 among adolescent populations. The PHQ-9 has good sensitivity and specificity for detecting major depression among adolescents in the primary care setting.

abstract

OBJECTIVE: The purpose of this study was to examine the performance characteristics and validity of the Patient Health Questionnaire-9 Item (PHQ-9) as a screening tool for depression among adolescents.

METHODS: The PHQ-9 was completed by 442 youth (aged 13–17 years) who were enrolled in a large health care delivery system and participated in a study on depression outcomes. Criterion validity and performance characteristics were assessed against an independent structured mental health interview (the Child Diagnostic Interview Schedule [DISC-IV]). Construct validity was tested by examining associations between the PHQ-9 and a self-report measure of functional impairment, as well as parental reports of child psychosocial impairment and internalizing symptoms.

RESULTS: A PHQ-9 score of 11 or more had a sensitivity of 89.5% and a specificity of 77.5% for detecting youth who met the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria for major depression on the DISC-IV. Receiver-operator-curve analysis revealed that the PHQ-9 had an area under the curve of 0.88 (95% confidence interval: 0.82–0.94), and the cut point of 11 was optimal for maximizing sensitivity without loss of specificity. Increasing PHQ-9 scores were significantly correlated with increasing levels of functional impairment, as well as parental reports of child psychosocial impairment and internalizing symptoms.

CONCLUSIONS: Although the optimal cut point is higher among adolescents, the sensitivity and specificity of the PHQ-9 are similar to those of adult populations. The brief nature and ease of scoring of this instrument make this tool an excellent choice for providers and researchers seeking to implement depression screening in primary care settings.