

Improving Adolescent Primary Care Through An Interactive Behavioral Health Module

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Summary: Most adolescents visit a health care provider once a year, presenting an opportunity to integrate behavioral and emotional health screening into clinical care. Yet despite clinical guidelines, providers consistently screen adolescents for risky health behaviors and depression at rates lower than recommended. Therefore, new strategies are needed to increase behavioral health screening in primary care. Health information technology (IT) with clinical decision support (CDS) has tremendous potential to improve health care quality and subsequent behavioral health outcomes for adolescents. Although many adolescent health problems are amenable to behavioral intervention and most teenagers are comfortable using interactive technology, few health IT interventions have been integrated into adolescent care.

This exploratory project is developing a theoretically based interactive behavioral and emotional health module that can be integrated into adolescent health care delivery and will serve as both a risk assessment and intervention tool to enhance adolescent behavior change. The module is being piloted in adolescent primary care practices, assessing clinician, adolescent, and system outcomes. The study is being conducted within the San Francisco Bay Collaborative Research Network (CRN) through the University of California, San Francisco (UCSF). A sample of adolescents aged 12-to-18 is being recruited from various ethnically and economically diverse clinics within the network. Multiple approaches and data sources will be utilized to conduct quantitative and qualitative analyses on each of the outcomes of interest.

The overarching goal of this project is to better understand how the proposed intervention addresses the diverse needs of teenagers, informs the contextual factors that contribute to quality of implementation in varied clinic contexts, and informs strategies for adaptation and integration in larger-scale health IT implementation. Ultimately, this project will inform the development and implementation of health information tools into the primary care setting, while also focusing on technology that supports patient-centered care.

Specific Aims:

- Develop a theoretically based interactive behavioral and emotional health module for adolescents that can be integrated into health care delivery, serving as both a risk assessment and an intervention tool to enhance adolescent behavior change. **(Achieved)**
- Pilot-test the implementation of the computerized module and screening system in adolescent primary care, assessing clinician, adolescent, and system outcomes. **(Ongoing)**

2012 Activities: The focus of activity was on hiring a research associate, developing the computerized screening module, conducting baseline data collection, planning the integration of the screening module into clinic sites, finalizing the provider printout to accompany the adolescent screening module, initiating the pilot testing within the study clinic sites, and finalizing post-implementation assessments.

Model development involved drafting a paper mock-up version and initial Web-based version to solicit feedback on the questions and wording about topics such as depression and substance use, nutrition and physical activity, safety, tobacco, sexual health, and home and school environment. With feedback from adolescents and providers, revisions were made to the wording of questions and additional screening items were incorporated to include questions on bullying and binge drinking. The technology team integrated this feedback into the screening module in September 2012 and linked the CRAFFT substance use screening tool to incorporate additional substance use information.

The study team collected baseline data utilizing an adolescent report of the visit survey and then conducted preliminary analyses on provider rates of screening adolescents on the various risk behavior areas. A pre-intervention survey was also conducted with providers to collect data on knowledge and self-efficacy to screen adolescents on multiple behavioral health areas. Baseline provider reports will be compared with data collected from the providers' post-module implementation in clinic sites.

The provider printout was drafted and feedback solicited from clinicians in both of the clinics on an iterative basis using paper prototype versions. The printout will provide customized information on the behaviors of teens (reflecting their responses on the screening tool) and include prompts and cues for providers during conversations with teenagers. In 2013, the automated provider printout will be piloted, finalized, and integrated into the clinics to be utilized by the providers during adolescent well-visits; an administrative screen will be developed to allow the providers to view, print, and integrate/copy the data from the provider printout into the electronic medical record at UCSF. This integration step requires a modified version of the printout for electronic medical record integration. Both versions of the printout will be pilot-tested in clinic sites before being fully implemented.

The pilot of the full version of the screening tool began in late 2012. The study team is assessing teens' perception of individual screening items as well as the look and feel of the module. As pilot-testing moves forward, the study team will test the integration of the module into the flow of clinic visits at each site.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are mostly on track, and project budget funds are moderately underspent. Budget underspending will be resolved with the hiring of a project research associate.

Preliminary Impact and Findings: There are no findings to date.

Target Population: Pediatric*, Teenagers

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation

* This target population is one of AHRQ's priority populations.