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**Screening, Brief Intervention, and Referral to Treatment in the School-based Health
Centers**

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Introduction

Alcohol abuse and drug use not only impose danger to the physical, mental, and social well-being of individual users, but also compromise the safety of the population. According to the National Institute on Drug Abuse (2014), substance abuse often begins in adolescence, beginning between grades 7 and 10 and continuing and/or increasing among 8th, 10th, and 12th graders (Hagen, Shaw, & Duncan, 2008; Johnston et al., 2014; U.S. Department of Health and Human Services, 2015). Approximately 12% of all high school students are addicted to alcohol, marijuana, tobacco or other drugs-- with approximately 46% of high school students currently using addictive substances such as alcohol or other drugs (The National Center on Addiction and Substance Abuse at Columbia University, 2011). Early adolescent substance use leads to multiple health and socioeconomic problems, including poorer academic performance, mental health problems across socioeconomic statuses, and increase mortality rates from motor vehicle crashes, suicides and homicides (Meier, Hill, Small, & Luthar, 2015; US Department of Transportation, 2014).

The early stages of substance abuse are asymptomatic (Mitchell et al, 2012). Therefore, many leading authorities recommend clinics serving adolescents and young adults use the validated Screening, Brief Intervention and Referral to Treatment (SBIRT) process to identify individuals that are at risk for substance use and attempt to decrease the associated health risks and deaths (American Association of Pediatrics, 2011; Hagen, Shaw, & Duncan, 2008; Mitchell, 2012; Oregon Health Authority, 2014; The National Center on Addiction and Substance Abuse at Columbia University, 2011). Screening and brief counseling have been shown to reduce the amount of alcohol consumed from baseline levels (Arndt, Schultz, Turvey, & Petersen, 2002; Mitchell et al, 2012; Oregon Health Authority, 2014).

The School Based Health Clinics (SBHCs) of Multnomah County are recognized members of the Coordinated Care Organizations (CCOs) that are focused on preventative rather than reactive health care (Oregon Health Authority, 2015). As such, the SBHCs are required to meet certain health outcomes for essential services, called metrics. In 2015, yearly screening for substance abuse was designated as one of the essential service metrics by which the CCOs measured health outcomes (Oregon Health Authority, 2013; Oregon Health Authority, 2014; Oregon Health Authority, 2015). Clinics and health care systems meeting the metric goals are rewarded through the reimbursement of funding withheld at the beginning of the year (Oregon Health Authority, 2013; Oregon Health Authority, 2014; Oregon Health Authority, 2015). For 2016, the CCO benchmark for providing a full screening and/or full screening with brief intervention for patients that are at least 12 years of age who visit an outpatient clinic is 12% (SBIRT Oregon, n.d.).

Method

The Multnomah County School Based Health Clinics (SBHCs) did not have a standardized measurable way to screen their patients for drug and alcohol use. This lack of standardization placed the SBHCs at risk for not meeting the standards set by the CCO. In order to address this problem, two University of Portland Doctor of Nursing Practice (DNP) students, in partnership with the nurse practitioners within the SBHCs, started a practice improvement project through the use of SBIRT. The aim of the project was to screen patients of the Multnomah County SBHCs for alcohol and/or drug use by the second interaction with the SBHCs and to provide brief intervention and referral to treatment for those needing it based on the discretion of the providers. In order to reach this aim, the students in cooperation with the lead nurse practitioner and another nurse practitioner in the system designed and implemented a

standardized SBIRT process using valid and reliable tools (CRAAFT or AUDIT & DAST) within the SBHCs for each patient at least once per calendar year.

Participants

All staff of the Multnomah County School-based Health Clinics were included in this practice improvement project. Office assistants, medical assistants, licensed practical nurses, community health nurses, and nurse practitioners all had at least one role to play in the process of SBIRT in the SBHCs. Each needed to understand and fulfill his or her responsibilities for the SBIRT process to be completed. This project was reviewed and approved by the University of Portland institutional review board.

Design

This practice improvement project was prompted by external benchmarking needs. Being a member of the CCOs, SBHCs were required to report data to the Oregon Health Authority as a part of the “pay for performance” program. In designing this project, the clinic’s workflow was modified. According to Linzer et al. (2015), workflow modification can be a powerful intervention in preventing staff burnout & dissatisfaction. Using the Iowa Model of Evidence-based Practice to Promote Quality Care (Titler et. al, 2001), (Figure 1), the DNP students and the two nurse practitioners within the SBHCs formed a team to decide the best modification for the current SBHC workflow as the SBIRT process was being incorporated. Its modification created a standardized workflow within the SBHCs. According to Patchong (2014), a standardized workflow ensures safety, increases productivity, improves quality, and enhances the team confidence— eventually, enhancing the foundation of operational excellence.

In addition, the University of Portland students, along with the clinical lead provider and the nurse practitioner (NP) designated as the SBIRT champion, developed the educational

materials and SBIRT packet that were used as this new standard of care was rolled out. The staff was informally interviewed prior to designing the workflow, and the materials or SBIRT packet to determine potential barriers to the change. The SBIRT packet comprised a flow chart, an implementation guide, and the various job aids pertinent to each clinic position. The flow chart mapped out the steps (including documentation) to be completed for a successful SBIRT process in the SBHCs. The implementation guide was available to facilitate the staff's understanding of the process and the rationale behind each step of the process. This guide also directed the staff to the SBIRT Oregon website for further support. Job Aids were developed based on the roles of each participant in this project. Each staff member received a job aid delineating each step of the SBIRT process that they were responsible for based on their role in the clinic: Senior Office Assistant, LPN/MA, NP or CHN. The job aids used in this implementation adhered to recommendations for health care checklists (Gawande, 2009). Because implementation works better if there is a champion of the change (Rangachari, Rissing, & Rethemeyer, 2013), one of the SBHC NPs was designated as the SBIRT champion. Training in regard to the implementation of this project or its workflow was done both in-person and via internet meetings. Umble, Cervro, Yang, and Atkinson (2009) explained that distance learning can be as effective as in-person in-services.

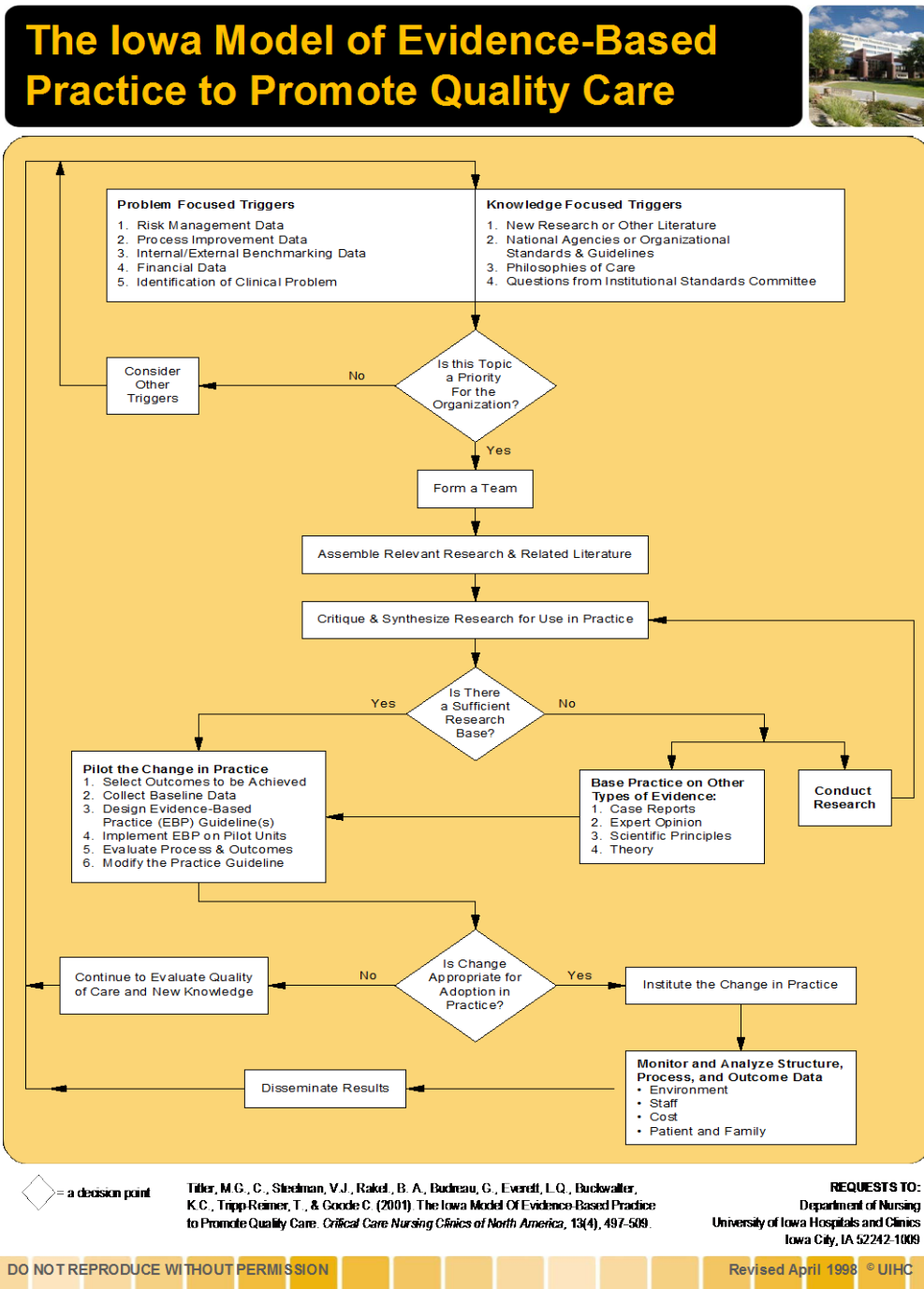


Figure 1. The Iowa Model, permission granted to use the above diagram from the University of Iowa.

Intervention

As previously mentioned, the Iowa Model of Evidence-based Practice to Promote Quality Care (Figure 1) guided the implementation of SBIRT in the SBHCs. The implementation packet

designed by the work group was utilized in implementing the SBIRT process in this setting. Due to Multnomah County deadlines, the SBIRT champion NP used the packet to educate most of the staff of the SBHCs in November and December 2015 as a part of “institute the change in practice.” The University of Portland students followed up by educating the remaining staff. As this change rolled out across the Multnomah SBHCs, data were gathered electronically via billing charges in Epic to determine if the CCO metrics were being met. These data were shared monthly with all the SBHC staff in their dashboard report. Additionally, the University of Portland DNP students created surveys and analyzed the collected data regarding the staff’s familiarity and comfort with the newly standardized SBIRT process, thus “monitoring and analyzing structure, process and outcome data” per the Iowa Model of Evidence-based Practice to Promote Quality Care (White, 2012).

Measures

The primary outcome measure was the percentage of patients who had been seen at the SBHC twice or more in the last calendar year who had a documented CRAAFT or AUDIT & DAST screening per the Multnomah County Health Department SBIRT process. The SBHCs’ goal was to increase the screenings by 3% every quarter.

Data analysis

Outcome data. For this project, the percentage trend of the outcome measure was used to measure the project goal. The percentage was documented each month and sent to SBHC staff through the Epic dashboard report. These percentages were also reported as a running year-to-date monthly average percentage (refer to Figure 2 for the result of this project).

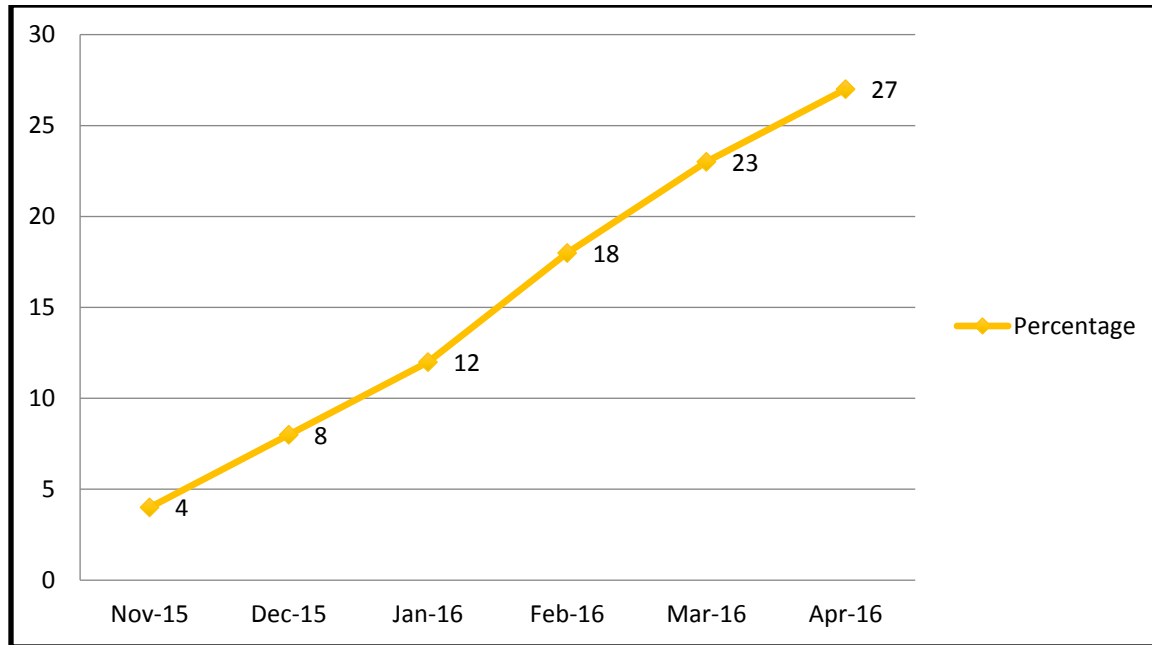


Figure 2. Percentage of Active Patients Screened with CRAFFT (age 12-18)-or-SBIRT (age 18-21) screening and intervention last 12 months.

Process data. The staff was invited to participate in several surveys during the implementation of this practice change. The preliminary survey of the SBIRT process had 12 out of 40 possible responses. The first post implementation survey of NPs and RNs only had 6 out of 18 possible respondents, whereas the second survey at the end of this implementation project had 9 out of 18 possible respondents. The responses to the surveys are discussed in the results section of this paper.

Results

Outcome data. The percentage of patients seen at the SBHC in the last calendar year who have documented evidence of the SBIRT process went from 4% in November 2015 to 27% in April 2016. This result not only met the set goal for this project, but also exceeded the CCO benchmark of 12%.

Process data. Early questionnaire responses indicated a refresher course would be helpful. Questionnaire responses indicated several other work flow changes or processes were competing for the staffs' time and attention, the new workflow was challenging, and more clicks in Epic and increased documentation were required with this new process. These responses from the staff may have resulted from the time required to adjust or adapt to the changes in the workflow. However, comparison of the questionnaires indicated that the staff had increased familiarity and comfort with the SBIRT process and the screening tools used in this process: CRAFFT, AUDIT, DAST over the data collection period. In addition, the staff suggested more support is needed around marijuana use and regarding patient readiness when a referral is indicated.

Discussion

The standardized SBIRT process implementation exceeded not only the goal of this project, but also the benchmark set by the CCO. Working with a motivated leader who has positional authority as well as passion for change contributed to the successful implementation of SBIRT within the SBHCs. Coordinating with the county's informatics specialist eased the workload of the staff as drop down menus were designed to facilitate the complete and appropriate documentation—updates were continuously being added as the SBIRT process was being implemented that included automatic coding for results of the screening. Informal interviews, conducted at the beginning of the project, and the available evidence was considered in designing the workflow that was suited to the needs and readiness of the clinics in implementing the change. The distribution of surveys among the participants assisted in improving the process or workflow in the SBHCs before and during the project. In addition, the

organizational leadership was responsive to the process data of the first survey and invited a well-known SBIRT expert to speak to providers about this process in February 2016.

In order to sustain this project in this setting, it was highly recommended that the outcome data be continuously measured and shared with the staff. The organization should continue to support practitioners by providing trainings in developing motivational interviewing skills as these are the basis for the brief intervention. Lastly, more resources for the NPs who wish to refer patients to additional resources should be made more available.

Given the successful result of this project, factors are to be considered before implementing SBIRT in another healthcare setting. Because this practice improvement project was implemented in one particular health care system, other systems should consider other factors in implementing SBIRT in their setting to ensure its success.

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