

## Integrated Behavioral Health Practice Facilitation in Patient Centered Medical Homes: A Promising Application

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**Introduction:** The purpose of this study was to assess the degree of behavioral health (BH) integration change in patient-centered medical homes (PCMHs) when using a practice facilitator (PF) specially trained in implementing integrated care and how a quasi-experimental design assists in this process. **Method:** Twelve PCMHs, 8 Federally Qualified Health Centers and 4 private practices, with varying degrees of BH services participated in this study. The degree of BH integration was assessed with a quasi-experimental design using the Maine Health Access Foundation's Site Self Assessment (MeHAF SSA) at baseline and after implementing site-specific BH services. The sites tracked completion of unique objectively measured goals being implemented using the Goal Attainment Scale (GAS) score. **Results:** At the conclusion of the study, sites saw a statistically significant increase in the level of BH integration from a baseline of 2.73 ( $SD = 0.44$ ) to a postintervention score of 3.49 ( $SD = 0.22$ ) with improvements from mild-moderate overall integration to moderate-advanced overall integration ( $p < .001$ ). In addition, 10 out of the 12 sites achieved successful implementation of unique goals with assistance from the PF. **Discussion:** This study provides the first quasi-experimental/pretest-posttest evidence utilizing real-world data that the practice facilitation method is an effective solution toward increasing the degree of BH integration. This paper describes the real-world efforts to evaluate the degree of BH integration change in PCMHs when using a PF with content expertise in BH integration within primary care.

**Keywords:** integrated behavioral health, patient centered medical homes, practice facilitation

According to a report published by the Agency for Healthcare Research and Quality, high quality primary care leads to better patient outcomes and lower mortality rates (Croghan & Brown, 2010). One approach toward accom-

plishing high quality primary care is the patient-centered medical homes (PCMH) model, a team-based approach to health care especially focusing on those patients who are high utilizers of health care resources (Breland, Asch, Sligh-

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tam, Wong, & Zulman, 2016). The PCMH model has been found to improve quality of care and patient experience, while reducing hospital and emergency department utilization and total acute care costs (Bleser et al., 2014; Breland et al., 2016; Jackson et al., 2013).

Many patients with a psychological disorder are initially treated by their primary care physician with 40–60% of patients being exclusively treated in the primary care setting (Blount, 2003; Corso, Hunter, Dahl, Kallenberg, & Manson, 2016). In addition, patients with a mental health disorder are two times more likely to suffer from a comorbid chronic medical condition, have poorer health outcomes, and higher health care costs compared with those who have a chronic medical condition alone (Goldman, 2000). As a result, primary care sites with innovative integrated BH approaches could be better positioned to meet their population health needs.

Various definitions of integrated behavioral health (BH) have been with Blount (2003) differentiating between services that are coordinated as operating out of different treatment settings versus services that are colocated at the same location, but not necessarily fully integrated. Integrated BH, by contrast, offers a treatment plan for each patient based on their need and shares the outcomes and decisions with the medical team, who work alongside the integrated BH provider (Blount, 2003).

When integrating BH services into a PCMH, different challenges occur, including: physical space needs; shared decision-making, implementing shared registries with chronic physical and BH issues, billing for BH services and credentialing in a fee-for-service reimbursement model, engaging in team huddles that include the BH provider, and, most importantly, sharing the responsibility for the patient's care plan (Working Party Group on Integrated Behavioral Healthcare, 2014). In order to address the barriers of implementation, PCMHs are engaging in the practice facilitation model; however, the positive impact of practice facilitation as a means of implementing integrated BH services have largely taken place within the Department of Veterans Affairs, which targets only a fraction of the patient population and, therefore, has limited generalizability (Kirchner et al., 2014). Studies utilizing practice facilitation applied specifically to integration of BH

services within primary care in private settings or Federally Qualified Health Centers are generally lacking (Dickinson, 2015).

Practice facilitators (PFs) are defined as "health care professionals, who assist primary care practices in research and quality improvement activities. Their work goes beyond data collection and feedback and includes practice enhancement methods to facilitate system-level changes" (Nagykaldi, Mold, Robinson, Niebauer, & Ford, 2006, p. 506). PFs can effectively assist primary care practices undergoing PCMH implementation by first assessing the current state of the practice, then cocreating a detailed work plan, assisting in implementing the desired objective, and evaluating its effectiveness (Nagykaldi, Mold, & Aspy, 2005). This individualized intervention strategy can improve a practice's performance and further bolster successful implementation (Baskerville Liddy, & Hogg, 2012; Breland et al., 2016). Currently, the Agency for Healthcare Research and Quality recommend some minimum standards for PFs, such as a master's degree and professional health care experience. However, no standardized requirements are currently in use (Nagykaldi et al., 2006).

This particular study focuses on the efforts of implementing integrated BH services into 12 established PCMHs through the Care Transformation Collaborative Rhode Island (CTC-RI) using a practice facilitator psychologist (PFP). CTC-RI is a multipayer, advanced primary care initiative focused on transforming Rhode Island primary care into PCMHs, and is coconvened by the Rhode Island Office of the Health Insurance Commissioner and the Rhode Island Executive Office of Health and Human Services. The aim of this pilot sought to determine whether practice facilitation advanced implementation of integrated BH within PCMHs. A secondary aim was to provide guidance on the use of quasi-experimental design when collecting evidence in a real-world setting. Based on the literature review, this pretest-posttest (quasi-experimental) study design is one of the first examples of the application of practice facilitation in implementing integrated BH in both the Federally Qualified Health Centers and privately owned primary care settings.

## Method

### Participants

Twelve established PCMHs (eight Federally Qualified Health Centers and four private sites) self-selected to participate in this pilot based on a request for proposals. Participation in the pilot was contingent on sites demonstrating readiness to engage at the organizational, leadership, and frontline levels. The sites were asked to complete brief essay questions in order to evaluate readiness to engage. No exclusions to participation were made. All sites had, at minimum, one integrated psychiatric nurse practitioner, psychiatrist, or integrated BH provider either colocated or embedded within the primary care setting, ranging from part-time to full-time. All sites had some experience with integrated BH. Each site developed an implementation team, which typically included the integrated BH provider, physician champion, nurse care manager, lead medical assistant, office manager and data support specialist. Sites were active in this pilot study for a span of 10 months (January 2015 through October 2015) and received no compensation for their participation.

The study used a quasi-experimental design in order to meet the real-world challenges of creating meaningful change specific to each site that could also be objectively measured and compared across and within sites. A quasi-experimental design measures the effect of an intervention or treatment, and does not include random assignment to an intervention arm or treatment arm. Quasi-experimental design is used when it is not logically feasible or ethical to have a randomized control group, or when there is a need to intervene quickly (Eliopoulos et al., 2004). Considering the burden of time in busy PCMHs participating in this study, it was a primary consideration in utilizing the quasi-experimental design.

A PFP provided facilitation around implementation and quality improvement as well as serving as the program evaluator. The PFP for this project had extensive background in BH implementation including 12 years of clinical and leadership roles within integrated care settings, following a primary care psychology 2-year fellowship, internship at integrated primary care setting, and doctorate degree in clinical health psychology, which provided a subject matter expertise to the role of practice facilitation. No specific training in prac-

tice facilitation was obtained by the PFP. The PFP worked to ensure sites collected and reported data and met with the site's implementation team monthly for 1 hr.

### Assessments and Measures

**Behavioral health integration assessment.** Similar to the model of practice facilitation described by Nagykaldi, Mold, and Aspy (2005), the PFP engaged in an initial baseline needs assessment and then created a work plan based on the areas identified in the needs assessment, as well as guided the targeted goal and evaluated effectiveness. The first measure was completed at two intervals through a web-based survey with the collaborative input of the members within the implementation team at each site including a baseline self-assessment of BH integration using a validated tool, the Maine Health Access Foundation's Site Self Assessment (MeHAF SSA; Scheirer, Leonard, Ronan, & Boober, 2008), and again, at the completion of the study.

The MeHAF SSA is comprised of 18 dimensions including nine that assess integrated services for patient- and family-centered care and nine that assess organizational supports for BH integration. Each dimension is measured along a 10-point scale. We examined the scale and determined that collapsing the scale into four theoretically similar categories (1 = *no integration*, 2 = *limited integration*, 3 = *moderate integration*, and 4 = *advanced integration*) would reduce the burden of reporting at the site level.

**Measures of goal implementation.** The PFP provided guidance toward completion of the second measure of goal implementation, using the Goal Attainment Scale (GAS), completed at monthly intervals. The GAS focused on the projected level of performance of a goal, and established realistic, objective goals specific to the site's needs (Mailloux et al., 2007). The GAS scale ranges from -2 to +2 with -2 (*much less than expected performance in goal implementation*), -1 (*less than expected performance in goal implementation*), 0 (*expected performance in goal implementation*), 1 (*somewhat more than expected performance in goal implementation*), and 2 (*much more than expected performance in goal implementation*).

The PFP worked with each site to ensure that each value within the GAS had an objective and measurable goal that was agreed upon by the group (Table 3 displays detailed goal listings). Technical assistance was provided based on site demand and included content presentations to staff, as well as providing evidence-based research and literature on integration of BH in primary care. Once the initial goal was set, individual sites continued to meet monthly with the PFP and together reported their progress using the GAS, continuously assessing barriers and expanding upon site strengths. Each site aimed to obtain a 0 score indicating that the site had met their goal, or completed the expected performance of the designed goal. Together, the MeHAF SSA and GAS scores were compared at each site in order to determine if there was a correlation between the maximum GAS score obtained and the level of integrated BH services postintervention.

**Assessing participation via dose of practice facilitation.** Each site's level of participation via the dose of practice facilitation was compared with their maximum GAS score in order to determine if a positive correlation was present. In this study, the dose of practice facilitation (or the intensity of the intervention) is defined by the number of meetings between the sites and the PFP over the course of 10 months. Sites with 100% participation were defined as meeting with the PFP 10 times out of 10 months or once per month throughout the duration of the pilot study.

**Data analysis.** A web-based survey was used to gather data for the MeHAF SSA and was stored on CTC-RI servers. Data collected for the GAS was manually entered by the PFP into a chosen considering the ease of use among most in office settings and skill set of the evaluation team involving primarily clinicians and management personnel. Data analysis and graphs were generated using Microsoft Excel. Significance was generated using the two-tailed Student's *t* test and a significance level of  $p < .05$  or  $p < .001$ .

## Results

### Practice Characteristics

Table 1 outlines the characteristics of each of the 12 Rhode Island-based PCMH sites. In total,

Table 1  
*Practice Sites and Their Characteristics*

Practice site	Private or FQHC	Practice size (attributed lives) <sup>a</sup>	Urban, suburban, rural
Site A	Private	2,780	Suburban
Site B	FQHC	6,156	Suburban
Site C	FQHC	4,936	Urban
Site D	FQHC	2,423	Urban
Site E	Private	1,767	Suburban
Site F	FQHC	3,317	Suburban
Site G	FQHC	7,905	Suburban
Site H	FQHC	11,639	Urban
Site I	FQHC	3,897	Urban
Site J	Private	4,636	Urban
Site K	Private	2,146	Urban
Site L	FQHC	4,152	Rural

*Note.* FQHC = Federally Qualified Health Center.

<sup>a</sup> Attributed lives is defined as the number of patients payers have identified who are connected to a practice and is generally an accurate representation of the total size of the practice up to 60%.

the sites were responsible for over 55,000 attributed lives. Sites were located in urban, suburban, and rural settings in Rhode Island.

### Degree of Integrated Behavioral Health Implementation

Table 2 outlines the mean scores and standard deviations for baseline and postintervention levels of integrated BH implementation as well as *p* values at the 12 sites. The dimensions with significant increases under integrated services for patient- and family-centered care included combined treatment plans for primary care and BH care; patient care that is based on or informed by best practice evidence/evidence-based medicine; communicating with patients about the presence of having integrated care; following up on patient assessments, tests, treatments, referrals, and other patient services; and social supports for patients in order to implement the recommended treatments. The dimensions that showed significant improvement from pre- to postintervention under organizational supports for practice change for integrated BH care included the presence of a patient care team for implementing integrated care; continuity of care between primary care and BH; and physician, team, and staff education and training in integrated care.

Across the dimensions as a whole, the sites scored themselves as having a limited-moderate

Table 2  
 Maine Health Access Foundation's Site Self Assessment Baseline and Postintervention Scores

Category	Dimension	Baseline scores <i>M</i> ( <i>SD</i> )	Postintervention scores <i>M</i> ( <i>SD</i> )	<i>p</i> value*
Integrated services for patient and family centered care	Colocation of treatment for primary care and mental/behavioral healthcare	3.00 (.75)	3.43 (.65)	.201
	Behavioral health screening	3.50 (.75)	3.79 (.58)	.373
	<b>Treatment plans for primary care and behavioral healthcare</b>	<b>2.50 (.75)</b>	<b>3.36 (.63)</b>	<b>.018</b>
	<b>Patient care that is based on or informed by best practice evidence</b>	<b>2.38 (.92)</b>	<b>3.43 (.65)</b>	<b>.015</b>
	Patient/family involvement in care plan	2.88 (.64)	3.43 (.51)	.058
	<b>Communication with patients about integrated care</b>	<b>2.25 (.87)</b>	<b>3.29 (.61)</b>	<b>.014</b>
	<b>Follow up of assessments, tests, treatment, referrals, and other services</b>	<b>2.75 (.89)</b>	<b>3.71 (.61)</b>	<b>.020</b>
	<b>Social supports for patients to implement recommended treatment</b>	<b>2.88 (.64)</b>	<b>3.64 (.63)</b>	<b>.016</b>
	Linking to community resources	3.00 (.53)	3.50 (.65)	.068
	Organizational support for integrated behavioral healthcare	Organizational leadership for integrated care	3.25 (.89)	3.69 (.75)
	<b>Patient care team for implementing integrated care</b>	<b>2.00 (.93)</b>	<b>3.69 (.63)</b>	<b>.0008</b>
	Provider's engagement with integrated care ("buy in")	2.75 (1.16)	3.69 (.48)	.059
	<b>Continuity of care between primary care and behavioral health</b>	<b>3.00 (.53)</b>	<b>3.77 (.44)</b>	<b>.005</b>
	Coordination of referrals and specialists	2.75 (.46)	3.31 (.85)	.068
	Data systems/patient records	3.25 (.89)	3.62 (.77)	.352
	Patient/family input in integration management	2.75 (1.16)	3.23 (1.01)	.352
	<b>Physician, team, and staff education and training in integrated care</b>	<b>1.75 (.71)</b>	<b>3.15 (.80)</b>	<b>.0006</b>
	Funding sources	2.50 (1.31)	3.08 (1.12)	.319

Note. Significant intervention scores and their associated dimensions are highlighted in bold.

\*  $p < .05$ .

levels of integrated BH services prior to implementation ( $M = 2.73$ ,  $SD = 0.44$ ). After implementation, the sites significantly improved to moderate-advanced levels of integrated BH services ( $M = 3.49$ ,  $SD = 0.22$ ; Figure 1).

### Site-Specific Goal Outcomes

Table 3 displays each site's goal(s) and GAS obtained during the 10-month study period. The mean GAS score obtained was 0,

where, on average, 10 out of the 12 sites were successful in at least achieving expected performance in goal implementation (minimum GAS score of 0). Two of the sites achieved successful implementation of their first tailored goal and decided to develop a second tailored goal and GAS during this study. Combining the MeHAF SSA and GAS results yielded two interesting results. In one instance, Site C had one of the highest postin-

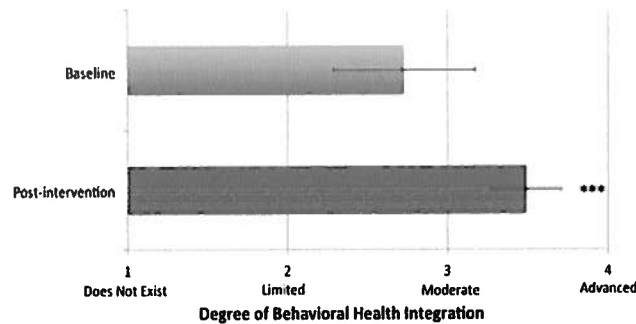


Figure 1. Maine Health Access Foundation's Site Self Assessment baseline and postintervention means. baseline  $M = 2.73$ ,  $SD = 0.44$ ; postintervention  $M = 3.49$ ,  $SD = 0.22$ . \*\*\*  $p < .001$ . See the online article for the color version of this figure.

intervention MeHAF SSA scores of 3.94, but the maximum GAS score obtained for their goal implementation was  $-1$  or somewhat less than expected performance. In another instance, Site E had one of the lowest post-intervention MeHAF SSA scores of 2.44, but achieved a maximum GAS score of 0 or expected performance in goal implementation.

#### Dose of Practice Facilitation and Goal Outcomes

As demonstrated in Figure 2, the higher the percent dose of practice facilitation, the higher the maximum GAS score achieved. Of note, Site I had two goals that were implemented: both resulting in a max GAS score of 2 (see Table 2). Conversely, the two sites that had the smallest dose of practice facilitation ended up with some of the lowest GAS scores.

#### Discussion

This quasi-experimental/pretest-posttest study illustrates one of the first successful applications of implementing integrated BH using a practice facilitation model in Federally Qualified Health Centers and privately owned sites. As demonstrated by the postintervention MeHAF SSA results, the level of BH integration as a whole improved across all of the sites. Two dimensions saw the greatest increase in SSA scores: (a) physician, team, and staff education and training in integrated care; and (b) communicating with patients about the presence of integrated care. Sites demonstrated a significant

increase in the utilization of the MeHAF SSA dimension, evidence-based medicine in patient care, which was not specifically a focus of sites' goals. For example, some sites amended their incorrect use of depression screening tools, which allowed for a more standardized approach to patient care.

Sites also saw an increase in the continuity of care between both primary care and BH largely through implementation of shared treatment plans supported by the ability to easily access the BH provider on site. Sites were able to expand social supports for patients in order to implement recommended treatments by engaging with community resources (e.g., drug and alcohol detox programs).

The majority of the sites already had BH and/or mental health care colocated at their sites and BH screening already implemented into their work flows prior to implementation. As a result, both of these dimensions saw a very modest increase in postintervention scores. The dimension measuring organizational leadership for integrated care also saw a modest increase from baseline to postintervention SSA scores. However, this might be due to the fact that leadership supporting BH integration was a condition of participation in this pilot study. Interestingly, when looking at the sites with the highest and lowest postintervention MeHAF SSA scores and comparing them with their GAS scores, it was surprising to find that even though Site E had achieved goal implementation, they still had one of the lowest postintervention MeHAF SSA scores. On the contrary, Site C had one of the lowest GAS scores, but still had one

Table 3  
Practice Sites With Tailored Goals and Monthly Goal Attainment Scale Scores From January–October 2016

Practice site	Goal	Goal attainment scale score									
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Site A	Increase integrated behavioral health provider availability within primary care			^	+	0	0	0	0	0	0
Site B	Reduce and/or eliminate stigma associated with behavioral health and/or addiction concerns through increased training for medical staff and increased integrated behavioral health referrals	^	^	+		-1	-1		0	2	2
Site C	Increase SBIRT by 15% on how to work with difficult patients who have a nurse care manager for chronic pain				^	+					-1
Site D					^	+			0		-1
Site E	Increase SBIRT provider availability and create compacts with specialty mental health		^	+	-2	0	0	0	0	0	0
Site F	Increase chronic pain staff education and resources through development of workflows related to assessment, triage, and referral		^		^	+			0	0	0
Site G	Create a coled diabetes group with an integrated behavioral health provider and nurse care manager and create a competency guide for staff and patients related to diabetes health literacy		^	+		-2	-1		-1		0
Site H	Increase education among staff and patients about the difference between a COPD exacerbation vs. an integrated behavioral health condition (e.g. anxiety)	^			+	-1			0	0	0
Site I	(a) Implementation of integrated behavioral health in primary care		^	+	2						
	(b) Integrated behavioral health team at all provider, nurse, and quality improvement meetings					+	0	2	2	2	2
Site J	Increase referrals to integrated behavioral health provider while improving the systems issues related to two distinct organizations coordinating services	^	+		-2	-1	-2	-2	-2	-2	1
Site K	Hire a behavioral healthcare manager and have consistent PHQ9 completions with warm hand off to behavioral health	^	+		-1		-1	1	1	1	1
Site L	(a) Administrative implementation of integrated behavioral health services with new staff		^	+		-1	-1	2			
	(b) Internally appropriate referrals with warm-handoffs								+		-2

Note. Goal creation and Goal Attainment Scale scores were recorded from January to October. ^ = goal in discussion; + = goal created; no entry = site did not meet with practice facilitator psychologist; X = progress not yet tracked/tracking of progress discontinued for sites with two goals). SBIRT = screening, brief intervention, and referral to treatment; COPD = chronic obstructive pulmonary disease; PHQ9 = Patient Health Questionnaire-9.

of the highest MeHAF SSA scores. These findings could, in part, be due to the sites' differing expectations of what constitutes full BH integration and also the limitations of a self-validated assessment.

Along with the sites demonstrating subjective improvement in BH integration on the

MeHAF SSA, many of the sites vocalized the usefulness and importance of having a PFP assist with the implementation. One site leader noted:

This may have been the first time in our organization when we went from an innovative idea to a positive

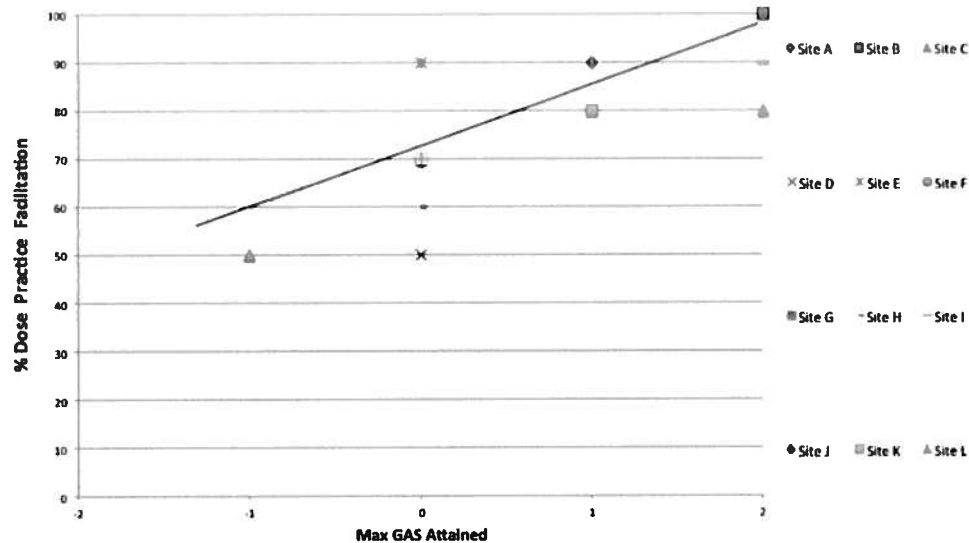


Figure 2. Maximum Goal Attainment Scale score versus percent (%) dose of practice facilitation Note: correlation coefficient = 0.58. See the online article for the color version of this figure.

outcome. We are never at a loss for ideas on how to improve, but don't seem to be able to follow-through. This kept us accountable.

Although not initially part of anticipated outcomes, there appeared to be a relationship between dose of practice facilitation and sites reaching a desired level of goal implementation. As described briefly in Baskerville et al. (2012), engagement can be thought of as the intensity of an intervention, but, in the current study, dose of practice facilitation appears to describe the intensity of the intervention more thoroughly. In their study, a significant trend was found between the intensity of the intervention and the effect size (Baskerville et al., 2012). Similar findings were demonstrated in this study where the number of meetings with the PF positively correlated with the success of goal implementation.

As shown in Table 4, the study used evaluation measures, data collection and analysis methods that are easily accessible to other sites. Using the abbreviated MeHAF SSA as a measurement tool supported timely reporting of data. Using GAS allowed each site to create measures that were unique to each site and that provided an accurate reflection of their ability to address existing gaps or barriers in their ability to achieve BH integration. Often, the need to be

proficient in using statistical analysis packages such as SAS or SPSS can be a barrier. The study found using Microsoft Excel to be effective and easy to use conducting data analysis for this study.

### Strengths of the Present Study

Strengths in this pilot study include a diverse mixture of PCMHs capturing both the presence of Federally Qualified Health Centers and small-to medium-sized private sites that endorsed highly motivated leadership to incorporate integrated BH services. Despite the fact that the MeHAF SSA reflects subjective measurement from each site, the GAS scores allowed for an objective measure of progress at the sites (each GAS value at each site was objectively measurable but this level of detail has not been included in this publication). Sites commitment to integration without any financial incentives offered was also notable.

Lessons learned from the present study include sites uniformly reporting how being accountable to an experienced PF led to successful implementation of goals in a manageable time-frame, in addition to discovering who the right individuals were that needed to participate in



Table 4  
*How We Did It: Using Quasi-Experimental Program Evaluation in Real-World Setting*

What we did	What we learned
<p>Choosing evaluation methods</p> <p>Used quasi-experimental design</p>	<p>Using quasi-experimental design allowed us to meet real-world challenges of busy PCMHs given the need to intervene quickly.</p> <p>Limits: no control group comparison or randomization</p> <p>Success factors: all sites able to obtain the intervention in a time-sensitive manner</p>
<p>Site/practice selection</p> <p>We invited a convenience sample of all 73 sites in the CTC-RI behavioral health initiative</p> <p>12 sites applied and all 12 sites accepted into the pilot</p>	<p>Sites wanted to participate to improve their BH integration without additional funding for implementation.</p> <p>We had enough sites that randomization would have been possible.</p> <p>We chose not to randomize because we wanted every site to have the opportunity for the intervention.</p>
<p>Outcome measures selection</p> <p>We chose the MeHAI<sup>F</sup> SSA tool to measure integration of behavioral health care</p> <p>We shortened the MeHAI<sup>F</sup> SSA, collapsing some of the items within each domain along theoretically similar categories.</p> <p>We used a secondary measurement tool, GAS, to objectively rank site-specific goals along a continuum</p> <p>We asked sites to set individual GAS goals specific to site needs</p> <p>The PFP worked with each site to ensure GAS goals were specific, measurable and attainable.</p>	<p>The abbreviated MeHAI<sup>F</sup> SSA tool appeared to support high completion rates.</p> <p>The abbreviated MeHAI<sup>F</sup> SSA met our needs, but may not be reliable given the collapsing within domains.</p> <p>GAS scores allow sites to develop measures that are unique to their program and practices.</p> <p>Because each site had unique goals, GAS met the valuation needs.</p> <p>If goals are standardized across sites, consideration of other measurement tools may be preferable.</p> <p>Sites selecting the same goals would allow measurement to be more rigorous, but would detract from working with a site based on their unique needs.</p>
<p>Data collection</p> <p>Sites entered MeHAI<sup>F</sup> SSA using a secure survey link</p> <p>Sites used paper-based tools to collect GAS data</p> <p>Sites reviewed GAS data monthly with PFP</p> <p>The PFP monitored data monthly for timely submission and quality</p> <p>PFP worked with sites individually, as-needed to address data quality</p>	<p>Using measurement tools that are standardized are easily adaptable to online data collection.</p> <p>Site data collection is "one more thing" for sites. It is important to have a designated person, in this study, the PFP, monitor data collection, quality and timely reporting.</p> <p>Data collection systems have to be easy to use and easy to report.</p> <p>Data needs to be monitored closely to ensure it is collected as intended.</p> <p>When using GAS scales, it is important to make sure data collection systems are in place to collect objective data.</p>
<p>Data management and analysis</p> <p>We used Microsoft Excel to manage evaluation data</p> <p>The PFP/evaluation manager has academic training in statistics and research methods</p>	<p>Excel is a familiar spreadsheet tool. Most people have basic Excel skills.</p> <p>However, using Excel for project management, chart creation, and statistical analysis requires higher level skills.</p>

(table continues)

Table 4 (continued)

What we did	What we learned
	<p data-bbox="873 375 1308 470">When the PFP or evaluation manager has a basic understanding of statistics, Microsoft Excel can be used in place of statistics programs such as SAS or SPSS.</p> <p data-bbox="873 474 1287 520">Paper-based data can be burdensome to collect, report, and to enter into spreadsheets.</p> <p data-bbox="873 525 1313 592">The time needed to conduct data management and analysis must be factored into any evaluation or study.</p>

*Note.* PCMHs = patient-centered medical homes; CTC-RI = Care Transformation Collaborative Rhode Island; BH = behavioral health; MeHAF SSA = Maine Health Access Foundation's Site Self-Assessment; GAS = Goal Attainment Scale; PFP = practice facilitator psychologist.

the monthly meetings with the PF and how this led to a previously disenfranchised staff being able to express their views and witness the impact of their recommendations. Many sites had preconceived opinions about the status of their organization as it related to integrated care that were not based in the most current and evidence-based conceptualizations, and were able to learn how to transform from, in part, the constructive criticism of the PF. Furthermore, this real-world pilot utilized readily accessible analysis tools (Microsoft Excel spreadsheets) and has been disseminated among all PCMHs who participate in CTC-RI.

#### Limitations of the Present Study

Limitations in this pilot study include a small sample size, limited geography to the state of Rhode Island, and the lack of a control group, rendering this pilot as a quasi-experimental study with a pretest-posttest design as defined by Eliopoulos et al. (2004). Also, sites self-selected to participate in this pilot study, likely rendering a portion of sites that were more likely to succeed due to the fact that they believed their sites were ready for integrated BH implementation and organizational leadership supported these initiatives. Collapsing the MeHAF SSA likely impacted the reliability of the measure, but it is unclear how or if it at all. Furthermore, having the PFP serve as both one of the evaluators and part of the intervention could introduce bias.

Barriers that contributed to the limitations of the present study included the following: sites struggling to have an interdisciplinary implementation team allocate the time to meet with

the PFP on a monthly basis, especially given that many participants were clinicians and felt pressure to maintain clinical productivity; and understanding who were the most beneficial individuals to be present at the meetings. Financial sustainability was also expressed as an ongoing concern among private sites.

#### Future Prospects

This pilot study provides the basis for the effectiveness of integrated BH practice facilitation in PCMHs by including replication of this study in a similar setting and using randomized control groups. Accomplishing a more rigorous evaluation in the real-world setting would be feasible if the intervention being tested is consistent across sites, multiple PFPs utilized, and testing for interrater reliability with identification of a matched comparison group occurred. It would also be worthwhile to further understand if the method of practice facilitation or the individual traits of the PF influence the success. The collapsed MeHAF SSA could be validated in the future to determine its' effectiveness in a shorter form. Considering its increasing role and effectiveness in PCMH implementation, it would be worth devoting existing resources to develop a more uniform integrated BH practice facilitation program (Baskerville et al., 2012; Jackson et al., 2013; Lane & Watkins, 2015; Nutting, Crabtree, Miller, et al., 2010; Nutting, Crabtree, Stewart, et al., 2010).

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