Implementing Behavioral Health Screening and Outcome Measures at an Internal EAP: A Quality Improvement Initiative at Partners HealthCare System

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ABSTRACT. This paper describes the process we undertook to implement Screening, Brief Intervention, and Referral to Treatment (SBIRT) and the Workplace Outcome Suite (WOS) as part of a larger continuous quality improvement initiative in an internal employee assistance program (EAP). Located in the Boston area, Partners EAP is an accredited internal EAP that is a voluntary service available to over 74,000 employees of Partners HealthCare System and their immediate household members. The authors examine the process improvement strategies enacted to conduct routine screenings for alcohol, drugs, and depression, and pre and post measurement of five outcomes designed for EAPs. This paper also explores how the EAP changed the operational practices and procedures to implement these behavioral health screening tools and measures. Lessons learned and recommendations are offered to facilitate and overcome barriers to integrating screening tools and collecting outcomes data.

Introduction

This paper discusses the successful adoption of validated screening tools and workplace outcome measures in an integrated EAP and work-life program. The authors retrospectively reviewed the operational procedures and practices that were developed over six years. The goal was to make screening for risky substance use and risk for depression a routine part of every assessment to identify EAP clients who may seek help on their own and those that may not.

Although measuring outcomes for EAP cases was important, this quality improvement project was primarily undertaken to enhance the use of validated behavioral health screening tools and the process for conducting screening, brief intervention and referral for substance use, mental health and wellness risk factors commonly found in employee populations.
Partners EAP
Partners EAP is an internal program delivery model that serves all of Partners HealthCare System. Partners HealthCare System, founded in 1994, is the largest private employer in Massachusetts with over 74,000 employees dedicated to enhancing patient care, teaching, and research. The mission of the EAP is to promote a healthy work environment and to enhance and maintain the wellbeing of employees, making it possible for them to achieve excellence in patient care, teaching, and research. A top priority for the EAP is the healthy integration between the personal and professional lives of its employees. The EAP’s core services include brief, confidential, solution-focused counseling for a wide range of personal and work-related concerns as well as work-life and wellbeing services.

As Partners HealthCare System expanded and added more hospitals to its network, the EAP program also increased the number of offices and staff needed to serve employees across the larger system. By 2010, the EAP had grown to 13.5 FTE EAP consultants and eight EAP offices. With continuing growth, it became imperative to identify and implement methods to ensure the delivery of quality and consistent services by EAP staff in every office.

Continuous Performance and Quality Improvement
Partners EAP has a long history of incorporating continuous performance and quality improvement (CPQI) to monitor quality and consistency across multiple EAP office sites. CPQI offers opportunities to change and improve program processes. CPQI evaluates data regularly to bring about program improvements and changes. There is also an emphasis on enlisting the help of staff project champions. CPQI encourages the use of metrics and measurement for evaluating programs, with the goal of improving processes, workflow, efficiency, and overall outcomes.

Measurement is the first step that leads to improvement.
If you can’t measure something, you can’t understand it.
If you can’t understand it... you can’t improve it.
Adapted from H. James Harrington.

Project Goals
Partners EAP embarked on this initiative with two goals in mind. First, in a healthcare delivery environment the issue of patient safety is paramount. Almost every position in the healthcare workplace has a safety sensitive component. Many employees literally hold the lives of others in their hands. Thus, it is very important to help employees with any personal or work issues they are facing so that they can return to functioning at their best. This initiative’s goal was to implement a process that would help the EAP staff better identify problems, provide education, and get employees to the right resources. This led to adding universal screening for risky alcohol and drug use and risk for depression, and the use of the screening, brief intervention and referral to treatment (SBIRT) model to position the EAP as a strong prevention and early intervention program. 1,2,3,4

Another goal was to demonstrate to stakeholders that Partners EAP had business value to the organization. There are increasing pressures on healthcare providers to reduce costs, continue improving quality, and demonstrate positive outcomes. Employee testimonials and utilization reports are not enough to show the value of the EAP. The stakeholders want to see quantifiable data on outcomes among the users of the program. The EAP wanted to demonstrate that it could produce positive changes in workplace outcomes for our clients. By systematically measuring a set of outcomes relevant to EAP services, we were determined to help our stakeholders understand that Partners EAP was more than just a 'nice to have' program.
Key Events on Project Timeline

Over a multi-year time span Partners EAP initiated monthly best practices (quality) meetings with all EAP staff. Reporting of the results were incorporated into these staff meetings and the annual EAP stakeholder meetings. Changes were made to the EAP case management system, intake paperwork, and program evaluation and outcome surveys. In addition, the staff received regular in-service trainings on the use of validated screening tools and SBIRT. Key events during 2010 to 2017 are described below. Appendix A depicts the implementation timeline.

Key Events in the History of the Project

Year 2010
- Partners EAP joined the Brief Intervention Group (BIG) Initiative1,2
- Staff trainings on Alcohol Screening and the Use of SBIRT, and Utilizing Best Practices When Assessing Need for and Referring to Opioid Treatment

Year 2011
- Staff trainings on SBIRT using Motivational Interviewing, Guidelines to Alcohol Screening, Brief Intervention and Treatment (6-hour SBIRT training), and Introduction to Workplace Outcome Suite (WOS)
- The EAP piloted the use of the Alcohol Use Disorder Identification Test-Consumption (AUDIT-C) prescreen and full AUDIT screener5,6, and a single item drug screen12
- EAP implemented monthly staff “best practices” meetings
- Case management system updated to collect client AUDIT, drug screen, and Workplace Outcome Suite 5-item (WOS-5)7,8 scores at intake

Year 2012
- SBIRT launched with entire EAP staff
- Staff training on Motivational Interviewing
- WOS 5-item added to client intake

Year 2013
- AUDIT-C and WOS-5 added to follow-up evaluation survey
- Monthly staff “best practices” meetings
- Review of pre-and post-screening data at annual stakeholder meeting

Year 2014
- Partners EAP was re-accredited by the Council on Accreditation9
- Staff training on SBIRT and Motivational Interviewing, and Integration of Depression Screening using the Patient Health Questionnaire (PHQ)10
- PHQ was added to the client questionnaire
- PHQ added to the case management system
- Monthly staff “best practices” meetings
- Review of pre-and post-screening data at annual stakeholder meeting

Year 2015
- Staff received SBIRT Refresher Training
- Monthly staff “best practices” meetings
- Authors presented preliminary data at the International Employee Assistance Professional Association (EAPA) Conference
- Review of pre-and post-screening data at annual stakeholder meeting

Year 2016
- Staff training on Drug Diversion and Abuse in the Medical Setting, Motivational Interviewing, and AUDIT, PHQ and WOS Refresher Training
- Monthly staff “best practices” meetings
- Review of pre-and post-screening data at annual stakeholder meeting
Year 2017
- Staff training on Implications of Medical Marijuana in the Workplace, and
  Motivational Interviewing Refresher Training
- Monthly staff “best practices” meetings
- Review of pre-and post-screening data at annual stakeholder meeting

Methods

Instruments
Alcohol Risk Screening Measures. In consultation with leading clinical academic researchers in the field of substance use, Partners EAP chose to use the 3-item AUDIT-C and 10-item AUDIT developed by the World Health Organization to screen for binge and heavy drinking, and risk for an alcohol use disorder.5,6

Depression Risk Screening Measures. The PHQ was used to screen for depression. The brief 2-item version (PHQ-2) was used as a prescreen. If the client scored at risk, it was followed by the full 10-item PHQ. This scale has been used in many research studies and has well established validity and reliability.10,11

Drug Use Screening Measure. The EAP also included a validated single-item drug screening question that is often used in primary care settings.12

Workplace Outcome Measures. The impact of EAP services on client performance in the workplace was assessed using the WOS-5.8 This was done to determine if use of EAP showed improvement after 60 days in the employee’s workplace functioning with regard to absenteeism, presenteeism, workplace distress, work engagement, and overall life satisfaction. This measure was originally developed as a 25-item scale with five items for each of the five subscales.7 The brief version of the WOS has emerged as the industry standard in EAP outcomes measurement.8 EAPA has endorsed the WOS as a best practice tool and encourages all EAPs to “use the same yardstick” to measure outcomes.

Ethics
The project was formally approved by the Internal Review Board at Partners HealthCare as a retrospective review of data from records of EAP clients who came to Partners EAP between the years of 2011 and 2016.

SBIRT Process for EAP Cases
Prior to the first session, clients completed a questionnaire which included wellness questions related to depression (PHQ-2), sleep, exercise, tobacco use, risky drinking (AUDIT-C), and the use of prescribed and un-prescribed medications (single-item drug screen). In addition, clients were asked about workplace performance (WOS-5). During this initial assessment, the EAP consultant reviewed and scored the client’s questionnaire.

The EAP consultant then provided a brief intervention by reviewing the client’s results and offering feedback. When a client’s AUDIT-C score indicated risky drinking and/or PHQ-2 score indicated risk of depression, they were offered the opportunity to take the full AUDIT and/or PHQ. In most cases the client consented to the full AUDIT and PHQ screen.

The duration and elements of the brief intervention were often determined by the length of time an EAP consultant had to conduct the screening and assessment. The EAP consultant’s role was to provide positive reinforcement and support for clients who were not using alcohol or drugs, or at low risk for depression. For clients scoring in the at-risk range for substance use, EAP consultants shared genuine concern and highlighted consequences of unhealthy and risky use. If needed, educational materials, website links and web-based tools were also provided. Depending on the case, the screening and brief intervention session ranged from two to three minutes to several sessions. If time allowed, motivational interviewing strategies were implemented. A
follow-up appointment was usually offered for further brief intervention.

Referral to more specialized treatment or a health professional outside of the EAP was provided if a client's screening indicated that a more intense course of action was needed beyond brief intervention. Examples of treatment referrals included detoxification, inpatient rehabilitation, intensive outpatient rehabilitation, outpatient counseling, pharmacotherapy, and various support groups. All EAP staff were very familiar with the employees' health plan options and thus they could refer people to providers within their insurance plan.

The EAP then followed up with the client to facilitate use of these referral services. Following-up with the client after referral is a hallmark of EAP best practice and is one of the seven components of the Core Technology of EAP.\(^\text{13}\)

The workflow depicted in Appendix B illustrates the EAP operational process that integrates screening, brief intervention, referral and outcome measurement.

**Findings**

A repeated measurement approach was implemented to assess change in outcomes over time for EAP cases. Relevant clinical risk and workplace outcome data was obtained as part of the EAP intake at the start of each case (pre) and then again at approximately 60 days after the initial intake session (post). The authors retrospectively reviewed de-identified pre and post data from clients. All data was retrieved from the EAP's case management system.

**Results for Alcohol Risk Screening: AUDIT-C Total Score**

For the years 2012 to 2016 combined, there were 632 EAP cases with pre and post responses to all three items of the AUDIT-C screening tool. Each item is scored from 0 to 4. Thus, the total scale score could range from 0 to 12. The items include:

- **How often do you have a drink containing alcohol?**
- **How many drinks containing alcohol do you have on a typical day of drinking?**
- **How often do you have 5 (for men age 65 and under) or 4 (for all women and men over age 65) or more drinks on one occasion?**

The average AUDIT-C score at EAP intake was 2.69 and 2.51 at 60 days after initial EAP session indicating a low level of risk (below the cut-off score) for risky drinking and a slight decrease in alcohol use.

The recall period used to assess alcohol use at pre and post differed. At intake clients were asked about alcohol use over the past 12 months. This is the same recall period used in the original AUDIT-C and AUDIT screening tools. At 60 days after intake, clients were asked about alcohol use in the past 30 days to assess drinking behavior since the initial EAP session. The use of different recall periods made it difficult to directly compare alcohol use at pre and post. Nonetheless it was interesting to examine drinking behavior after use of the EAP. When alcohol use in the past 12 months was compared to use in the past 30-days, the decrease in alcohol use was statistically significant.

**Results for Alcohol Risk Screening: Binge Drinking**

Binge drinking is the most common, costly, and deadly pattern of excessive alcohol in the United States.\(^\text{14}\) Binge drinking is a pattern of alcohol use that brings blood alcohol concentration levels to 0.08 g/dL. This typically occurs after consuming about 4 drinks for women and 5 drinks for men.
The third item of the AUDIT-C was used to assess binge drinking. There were 786 EAP cases with responses to this item at both pre and post.

At EAP intake only 61 cases (7.76%) had one or more binge drinking episodes in the past 12 months. Of these, at post about half (n = 31) did not have a binge drinking episode in the last 30 days. This is a positive finding; however, the remaining 30 cases did have at least one binge drinking episode at post.

Among the 725 cases (92.24%) that did not have a binge drinking episode at EAP intake, at post 20 (2.76%) cases had at least one binge drinking episode in the last 30 days.

### Workplace Outcomes: WOS-5

WOS-5 data was aggregated for the years 2012 to 2016 to analyze change in five workplace outcome measures from pre to post. The number of cases with both pre and post data for the five measures ranged from 834 to 1,103.

The recall period for all questions was the past seven days. This is shorter than the 30-day period often used with the WOS. Partners EAP chose this one-week period based on other workplace outcomes research that indicated possibly more accurate recall than when using longer timeframes.15

Absenteism was measured in number of hours of work absence and tested using the Wilcoxin signed-rank non-parametric procedure for skewed data (as most cases had zero absence). The other items were rated on a Likert scale from 1 = strongly do not agree to 5 = strongly agree. These items were analyzed using paired samples t-test to assess the magnitude of change over time. Lower scores on the absenteeism, presenteeism, and workplace distress measures indicate a better outcome. Higher scores on the work engagement and life satisfaction measures indicate a better outcome.

### Table 1: Improvement Over Time in WOS-5 Measures at Partners EAP from Fiscal Year 2012-2016

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number of EAP Cases</th>
<th>Pre Mean</th>
<th>Post Mean</th>
<th>Relative Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absenteeism (Hours)</td>
<td>834</td>
<td>3.03</td>
<td>1.07</td>
<td>64.66%*</td>
</tr>
<tr>
<td>Presenteeism</td>
<td>1,103</td>
<td>2.78</td>
<td>2.33</td>
<td>16.27%*</td>
</tr>
<tr>
<td>Work Engagement</td>
<td>1,087</td>
<td>3.26</td>
<td>6.62</td>
<td>11.21%*</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>1,091</td>
<td>3.19</td>
<td>3.39</td>
<td>6.45%*</td>
</tr>
<tr>
<td>Workplace Distress</td>
<td>1,089</td>
<td>2.20</td>
<td>2.19</td>
<td>0.26%</td>
</tr>
</tbody>
</table>

*Significant at p < .001

Findings presented in Table 1 for absenteeism, presenteeism, work engagement, and life satisfaction were all statistically significant (p < .001). Even though work distress did not change over time, examination of the mean scores on the 1-5 rating scale indicated that most of the cases had low levels of work distress both before and after use of the EAP. In summary, four of the five workplace outcome measures showed improvements.

### Discussion: Lessons Learned

**Lesson 1 – Many Small Steps to Success**

To successfully implement SBIRT, Partners EAP needed to work in small steps over a period of years. The process started with a small pilot group of EAP staff after the first round of intensive training on SBIRT, the use of the AUDIT-C and full AUDIT, and motivational interviewing. The pilot group developed an efficient workflow and became the EAP’s SBIRT champions and mentors. Without new staff to help implement SBIRT, this was critical to the successful implementation of the SBIRT model and the administration of new screening tools. Moreover, the more practice and mentoring staff had using the SBIRT process and screening
tools, the more screening and brief intervention became integrated into the EAP.

**Lesson 2 – Create a Culture that Supports a Continuous Quality Improvement Approach**

Like any change process, integrating SBIRT into the EAP's workflow and culture required a slight shift in how some EAP staff thought about substance use screening and the possible benefits of intervening to create client change. EAP staff understood the benefit of intervention to their clients and the organization as a whole; however, it was equally important that other stakeholders, including funders of the EAP, understood the benefits as well.

**Leadership.** To make SBIRT work, it was crucial to have stakeholder support. One of the first things that EAP leadership did was to engage stakeholders. The Partners EAP Executive Advisory Group which consists of the Partners EAP Director, EAP Medical Director, Senior Vice President of Benefits (this person had direct influence on the budget of the EAP), and two senior department heads from the largest two hospitals that contribute about 50% of the EAP budget. The authors educated the EAP Executive Advisory Group to help them see the value in using an evidence-based, consistent practice. It would help employees gain access to alcohol and drug education as well as brief intervention and treatment services if needed. The authors provided the Executive Advisory Group with research articles on SBIRT, the AUDIT tool, the single drug screen question, the PHQ, and WOS.

**EAP Clinical Staff.** Using SBIRT changed how EAP consultants did their job. Changing an aspect of the workflow can create a disruption in the standard operating procedures of an EAP. Initially, some did not want to change current practices, regardless of the benefits. EAP staff was concerned about the burden of increased documentation and more questions to ask clients. Over time the staff and clients grew to appreciate the thoughtful assessment and intervention, and found SBIRT to be mutually beneficial.

The advantage of integrating the SBIRT model for substance use is that it’s nearly identical to the Partners EAP screening process that clinical staff use to assess other problems where there is a behavioral solution. Like other behavioral health issues, the severity of risk for depression or a substance use disorder fall along a continuum. As the level of severity increases, a higher level of intervention from brief intervention to more intensive treatment is warranted.

Partners EAP successfully implemented SBIRT and EAP consultants sustained the practice over time. We learned that: 1) at times the SBIRT process needed to be modified to the client’s needs; and 2) it was essential to provide staff the time and the tools they needed to make the change in their practice. Ongoing training, supervision, and feedback were needed to facilitate the use of SBIRT. EAP staff expressed appreciation for being offered several trainings on the use of SBIRT. This helped them to build confidence to administer the screening tools and communicate the benefits to clients as well as conduct brief intervention and referral.

**Lesson 3 – Create Benchmarks to Measure Success and Monitor Performance**

The EAP did not initially set performance goals for staff regarding the use of validated screening tools with EAP clients. It would have been better to determine the staff’s baseline screening rate and then set a goal for improvement. Without a goal to work toward it was difficult to measure the degree of improvement.

After the first couple of years the EAP provided staff with aggregated data reports to assess and monitor completion rates for screening and brief intervention. The completion rates remained consistent over the years, ranging from 70% to 75%. Had the data been shared with staff more frequently we may have observed additional improvement in rates over
time. The EAP staff feedback was overall very positive; however, staff would have liked more measurable feedback every several months to monitor their progress and performance. In addition, staff would have liked to receive their own individual performance data and outcome data on their own clients.

**Lesson 4 – Use the Same Time Period for Pre and Post Measures**

The recall period used on the EAP intake questionnaire asked about alcohol use in the past 12 months. Although it is desirable from a research perspective to use pre-post measures with the same timeframe to assess change, it was not feasible. Partners did not have an existing 12-month follow-up process in place. Instead, Partners incorporated the post measure for assessing alcohol use into the EAP client program evaluation and satisfaction survey administered via REDCap (an encrypted survey tool) as part of routine business practice at 60 days post EAP intake. The purpose was to assess alcohol use in the past 30 days in order to monitor EAP client’s use and to determine if additional brief intervention or a higher level of care was warranted.

If an EAP wants to ensure the most reliable outcome data, a pre vs. post single group design using the same recall period is recommended. For example, when using the AUDIT-C to assess changes in consumption from pre to post, EAPs may want to consider either implementing a 12-month follow-up process to align with the recall period in the original screening tool, or modifying the recall period at both pre and post to align with the EAP’s existing follow-up process (e.g., past 30, 45, or 60 days).

**Limitations**

A practical issue in any EAP involves the possibility of employees under-reporting when asked to complete behavioral health screening tools. Even though substance use and mental health disorders are included in the protected status categories of the Americans with Disabilities Act to prevent job discrimination, employees working in safety-sensitive work environments may feel that disclosure of substance use or mental health concerns will result in adverse consequences. It is possible that such concerns could have contributed to the overall very low levels of identification of risky alcohol and drug use.

Another limitation was the inability to conduct long-term follow-up with clients at 12 months post EAP intake to ensure that the same recall period was used for pre and post substance use measures. At the time that the SBIRT model was being implemented, Partners EAP did not have a 12-month follow-up process in place. Thus, the assessment of substance use was integrated into the existing 60-day post EAP intake follow-up and the recall period was adapted to assess use in the past 30 days. On the one hand, this created limitations in the analysis of data. On the other hand, it provided the EAP with important and timely information for determining if a client may need additional services. Implementing a long-term follow-up protocol with multiple contacts over time is labor intensive, necessitating major modifications in operations and workflow that would have required additional resources and dedicated staff to carry it out.

**Closing Comments**

At this point in the EAP’s journey, the authors have some final thoughts to help other EAPs successfully implement validated behavioral health screening tools and the SBIRT model in an EAP setting. It is extremely important to set measurable goals and benchmarks to work towards whenever launching a new process. Putting these into place, helps the EAP keep track of progress toward goals at both the program- and staff-level. It creates opportunities for staff and leadership to reflect on interim successes and identify challenges and strategies to overcome barriers. It gives the program vital information about what is happening on the ground and informs the continuous quality improvement process.
The authors suggest involving the staff in the workflow process each step along the way. People usually don’t mind change if they could have an impact on the direction of the change. Creating a work environment in which employees feel as if they have the power to participate in the change helps for a successful implementation.

Creating a smaller pilot team of EAP staff is another critical factor in the successful implementation of SBIRT. No matter how much planning a program does there will always be a few bumps along the way when implementing a change in practice and workflow. Using a pilot team allows the EAP to iron out the hurdles in a smaller group before the entire staff participates in the launch of SBIRT.

Lastly, the authors urge all EAPs wishing to implement SBIRT to measure and measure often. It is important to remember that the goal is not perfection; it is a quality improvement process. It takes time and is ever-changing.

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References


Appendix A
Timeline of Key Events from 2010 to 2017

Appendix B
Workflow for EAP Case Clinical Process to Incorporate SBIRT and WOS