Assessment of provider barriers and impact of educational in-service on provider utilization of measurement based outcomes

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Abstract

Background: Measurement-based care (MBC) is an evidence-based practice (EBP) in both physical and mental health. However, MBC is underutilized in community mental health, and research shows fewer than 20% of mental health providers use MBC. This project was designed to improve the current practices of not using screening tools or MBC in a local mental health clinic and to improve overall patient outcomes by implementing the MBC intervention. This project also focused on developing an educational in-service for providers - a systematic method for data collection about screening tools used, and about symptom tracking. **Purpose:** The purpose of this quality improvement project aimed to provide evidence that measurement-based care is an effective method to meet patient needs and extrapolate the outcomes so that a system-wide training for all employees at this agency can be developed. Provider attitudes and some unforeseen barriers lead to the pace of the project being slowed drastically. **Primary barriers included**: Culture (including politics and lack of support), competing demands, anxiety around changing provider practice styles, and usefulness of screening tools. **Results:** The providers were initially interesting in the MBC intervention. All attended and were engaged during the educational in-service. At the time of the final questionnaire only three providers had begun to use the MBC with some regularity. **Recommendations/Conclusion:** It is feasible for all of the providers to use the MBC intervention. However there are several barriers that would require more time that the project was allotted to help breakdown the barriers and gain more provider buy-in and use.

Keywords: Measurement based care, Screening tools, Outcome measure, Adult population, and Quality improvement.

Introduction

There are approximately 43.4 million adults with mental illness in the United States of America. Any mental illness (AMI) is characterized by changes in mood, thought or behavior. Adults with AMI are further categorized into experiencing serious mental illness (SMI) if their illness substantially interferes with or limits any major life activity. In 2015, approximately 9.8 million adults in the U.S. experienced SMI within the past year. Unfortunately, only 6.8 million of those adults received mental health services (Center for Behavioral Health Statistics and Quality, 2016).

The World Health Organization (WHO) estimates the disability adjusted life years (DALY) of mental health and behavioral health disorders worldwide average to be 7.4%, with the U.S. average being 13.6% (Murray et al., 2013). These disorders contribute to a significant proportion of disease burden worldwide. Evidence-based practice emphasizes utilizing measurement-based outcomes when providing mental health care. Screening tools and metrics should be used to track changes in mental health symptoms, especially in the SMI population.

Mental health prevention methods are lacking when compared to physical health prevention. There is a stigma around mental health, and patients are not treated the same as those who are physically ill. Most psychiatric conditions are chronic – like diabetes or hypertension. Measurement-based care (MBC) is defined as use of routine symptom measurement to inform treatment. MBC is an evidence-based framework that has an established effectiveness, broad reach, and multifaceted utility for enhancing routine care (Fortney et al., 2016). MBC is a standard of care in several medical and nursing fields – from using thermometers and blood

pressure cuffs to interpreting electrolyte imbalances and Hemoglobin A1c results. MBC is not a new avenue for treatment in psychiatric care; however it is not a standard in clinical practice.

Several brief, validated screening tools exist for mental health providers. Approximately 18% of psychiatrists and psychologists in the U.S. routinely use these tools (Hatfield et al., 2010; Zimmerman et al., 2008). In the U.S. SMI is estimated to account for 27% of all individuals on disability; however only 6.8% of healthcare spending is allocated for mental health treatment. MBC can help to standardized treatment, increase accuracy of assessment, and guide changing of treatment plans (Center for Behavioral Health Statistics and Quality, 2016; Hatfield et al., 2010; Zimmerman et al., 2008). It is time to make MBC the standard of care for mental health in the U.S.

Literature Review

A review of the literature was performed to explore current research on use of outcome measures/measurement-based care in mental health care, specifically in mental health adult outpatient services. PubMed, PsychInfo, Ovid (MEDLINE) and Cochrane databases from 1996 to April 2017. A search was conducted specifying the following MeSH terms: (mental health), (mental illness), (assessments), (measurement-based) (screening tools), (checklist) (outcome) hedged with (adult) (outpatient). This search returned 22 results including intervention trials, observational studies, and literature reviews. The search was limited to articles in English language, randomized control trials, longitudinal studies, and case and cohort reports, meta-analyses, and systematic reviews.

This literature review aimed to explore how outcome measures and MBC have been used to track change in the adult patient population, what settings (inpatient versus outpatient) they

have been used in, and whether they have been used as a feedback monitoring system. During the review process three predominant topics arose: defining of what an outcome measure is, how to make it clinically useful, and barriers to use.

What is an outcome measure?

Kwan and Rickwood report, "an outcome measure in mental health care can be defined as a tool used to measure the effect on a person's mental health as a result of health care intervention, plus any additional extra-therapeutic influences" (2015, p.1). Outcome measures can be self-report, provider report, or a report by other significant individuals in the patient's life (Kwan & Rickwood, 2015; Slade 2002). Outcome measures are used to monitor the quality and effectiveness of the mental health services. There is a growing expectation for implementing routine measurement by clinicians as a feedback monitoring system to improve patient outcomes (Schriefer, Urden, & Rogers, 1996; Slade, 2002).

Outcome measures are essential for quality assurance, for monitoring the efficacy of services, and for tracking longitudinal health trends. MBC is important to evaluate the process of care by which the particular outcome is measured. It is found to be essential for quality improvement to measure the relationship between the process and the outcome (Maloney & Chaiken, 1999). In the U.S. mental health system, the focus on outcomes as the measure of success has primarily been driven by cost-containment (Slade, 2002).

Van Nieuwenhuizen et al. (1997) reviewed eleven tools for measuring one outcome: quality of life. Of the eleven tools, three did not have data available about reliability and validity. Eight tools involved structured or semi-structured interviews. Three of the tools were self-report measures. Only two of the tools involved some form of objective data. The tools covered

between four and eighteen domains. One did only cover a single global domain. The most common areas assessed in quality of life were employment, health, leisure, living situation, and personal relationships. This review is outdated but it is the only systematic review found that evaluated the tools in this manner.

Usefulness

To be a "well-defined outcomes measurement tool", the tool must be reliable. The measurement must be valid, able to adapt to change, sensitive, comparable across relevant patient groups, easy to interpret, and be culturally sensitive (Korr & Ford, 2003; Weaver et al, 1997). Outcome measures need to be meaningful to clients and relevant to the areas in which they have treatment goals. Research with consumers' shows that many measures are not relevant to their situation and do not capture personally meaningful outcomes (Essock et al, 2015; Kwan & Rickwood, 2015). Measuring change is difficult. In mental health, change is clinically significant when a patient transitions from the dysfunctional side of the wellness continuum to the functional side. Having routine MBC allows for the clinician to adjust a patient's course of treatment, track their progress and their setbacks. Doing this increases accuracy of diagnosis, improves communication between the patient and clinician, and helps the patient to retain the positive effects of treatment longer (Kwan & Rickwood, 2015).

Barriers to use

Most providers track progress in the mental health setting through patient complaints, records of death, and hospitalization notifications. One of the most cited reasons for not using outcome measures is that it takes too much time to complete. Marks (1998) found that completing and analyzing routine measures adds around ten percent to the total time a patient spends with a

provider. This means that during a sixty-minute session, incorporating MBC with routine measures would add approximately six minutes to the total visit time. The lack of routine use of MBC within the mental health field suggests that providers are not convinced that this small increase in time is worth the potential benefit to their patients. The long-term goal for MBC is to become routine and turn into a fundamental component in treatment (Slade, 2002).

Progress in measuring outcomes has been limited because mental health services are treated and funded as a separate entity from physical healthcare. Yet, mental health comorbidities are emerging at the same time as other physical health problems arise (Melek et al., 2013). Finance changes in the affordable care act (ACA) mandates coverage for mental health services, however this is fragile. There is an accelerated search for more feasible data-driven measures with deliverable outcomes. This push would not be necessary if mental health was treated as a subset of physical health and not as a carved out entity (Essock et al., 2015).

Cost is another well-defined barrier. The National Committee for Quality Assurance (NCQA) has a list of outcome measures called Healthcare Effectiveness Data and Information Set (HEDIS). Measures are added, updated, and deleted annually. Agencies wishing to report and compute performance using their guidelines must pay for the certified software and the annual updates. This is after the agency has completed a chart audit by certified auditing firms. This is not inexpensive; most community mental health centers cannot shoulder this additional cost and therefore opt out of this service (Essock et al., 2015; NCQA, 2016).

The implementation of tracking systems in electronic health records (EHR) or client registries takes time and money. Some mental health facilities cannot cover that burden and continue to utilize paper chart systems. Others have invested in EHRs that do not have that

capability or support (Glasgow et al., 2012). A study conducted by Gleacher et al., found the most cumbersome organizational barrier was the technology already in place at mental health clinics (2016).

There is a general concern that utilizing MBC will change the fundamental provider-client relationship. Another concern is using tools will do little to improve the client's situation. Nevertheless, research has shown having physical data displaying a client's change in function helps patients and families recognize the need for changing the course of treatment, i.e. hospitalization. MBC can provide a baseline for treatment goals and helps ensure continuity of care. Having this data has the potential to improve mental health outcomes, but not all outcomes are effective (Rush, 2007). For example, only assessing for symptoms of depression at one time point will not improve patient outcomes. Most of the literature is limited to screening for depression. There is little discussion around the risks and benefits to screening for psychosis or for using screening tools in disorders like schizoaffective bipolar type. Additionally, data on provider satisfaction when using MBC is absent in the research reviewed.

Theoretical Model

The purpose of this project was to look at the current practice of not using screening tools and develop an intervention that could improve current practice. The majority of time of this project was spent during the first step of which involved evaluating the readiness for change and assessing implementation barriers within the medical provider team. One objective of this EBP project was to answer the compelling clinical question: can a measurement-based care educational in-service impact provider behavior in a community mental health setting? Therefore, the project's theoretical framework is based on Edward Deming's Plan-Do-Study-Act

(PDSA) cycle of implementing change (Deming, 2000). The Institute for Healthcare Improvement [IHI] (IHI, 2016) promotes the Plan-Do-Study-Act model as an implementation model for quality improvement efforts. The PDSA cycle is comprised of four cyclical phases that require repetition: Plan, Do, Study, and Act (see Appendix B). The *Plan* stage refers to effort & background work to propose a change. The *Do* stage refers to the process of implementing a change. The *Study* stage refers to the process of analyzing and evaluation the outcome of the implemented or proposed change. The *Act* stage refers to the redesigning of the initial change and tailoring the process to account for the lessons gained during the *Do* and the *Study* stages (IHI, 2016).

Approach to the Project

The setting was within the adult behavioral health treatment team at a local health department in a city located in western Oregon. The estimated population of the county this city resided in was 341, 286 in 2017 ("U.S. Census Bureau QuickFacts: Marion County, Oregon", 2018). Resources for this project included developing a relationship within the medical provider team, utilizing the quality improvement personnel, and focusing on using screening tools that are sensitive, specific, and cost effective. The participants in the project were the adult behavioral medical team: 6 prescribers, 4 nurses, and 3 administrative staff. There were no further inclusion/exclusion criteria. While the larger vision is to expand understanding and use of MBC and screening tools to the rest of the health department and include child/adolescent behavioral health, the first priority was to implement guidelines using the PDSA cycle with the adult behavioral health team.

The first step of this project focused on assessing readiness for change. This assessment involved discussions and questionnaires to assess which stage of change the ABH team was at so that if the team was in the pre-contemplation stage the team would not be receptive to the proposed intervention or consider changing their behavior. If the team were in the contemplation stage the providers would be ambivalent towards the intervention but would consider changing their behavior. After the assessment it was determined the team was in the contemplation stage of change. The goal is to create a culture that is readily able and willing to change when proper evidence is provided and practice dictate that it is necessary (Crowell, 2015).

Next, a questionnaire was designed and distributed to look at the perceived barriers to the intervention. A MBC toolkit was created using the research from the literature review and designed as the intervention. An educational in-service was developed and provided focusing on the toolkit and reasons to start implementing the MBC intervention. The follow up questionnaires focused on tracking provider attitudes regarding MBC, likeliness of implementing MBC, and feedback around overall satisfaction with the in-service. The biggest anticipated barrier to implementing MBC was provider buy-in and a willingness to change their daily routine. This will be most prominent if the providers are in the pre-contemplation stage or contemplation stage of change. Another barrier is the misperception that using screening tools adds an exorbitant amount of time to the session. Ideally this project will be able to develop a tracking system and provide data to show how these barriers can be decreased or proven to not exist.

Questionnaires were developed to assess the readiness for change, provider attitudes, perceived barriers, and a willingness to try the MBC intervention within the medical provider team. A toolkit of screening tools and questionnaires was created from reviewing the literature.

Meetings with the quality improvement personnel, the behavioral health director, the provider team, and the entire adult behavioral health team were held. The main sources of data were the questionnaires before the education in-service and the follow up questionnaires provided after the educational in-service set at 4-week intervals. This also tracked data for which providers started to utilize the MBC intervention. Each questionnaire was created using a 5-point Likert scale where 5 = Strongly Agree, 4 = Agree, 3 = Neither, 2 = Disagree, and 1 = Strongly Disagree; the data was collected and analyzed. There was not enough time to complete a total chart review. This was planned to assess tracking MBC data, use of toolkits, and if changes were made to treatment plans.

At this agency among the medical providers there is a 0% usage of MBC and screening tools. Any increase in this percentage will be seen as a positive. The questionnaires provided after the in-service was the basis for measuring the project's success or failure. Using a 5-point Likert scale should help with the accuracy of provider opinions. Confirmation bias and unintentional influence were taken into consideration. The providers were very eager to have a student help in this quality improvement project.

The project was executed at no cost the health department. The screening tools that were assessed and ultimately selected are free for public use. The time used for the educational in-service took place during one of the medical team meetings. Doing the in-service in this manner did not disrupt routine procedure at this agency. It is crucial that this project was sustainable. It is worth noting the budget of this agency cannot afford expensive screening tools or major disruptions to time spent seeing patients. Routine care continued for all patients at this agency. This project did not appear to increase risk to patients' wellbeing. This project was categorized by the IRB as exempt.

Implementation of Project

The implementation of the first step of the project, as described in the previous section, moved slower than anticipated. One of the reasons this occurred was the health department required more oversight approval than initially estimated before the project could be implemented. The project itself requires more than the nine months time frame allotted for this DNP student. Providing evidence was not enough to get the required buy in for these providers o make a big adjustment to their habits while seeing their patients. Changing attitudes and making a cultural shift this large required more one-on-one time with each provider before they were even willing to trial the MBC toolkit. This was not expected prior to implementation of the project. Finding time to sit with each provider proved to be difficult because time management and cost were two big factors and potential barriers. Another shift due to time management was to only focus on implementing MBC with the medical providers and to not include the support staff and RNs at this time. This was done at the request of the administration of the health department.

Questionnaires

The questionnaires that were developed for this project can be found in Appendix A. The MBC toolkit that was developed can be found in Appendix B. The PDSA that was formulated can be found in Appendix C. And the educational in-service slides can be found in Appendix D. The project's design yields success via information obtained on the post educational in-service questionnaires.

A discussion at the first medical team meeting focused on the medical team's apprehensions around the intervention and their reasons for not using this evidence-based practice. After

receiving IRB approval the baseline questionnaire with consent forms were first provided to assess for current use of MBC within the agency. There were a total of four questionnaires handed out during the project process. Results were not viewed until the responding periods had ceased. All data was gathered, coded, and any additional comments were transcribed into one document. The data was reviewed and coded. Codes were grouped and analyzed for themes. The questionnaires and transcriptions were deleted after the project ended.

Baseline questionnaire

The baseline questionnaire was developed as a 5-point Likert scale. It was distributed to each provider. There was a 100% response rate. The providers at the project site all selected they rarely/never use measurement based screening tools. Interesting anecdotal notes from the questionnaires ranged from providers having used MBC in the past but finding the MBC was were not helpful in clinical outcomes, providers not being opposed to retrying screening tools, and providers believing that MBC is used as a substitute for perceptive seasoned clinicians assessing symptoms.

Perceived barriers to use questionnaire

The perceived barriers to use questionnaire was developed as a 5-point Likert Scale and distributed to each provider. There was an 83% response rate, 1 provider did not return the questionnaire. Common themes from the questionnaire: providers believed the project site had an unclear way of tracking MBC, there was not enough time within each session to complete the MBC, and about half the providers felt unsure of when they should use MBC. These responses were typical of what was found as perceived barriers in the research.

Information from the baseline questionnaire and the perceived barriers questionnaire were useful in developing and tailoring the educational in-service and the MBC toolkit. The educational in-service was delivered at a medical team meeting. The in-service was given via a PowerPoint demonstration with a question and answer format following. The in-service took approximately 45 minutes to deliver. After the in-service the providers were given follow up questionnaires to see if they had begun using the MBC intervention and if the providers had found the educational in-service helpful in reducing their perceived notions of why not to use the intervention.

Post-educational in-service questionnaire

Following the educational in-service a four question 5-point Likert Scale questionnaire was distributed. All providers were able to attend the educational in-service session; there was an 100% response rate. The providers felt that the education provider was helpful and beneficial to enhancing their education around MBC. Most of the providers did feel they would try implementing the intervention into their daily practice. Two questionnaires listed ambivalence on the question that assesses readiness to begin using the intervention.

Use of intervention questionnaire

One month following the educational in-service a two question 5-point Likert Scale questionnaire was distributed. There was a 66% response rate; two providers did not return questionnaires during the answering period. Interestingly, according to the follow-up questionnaire most providers had not started to apply the intervention to everyday practice. One provider requested additional one-on-one training to help facilitate their use of the MBC toolkit.

Outcomes

ASSESSMENT OF PROVIDER BARRIERS

Six medical providers consented to be involved with the DNP project. However, toward the end of the project only three of the final questionnaires were completed. This was unforeseen and uncontrolled for. Data from all the rounds of questionnaires was analyzed. Though the project site agreed to trialing the intervention, it appeared there were too many factors in place for the project to truly be successful. It is apparent that not having an electronic health record was one of the largest barriers for this project. Providers were unsure of where to place the paper documents and not having the intervention available electronically added time for the providers and ultimately costs to the agency and to the project. Another factor is the culture of the project site. After working with the team, it became apparent that they were eager to have this information presented to them, which at fist appeared to be a substantial amount of provider buy-in, reflecting now this eagerness did not necessarily equate into enough provider buy-in to start the cultural shift that needs to occur for the intervention to truly be successful. The preliminary results of the assessment of the educational in-service have been presented to the medical team. Discussion ensued as to how the project site could utilize the findings to improve daily practice and translate this into changing routine care for their patients. A long discussion revolved around the project site upgrading to an electronic health record and how this could ease some of the time burden and cost burden of having to print out the screening tools and then having an aid file the documents in a paper chart; as this is current practice.

It is interesting to note that while assessing for barriers, the biggest concern for this project site was different than the literature. The providers were concerned about a streamlined way of tracking the results. In the literature the most common barrier was a feeling around lack of time to conduct MBC. The second most common barrier was the provider believing it to be clinically useful (Marks, 1998; Slade 2002). The outcomes of this quality improvement project may

provide many implications for practice. The biggest implication for practice from this project I centered on making a change. It is widely known that making change, no matter how big or small, takes time and is difficult. Humans want change but are creatures of habit. In this project it was revealed that the project site dynamics could prevent change despite many of the individuals in the organization desiring a change. It was also discovered that change is a quite a lengthy process, especially working in a publicly funded site as large as this one.

Limitations to this project

Throughout the project, time was a limiting factor for both organizing logistics between components of the project site and scheduling meetings. Rarely are all the medical providers in the clinic on the same day, and the time it took to gather and analyze the data took longer than anticipated. Nine months was not enough time to complete an assessment, perform a literature review, design an intervention, provide education, and obtain a cultural shift. It should also be noted that there is a small sample pool, which is generally acceptable because it is a quality improvement project. There were concern of biases because of the relationship the DNP student had with the medical team prior to the start of the project, but the results seem to illustrate this did not seem to be a factor. Another limitation was that half of the providers burned out during the project and did not complete the final questionnaire. This again could be attributed to timing, lack of buy-in, and overall failure to create a cultural shift to using the MBC intervention. One final limitation to this project was the scope might have been too broad. The MBC toolkit had a screening tool for depression, anxiety, mood disorders, substance use disorders, suicidal ideation, psychosis, cognitive decline, and wellness. While reviewing the literature, most researchers focused on developing one screening tool or looking at one diagnosis to focus on. Having too many tools for the providers to learn how to use could have lead to burnout or the providers

feeling overwhelmed. This could be a reason why some of the providers did not complete the final questionnaires or did not feel ready to being using the intervention.

Summary & Next Steps

The findings from this project created more questions than providing answers. Continuing this project more one-on-one time is necessary to help each provider gain confidence with using the intervention. The next steps would entail to becoming a key player on the employee board that is helping in the drive decision-making process around which electronic health record program to switch to. The project site is in the process of making this decision. Having an electronic health record that could make incorporating MBC into a daily routine should alleviate some concern of where the MBC is located and how the data is tracked and stored. Within this system having a way so that the MBC is prompted on a monthly, quarterly, or semiannually basis depending on personal needs could help to decrease burnout. It would also be of interest to look at developing a system that could email out the MBC to the patients prior to their appointments that way there is no time taken away during the session. For patients without access to a home computer, the agency could look at setting up a check in station in the waiting room where patients could access their MBC information and fill out the MBC while waiting to be seen. In the interim, an alternative could include shifting away from the providers initiating the intervention and looking at the intake coordinators to be the ones to initiate the MBC process and then the follow-up screening tools are utilized at the provider level. Continuing to rework and reevaluate the Plan-Do-Study-Act model and learning from change theory is crucial for this work of implementing MBC. The toolkit & MBC process could be transferable to another like setting. MBC is the evidence base practice that the APA wants every mental health provider to

utilize in everyday practice. It has the potential to strengthen the patient-provider relationship, to bring awareness to minute changes in patients that would otherwise go unnoticed or undetected.

Conclusions

The purpose of this project was to improve the current practices of not using screening tools or MBC in a local mental health clinic and to improve overall patient outcomes by implementing the MBC intervention. The deliverable outcomes of the quality improvement project included an educational in-service manual, which can be adapted for all personnel at the health department, a toolkit (provided in a physical hardcopy and an electronic copy for sustainability purposes), and a presentation of the analysis of the data and evaluation of the usefulness of the intervention to the medical team. Recommendations for the next Plan-Do-Study Act cycle were disseminated to the health department. Collecting questionnaires and comparing attitudes surrounding MBC and current usage before and in-service after the educational in-service evaluated the effectiveness of the intervention. Although there were no statistically significant improvements in overall utilization, the quality improvement project did effect change in some attitudes around when to use MBC and why to use MBC.

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Appendix A – Questionnaires

Baseline questionnaire

You are invited to participate in a quality improvement project entitled "*A quality improvement project – assessment of an agency's implementation of measurement based care.*" Designed to analyze current use, barriers to use, and any increase in use of screening tools/measurement based care. This project is being conducted by Constance Henderson from the Oregon Health and Science University. This project is being conducted as a part of her Doctor of Nursing Practice clinical project. This questionnaire is a simple sampling of current use. Your replies will be anonymous, so please do not put your name anywhere on the form. There are no known risks with being involved in this questionnaire. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this quality improvement project. If you choose to not participate you may either return the blank questionnaire. You may choose to not answer any questions by simply leaving it blank. Returning the survey indicates your consent for use of the answers you supply. Please return the survey to Constance Henderson's box. If you have any questions about this project please feel free to contact Constance Henderson at (541) 490 0553 or email henderco@ohsu.edu

By completing this questionnaire and returning it you are also confirming that you are 18 years of age or older.

How often do you use screening tools or measurement based care to make treatment decisions (please circle one response)

5 Almost all or all of the time	4 Most of the time	3 About 50% of the time	2 20 – 30% of the time	1 Rarely/never

Additional comments

Perceived barriers to use questionnaire

For each of the questions below, circle the response that best characterizes how you feel about the statement regarding not using screening tools:

1) There is no way to keep track of scores/lack of resources

5 Strongly Agree	4 Agree	3 Neither Or N/A	2 Disagree	1 Strongly

				Disagree

2) Lack of time in session/other tasks are more important

5 Strongly Agree	**4 Agree**	**3 Neither Or N/A**	**2 Disagree**	**1 Strongly Disagree**

3) Patients do not like completing them

5 Strongly Agree	**4 Agree**	**3 Neither Or N/A**	**2 Disagree**	**1 Strongly Disagree**

4) I am unfamiliar with when I should use them

5 Strongly Agree	**4 Agree**	**3 Neither Or N/A**	**2 Disagree**	**1 Strongly Disagree**

5) I do not feel they are clinically useful

5 Strongly Agree	**4 Agree**	**3 Neither Or N/A**	**2 Disagree**	**1 Strongly Disagree**

6) I do not know how to score/quantify problems

5 Strongly Agree	**4 Agree**	**3 Neither Or N/A**	**2 Disagree**	**1 Strongly Disagree**

Additional comments:

Post educational session questionnaire

For each of the questions below, circle the response that best characterizes how you feel about the statement regarding the educational session:

1) After the educational session I feel I understand when to use screening tools

5	**4**	**3**	**2**	**1**

ASSESSMENT OF PROVIDER BARRIERS

Strongly Agree	Agree	Neither Or N/A	Disagree	Strongly Disagree

2) After the educational session I feel I can more adequately understand why MBC is EBP

5 Strongly Agree	4 Agree	3 Neither Or N/A	2 Disagree	1 Strongly Disagree

3) I am willing to try and begin using screening tools

5 Strongly Agree	4 Agree	3 Neither Or N/A	2 Disagree	1 Strongly Disagree

4) I feel that the educational session was beneficial to enhancing my understanding of MBC

5 Strongly Agree	4 Agree	3 Neither Or N/A	2 Disagree	1 Strongly Disagree

Additional Comments:

Interval follow-up questionnaire:

For each of the questions below, circle the response that best characterizes how you feel about the statement regarding not using screening tools:

How often do you use screening tools or measurement based care to make treatment decisions

5 Almost all or all of the time	4 Most of the time	3 About 50% of the time	2 20 – 30% of the time	1 Rarely/never

I feel comfortable using screening tools in my daily practice

5 Strongly Agree	4 Agree	3 Neither Or N/A	2 Disagree	1 Strongly Disagree

Additional Comments:

Appendix B - Screening Tools

PHQ-9

GAD - 7

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems? *(Use "□" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

(For office coding: Total Score T____ = ____ + ____ + ____)

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

PLC - C

PTSD CheckList – Civilian Version (PCL-C)

Client's Name: _____

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully, put an "X" in the box to indicate how much you have been bothered by that problem *in the last month*.

No.	Response	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
1.	Repeated, disturbing *memories, thoughts, or images* of a stressful experience from the past?					
2.	Repeated, disturbing *dreams* of a stressful experience from the past?					
3.	Suddenly *acting* or *feeling* as if a stressful experience *were happening* again (as if you were reliving it)?					
4.	Feeling *very upset* when *something reminded* you of a stressful experience from the past?					
5.	Having *physical reactions* (e.g., heart pounding, trouble breathing, or sweating) when *something reminded* you of a stressful experience from the past?					
6.	Avoid *thinking about* or *talking about* a stressful experience from the past or avoid *having feelings* related to it?					
7.	Avoid *activities* or *situations* because they *remind you* of a stressful experience from the past?					
8.	Trouble *remembering important parts* of a stressful experience from the past?					
9.	Loss of *interest in things that you used to enjoy?*					
10.	Feeling *distant* or *cut* off from other people?					
11.	Feeling *emotionally numb* or being unable to have loving feelings for those close to you?					
12.	Feeling as if your *future* will somehow be *cut short*?					
13.	Trouble *falling* or *staying asleep*?					
14.	Feeling *irritable* or having *angry outbursts*?					
15.	Having *difficulty concentrating*?					
16.	Being *"super alert"* or watchful on guard?					
17.	Feeling *jumpy* or easily startled?					

PCL-M for DSM-IV (11/1/94) Weathers, Litz, Huska, & Keane National Center for PTSD - Behavioral Science Division

Mood Disorder Questionnaire

Patient Name _____ Date of Visit _____

Please answer each question to the best of your ability

1. Has there ever been a period of time when you were not your usual self and...	**YES**	**NO**
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	☐	☐
...you were so irritable that you shouted at people or started fights or arguments?	☐	☐
...you felt much more self-confident than usual?	☐	☐
...you got much less sleep than usual and found that you didn't really miss it?	☐	☐
...you were more talkative or spoke much faster than usual?	☐	☐
...thoughts raced through your head or you couldn't slow your mind down?	☐	☐
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	☐	☐
...you had more energy than usual?	☐	☐
...you were much more active or did many more things than usual?	☐	☐
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?	☐	☐
...you were much more interested in sex than usual?	☐	☐
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?	☐	☐
...spending money got you or your family in trouble?	☐	☐

2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?	☐	☐

3. How much of a problem did any of these cause you - like being unable to work; having family, money or legal troubles; getting into arguments or fights?

☐ No problems ☐ Minor problem ☐ Moderate problem ☐ Serious problem

COLUMBIA-SUICIDE SEVERITY RATING SCALE

Screen Version

SUICIDE IDEATION DEFINITIONS AND PROMPTS	**Past month**	
Ask questions that are bolded and underlined.	**YES**	**NO**
Ask Questions 1 and 2		
1) Wish to be Dead: Person endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up. ***Have you wished you were dead or wished you could go to sleep and not wake up?***		
2) Suicidal Thoughts: General non-specific thoughts of wanting to end one's life/commit suicide, "*I've thought about killing myself*" without general thoughts of ways to kill oneself/associated methods, intent, or plan. ***Have you actually had any thoughts of killing yourself?***		
If YES to 2, ask questions 3, 4, 5, and 6. If NO to 2, go directly to question 6.		
3) Suicidal Thoughts with Method (without Specific Plan or Intent to Act): Person endorses thoughts of suicide and has thought of a least one method during the assessment period. This is different than a specific plan with time, place or method details worked out. "*I thought about taking an overdose but I never made a specific plan as to when where or how I would actually do it…and I would never go through with it.*" ***Have you been thinking about how you might kill yourself?***		
4) Suicidal Intent (without Specific Plan): Active suicidal thoughts of killing oneself and patient reports having some intent to act on such thoughts, as opposed to "*I have the thoughts but I definitely will not do anything about them.*" ***Have you had these thoughts and had some intention of acting on them?***		
5) Suicide Intent with Specific Plan: Thoughts of killing oneself with details of plan fully or partially worked out and person has some intent to carry it out. ***Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?***		
6) Suicide Behavior Question: ***Have you ever done anything, started to do anything, or prepared to do anything to end your life?*** Examples: Collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn't jump; or actually took pills, tried to shoot yourself, cut yourself, tried to hang yourself, etc. **If YES, ask:** ***How long ago did you do any of these?*** · Over a year ago? · Between three months and a year ago? · Within the last three months?		

ASSESSMENT OF PROVIDER BARRIERS

Name _____ Age _____

Is the patient alert? _____ Level of education _____

__/1 (1) **1. What day of the week is it?**

__/1 (1) **2. What is the year?**

__/1 (1) **3. What state are we in?**

4. Please remember these five objects. I will ask you what they are later.
Apple Pen Tie House Car

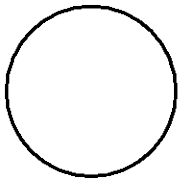
5. You have $100 and you go to the store and buy a dozen apples for $3 and a tricycle for $20.
(1) **How much did you spend?**
__/3 (2) **How much do you have left?**

6. Please name as many animals as you can in one minute.
__/3 (0) 0-4 animals (1) 5-9 animals (2) 10-14 animals (3) 15+ animals

__/5 **7. What were the five objects I asked you to remember? 1 point for each one correct.**

8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
__/2 (0) 87 (1) 648 (1) 8537

9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
(2) Hour markers okay
__/4 (2) Time correct



(1) **10. Please place an X in the triangle.**

__/2 (1) **Which of the above figures is largest?**

11. I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.

Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.

__/8 (2) **What was the female's name?** (2) **What work did she do?**
(2) **When did she go back to work?** (2) **What state did she live in?**

_____ **TOTAL SCORE**

SCORING

High School Education		Less than High School Education
27-30	Normal	25-30
21-26	mild Neurocognitive disorder	20-24
1-20	dementia	1-19

_____ _____ _____
CLINICIAN'S SIGNATURE DATE TIME

BPRS

ASSESSMENT OF PROVIDER BARRIERS

CLIENT NAME: _____ DATE: _____
CLIENT ID#: _____ MD: _____

BRIEF PSYCHIATRIC RATING SCALE (BPRS)

Please enter the score for the term which best describes the patient's condition.

0 = not assessed, 1 = not present, 2 = very mild, 3 = mild, 4 = moderate, 5 = moderately severe, 6 = severe, 7 = extremely severe

1. **SOMATIC CONCERN** Degree of concern over present bodily health. Rate the degree to which physical health is perceived as a problem by the patient, whether complaints have a realistic basis or not. SCORE ☐	10. **HOSTILITY** Animosity, contempt, belligerence, disdain for other people outside the interview situation. Rate solely on the basis of the verbal report of feelings and actions of the patient toward others; do not infer hostility from neurotic defenses, anxiety, nor somatic complaints. (*Rate attitude toward interviewer under "uncooperativeness"*). SCORE ☐
2. **ANXIETY** Worry, fear, or over-concern for present or future. Rate solely on the basis of verbal report of patient's own subjective experiences. Do not infer anxiety from physical signs or from neurotic defense mechanisms. SCORE ☐	11. **SUSPICIOUSNESS** Brief *(delusional or otherwise)* that others have now, or have had in the past, malicious or discriminatory intent toward the patient. On the basis of verbal report, rate only those suspicions which are currently held whether they concern past or present circumstances. SCORE ☐
3. **EMOTIONAL WITHDRAWAL** Deficiency in relating to the interviewer and to the interviewer situation. Rate only the degree to which the patient gives the impression of failing to be in emotional contact with other people in the interview situation. SCORE ☐	12. **HALLUCINATORY BEHAVIOR** Perceptions without normal external stimulus correspondence. Rate only those experiences which are reported to have occurred within the last week and which are described as distinctly different from the thought and imagery processes of normal people. SCORE ☐
4. **CONCEPTUAL DISORGANIZATION** Degree to which the thought processes are confused, disconnected, or disorganized. Rate on the basis of integration of the verbal products of the patient; do not rate on the basis of patient's subjective impression of his own level of functioning. SCORE ☐	13. **MOTOR RETARDATION** Reduction in energy level evidenced in slowed movements. Rate on the basis of observed behavior of the patient only; do not rate on the basis of patient's subjective impression of own energy level. SCORE ☐
5. **GUILT FEELINGS** Over-concern or remorse for past behavior. Rate on the basis of the patient's subjective experiences of guilt as evidenced by verbal report with appropriate affect; do not infer guilt feelings from depression, anxiety or neurotic defenses. SCORE ☐	14. **UNCOOPERATIVENESS** Evidence of resistance, unfriendliness, resentment, and lack of readiness to cooperate with the interviewer. Rate only on the basis of the patient's attitude and responses to the interviewer and the interview situation; do not rate on basis of reported resentment or uncooperativeness outside the interview situation. SCORE ☐
6. **TENSION** Physical and motor manifestations of tension "nervousness", and heightened activation level. Tension should be rated solely on the basis of physical signs and motor behavior and not on the basis of subjective experiences of tension reported by the patient. SCORE ☐	15. **UNUSUAL THOUGHT CONTENT** Unusual, odd, strange or bizarre thought content. Rate here the degree of unusualness, not the degree of disorganization of thought processes. SCORE ☐
7. **MANNERISMS AND POSTURING** Unusual and unnatural motor benavior, the type of motor behavior which causes certain mental patients to stand out in a crowd of normal people. Rate only abnormality of movements; do not rate simple heightened motor activity here. SCORE ☐	16. **BLUNTED AFFECT** Reduced emotional tone, apparent lack of normal feeling or involvement. SCORE ☐
8. **GRANDIOSITY** Exaggerated self-opinion, conviction of unusual ability or powers. Rate only on the basis of patient's statements about himself or self-in-relation-to-others, not on the basis of his demeanor in the interview situation. SCORE ☐	17. **EXCITEMENT** Heightened emotional tone, agitation, increased reactivity. SCORE ☐
9. **DEPRESSIVE MOOD** Despondency in mood, sadness. Rate only degree of despondency; do not rate on the basis of inferences concerning depression based upon general retardation and somatic complaints. SCORE ☐	18. **DISORIENTATION** Confusion or lack of proper association for person, place or time. SCORE ☐

Psychiatric Research Unit
WHO Collaborating Centre in Mental Health

WHO (Five) Well-Being Index (1998 version)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

	Over the last two weeks	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1	**I have felt cheerful and in good spirits**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
2	**I have felt calm and relaxed**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
3	**I have felt active and vigorous**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
4	**I woke up feeling fresh and rested**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
5	**My daily life has been filled with things that interest me**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0

Scoring:

The raw score is calculated by totalling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life.

To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

AUDIT-C

AUDIT-C Questionnaire

Patient Name _____ Date of Visit _____

1. How often do you have a drink containing alcohol?

- ☐ a. Never
- ☐ b. Monthly or less
- ☐ c. 2-4 times a month
- ☐ d. 2-3 times a week
- ☐ e. 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day?

- ☐ a. 1 or 2
- ☐ b. 3 or 4
- ☐ c. 5 or 6
- ☐ d. 7 to 9
- ☐ e. 10 or more

3. How often do you have six or more drinks on one occasion?

- ☐ a. Never
- ☐ b. Less than monthly
- ☐ c. Monthly
- ☐ d. Weekly
- ☐ e. Daily or almost daily

DAST-10

Drug Screening Questionnaire (DAST)

Using drugs can affect your health and some medications you may take. Please help us provide you with the best medical care by answering the questions below.

Which recreational drugs you have used in the past year?

- ☐methamphetamines (speed, crystal)
- ☐cocaine
- ☐cannabis (marijuana, pot)
- ☐narcotics (heroin, oxycodone, methadone, etc.)
- ☐inhalants (paint thinner, aerosol, glue)
- ☐hallucinogens (LSD, mushrooms)
- ☐tranquilizers (valium)
- ☐other _____

1. Have you used drugs other than those required for medical reasons?	No	Yes
2. Do you abuse more than one drug at a time?	No	Yes
3. Are you unable to stop using drugs when you want to?	No	Yes
4. Have you ever had blackouts or flashbacks as a result of drug use?	No	Yes
5. Do you ever feel bad or guilty about your drug use?	No	Yes
6. Does your spouse (or parents) ever complain about your involvement with drugs?	No	Yes
7. Have you neglected your family because of your use of drugs?	No	Yes
8. Have you engaged in illegal activities in order to obtain drugs?	No	Yes
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	No	Yes
10. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding)?	No	Yes
	0	1

0	1	3	6
I	II	III	IV

Appendix C – The Plan-Do-Study-Act Model

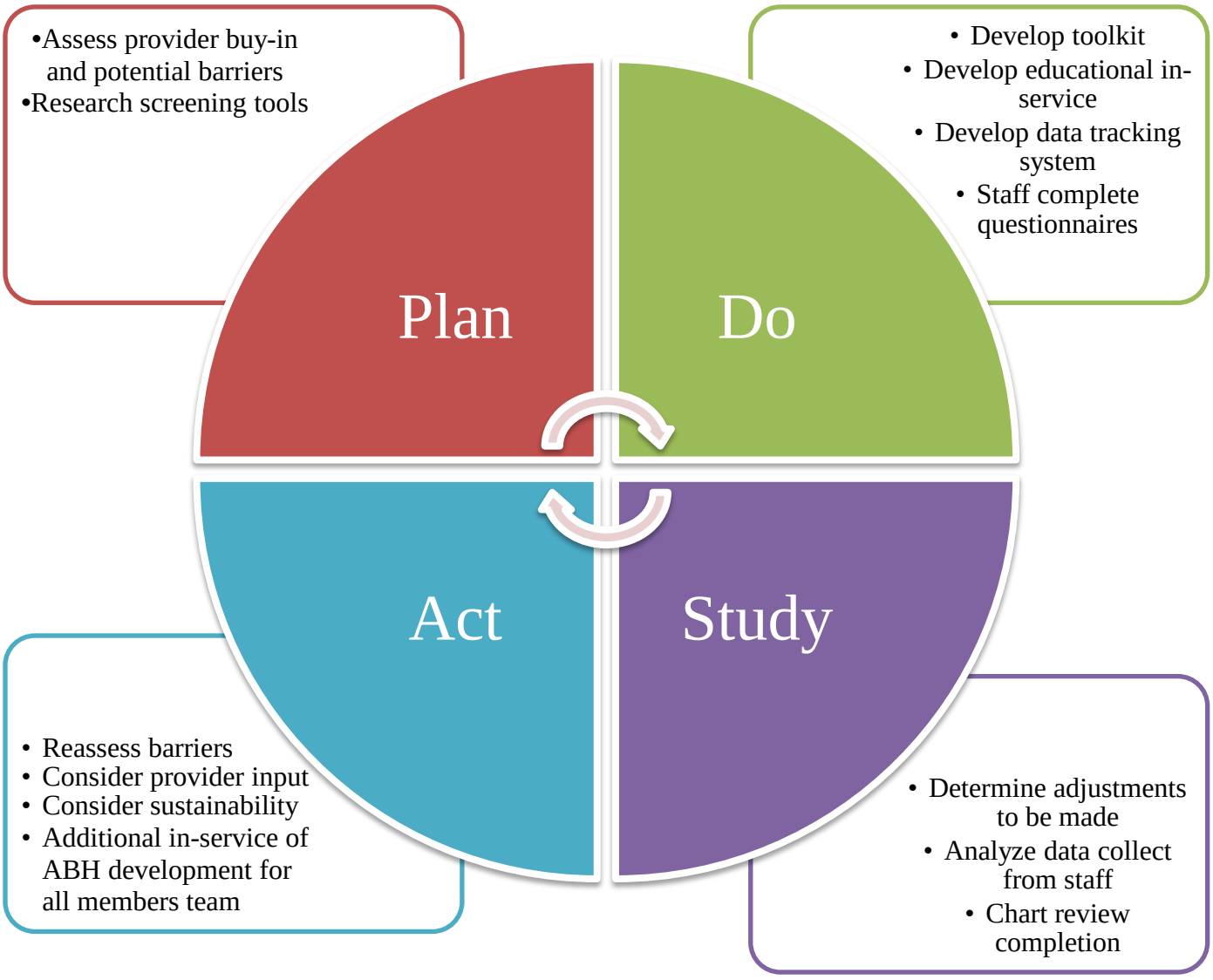


Figure B. The Plan-Do-Study-Act Model. Adapted from "Model for improvement: Plan-Do-Study-Act (PDSA) Cycles," by the Institute for Healthcare Improvement, 2016.

Appendix D – Educational In-service Slides

Objectives

- Understanding measurement-based care
- Rationale to use measurement
- Types of screening tools available in the toolkit
- Identify challenges & solutions to successfully implement new practices

OHSU

Measurement-Based Care

- Defined as use of routine symptom measurement to inform treatment
- Framework that establishes effectiveness, broad reach, and a multifaceted utility for enhancing routine care

We can screen for:

- Attention Deficit Hyperactivity Disorder
- Anger
- Borderline Personality Disorder
- Anxiety
- Bipolar Spectrum Disorder
- Depression
- Domestic Violence
- Eating disorders
- Emotional regulation
- Gambling
- Obsessive-Compulsive Disorder
- Posttraumatic Stress Disorder
- Social Anxiety
- Social Supports
- Suicidal Ideation
- Homicidal Ideation
- Medication Side Effects
- Therapeutic Alliance
- Interpersonal conflicts
- Somatization
- Dissociation
- Sleep disturbances
- Personality markers
- Memory problems

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OHSU

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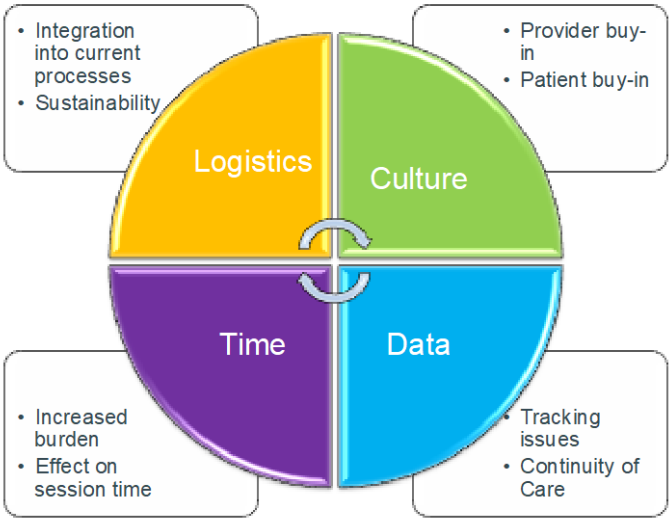
OHSU

What does this look like?

- Patients complete brief, reliable, validated, & clinically appropriate measures at intake and at regular intervals as one part of routine care.
- Results from the measures are shared & discussed with the patient and other providers involved in the patient's care (therapist, case manager, etc.)
- Together, providers and patients use outcome measures
  - to develop treatment plans
  - assess progress over time
  - Inform shared decisions about changes to the treatment plan over time

OHSU

Challenges & Concerns



OHSU

What is a Toolkit?

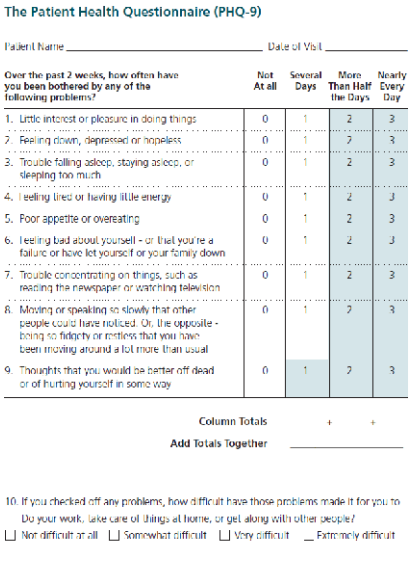
- Informational source that contains forms, scales, templates, or other resource assistance.
- Not meant to be prescriptive but to provide guidance and resource options that can be individually selected & shared.

Core measures:

- PHQ-9 (Depression/Distress)
- PCL-C (PTSD)
- GAD-7 (Anxiety)
- AUDIT-C (Alcohol Use Disorder)
- DAST-10 (Drug Abuse Screen Test)
- MDQ (Bipolar Spectrum)
- C-SSRS (Suicidal ideation)
- Brief Psychiatric Rating Scale (Psychosis)
- SLUMS (Memory/Cognition)

The Patient Health Questionnaire (PHQ-9)

- Multipurpose instrument for screening, diagnosing, monitoring, and measuring severity of depression.
- Rates the frequency of the symptoms which factors into the scoring index.
- Takes less than 3 minutes to complete.
- Screens for the presence & duration of suicidal ideation.
- PHQ-9 score ≥ 10 has a sensitivity of 88% and a specificity of 88% in detecting MDD.



The Patient Health Questionnaire (PHQ-9)

Patient Name _____ Date of Visit _____

Over the past 2 weeks, how often have you been bothered by any of the following problems?	Not At all	Several Days	More Than Half the Days	Nearly Every Day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3
3. Trouble falling asleep, staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself - or that you're a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or, the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
Column Totals		+	+	
Add Totals Together				

10. If you checked off any problems, how difficult have those problems made it for you to Do your work, take care of things at home, or get along with other people?

☐ Not difficult at all ☐ Somewhat difficult ☐ Very difficult ☐ Extremely difficult

OHSU

PHQ-9 Scoring

PHQ-9 Score	Depression Severity	Suggested Intervention
0-4	None/Minimal	None
5-9	Mild	Repeat PHQ-9 at follow up
10-14	Moderate	Make treatment plan, consider counseling, follow up and/or medications
15-19	Moderately Severe	Prescribe medication, consider dose increase and counseling
20-27	Severe	Prescribe medication. If there are poor responses to treatment, consider if at therapeutic dose and/or switching medication

OHSU

PTSD Checklist (PCL-C)

- Self-report measure reflecting symptoms of PTSD.
- It is an abbreviated version for use with civilians.
- 5-10 minutes to administer.
- Used to screen for PTSD, aide in diagnostic assessment of PTSD, and/ or monitor change in symptoms.

PCL-C

The next questions are about problems and complaints that people sometimes have in response to stressful life experiences. Please indicate how much you have been bothered by each problem in the past month. For these questions, the response options are: "not at all", "a little bit", "moderately", "quite a bit", or "extremely".

		Not at all	A little bit	Moderately	Quite A bit	Extremely
PCL1	Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	1	2	3	4	5
PCL2	Repeated, disturbing dreams of a stressful experience from the past?	1	2	3	4	5
PCL3	Suddenly acting or feeling as if a stressful experience from the past were happening again (as if you were reliving it)?	1	2	3	4	5
PCL4	Feeling very upset when something reminded you of a stressful experience from the past?	1	2	3	4	5
PCL5	Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience from the past?	1	2	3	4	5
PCL6	Avoiding thinking or talking about a stressful experience from the past or avoiding having feelings related to it?	1	2	3	4	5
PCL7	Avoiding activities or situations because they reminded you of a stressful experience from the past?	1	2	3	4	5
PCL8	Having trouble remembering important parts of a stressful experience from the past?	1	2	3	4	5
PCL9	Loss of interest in activities that you used to enjoy?	1	2	3	4	5
PCL10	Feeling distant or cut off from other people?	1	2	3	4	5
PCL11	Feeling emotionally numb or being unable to have loving feelings for those close to you?	1	2	3	4	5
PCL12	Feeling as if your future somehow will be cut short?	1	2	3	4	5
PCL13	Having trouble falling or staying asleep?	1	2	3	4	5
PCL14	Feeling irritable or having angry outbursts?	1	2	3	4	5
PCL15	Difficulty concentrating?	1	2	3	4	5
PCL16	Being "superalert" or watchful or on guard?	1	2	3	4	5
PCL17	Feeling jumpy or easily startled?	1	2	3	4	5

OHSU

PCL-C Scoring

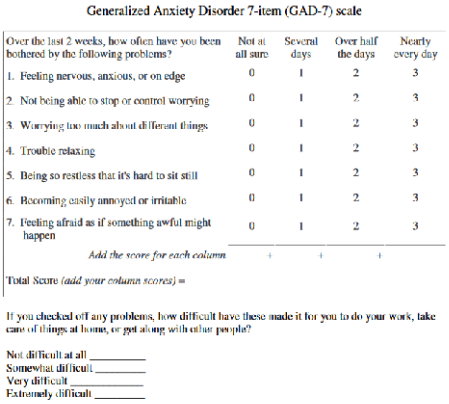
- Add the scores of each question.
- Total symptom severity score is 17-85.
- Evidence suggests a 5-10 point change as being reliable & 10-20 point change is clinically meaningful.
- Recommendations of using 5 points change to determine if the patient has response to treatment and 10 points as a minimum threshold for determining whether the improvement is clinically meaningful.

OHSU

Generalized Anxiety Disorder (GAD-7)

- Self-reported questionnaire for screening and severity measuring of generalized anxiety disorder, panic disorder, social anxiety disorder, and PTSD.
- Seven questions and takes 5-7 minutes to complete.
- Higher scores correlate with disability and functional impairments.
- Becoming the gold standard measurement tool for GAD.

Efficacy	Sensitivity	Specificity	Cut off score
GAD	89%	82%	10
Panic Disorder	74%	81%	8
Social Anxiety Disorder	72%	80%	8
PTSD	66%	81%	8



Generalized Anxiety Disorder 7-item (GAD-7) scale

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all sure	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
Add the score for each column	+	+	+	

Total Score *(add your column scores)* =

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all _____
Somewhat difficult _____
Very difficult _____
Extremely difficult _____

OHSU

Scoring GAD-7

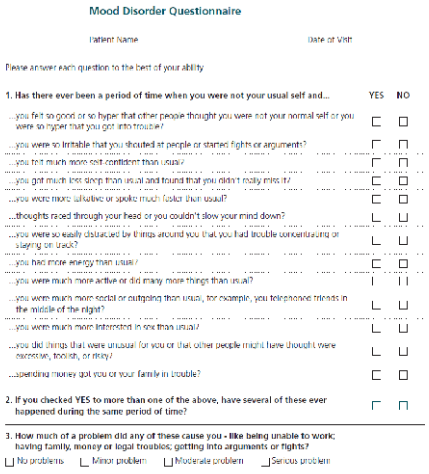
- Total score ranges from 0 to 21.
- Scores of 5, 10, and 15 represent cut points for mild, moderate, and severe anxiety.
- *For Panic Disorder, Social Phobia, & PTSD a cutoff score of 8 may be used for optimal sensitivity/specificity
- Score ≥10 probable diagnosis of GAD; confirm by further evaluation.

Score	Symptom Severity	Comments
5-9	Mild	Monitor
10*-14	Moderate	Possible clinically significant condition
>15	Severe	Active treatment warranted

OHSU

Mood Disorder Questionnaire (MDQ)

- Aids in screening present & past episodes of mania & hypomania.
- 13 questions with the symptoms of bipolar disorder plus items assessing clustering of symptoms and functional impairment.
- Takes about 5 minutes to complete.
- Used for screening purposes only and not to be used as a diagnostic tool.



Mood Disorder Questionnaire

Patient Name Date of Visit

Please answer each question to the best of your ability

1. Has there ever been a period of time when you were not your usual self and...	YES	NO
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	☐	☐
...you were so irritable that you shouted at people or started fights or arguments?	☐	☐
...you felt much more self-confident than usual?	☐	☐
...you got much less sleep than usual and found that you didn't really miss it?	☐	☐
...you were more talkative or spoke much faster than usual?	☐	☐
...thoughts raced through your head or you couldn't slow your mind down?	☐	☐
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	☐	☐
...you had more energy than usual?	☐	☐
...you were much more active or did many more things than usual?	☐	☐
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?	☐	☐
...you were much more interested in sex than usual?	☐	☐
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?	☐	☐
...spending money got you or your family in trouble?	☐	☐
2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?	☐	☐

3. How much of a problem did any of these cause you - like being unable to work; having family, money or legal troubles; getting into arguments or fights?

☐ No problems ☐ Minor problem ☐ Moderate problem ☐ Serious problem

OHSU

Scoring MDQ

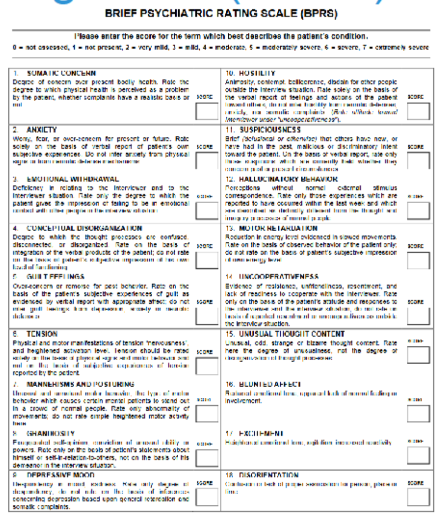
- In order to screen positive for possible bipolar disorder, all 3 parts of the following criteria must be met:
  - 'YES' to 7 or more of the 13 items listed in Question #1
  - 'YES' to Question #2
  - 'MODERATE' or 'SERIOUS' problem to Question #3

Population/Type	Sensitivity & Specificity
Outpatient clinic servicing primarily mood disorder population	Sensitivity 73% Specificity 90%
General population	Sensitivity 28% Specificity 97%
37 bipolar disorder patients 36 Unipolar Depression patients	Overall Sensitivity 58% Overall Specificity 67%
Primary care patients receiving treatment for depression	Sensitivity 58% Specificity 93%

OHSU

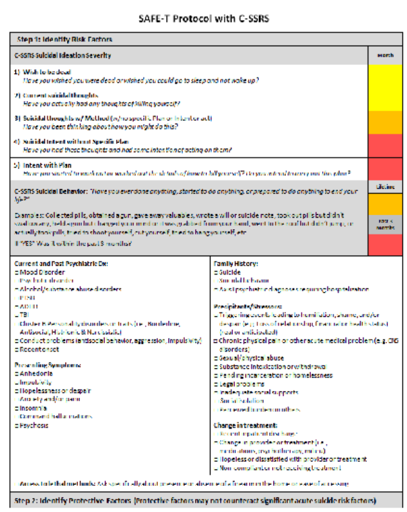
Brief Psychiatric Rating Scale (BPRS)

- Assesses the positive, negative, and affective symptoms of individuals who has psychotic disorders.
- Also considered is the individual's behavior over the previous 2-3 days.
- Each symptom is rated 0-7
- The time necessary to complete this interview is approximately 25 minutes.

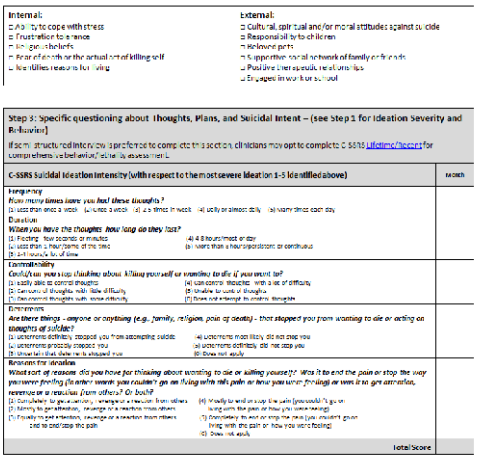


Columbia-Suicide Severity Rating Scale (C-SSRS)

- Rating scale for individuals age 12 and up.
- Phrased for use in an interview format but is also a self-report tool
- Can predict suicide attempts in suicidal & non-suicidal individuals
- Five steps broken down and color coded.



Columbia-Suicide Severity Rating Scale (C-SSRS)



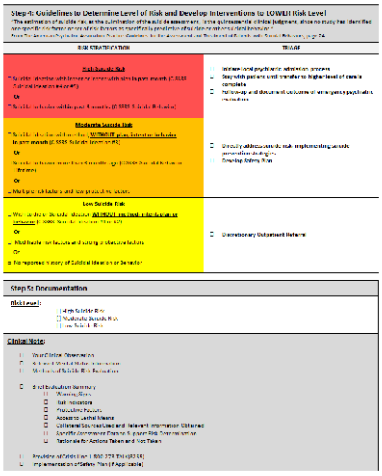
Internal:
- Ability to cope with stress
- Frustration tolerance
- Moral beliefs
- Fear of death or the actual act of killing self
- Future life reasons for living

External:
- Cultural, spiritual and/or moral attitudes against suicide
- Responsibility to children
- Relevant pets
- Supportive social network of family or friends
- Positive therapeutic relationships
- Engaged in work or school

Step 3: Specific questioning about Thoughts, Plans, and Suicidal Intent – (see Step 2 for Ideation Severity and Behavior)

If specific structured interview is preferred to complete this section, clinicians may opt to complete C-SSRS Lifetime/Recent for comprehensive behavioral/suicidal assessment.

C-SSRS Suicidal Ideation Intensity (with respect to the most severe ideation 1-5 identified above)	Month
Frequency *How many times have you had these thoughts?* (1) Less than once a week (2) Once a week (3) 2 to 5 times in week (4) Daily or almost daily (5) Many times each day	
Duration *When you have the thoughts, how long do they last?* (1) Fleeting - few seconds or minutes (2) Less than 1 hour/some of the time (3) 1 to 4 hours/a lot of time (4) 4 to 8 hours/most of day (5) More than 8 hours/persistent or continuous	
Controllability *Could/can you stop thinking about killing yourself or wanting to die if you want to?* (1) Easily able to control thoughts (2) Can control thoughts with a lot of difficulty (3) Can control thoughts with little difficulty (4) Unable to control thoughts (5) Does not attempt to control thoughts	
Deterrents *Are there things - anyone or anything (e.g., family, religion, pain of death) - that stopped you from wanting to die or acting on thoughts of suicide?* (1) Deterrents definitely stopped you from attempting suicide (2) Deterrents probably stopped you (3) Uncertain that deterrents stopped you (4) Deterrents most likely did not stop you (5) Deterrents definitely did not stop you (6) Does not apply	
Reasons for Ideation *What sort of reasons did you have for thinking about wanting to die or killing yourself? Was it to end the pain or stop the way you were feeling (in other words you couldn't go on living with this pain or how you were feeling) or was it to get attention, revenge or a reaction from others? Or both?* (1) Completely for getting attention, revenge or a reaction from others (2) Mainly to get attention, revenge or a reaction from others (3) Equally to get attention, revenge or a reaction from others and to end/stop the pain (4) Mostly to end or stop the pain (you couldn't go on living with the pain or how you were feeling) (5) Completely to end or stop the pain (you couldn't go on living with the pain or how you were feeling) (6) Does not apply	
Total Score	



Step 4: Guidelines to Determine Level of Risk and Develop Interventions to LOWER Risk Level

Risk Level: High Suicide Risk / Moderate Suicide Risk / Low Suicide Risk

Clinical Note:

Step 5: Documentation

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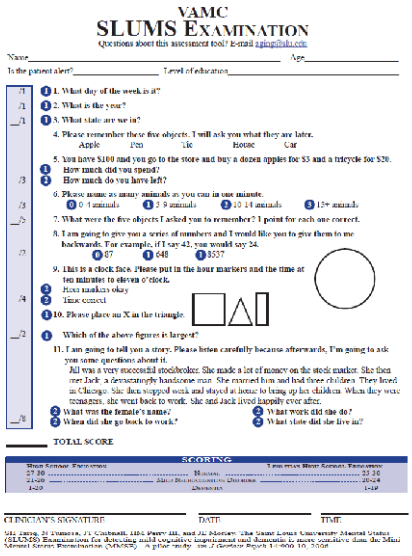
Saint Louis University Mental Status (SLUMS)



VAMC
SLUMS EXAMINATION
Questions about this assessment tool? E-mail slums@slu.edu

Name_____ Age_____
To the patient alert?_____ Level of education_____

1. What day of the week is it?
2. What is the year?
3. What state are we in?
4. Please remember these five objects. I will ask you what they are later.
   Apple Pen Tie House Car
5. You have $100 and you go to the store and buy a dozen apples for $3 and a tricycle for $20.
   How much did you spend?
   How much do you have left?
6. Please name as many animals as you can in one minute.
   0 0-1 animals 1 2-9 animals 2 10-14 animals 3 15+ animals
7. What were the five objects I asked you to remember? 1 point for each one correct.
8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
   0 87 1 648 2 8537
9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
   Hour markers okay
   Time correct
10. Please place an X in the triangle.
11. Which of the above figures is largest?

I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.

Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a fantastically handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.

1 What was the female's name?
2 When did she go back to work?
1 What work did she do?
2 What state did she live in?

TOTAL SCORE

SCORING

CLINICIAN'S SIGNATURE DATE TIME

- Used to assist in determining a dementia diagnosis.
- Consists of 11 brief questions scored on a 30 point scale.
- Covers a wide range of functions: memory, attention, orientation, and overall executive function.
- More sensitive than the MMSE.
- Takes approximately 7 to 10 minutes to administer.

OHSU

Scoring SLUMS

- The SLUMS consists of 11 items and measures aspects of cognition that including orientation, short term memory, calculations, naming of animals, the clock drawing test, and recognition of geometric figures.
- To calculate the score, add how the individual performed on each section of the exam.

Scores for High School Educated	Impairment	Scores for non-High School Educated
27 to 30	Normative	25 to 30
21 to 26	Mild neurocognitive disorder	20 to 24
1 to 20	Dementia	1 to 19

OHSU

Alcohol Use Disorders Identification Test (AUDIT-C)

- 3-item alcohol screen that can help identify persons who are hazardous drinks or have active alcohol use disorders.
- For identifying patients with heavy/ hazardous drinking with a score of ≥4
  - ♂ sensitivity 86% & specificity 72%.
  - ♀ sensitivity 48% & specificity of 99%.
- For identifying patients with active alcohol abuse or dependence with a score ≥ 4
  - ♂ sensitivity 79% & specificity 56%.
  - ♀ sensitivity 67% & specificity 94%.

AUDIT-C Questionnaire

Patient Name _____ Date of Visit _____

1. **How often do you have a drink containing alcohol?**
   - ☐ a. Never
   - ☐ b. Monthly or less
   - ☐ c. 2-4 times a month
   - ☐ d. 2-3 times a week
   - ☐ e. 4 or more times a week
2. **How many standard drinks containing alcohol do you have on a typical day?**
   - ☐ a. 1 or 2
   - ☐ b. 3 or 4
   - ☐ c. 5 or 6
   - ☐ d. 7 to 9
   - ☐ e. 10 or more
3. **How often do you have six or more drinks on one occasion?**
   - ☐ a. Never
   - ☐ b. Less than monthly
   - ☐ c. Monthly
   - ☐ d. Weekly
   - ☐ e. Daily or almost daily

OHSU

AUDIT-C Scoring

- The AUDIT-C is scored on a scale of 0 – 12.
- Each AUDIT-C question has 5 answer choices. Points are allotted as follows:
  - A = 0 points
  - B = 1 point
  - C = 2 points
  - D = 3 points
  - E = 4 points
- In men, a score of 4 or more is considered positive.
- In women, a score of 3 or more is considered positive.
  - However if all of the points come from being answered in Question #1 alone, it can be assumed that the patient is drinking below the recommended limits.

OHSU

Drug Abuse Screening Test (DAST-10)

- Requires a "yes" or "no" response and can be administered by a clinician or self-report.
- Yields a quantitative index of the degree of consequences related to drug abuse.
- Takes approximately 8 minutes to complete.

Drug Abuse Screening Test (DAST-10)

Using drugs can affect your health and may interact with medications you take. Please help us provide you with the best medical care by answering the questions below.

Which recreational drugs have you used in the past year?

__Methamphetamines (speed, crystal) __Cocaine
__Cannabis (marijuana, pot) __Narcotics (heroin, oxycodone, methadone)
__Inhalants (paint thinner, aerosol, glue) __Hallucinogens (LSD, mushrooms)
__Tranquilizers (valium) __Other _____

1. Have you used drugs other than those required for medical reasons?	No	Yes
2. Do you abuse more than one drug at a time?	No	Yes
3. Are you unable to stop using drugs when you want to?	No	Yes
4. Have you ever had blackouts or flashbacks as a result of drug use?	No	Yes
5. Do you ever feel bad or guilty about your drug use?	No	Yes
6. Does your spouse (or parents) ever complain about your involvement with drugs?	No	Yes
7. Have you neglected your family because of your use of drugs?	No	Yes
8. Have you engaged in illegal activities in order to obtain drugs?	No	Yes
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	No	Yes
10. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding)?	No	Yes
	0	1

OHSU

Scoring DAST-10

- To score the DAST-10, add the total number of questions answered “Yes.”
- Sensitivity: 80-85%
- Specificity: 78-88%

Score	Degree of problems related to Abuse	Suggested Action
0	No problems/Abstain	None
1-2	Low level/Risky	Monitor
3-5	Moderate level/Harmful	Further investigation
6+	Substantial level/Dependent	Intensive assessment

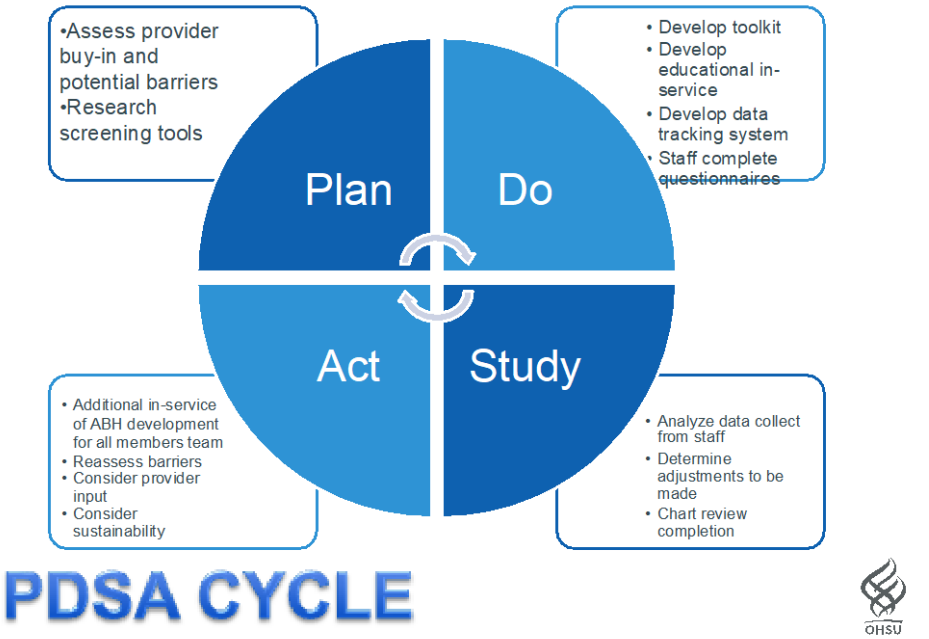
OHSU

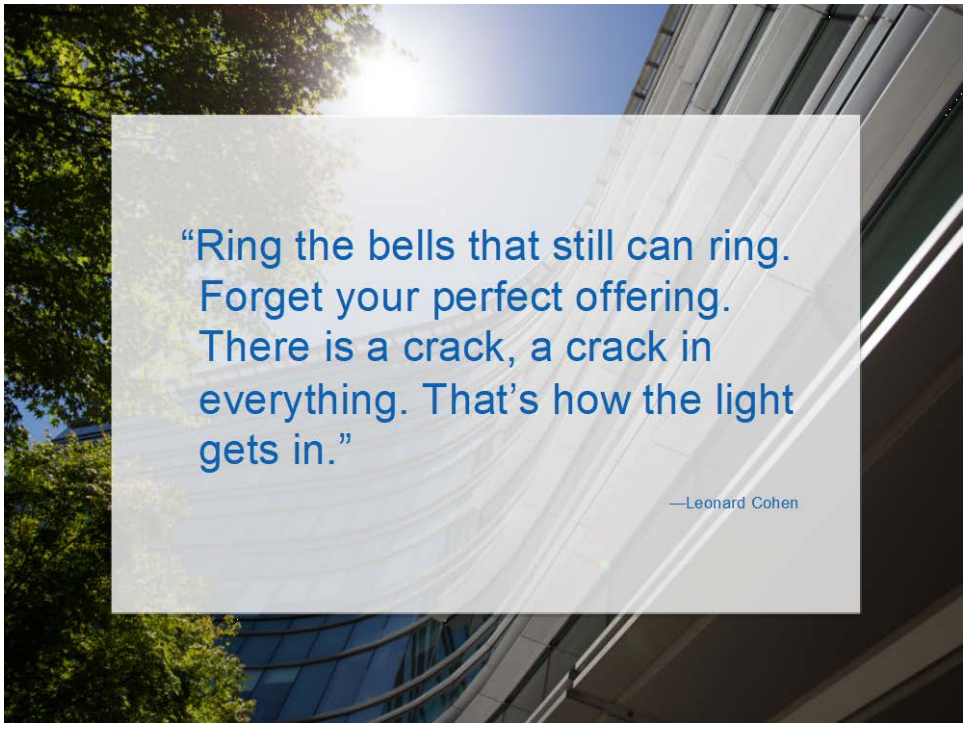
Scoring DAST-10

- To score the DAST-10, add the total number of questions answered “Yes.”
- Sensitivity: 80-85%
- Specificity: 78-88%

Score	Degree of problems related to Abuse	Suggested Action
0	No problems/Abstain	None
1-2	Low level/Risky	Monitor
3-5	Moderate level/Harmful	Further investigation
6+	Substantial level/Dependent	Intensive assessment

OHSU


•Assess provider buy-in and potential barriers
•Research screening tools
Plan
Do
• Develop toolkit
• Develop educational in-service
• Develop data tracking system
• Staff complete questionnaires
Act
Study
• Additional in-service of ABH development for all members team
• Reassess barriers
• Consider provider input
• Consider sustainability
• Analyze data collect from staff
• Determine adjustments to be made
• Chart review completion
PDSA CYCLE
OHSU


“Ring the bells that still can ring.
Forget your perfect offering.
There is a crack, a crack in
everything. That’s how the light
gets in.”
—Leonard Cohen

Thank You