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*The Practice Integration Profile: Introduction to Rationale and Development Method  
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**The Practice Integration Profile: Introduction to Rationale and Development Method  
Research**

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## **Abstract**

Insufficient knowledge exists regarding how to measure the presence and degree of integrated care. Prior estimates of integration levels are neither grounded in theory nor psychometrically validated. They provide scant guidance to inform improvement activities, compare integration efforts, discriminate among practices by degree of integration, measure the effect of integration on Quadruple Aim outcomes, or address the needs of clinicians, regulators, and policy makers seeking new models of health care delivery and funding.

We describe the development of the Practice Integration Profile (PIP), a novel instrument designed to measure levels of integrated behavioral healthcare within a primary care clinic. The PIP draws upon the Agency for Healthcare Research & Quality's (AHRQ) Lexicon of Collaborative Care which provides theoretic justification for a paradigm case of Collaborative Care. We used the key clauses of the Lexicon to derive domains of integration and generate measures corresponding to those key clauses.

After reviewing currently used methods for identifying collaborative care, or integration, and identifying the need to improve on them, we describe a national collaboration to describe and evaluate the Practice Integration Profile (PIP).

We also describe its potential use in practice improvement, research, responsiveness to multiple stakeholder needs, and other future directions.

**Keywords:** *Primary Care, Integration, Quality Improvement, Measurement, Behavioral Health*

## Background

Integrated Behavioral Health (defined here as mental health, substance abuse and health behavior services within primary care) is an important element to maintaining and improving health outcomes in Primary Care (PC) settings (Baird et al., 2014; Martin, White, Hodgson, Lamson, & Irons, 2014). We borrow the following definition of Behavioral Health Integration from the AHRQ Integration Academy (2013): *Integrated care includes tightly integrated on site teamwork with unified care planning including the patient as a standard approach to care for designated populations (of patients). There is organizational integration involving social and other services including integrated treatment, program structure, operational systems and integrated payments.*

We developed an alternative definition with input from patient advisors: *Integrated Behavioral Health is the care a patient receives when primary care physicians and behavioral clinicians use a collaborative system of care, rather than focusing on separate approaches. It takes advantage of a wider span of data, goals and key concerns, including those of the patient and family. It works to make treatment rational, pick up missed issues, and boost patient and family engagement. Its goals are: better and more efficient care of mental health and substance use disorder conditions, health behaviors and chronic medical illnesses; better recognition and management of life stressors, crises and stress-related physical symptoms; and more thoughtful and efficient health care utilization.* Other dimensions could be included, such as financing the change. While it is crucial for implementation of behavioral integration in health care reform,

that was beyond the context and task for which the definition was generated and thus was thought to be part of a larger conversation than this paper.

Behavioral health services delivered in medical settings have been developing for over 30 years (D. J. Cohen et al., 2015) and the frequency is increasing (R. Kessler et al., 2014). Integrated medical and behavioral services are now structured elements of some health care systems such as the Veterans Administration and Department of Defense. South Central Foundation in Alaska and Cherokee Health Systems in Tennessee have developed financially sustainable, integrated care models in their communities (D. Cohen et al., 2004).

There are pressures to continue this expansion. Current health care reform legislation, the Mental Health Parity Act ("Mental Health Parity and Addiction Act," 2008), and the Patient Protection and Affordable Care Act ("Patient Protection and Affordable Care Act," 2010) appear to favor broader adoption of integrated behavioral health. While the Mental Health Parity Act ensures that payment for mental health services is consistent with payment for medical services, the Affordable Care Act has increased access to mental health services, establishing mental health benefits as Essential Health Benefits, and supporting three initiatives aimed at better integration of care – accountable care organizations, patient-centered medical homes, and Medicaid Health Homes (Barry, Goldman, & Huskamp, 2016). Despite this progress, there has been no conceptual consensus about what integrated care is and a paucity of efforts to determine levels of integration and the relationships between levels of integration and integration outcomes of interest.

## Conceptual Frameworks for Integration

Conceptual frameworks for integrated care precede current healthcare industry's attention (A. Blount, 1998; Alexander Blount, 2003; Doherty, McDaniel, & Baird, 1996). Doherty et al. (Doherty et al., 1996) proposed a five-level aspirational model of integration, recently expanded to six levels (Waxmonsky, Auxier, Wise Romero, & Heath, 2015). Strosahl and Robinson (2010) discuss the Primary Care Behavioral Consultant (PCBH) model of integrated care. Each approach provides a framework for describing characteristics of varying levels of practice integration. Descriptions included practitioner involvement ranging from minimal collaboration to full integration and practice types ranging from coordinated to co-located to integrated care. The models of care delivery specify the clinical practice that should occur at each level of integration. The most frequently evaluated model of depression care as part of primary care is the IMPACT model based on the Chronic Care Model (Bodenheimer, Wagner, & Grumbach, 2002). In multiple clinical trials, the IMPACT model demonstrated effect in treating depression and anxiety in primary care settings (Archer et al., 2012; Katon et al., 1995), although not demonstrating such an effect in a recent large, stepped-wedge evaluation in Minnesota (Solberg et al., 2015). Recently, Kathol et al. (Kathol, deGruy, & Rollman, 2014) put forth recommendations considered necessary to provide sustainable, value-added integrated behavioral health care, including (1) combine medical and behavioral benefits; (2) target complex patients for priority behavioral health care; (3) use proactive onsite behavioral "teams;" (4) match behavioral professional expertise to the need for treatment escalation inherent in stepped care; (5) define, measure, and systematically pursue desired outcomes; (6) apply evidence-based

behavioral treatments; and (7) use cross-disciplinary care managers in assisting the most complicated and vulnerable individuals (Kathol et al., 2014).

These examples highlight varied ideas about integrated care (R. Kessler et al., 2014). They suggest that in order to evaluate integration we need a common definition and measurement to provide generalizable guidance to the field. A common definition and process to measure integration can assist practice-level efforts to improve care, evaluate the impact of integration on Quadruple Aim outcomes of patient experience of care, clinical outcomes, impact on the cost curve and provider wellbeing as well as respond to the needs of regulators and policy makers for data to assist their decision making.

While there is increasing delivery of behavioral services within medicine, there continues to be little agreement about or data to support the key elements of integrated care and how to measure integration *AHRQ's Lexicon for Behavioral Health and Primary Care Integration* (C. J. Peek, 2009; C.J Peek & Council, 2013) provides a broadly-accepted theoretical construct of integration. While this framework has provided a necessary and crucial step forward, theory alone is not sufficient. In 2008, an AHRQ Evidence Report (concluded that there is limited valid, reliable measurement to identify the elements that contribute to outcomes and divergent implementations of co-located or integrated care (Butler et al., 2008).

Furthermore, the field has a limited ability to compare the outcomes of different initiatives and few contemporary checklists that identify elements important to collaborative care or integration (Butler et al., 2008). Kilbourne *et al.* also observe there are no validated measures of coordination or clinical integration that can be used to assess quality of care for persons with mental and substance use disorders (Kilbourne, Fullerton, Dausey, Pincus, & Hermann, 2010).

Accepting that the Lexicon is now a standard for integration, its potential is limited until we transform its key constructs into a measurement tool capable of evaluating the range and degree of collaborative care or practice integration and to use such practice generated evidence to support quality improvement efforts. Recent efforts by the Integration Academy generated a new unvalidated, checklist corresponding to Lexicon dimensions, not intended to support measurement (Korsen et al., 2016).

### **Development of a New Measure: The Practice Integration Profile**

We convened a group of national integration clinicians and researchers who have collective experience working in and researching/evaluating integration or collaboration developed the Practice Integration Profile (PIP) (R. Kessler et al., 2015) (formerly the Vermont Integration Profile) based upon operationalization of the key clauses in the AHRQ Lexicon. We specified a domain for each clause, and generated one or more items and a scoring method for each domain as well as a total score for overall level of integration. The result is a self-administered, 30-item, web-based survey that is designed to allow BH and PC providers, staff, and managers to assess their own practices' status along a continuum of progress from total absence of integration toward an idealized goal of "fully integrated behavioral health services." Table 1 identifies the key clauses and parameters in the Lexicon that correspond with the domains in the PIP. Initial validation efforts are positive and are reported in a companion article in this issue (R. S. Kessler et al., 2016). These data suggest that the PIP is useful, has face, content, and internal validity, and distinguishes among types of practices with known variations in integration.

### **Is there really a need for a measure of levels of integration?**

The Integration Academy (Korsen et al., 2016) published a volume that identified surveys and checklists focused on collaborative care and integration. They share two limitations. First, there is no psychometric description of any of the measures. Second, there is little similarity in what is being assessed among them. Table 2 presents a crosswalk of elements from frequently identified checklists, drawn from the Integration Academy report, and contrasts them with the dimensions of the PIP: Integrated Practice Assessment Tool [IPAT] (Waxmonsky et al., 2015), IHI Behavioral Health Integration Capacity Assessment (Damschroder et al., 2009) and the Maine Health Access Foundation Site Self-Assessment [SSA] (Scheirer, Leonard, Ronan, & Boober, 2008 rev 2010). Given the lack of shared theoretical foundation or validation to support these measures, there is minimal overlap or agreement among them. Each addresses issues related to standard protocols, care coordination, and referrals. However, only one measure addresses registry tracking while none address documentation of patient self-management goals. Two reports address referrals and one report addresses documentation of patient self-management goals. None of the checklists provide a total score of integration level that would facilitate comparisons of practice performance or levels practice integration and none conform to all of the key clauses in the Lexicon. The PIP is designed to do both.

We further compared the PIP dimensions to expectations of three national stakeholder regulatory bodies focusing on behavioral health in medicine: SAMHSA/the National Council for Behavioral Health, the National Committee for Quality Assurance (NCQA), and the Institute for Healthcare Improvement (IHI). Table 3 compares the six PIP dimensions to those identified in

those three conceptual frameworks. The comparison suggests that the elements of the PIP are consistent with these regulatory frameworks and thus respond to broader stakeholder need.

### **Practice Integration Profile Data – Initial Observations**

Initial validation efforts reported in this volume suggest that there is a wide range of practice performance on dimensions held to be important to integration and great possibilities for continued evolution of the field (R. S. Kessler et al., 2016).

### **Implications**

We have responded to a key need in the behavioral health integration world - a theoretically-driven and psychometrically-validated measure of integration useful for practice level quality improvement and practice-based research. The PIP distinguishes itself by providing domain-specific scores supporting practice improvement and a cumulative summary score that can be used to make practice comparisons across settings and types of integration initiatives. This allows for comparison of practices and, later, assessment of how performance on specified domains affects outcomes. The PIP domains were developed using the Lexicon's standard language of collaborative care and integration. They provide a framework of measurement corresponding with the Lexicon clauses. Initial psychometric analyses support validation of the measure.

The accumulation of data across practices has the potential to offer standardized comparisons needed to establish practice level performance and to provide a foundation for policy development and healthcare reform. The PIP offers multiple stakeholders an opportunity to use a data driven procedure to validly assess and improve integrated care at the practice,

health care system, payer, and policy level. Payers such as the Massachusetts' Medicaid Program have begun to incentivize health systems and clinicians to integrate behavioral health into primary care services (Commonwealth of Massachusetts, 2016). The State of Oregon passed a legislative mandate of primary care integration (Anderson, Winter, & Bates, 2015). IHI has adopted the PIP as a tool in their advanced integration program. We are working with NCQA to further evaluate the relationship of PIP scores to NCQA Patient Centered Medical Home accreditation levels. PIP data enable us to seek relationships between practice integration activities and utilization data. Such data can assist with responding to the following questions: Does increased behavioral integration improve care? If so, in what ways? Similarly, practices and researchers may use the PIP to track changes in integration activities over time, gaining additional understanding on how the characteristics of integration affect healthcare costs, outcomes, and patient satisfaction.

The PIP has limitations. In the absence of a “gold standard” test for integration, it is impossible to determine the criterion validity (sensitivity and specificity) of the PIP. Anchoring the development of a measure to the Lexicon clauses may lead to a validated, reliable measure of the multiple dimensions and levels of practice integration, but only if the Lexicon is broadly accepted, understood, and applied. Despite the initial, positive validation of the PIP, more analysis is needed. Its utility in practices with different patient populations and resources needs further evaluation.

### **Future Directions**

The future of integrated healthcare is dependent upon an emerging consensus about its definition, further refinement of its elements, and a standardized method to operationalize and

evaluate its terms. Proposed projects using the PIP range from investigation of whether level of integration is related to total health care cost, treatment initiation, or utilization of services. Ultimately, evidence from such research responds to the Core Principles of the PCMH by developing a standard of care that addresses the whole person (Baird et al., 2014). Recently the institute for Healthcare Improvement (IHI) has adopted the PIP as a baseline and follow-up measure for its advanced integration facilitation series.

Additional opportunities remain to improve the PIP. We continue to refine elements by clarifying wording and scoring categories to further improve and increase the instrument's reliability. Preliminary results suggest good feasibility and face validity, acceptability to large number of primary care practices, low response burden, and good initial psychometric discrimination.

Participating clinics receive reports for each rater that includes graphs of the scores for each individual domain and a composite score comparing scores with the other clinics in the database. Further effort needs to evaluate the utility of those reports. Sites with multiple raters are able to compare the scores to determine the level of consistency across administrations. We need to generate more such comparisons. Participants from several clinics have reported using the data to inform practice quality improvement processes. We need to evaluate such efforts in larger practice samples.

Currently, the field of integrated behavioral healthcare has not provided a consistent and reliable way to compare existing activities occurring across practices. The development and refinement of the PIP measure has the potential to measure multiple integrated healthcare

practices that may help health care providers, policy makers and payers achieve system design that is more capable of responding effectively to the complex needs of identified populations.

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Table 1

*Crosswalk of Lexicon Clauses Compared with PIP Dimensions*

Clauses	Lexicon Clause Descriptions	Practice Integration Profile (PIP) Dimensions					
		I	II	III	IV	V	VI
1	Range of care team function and expertise that can be mobilized	✓	✓		✓		
2	Type of spatial arrangement employed for behavioral health and primary care clinicians			✓			
3	Type of collaboration employed	✓	✓		✓	✓	
4	Method for identifying individuals who need integrated behavioral health and primary care	✓	✓		✓	✓	✓
5	Protocols - A) Whether protocols are in place or not for engaging patients in integrated care, B) Level that protocols are followed for initiating integrated care	✓	✓		✓	✓	✓
6	Care plans - A) Proportion of patients in target groups with shared care plans, B) Degree to which care plans are implemented and followed	✓			✓	✓	✓
7	Level of systematic follow-up	✓			✓	✓	✓

Table 2

*Crosswalk of PIP Domains Compared with Proposed Integration Measures*

Practice Integration Profile Domains	Integration Measures	Integrated Practice Assessment Tool (IPAT)	Behavioral Health Integration Capacity Assessment (BHICA)	Site Self-Assessment (SSA)
Workflow	1. Standard protocols	✓	✓	✓
	2. Registry tracking	✓	✓	✓
	3. Care coordination	✓	✓	✓
	4. Referrals to non-community resources		✓	✓
	5. Referrals to specialty mental health			✓
	6. Documentation of patient self-management goals		✓	✓
Clinical services	1. BH non-crisis response	✓	✓	✓
	2. BH crisis response	✓	✓	✓
	3. BH SMI and SA support		✓	
	4. BH treatment of chronic/complex medical conditions	✓	✓	✓
	5. Practitioner specialized training/experience BH therapies		✓	✓
	6. Evidence-based SA interventions	✓		
	7. Prescription meds and psychotropics for routine MH and SA diagnoses			
	8. Prescription meds and psychotropics for serious complex/co-occurring MH and SA diagnoses			
	9. Referral to outside non-clinical services	✓	✓	✓
Workspace	1. BH and medical work in shared space	✓	✓	✓
	2. Shared treatment plans accessible to both BH and medical clinicians	✓	✓	✓
Shared care & integration	1. Shared EHR patient information	✓	✓	✓
	2. Interdisciplinary educational events		✓	✓
	3. Case conferences and collaborations	✓	✓	✓
	4. Shared care plans are developed, implemented, monitored, evaluated	✓	✓	✓
Case identification	1. Patient screenings for BH conditions	✓	✓	✓
	2. Practice-level data used for screening	✓	✓	✓
	3. Annual BH screenings		✓	✓
	4. Annual lifestyle or BH risk factors screenings			
	5. Recommendations from screening data	✓	✓	✓
Patient engagement	1. Providing BH care, training, measurements	✓	✓	✓
	2. System-wide support	✓	✓	✓
	3. Patients monitored and evaluated against performance metrics	✓	✓	✓
	4. Follow-up plans		✓	✓
Scoring		NA – decision tree composed of multiple yes/no items No cumulative score	Yes/No responses to items on multiple domains No cumulative score	Rating responses to items on multiple domains No cumulative score

Table 3

*Crosswalk Comparing PIP with Descriptions of Conceptual Models*

Practice Integration Profile Domains	Integration Measures	2013 SAMHSA & National Council	2014 NCQA	2016 Milbank Report
Workflow	1. Standard protocols	✓	✓	✓
	2. Registry tracking	✓	✓	✓
	3. Care coordination	✓	✓	✓
	4. Referrals to non-community resources		✓	
	5. Referrals to specialty mental health		✓	
	6. Documentation of patient self-management goals			✓
Clinical services	1. BH non-crisis response		✓	
	2. BH crisis response		✓	✓
	3. BH SMI and SA support		✓	✓
	4. BH treatment of chronic/complex medical conditions	✓	✓	✓
	5. Practitioner specialized training/experience BH therapies			
	6. Evidence-based SA interventions	✓		✓
	7. Prescription meds and psychotropics for routine MH and SA diagnoses			
	8. Prescription meds and psychotropics for serious complex/co-occurring MH and SA diagnoses			
	9. Referral to outside non-clinical services			
Workspace	1. BH and medical work in shared space	✓	✓	✓
	2. Shared treatment plans accessible to both BH and medical clinicians	✓	✓	✓
Shared care & integration	1. Shared EHR patient information	✓	✓	✓
	2. Interdisciplinary educational events			✓
	3. Case conferences and collaborations	✓	✓	
	4. Shared care plans are developed, implemented, monitored, evaluated	✓	✓	✓
Case identification	1. Patient screenings for BH conditions		✓	✓
	2. Practice-level data used for screening	✓	✓	✓
	3. Annual BH screenings		✓	✓
	4. Annual lifestyle or BH risk factors screenings		✓	
	5. Recommendations from screening data	✓	✓	✓
Patient engagement	1. Providing BH care, training, measurements		✓	✓
	2. System-wide support	✓	✓	✓
	3. Patients monitored and evaluated against performance metrics	✓	✓	✓
	4. Follow-up plans	✓	✓	✓