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The case for behavioral health integration into primary care

Chronic health disorders can be better managed without increasing costs by engaging in collaborative care management of depression and anxiety.

n a typical primary care practice, detecting and managing mental health prob-L lems competes with other priorities such as treating acute physical illness, monitoring chronic disease, providing preventive health services, and assessing compliance with standards of care.1 These competing demands for a primary care provider's time, paired with limited mental health resources in the community, may result in suboptimal behavioral health care.¹⁻³ Even when referrals are made to mental health care providers, depression is adequately treated only 20% of the time.^{2,3} Additionally, individuals with serious mental illness and substance use disorders often do not receive adequate general medical care.4,5

Approximately 30% of adults with physical disorders also have one or more behavioral health conditions, such as anxiety, panic, mood, or substance use disorders.⁶ Although physical and behavioral health conditions are inextricably linked, their assessment and treatment get separated into different silos.⁷ Given that fewer than 20% of depressed patients are seen by a psychiatrist or psychologist,⁸ the responsibility of providing mental health care often falls on the primary care physician.^{8,9}

Efforts to improve the treatment of common mental disorders in primary care have traditionally focused on screening for these disorders, educating primary care providers, developing treatment guidelines, and referring patients to mental health specialty care.¹⁰ However, behavioral health integration offers another way forward.

WHAT IS BEHAVIORAL HEALTH INTEGRATION?

Behavioral health integration (BHI) in primary care refers to primary care physicians and behavioral health clinicians working in concert with patients to address their primary care and behavioral health needs.¹¹

Numerous overlapping terms have been used to describe BHI, and this has caused some confusion. In 2013, the Agency for Healthcare Research and Quality (AHRQ) issued a lexicon standardizing the terminology used in BHI.¹¹ The commonly used terms are coordinated care, co-located care, and *integrated care* (TABLE 1),^{11,12} and they may be best understood as part of a BHI continuum. A combined expert panel of the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources and Services Administration (HRSA) has developed a conceptual framework defining 6 levels of integrated care spanning the 3 practice structures of coordinated care, co-located care, and integrated care (FIGURE 1).^{12,13} Reverse co-location is another frequently used term; it refers to primary care providers who work in settings devoted to mental health or chemical dependency treatment.¹¹

COORDINATED CARE AND THE COLLABORATIVE CARE MODEL

BHI at the level of coordinated care has almost exclusively been studied and practiced along the lines of the collaborative care

	Coordinated care	Co-located care	Integrated care	
Physical setting	Primary care office conducts routine screening of behavioral health	Medical and behavioral health services located in same facility	Medical and behavioral health services located in same facility or separate locations	
Initiation of BHI care	Referral relationship between primary care and behavioral health settings	Referral process for medical cases to be seen by behavioral health clinicians	One treatment plan with behavioral and medical elements	
Nature of BHI interaction	Routine exchange of information between both settings to bridge cultural differences, usually via a case/care manager	Enhanced informal communication process between primary care provider and behavioral health provider due to physical proximity	A team working together to deliver care using a prearranged protocol	

TABLE 1 Behavioral health integration: 3 models of care^{11,12}

BHI, behavioral health integration.

model (CCM).¹⁴⁻¹⁶ This model represents an advanced level of coordinated care in the BHI continuum. The most substantial evidence for CCM lies in the management of depression and anxiety.¹⁴⁻¹⁶

Usual care involves the primary care physician and the patient. CCM adds 2 vital roles—a behavioral health care manager and a psychiatric consultant. A behavioral health care manager is typically a counselor, clinical social worker, psychologist, or psychiatric nurse who performs all care-management tasks including offering psychotherapy when that is part of the treatment plan.

The care manager's functions include systematic follow-up with structured monitoring of symptoms and treatment adherence, coordination and communication among care providers, patient education, and self-management support, including the use of motivational interviewing. The behavioral health care manager performs this systematic follow up by maintaining a patient "registry"—case-management software used in conjunction with, or embedded in, the practice electronic health record to track patients' data and clinical outcomes, as well as to facilitate decision-making.

The care manager communicates with the psychiatrist, who offers suggestions for drug therapy, which is prescribed by the primary care physician. The care manager also regularly evaluates the patient's status using a standardized scale, communicates these scores to the psychiatrist, and transmits any recommendations to the primary care physician (FIGURE 2). 17

EVIDENCE FOR CCM

Collaborative and routine care were compared in a 2012 Cochrane review that included 79 randomized controlled trials (RCTs) involving 24,308 patients worldwide.¹⁶ Seventy-two of the 79 RCTs focused on patients with depression or depression with anxiety, while 6 studies included participants with only anxiety disorders.¹⁶ One additional study focused on mental health quality of life. (To learn about CCM and severe mental illness and substance use disorder, see "Less well studied: CCM and severe mental illness, alcohol dependence"¹⁸⁻²⁰ on page 283.)

For adults with depression treated with the CCM, significantly greater improvement in depression outcome measures was seen in the short-term (standardized mean difference [SMD] = -0.34; 95% confidence interval [CI], -0.41 to -0.27; risk ratio [RR] = 1.32; 95% CI, 1.22-1.43), in the medium term (SMD = -0.28; 95% CI, -0.41 to -0.15; RR = 1.31; 95% CI, 1.17-1.48), and in the long term (SMD = -0.35; 95% CI, -0.46 to -0.24; RR = 1.29; 95% CI, 1.18-1.41).¹⁶

Comparisons of mental health quality of life over the short term (0-6 months), medium term (7-12 months), and long term (13-24 months) did not show any significant difference between CCM and routine care.¹⁶ Comparisons of physical health quality of life

FIGURE 1

How collaboration changes on the BHI continuum^{12,13}

Six levels of collaboration spanning 3 basic models of care

Coordinated care

Level 1: Collaboration between primary care and behavioral health care is minimal. Screening, diagnosis, and treatment occur independently. Contact is limited to specific matters.

Level 2: Providers view one another as resources and communicate periodically about shared patients.

CCM is an advanced level of coordinated care.

Co-located care

Level 3: Providers work in one facility, but in separate systems; they communicate more often due to proximity and all-staff meetings. Referral is still the primary BHI process. There may be a sense of "team," but still no defined interactive protocols.

Level 4: Further movement toward integration may begin—eg, with a behavioral health provider embedded in a primary care office. The front desk schedules and coordinates appointments.

Integrated care

Level 5: Collaboration is strong, with primary and behavioral health care providers working as a team, communicating frequently. Respective roles are clearly defined, and practice structure is modified as needed to meet patient goals.

Level 6: Full collaboration, with a single health care system devoted to treating the whole person, is applied to all patients and not just targeted groups.

BHI, behavioral health integration; CCM, collaborative care model.

over the short term and medium term did not show any significant difference between CCM and routine care.¹⁶

Significantly greater improvement in anxiety outcomes was seen for adults treated with CCM in the short term (SMD = -0.30; 95% CI, -0.44 to -0.17; RR = 1.50; 95% CI, 1.21-1.87), in the medium term (SMD = -0.33; 95% CI, -0.47 to -0.19; RR = 1.41; 95% CI, 1.18-1.69), and in the long term (SMD = -0.20; 95% CI, -0.34 to -0.06; RR = 1.26; 95% CI, 1.11-1.42).¹⁶

A 2016 systematic review of 94 RCTs involving more than 25,000 patients also provided high-quality evidence that collaborative care yields small-to-moderate improvements in symptoms from mood disorders and mental health-related quality of life.¹⁵ A 2006 meta-analysis of 37 RCTs comprising 12,355 patients showed that collaborative care involving a case manager is more effective than standard care in improving depression outcomes at 6 months (SMD = 0.25; 95% CI, 0.18-0.32) and up to 5 years (SMD = 0.15; 95% CI, 0.001-0.31).²¹

Better care of mental health disorders also improves medical outcomes

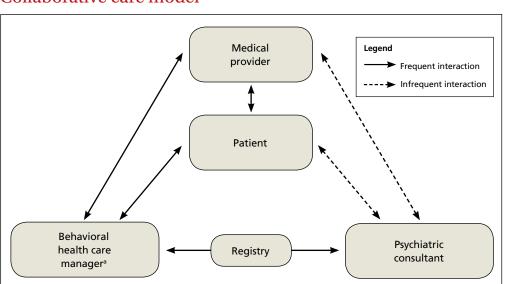
Several trials have focused on jointly managing depression and a chronic physical condition such as chronic pain, diabetes, and coronary heart disease,²² demonstrating improved outcomes for both depression and the comanaged conditions.

- **Chronic pain.** When compared with usual care, collaborative care resulted in moderate reductions in both pain severity and associated disability (41.5% vs 17.3%; RR = 2.4; 95% CI, 1.6-3.2).²³
- Diabetes. Patients managed collaboratively were more likely to have a decrease of $\geq 1\%$ in the glycated hemoglobin level from baseline (36% vs 19%; P = .006).²⁴
- Cardiovascular disease. Significant real-world risk reduction was achieved by improving blood pressure control (58% achieved blood pressure control compared with a projected target of 20%).²²

IS THERE A COMMON THREAD AMONG SUCCESSFUL CCMs?

Attempts to identify commonalities between the many iterations of successful CCMs have produced varying results due to differing selections of relevant RCTs.²⁵⁻²⁹

FIGURE 2 Collaborative care model¹⁷



 $^{\mathrm{a}}\mathsf{A}$ behavioral health care manager is instrumental in the effective and efficient operation of the collaborative care model.

However, a few common features have been identified:

- care managers assess symptoms at baseline and at follow-up using a standardized measure such as the Patient Health Questionnaire (PHQ-9);
- care managers monitor treatment adherence;
- follow-up is active for at least 16 weeks;
- primary care and mental health providers actively engage in patient management; and
- mental health specialists regularly supervise care managers.

The one feature that is consistent with improved outcomes is the presence of the care manager.²⁵⁻²⁹

The improvement associated with collaborative care is clinically meaningful to patients and physicians. In one RCT, collaborative care doubled response rates of depression treatment compared with usual care.³ Quality improvement data from real-world implementation of collaborative care programs suggests that similar outcomes can be achieved in a variety of settings.³⁰

COST BENEFITS OF CCM

Collaborative care for depression is associated with lower health care costs.^{29,31}

A meta-analysis of 57 RCTs in 2012 showed that CCM improves depression outcomes across populations, settings, and outcome domains, and that these results are achieved at little to no increase in treatment costs compared with usual care (Cohen's d = 0.05; 95% CI, -0.02-0.12).²⁶

When collaborative care was compared with routine care in an RCT involving 1801 primary care patients \geq 60 years who were suffering from depression, a cost saving of \$3363 per patient over 4 years was demonstrated in the intervention arm.³¹

A technical analysis of 94 RCTs in 2015 concluded that CCM is cost effective compared with usual care, with a range of \$15,000 to \$80,000 per quality-adjusted life year gained. These studies also indicated that organizations' costs to implement CCM increase in the short term. Based on this analysis, organizations would need to invest between \$3 to \$22 per patient per month to implement and sustain CCMs, depending on the prevalence of depression in the population.²⁹ Patients with diabetes managed collaboratively have shown HbA_{1c} decreases of ≥ 1% from baseline more frequently than usual-care patients.

CONTINUED

TABLE 2	
Resources for developing behavioral health integration in primary of	are

Action guides for California and New England	https://icer-review.org/material/bhi-california-action-guide/ https://icer-review.org/material/bhi-ne-action-guide/
The University of Washington Advancing Integrated Mental Health Solutions Center	http://aims.uw.edu/
SAMHSA	https://www.integration.samhsa.gov/resource/standard-framework-for-levels-of-integrated-healthcare
APA-APM report	https://www.integration.samhsa.gov/integrated-care-models/APA-APM-Dissemination- Integrated-Care-Report.pdf

APA, American Psychiatric Association; APM, Academy of Psychosomatic Medicine; SAMHSA, Substance Abuse and Mental Health Services Administration.

OTHER MODELS OF BHI

Collaborative care has improved depression outcomes at little to no increase in treatment costs compared with usual care. Higher levels of BHI such as co-location and integration do not have the same quality of evidence as CCM.

A 2009 Cochrane review of 42 studies involving 3880 patients found that mental health workers delivering psychological therapy and psychosocial interventions in primary care settings brought about significant reductions in primary care physician consultations (SMD = -0.17; 95% CI, -0.30 to -0.05); a relative risk reduction of 23% in psychotropic prescribing (RR = 0.67; 95% CI, 0.56-0.79); a decrease in prescribing costs (SMD = -0.22; 95% CI, -0.38 to -0.07); and a relative risk reduction in mental health referral of 87% (RR = 0.13; 95% CI, 0.09–0.20) for the patients they were seeing.³² The authors concluded the changes were modest in magnitude and inconsistent across different studies.32

Embedding medical providers in behavior health centers—ie, the reverse co-location model—also has very limited evidence. An RCT involving 120 veterans found that patients enrolled in a reverse co-location clinic did significantly better than controls seen in a general care clinic in terms of continuity of care and preventive care such as screening for hypertension (84.7% vs 65.6%; $\chi^2 = 5.9$, P = .01), diabetes (71.2% vs 45.9%; $\chi^2 = 7.9$, P < .005), hepatitis (39% vs 14.8%; $\chi^2 = 9$, P = .003), and cholesterol (79.7% vs 57.4%; $\chi^2 = 6.9$, P = .009).³³

HOW TO IMPLEMENT A SUCCESSFUL BHI PROGRAM

A demonstration and evaluation project in-

volving 11 diverse practices in Colorado explored ways to integrate behavioral health in primary care. Five main themes emerged^{34,35}:

- Frame integrated care as a necessary paradigm shift to patient-centered, whole-person health care.
- Define relationships and protocols up front, understanding that they will evolve.
- Build inclusive, empowered teams to provide the foundation for integration.
- Develop a change management strategy of continuous evaluation and course correction.
- Use targeted data collection pertinent to integrated care to drive improvement and impart accountability.

The Institute for Clinical and Economic Review has organized an extensive list of resources³⁶ for implementing BHI models, a sampling of which is shown in **TABLE 2**.

TAKE-AWAY POINTS

There is high quality evidence that collaborative care works for the management of depression and anxiety disorder in primary care, and this is associated with significant cost savings. The one feature consistent in most successful BHI models is the care manager. More research is needed to identify which model of BHI works best for patients with SMI and substance use disorders. BHI cannot be accomplished by a few small changes to traditional

Less well studied: CCM and severe mental illness, alcohol dependence

Evidence for collaborative care in severe mental illness (SMI) is very limited. SMI is defined as schizophrenia or other schizophrenia-like psychoses (eg, schizophreniform and schizoaffective disorders), bipolar affective disorder, or other psychosis.

A 2013 Cochrane review identified only 1 RCT involving 306 veterans with bipolar disease.¹⁸ The review concluded that there was low-quality evidence that collaborative care led to a relative risk reduction of 25% for psychiatric admissions at Year 2 compared with standard care (RR = 0.75; 95% CI, 0.57-0.99).¹⁸

One 2017 RCT involving 245 veterans that looked at a collaborative care model for patients with severe mental illness found a modest benefit for physical health-related quality of life, but did not find any benefit in mental health outcomes.¹⁹

Alcohol dependence. There is very limited, but high-quality, evidence for the utility of CCM in alcohol dependence. In one RCT, 163 veterans were assigned to either CCM or referral to standard treatment in a specialty outpatient addiction treatment program. The CCM group had a significantly higher proportion of participants engaged in treatment over the study's 26 weeks (odds ratio [OR] = 5.36; 95% CI, 2.99-9.59). The percentage of heavy drinking days was significantly lower in the CCM group (OR = 2.16; 95% CI, 1.27-3.66), while overall abstinence did not differ between groups.²⁰

care but requires a fundamental rethinking of care practices. **JFP**

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