Chapter 3
Access to and Engagement in Evidence-Based Integrated Care

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Abstract Patients seen in general medical settings commonly have behavioral health conditions comorbid with other chronic medical disorders, each requiring high levels of integrated care management. With recent health care policy reform, the number of such patients recognized in the US health care system will likely increase, intensifying the need for practical integrated care models that address co-occurring behavioral and general medical disorders. Access to evidence-based integrated care can be enhanced by viewing general medical settings, especially primary care settings where people with behavioral health comorbidities are frequently seen for general medical problems, as opportunities for engagement in behavioral health care. We now have multiple evidence-based models for delivering integrated care in general medical settings. Embedded within these models are specific strategies to promote access to and engagement in evidence-based behavioral health care, such as patient activation, culturally acceptable care, shared decision making, patient education, self-management support, care coordination, reducing patients' logistical barriers to care, and use of health information technology. Yet many settings in which integrated behavioral health care could and should be accessed remain untapped or underutilized. While barriers at multiple levels hinder progress, abundant opportunities to overcome these deficits exist, such as the development of flexible integrated care models applicable to large patient populations, enhanced training for the workforce delivering integrated

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care, health information technology tools that support delivery of integrated care, minimization of financial barriers to evidence-based integrated care, and expansion of the integrated care science base.

Background

Despite the high prevalence of behavioral health comorbidities, i.e., mental health and substance use disorders, in non-psychiatric medical settings (as detailed in Chap. 2), most patients with behavioral health symptoms do not receive integrated care that addresses both their behavioral health and general medical conditions. Yet the number of people recognized in the nation's health care system with co-occurring behavioral health and general medical conditions will likely escalate in the coming years. Given the authors' vantage point from the National Institute of Mental Health (NIMH), which focuses on understanding and treating mental disorders, we mainly address the integration of mental health in general medical care settings in this chapter. We refer readers interested in screening and brief interventions for alcohol problems in primary care to Moyers and colleagues' meta-analytic review [1], in which they found such approaches moderately effective in reducing alcohol consumption, especially for patients whose alcohol use is unhealthy but not severe. We refer readers interested in screening and brief interventions for drug problems in primary care to Saitz and colleagues' review [2], in which they conclude that evidence for these approaches is growing but remains limited. With the advent of the Patient Protection and Affordable Care Act and accompanying expansion of Medicaid, more than 30 million previously uninsured people will enter the nation's health care system in 2014 [3]. About six million of these individuals will have untreated mental health disorders [4]. These patients will probably have worse overall health and more severe comorbid medical conditions, due in part to their prior lack of systematic care. Primary care will be the likely health care system entry point for these "complex patients," i.e., individuals with multiple chronic clinical and non-clinical problems, each interacting and creating barriers to improvement. The health care system will need to rapidly engage them in integrated behavioral health and general medical care that simultaneously addresses both medical and behavioral conditions contributing to poor outcomes. As a group, patients with multi morbidities utilize a high volume of care, particularly non-specialty care and emergency department and inpatient care for both general medical and behavioral health problems, making them a costly group of patients for health care systems [5]. Improving quality of care and patient outcomes while containing costs are both priorities and formidable challenges for this patient population. Engaging them in integrated care will be critical to meet these challenges.

Integrated care is an effective approach to addressing patients' multiple medical conditions [6], which is important given how common multiple comorbidities are in primary and other care settings. Furthermore, these comorbidities frequently include chronic conditions, such as asthma, diabetes, obesity, and cardiovascular disease, as

well as depression, substance use disorders, and anxiety, all of which require ongoing disease management approaches that involve behavioral and lifestyle interventions. When one or more comorbidity is a mental health condition, reduced motivation and cognitive impairment may further complicate provider and patient attempts at disease management. For example, major depression is common among people with diabetes and a risk factor for poor diabetes self-care and adherence [7]. Failure to address psychiatric symptoms may diminish the effectiveness of care for other medical conditions. Finally, patients increasingly seek behavioral health treatment in general medical rather than behavioral health specialty settings [8], further increasing the appeal of integrated care for patients with behavioral health problems.

Recognizing the need for practical integrated care solutions, the National Institutes of Health (NIH) formed the Trans-NIH Integrated Health Strategies Workgroup, which held a summit with research and practice leaders in this field in 2010. Presenters highlighted the substantial unmet need for behavioral health care as a major driver of disability and health care costs, integrated care as a means to address those needs, and the multiple barriers to widespread implementation of integrated care. The following year, the NIH released a funding opportunity announcement, *Behavioral Interventions to Address Multiple Chronic Health Conditions in Primary Care* [9], which supports research that uses multi-disease care management approaches to improve health outcomes of complex patients seen in primary care.

People with severe mental illnesses, such as schizophrenia—whose primary (and sometimes only) connection to health care is through the behavioral health specialty system—may need other integrated care approaches, as the behavioral health specialty rather than primary care setting may be their medical home. Instead of receiving behavioral health care within general medical settings, people with severe mental illness may need models that integrate primary care into the behavioral health specialty setting (e.g., the patient centered medical home for people with severe mental illness) and represent yet another enormous challenge which we do not address in this chapter due to space and scope limitations.

In sum, patients seen in general medical settings tend to have multiple morbidities, each requiring high levels of care management. With recent US health care policy reforms, an increasing number of such patients are expected to seek care in general medical settings, heightening the need for innovative integrated care models that efficiently address co-occurring behavioral health and chronic physical conditions.

In this chapter we focus on the opportunities of health care systems and settings to embed integrated models of behavioral health care in general medical practice. The challenge we face is how to expand access to evidence-based models of integrated care across an array of medical settings so as to meet the behavioral health care needs of diverse patient populations. Whatever the model of integrated care or setting, for the care to produce positive outcomes, the patient must be motivated to address behavioral health symptoms and participate in behavioral health treatment; this we term *engagement*. Therefore, in this chapter, the challenge of increasing

access to evidence-based integrated care is viewed through the lens of engagement. Underlining the importance of treatment engagement for improving access to care and producing positive patient outcomes, the NIMH convened a meeting in the fall of 2011 to address this topic specifically and broadcast the NIMH's desire to develop and test engagement strategies relevant to people with mental health care needs.

By *patient engagement* we mean an individual's active involvement in their own health care, encompassing all "actions individuals must take to obtain the greatest benefit from the health care services available" ([10], p. 2). Patient engagement reflects a number of patient behaviors, including the identification of appropriate providers, assessing costs and benefits of care, making informed treatment decisions, self-management, adhering to treatment plans, and communication with providers. Engaging in mental health care can be particularly challenging given the lingering stigma surrounding psychiatric disorders. However, integrated care models, which offer behavioral health care in non-psychiatric medical settings, may overcome part of the stigma associated with seeking behavioral health treatment. The following list of engagement strategies, which we have derived from the literature reviewed in this chapter, may enhance patient engagement in behavioral health care:

- Embedding entry points to outcome changing (evidence-based) behavioral health care within non-specialty settings
- Culturally sensitive screening for behavioral health conditions
- Culturally acceptable treatment options
- Pretreatment interventions to foster patient activation
- Shared decision making that incorporates patient preferences in establishing treatment goals and types of interventions
- Patient education on the relevant behavioral health problem and its treatment
- Coordinating care across medical conditions and service delivery systems
- Support for patient self-management, including adherence to treatment plans
- Problem solving with patient to overcome barriers to treatment
- Service delivery mechanisms that reduce patients' logistical barriers to care, such as the need for transportation
- Use of health information technology (IT) to support all of the above

Across medical settings, a number of integrated care models have been demonstrated effective in addressing behavioral health disorders comorbid with a range of other medical conditions; more models are now under study. Because the setting itself drives the integrated care design and engagement strategies, we have organized this chapter around medical settings and the opportunities for integrated care they represent.

Integrated Care Models and Engagement Strategies

Integrated care models that bring behavioral health into general medical settings have been developed for primary care, obstetrics/gynecology, pediatrics, trauma centers, and emergency departments. These models vary in their stage of

development, some with a strong evidence base and others still under study. Here we describe the most promising models for integrating behavioral health care into these medical settings and note their novel engagement strategies.

Primary Care

Models for Detecting Mental Health Problems in Primary Care

Detecting a mental health problem is a first step in engaging a patient in evidence-based care. Primary care practices may want to administer routine mental health screening tools to all patients. They can also use the office visit itself to identify mental health problems by routinely giving the patient and family the chance to express all of their concerns early in the visit, asking open-ended questions that encourage the patient and family to share concerns, and developing the skills to identify verbal and nonverbal clues associated with emotional distress, e.g., depressed affect, unexplained weight loss, or poor sleep. If the patient discloses a potential mental health problem, the provider must respond empathically and support the patient in believing that the primary care practice can help with the problem [11].

For some populations, recognition of mental health problems is particularly challenging and specific strategies to better detect these problems are necessary to improve engagement in mental health care. As one example, Chinese Americans underuse mental health services despite rates of depression equivalent to those in the general population. When they seek mental health treatment, they typically do so in primary care [12].

However, Chinese American immigrants' cultural beliefs present some barriers to accessing depression care, e.g., unfamiliarity with the concept of major depression, strong stigma around psychiatric problems, limited English language proficiency, and the tendency to schedule physician visits only when physical symptoms are present. Likewise, primary care physicians may lack the cultural sensitivity to recognize depression in Chinese Americans. Yeung has shown that systematic and culturally sensitive screening for depression in primary care can dramatically increase the recognition of depression in Chinese Americans and facilitate treatment engagement [12].

Models for Coordinating Care

The evidence-based practice of collaborative care for depression is built upon Wagner's Chronic Care Model [6], with primary care as its entry point. The Chronic Care Model has been revolutionary in focusing attention on the need for primary care redesign to improve health outcomes for patients with *chronic* illnesses, a departure from outpatient care's traditional emphasis on *acute* care. Using a team-based approach, the Chronic Care Model seeks to alter the organization and delivery

of health care by assuring that evidence-based treatments are administered, strengthening the patient-provider relationship, supporting patient self-management, incorporating decision support tools and clinical information systems and leveraging community resources [13].

Collaborative care's innovation was to simplify and operationalize the critical elements of the chronic care model by applying the model to the treatment of depression in primary care. The collaborative care team typically includes the patient's primary care physician, a depression care manager and consulting psychiatrist and employs a "treat-to-target" approach [14]. The care manager educates the patient about depression and its treatment, provides behavioral activation, and supports the patient's self-management behavior and antidepressant therapy as prescribed by the primary care physician. Importantly, the care manager also continually monitors the patient's treatment response, adjusting the treatment plan to better meet treatment targets, in consultation with the psychiatrist and primary care physician. Dozens of studies support the effectiveness of collaborative care for treating depression [15], and evidence suggests the model is also effective in reducing depression severity and achieving remission in bipolar depression [16]. Moreover, multiple studies support collaborative care's effectiveness in engaging underserved racial-ethnic groups, notably African Americans and Latinos, in evidence-based depression care [17].

Yet the collaborative care model is not without limitations, chief among them the primary care practice's need for additional on-site staff, namely a care manager and consulting psychiatrist, which may especially challenge small or rural practices. Fortney creatively addresses this staffing challenge by virtually co-locating a care manager, a psychologist, a psychiatrist, and a pharmacist. Patients receive care from a depression care manager by phone, medication management consultation from a pharmacist by phone if the patient does not respond to the initial antidepressant, and consultation from a psychiatrist via videoconferencing if the patient does not respond to two antidepressant trials. The primary care physician provides on-site care and the psychologist and psychiatrist provide weekly team clinical supervision. Implementing this model in Federally Qualified Health Centers (where behavioral health problems are the most commonly reported reason for visits), Fortney found telemedicine-based collaborative care for depression to be even more effective than practice-based collaborative care [18]. Likewise, Rollman studied collaborative care for anxiety disorders and found it just as effective when the care management is delivered by telephone [19].

However, the typical patient seen in primary care has multiple chronic medical conditions, all requiring some level of care management, while conventional collaborative care addresses just one problem at a time. Responding to the needs of patients with depression that co-occurs other chronic conditions, Katon and colleagues extended the collaborative care model by integrating care for depression with care for two other common comorbid medical conditions: diabetes and coronary heart disease (CHD) [20]. Diabetes and CHD are very common medical conditions in the USA and frequently co-occur with depression, whose presence adversely affects these patients' self-care for relevant risk factors, such as blood pressure,

LDL cholesterol, and blood sugar. Katon's TEAMcare targets improvement in all three medical conditions by combining support for self-care with pharmacotherapy for depression, hyperglycemia, hypertension, and hyperlipidemia. A nurse (who fulfills the care manager role), supervising psychiatrist and primary care physician work as a team using the treat-to-target approach and systematically monitoring patient progress on key indicators for each condition (brief depression measure, hemoglobin A1c, blood pressure, and lipid levels), with frequent adjustments to treatment when these indicators fall short of the treatment targets. In a rigorous randomized controlled trial (RCT), patients in a 12-month program of TEAMcare demonstrated improvements in hemoglobin A1c, LDL cholesterol, blood pressure, and depression severity and reported better of quality of life and satisfaction with care than did controls [21]. TEAMcare's success likely emanates partly to its focus on teaching patients self-management strategies to control each of their chronic conditions. It is also likely that some patients would have refused depression care were it not delivered in primary care and tied to the treatment of their poorly controlled diabetes or CHD. Finally, TEAMcare has subsequently provided care management by telephone, eliminating a possible logistical barrier to care for patients and reducing the practice's on-site staffing needs.

The success of collaborative care generally and TEAMcare specifically has generated abundant research extending these models to additional patient populations seen in primary care. For example, *Cuerpo San*, *Mete Sana* ("a healthy mind in a healthy body") was developed for Latinos in public sector primary care, who have low rates of depression care and high rates of chronic disease [22]. The intervention, now under study, targets both depression and chronic medical conditions using cognitive behavior therapy (CBT) and group self-management. The group format seeks to reduce delivery costs and promote engagement through peer support. To further collaborative care's reach as well as reduce delivery cost, researchers are testing the effectiveness of online delivery of collaborative care for depression and anxiety, as well as the incremental benefit of adding an online-moderated support group [23].

More Promising Primary Care Models

Customizing Treatment for Posttraumatic Stress Disorder. Nearly eight million adults a year meet diagnostic criteria for PTSD in the USA [24]. A large-scale trial is underway to test the effectiveness of evidence-based PTSD treatment delivered to underserved, low-income ethnic minorities in primary care [25]. This study is important because the field otherwise has no model for the effective delivery of evidence-based PTSD treatment in primary care. Pharmacotherapy is the first line treatment; patients who do not initially respond receive stepped (more intensive) care, either pharmacotherapy or CBT augmentation. The culturally adapted CBT is designed for non-English speakers with multiple life stressors, low education, somatizing tendencies, and considerable stigma around seeking mental health care, which characterizes most refugees with PTSD. The model incorporates additional

engagement strategies for this population, most of whom would otherwise receive no PTSD care, such as sociocultural patient and provider PTSD education emphasizing culturally specific presentations of distress.

Improving Antidepressant Adherence. While antidepressants are an effective treatment for depression, antidepressant adherence is generally poor. As many as 40 % of patients discontinue antidepressants within the first month—75 % within 3 months—which greatly reduces the treatment's effectiveness [26]. Adherence interventions are sorely needed for primary care practice, where the majority of antidepressants are prescribed.

The Treatment Initiation and Participation (TIP) program, which targets antidepressant adherence in older adults with depression, is being tested in a large-scale trial [27]. TIP is a brief (three sessions plus telephone follow-up), individualized psychosocial intervention that directly engages older adults in creating an adherence strategy tailored to their self-identified adherence barriers. An adjunct to pharmacotherapy, TIP is carried out by on-staff social workers who use motivational interviewing, problem-solving, and psycho-education to increase antidepressant adherence and reduce depressive symptoms.

Using a low-cost, direct-to-patient health IT approach to prompt antidepressant refills and thereby boost antidepressant adherence, investigators are conducting an RCT with 3,100 adults to assess the effectiveness of an automated telephone interactive voice recognition (IVR) intervention [28]. The health care system's electronic medical record serves as a platform for the IVR program that phones patient reminders and/or tardy calls timed to patients' projected antidepressant refill dates. Patients are offered the options of brief psycho-education, or transfer to a live pharmacist or the HMO mail refill pharmacy. Similar low-cost IVR medication adherence interventions have been shown to modestly but significantly increase adherence for other medications, such as inhaled corticosteroids [29].

As noted earlier, depression and CHD are very common in the USA and frequently co-occur. The presence of depression is associated with poor adherence to antihypertensive treatment and is itself a risk factor for hypertension, a primary CHD risk factor. Collaborative care and TEAMcare target adherence, but require the addition of a dedicated care manager, which in many settings is not feasible. Research is underway to develop an approach that uses existing primary care staff to increase antidepressant adherence for older adults with co-occurring depression and CHD [30]. The primary care nurse and physician support antidepressant adherence through patient education, self-management support, and brief problem-solving therapy, which are hypothesized to improve adherence to both antidepressants and hypertension treatment in older adults.

Enhancing Patient Self-Efficacy. Diabetes and depression frequently co-occur, with each condition complicating the treatment of the other and requiring a high level of self-management, as already noted. Social cognitive theory suggests that patient self-efficacy is a key mediator in patients' ability to perform health-enhancing behaviors across conditions. Yet current self-efficacy interventions are typically provided outside of primary care, require specialty-trained staff, involve

multiple sessions and address a single medical condition. In an effort to improve both diabetes and depression outcomes, researchers are developing a practical provider-training intervention to increase patient self-efficacy for managing these conditions in primary care [31]. In three 15-min office-based sessions, primary care providers are taught to employ Self-Efficacy Enhancing Interviewing Techniques (SEE IT) with their patients during routine office visits, capitalizing on the therapeutic relationship patients already have with their primary care provider.

Summary

Efficient identification of behavioral health problems in primary care remains a challenge and may require systematic and culturally sensitive screening. Once mental health problems are detected, the team-based Chronic Care Model suggests many avenues for the delivery of integrated care, with collaborative care for depression the most established of these approaches. Telemedicine and other technological interventions have greatly expanded the reach of collaborative care, making it more feasible for remote and/or small practices by virtually co-locating a care manager and psychiatrist. The successful TEAMcare model extends collaborative care by integrating care for both depression and other chronic medical conditions, while new collaborative care experiments involving group and online delivery are now underway. Opportunities for integrating psychiatry into primary care abound and models under study aim to improve primary care patients' self-management by enhancing patient self-efficacy; integrate evidence-based PTSD treatment into primary care; and improve antidepressant adherence through brief psychosocial and health IT interventions.

Obstetrics/Gynecology

Depression is more common for women during the reproductive and menopausal transition years, when obstetricians-gynecologists (Ob-Gyns) represent the only health care providers many of them regularly see, especially if they are low-income or ethnic minorities. A current study led by Katon leverages the health care connection that depressed women receiving Ob-Gyn care have already established with these providers in order to engage the women in evidence-based depression care. In a large randomized trial, collaborative care for depression, adapted for the Ob-Gyn setting, was significantly more effective than usual care in improving the quality of depression care and depression and functional outcomes, while also producing high levels of satisfaction with care [32].

The postpartum period presents a unique window for engaging women in depression care, as they strive to become capable parents. The new mothers often perceive addressing their own behavioral health needs as a positive step in this direction. Accordingly, another version of Ob-Gyn-based collaborative depression care now

under study focuses on women with postpartum depression [33]. This model emphasizes the role of an off-site care manager who is positioned at the health plan level and provides depression education, support and care coordination to patients telephonically, eliminating the need for office visits which may pose particular logistical challenges for new mothers.

Poor, urban women are twice as likely to have major depression during pregnancy as are middle-class women [34, 35], but are harder to engage and retain in treatment due to barriers to care at the patient, community, provider, and system levels [36]. FOR MOMS ("Maintain Our Mothers' Strength") aims to overcome these barriers to care and engage low-income, pregnant women with major depression in collaborative care for perinatal depression [37]. Pregnant women are screened for depression during obstetrics visits. The intervention components are adapted for cultural relevance to both the cultures of poverty and race/ethnicity. They include a pretreatment engagement session (via phone or home visit) based on motivational interviewing and delivered by a depression care specialist, followed by a choice of brief interpersonal psychotherapy or evidence-based pharmacotherapy. While the initial two sessions are delivered by the depression care specialist in-person, access to care is enhanced by offering subsequent sessions by phone or in-home. A consulting psychiatrist supervises the depression care specialist. FOR MOMs is now being tested in a large RCT.

Summary

For many women, their Ob-Gyn is their de facto primary care provider, and may be their only connection to the health care system. Accordingly, collaborative care for depression has been extended to the Ob-Gyn setting, with at least one study supporting its effectiveness. Other models under study aim to leverage the perinatal period as an opportunity to engage depressed pregnant and postpartum women in depression care, minimizing logistical barriers to care, activating patients through pretreatment sessions, and adapting care for cultural relevance. Given Ob-Gyns' prominence for the many women with no other source of health care, more evidence-based models for integrating psychiatry into Ob-Gyn are needed.

Pediatric and Adolescent Primary Care

Nearly one-fifth of children seen in primary care in the USA have a mental health disorder that meets diagnostic criteria, and another 14–18 % have conditions that fall just below diagnostic thresholds. Both groups experience significant functional impairment in peer and teacher relationships and general behavior. Of note, children with sub-threshold mental health problems may have levels of impairment as high as children meeting full diagnostic criteria [38]. Among youth with a mental health disorder that met diagnostic criteria, most did not receive appropriate pharmacological treatment and this was more likely to be the case for those treated in primary care [39].

Increasing Behavioral Health Treatment Capacity

Pediatricians trying to engage families to address behavioral health problems face a lack of practical models suitable for the typical family or pediatric practice. Wagner's Chronic Care Model requires a diagnosis as its entry point to care; this is problematic for the sizable number of children in primary care whose behavioral health problems cause substantial impairment yet do not meet diagnostic criteria. The Chronic Care Model also requires additional office staff and practice redesign—high barriers to implementation for many practices. Pediatricians need feasible, flexible treatment approaches that apply to the full range of behavioral health problems encountered in pediatrics and are responsive to parents' concerns and preferences.

In response, Wissow is developing an evidence-based model for child and adolescent behavioral health that enables pediatric practices to provide behavioral health care for the majority of their patients with behavioral health needs, regardless of diagnosis, by expanding the existing skills and knowledge of family and pediatric providers [40]. The core intervention components involve the following:

- Improving providers' skills for engaging patients and parents around the family's concerns, e.g., begin with screening for impairment rather than disorder, and elicit symptoms and family concerns around broad diagnostic categories rather than specific diagnoses; and
- Delivering symptom-specific strategies that in various combinations serve as the building blocks of evidence-based care for clusters of related disorders, e.g., gradual exposure to a feared stimulus as a treatment element for children's anxiety.

The model is intended to produce sustainable increases in the behavioral health treatment capacity in primary care, while remaining feasible within current practice patterns, structure and financing.

Technology to Improve Attention Deficit Hyperactivity Disorder Care

Family and pediatric practices provide the majority of care for children with Attention Deficit Hyperactivity Disorder (ADHD), including the prescription of stimulant medications, the first line treatment for ADHD. The American Academy of Pediatrics (AAP) has published ADHD practice guidelines for treating this common childhood disorder, but they have produced only modest improvements in primary care ADHD practice.

Various health IT approaches have been shown effective in increasing primary care providers' adherence to AAP guideline. For example, Epstein and colleagues implemented an internet portal that allows parents, teachers, and pediatricians to complete and transmit rating scales online, as opposed to more burdensome paper and pencil versions. Scale scores and their interpretations are then made available to the physician in a user-friendly format for use in patient treatment planning. The portal was shown to enhance quality of care by facilitating guideline-concordant care in a recent RCT [41].

The electronic health record (EHR) may prove a useful platform for decision support tools designed to enhance management of ADHD and other chronic medical conditions. Co and colleagues linked the practice's EHR with an ADHD decision support system that prompted physicians to assess ADHD symptoms every 3–6 months and document symptoms, treatment effectiveness, and adverse effects in the EHR. Results of an RCT showed that children seen in practices using the EHR-based decision support were more likely to receive ADHD assessments and documentation in the EHR was associated with increased treatment effectiveness and response to adverse effects [42].

Collaborative care featuring telepsychiatry shows promise in improving ADHD care for Hispanic children, especially in remote areas with few psychiatrists. In weekly telephone consultation, the off-site psychiatrist and care manager (off-site in the rural practice) make treatment recommendations based on routinely administered ADHD rating scale scores. The care manager shares the recommendations with the patient's pediatrician who writes the prescription; educates patients and families on ADHD and its management; and follows up with the patient monthly. Children experienced ADHD symptom reduction and parents reported satisfaction with care, although the pre-post study design limits inferences on this model's effectiveness [43].

Advancing Adolescent Depression Care

Depression is common in adolescence and untreated depression is associated with suicide, a leading cause of death for youth aged 15–24 years [44]. While evidence-based interventions for the treatment of adolescent depression exist, few are routinely available through primary care. Asarnow and her colleagues developed Youth Partners in Care, a 6-month quality improvement intervention to improve access to evidence-based depression care for depressed adolescents in primary care. In an RCT of more than 400 ethnically diverse adolescents, teams of experts adapted and implemented the collaborative care-based intervention at six sites, including managed care, public sector and academic health care programs. Patients were offered a choice of treatments: CBT, medication, both CBT and medication, care manager follow-up or referral. Care managers were trained to deliver manualized CBT, conduct patient evaluations, provide education to patients and families, and consult with specialty mental health care providers as needed. Adolescents in the Partners in Care program, compared with usual care patients, reported significantly higher rates of behavioral health care, fewer depressive symptoms and greater satisfaction with care [45]. Youth Partners in Care also holds great promise for reducing disparities in access to behavioral health care for racial-ethnic minority youths; the quality improvement strategy was especially effective for Black and Latino youths [46].

Summary

Children and adolescents with behavioral health problems are routinely seen in primary care, but these problems typically go untreated, even when the problems meet

diagnostic criteria. When behavioral health treatment is delivered in primary care, it too often fails to meet guideline standards. Family and pediatric practices have a few tools for integrating behavioral health care into their practice: Health IT solutions have been shown effective in improving guideline-concordant ADHD care, as has collaborative care for adolescent depression. However, given the considerable unmet behavioral health care needs of child and adolescent primary care patients, and the level of impairment that accompanies even sub-threshold behavioral health problems, these providers need many more practical strategies to address the full range of behavioral health problems routinely encountered in their practices.

Patient-Centered Medical Home

Based on the Chronic Care Model, the patient-centered medical home (PCMH) is an ambitious model of primary care transformation that aims to improve patient outcomes, quality of care and system efficiency. Team-based care is central to the PCMH, which is accountable for meeting the majority of a patient's health care needs. The PCMH also embraces the principles of population-based health; health of the whole person; coordination of care across all elements of the health care system; enhanced access to care; and a systems-based approach to quality and safety that includes clinical decision-support tools and health IT to support the PCMH's aims [47]. Viewed by many as the centerpiece for reform of health care delivery and primary care practice, the impact of the PCMH has not yet been established. The first national test of the PCMH involved 36 family practices and found that transformation to a PCMH was possible but required tremendous effort and motivation and a long time-frame (at least 2 years) [48]. Disappointingly, quality of care did not appreciably improve.

Still in an early stage of development, the PCMH has potential for increasing access to and engagement in behavioral health care. Many PCMH demonstrations are underway, but most do not explicitly address behavioral health care. Yet, as Croghan and Brown point out, "All successful models for integrating mental health care into primary care settings are based on or are consistent with the basic tenants of the CCM [Chronic Care Model] and thus share many attributes with the PCMH" ([49], p. 4). Collaborative care, for example, with its team-based integrated care approach and aim of improving access to evidence-based mental health care, comports well with the PCMH. In addition, given that managing behavioral health problems is conceptually similar to managing physical health problems, inclusion of behavioral health in the PCMH may help to normalize behavioral health treatment in primary care practice, thereby reducing some of the stigma around seeking behavioral health care [47].

Encouragingly, Toomey and colleagues found that children with ADHD who received care from a PCMH were more likely to receive medication for ADHD and less likely to have problems with behavior, making friends and participating in activities. Children in a PCMH also missed fewer school days and their parents were contacted by the school less often [50].

Summary

The PCMH would seem an ideal vehicle for integrating behavioral health into general medical care for entire populations, with potential for reducing stigma around seeking behavioral health care. While preliminary findings on the PCMH's impact on quality of health care generally have been disappointing, at least one study found it improved quality of children's behavioral health care. The PCMH's success in engaging patients in evidence-based behavioral health care will depend largely on the extent to which it is explicitly included in the PCMH.

Emergency Departments/Trauma Centers

Improving Quality of PTSD Care in Trauma Centers

Nearly two million US civilians a year sustain traumatic physical injuries requiring hospitalization [51] and are at high risk for developing PTSD, which in turn is associated with post-injury functional impairment, independent of the injury's physical impact [52]. CBT and pharmacological interventions appear to be effective for PTSD in individuals who sustain traumatic injuries. However, the treatment must be delivered soon after the injury to be effective, and most such individuals enter treatment months or years after the injury. Responding to the need for rapid detection of PTSD in traumatically injured patients and engagement in evidence-based PTSD treatment, Zatzick developed and tested a stepped PTSD collaborative care intervention for deployment in trauma centers. The care manager initially engages the patient (while still in the hospital) by coordinating care across inpatient, primary care and community settings and helping the patient problem-solve around immediate post-injury concerns. Later, the care manager uses behavioral activation and motivational interviewing strategies to activate the patient for behavioral health treatment. Patients are then engaged in shared decision making in their choice of PTSD treatment: medication, CBT or both. The CBT includes psychoeducation, muscle relaxation, cognitive restructuring and graded exposure. Medication is prescribed by a nurse practitioner under the supervision of a psychiatrist. The care manager repeatedly measures PTSD symptoms and if the patient does not improve a higher intensity of care is offered. In an RCT of 207 hospitalized injury survivors with PTSD, patients who received the intervention had significantly fewer PTSD symptoms at 6-, 9-, and 12-months post-injury; had better physical functioning; and were more satisfied with their care as compared to those who received usual care [53]. Intervention patients also received higher quality posttraumatic care, e.g., they were more likely to receive evidence-based PTSD pharmacotherapy.

Improving Quality of Behavioral Health Care in Emergency Departments

People with behavioral health disorders are among the most frequent users of emergency department (ED) services [54], though less than half the visits for behavioral

health causes are true emergencies [55]. EDs are usually overcrowded, lack access to behavioral health clinicians, and have limited capacity for discharge planning to appropriate outpatient behavioral health treatment. Consequently, seeking behavioral health care in an ED is not likely to result in high quality behavioral health treatment or successful linkage to community-based behavioral health care. Excessive ED use also increases costs and reduces ED capacity for true emergencies. Conversely, when individuals seeking behavioral health care present themselves in the ED, a unique opportunity arises to engage these activated patients in evidence-based behavioral health treatment and connect those without to care in the community.

Partners in Behavioral Health Emergency Services, a telepsychiatry consultation initiative to improve the quality of mental health care in EDs, is under study in 35 South Carolina EDs [56]. The service delivery intervention is designed to capitalize on the limited window of opportunity that an ED visit represents to assess for mental health disorder, conduct a thorough psychiatric evaluation, develop a treatment plan, and link the patient to community-based care, without relying on on-site behavioral health care staff who may be unavailable in the ED. First, the ED triage nurse or physician on duty completes an online ED intake form with the patient's diagnoses, lab values, vital signs, and reason for the mental health consultation. An off-site psychiatrist, available around-the-clock via real-time video, conducts a standard history and mental status examination with the patient by teleconference, and requests permission to contact the patient's usual behavioral health care provider. The psychiatrist then develops a treatment plan, with recommendations for acute management in the ED; the onsite ED staff implement the treatment plan. The psychiatrist also collaborates with the ED staff and outpatient behavioral health team to develop a disposition plan and facilitate linkage to the patient's usual provider or, if none exists, a new behavioral health care provider in the community. The patient's local treating physician retains responsibility for the patient's care after discharge.

The evidence for ED-based service delivery models that integrate screening for alcohol problems and brief interventions is growing [57]. Gentillelo and his team found that almost half of 2,500+ injured ED patients screened positive for problematic alcohol use [58]. Of these, 762 enrolled in an RCT testing the impact of a one-session, 30-min motivational intervention conducted by a psychologist on or near the day of discharge. This session emphasized personalized feedback comparing the patient's alcohol consumption to national norms, noting the patient's level of intoxication at admission and its impact on the patient's health and risk of future injury. Patients were encouraged to reduce their drinking in order to reduce their level of risk and offered a menu of strategies to do this, including treatment resources and local self-help programs. A month later, the patient received a letter summarizing the session. At 12 months, the intervention group had reduced their alcohol consumption by an average of 22 drinks per month, compared to 7 drinks for the control group, and the reduced alcohol intake was particularly strong for intervention participants with mild to moderate alcohol problems. Furthermore, 3 years later the risk of serious injury recurrence was reduced by nearly one-half in the intervention group.

Suicide Prevention in Emergency Departments

Suicide is a leading cause of death for teens and adults in their twenties and thirties and a major public health concern across demographic groups [42]. Visits to the ED related to intentional self-harm are common, which makes the ED an opportune setting for detecting and preventing suicide. The ED Safety Assessment and Follow-up Evaluation (EDSAFE) combines practical universal screening for suicide with a suicide prevention intervention for those screening positive [59]. The ED nurse delivers a brief motivational intervention during the ED visit, followed post-discharge by up to seven sessions of telephone counseling and up to four sessions with the patient's significant others. Counseling is based on the Coping Long Term with Attempted Suicide (CLASP) intervention, which targets suicidal behavior. The effectiveness of EDSAFE will be evaluated in a quasi-experimental study with more than 1,400 suicidal patients presenting in eight EDs.

Summary

Trauma centers now have an effective approach for rapidly identifying PTSD in traumatically injured patients and engaging them in evidence-based PTSD care. The PTSD collaborative care intervention both reduces severity of PTSD symptoms and improves physical functioning. In addition, researchers have developed ED-based models to improve the care of people seeking behavioral health treatment in this setting, to detect behavioral health problems and intervene with patients who are not seeking treatment, and to screen for suicide and conduct a brief intervention with those screening positive. Large trials are now underway to test some of these promising models for the ED. Recognizing the need and opportunity that ED care represents, the NIH created the Office of Emergency Care Research in 2012 to improve care in this setting [60]. Further research on integrated care approaches in trauma centers and EDs is warranted to boost the quality of behavioral health care delivered in these settings.

The Vision

Access to evidence-based integrated care can be enhanced by viewing general medical settings, especially primary care settings where people with behavioral health comorbidities are frequently seen for general medical problems, as opportunities for engagement in behavioral health treatment. Many settings in which integrated behavioral health care could and should be accessed remain untapped or underutilized. The vision of expanding access to evidence-based integrated care will be accomplished by developing a range of engagement strategies that meet the needs of complex patients seen in diverse health care settings. Great progress has been made on this front, with the Chronic Care Model providing the field a blueprint for

engaging patients in coordinated care and care management strategies that are essential for treating most chronic medical conditions, including behavioral health problems. We now have multiple evidence-based models for delivering integrated care in general medical settings, and embedded within these models are specific strategies to promote access to and engagement in evidence-based behavioral health treatment. But much work remains. These models are limited in terms of the patient populations they reach, the behavioral health problems they address, their capacity to provide integrated care for a variety of complex patients, and the feasibility of the models across diverse service settings with varying resource levels. To fill these gaps and enhance access to integrated behavioral health care, the field needs to develop more flexible integrated care models that can address the variety of patient populations, behavioral health problems and chronic disease clusters commonly seen in a general medical setting. Our vision of enhanced access to evidence-based integrated care might look like the following:

> Ten-year old Alonso and his parents arrive at the pediatric practice to follow-up on his new asthma medication, appreciating the convenience of the evening appointment. Dr. Lee greets them warmly and inquires as to the family's well-being. Alonso's mother responds positively but suggests that he is having difficulties keeping up with his schoolwork, seems not to listen at home, and the teacher has called about unfinished assignments, though his father does not want to "bother" Dr. Lee with such problems. Alert to the parents' tension when raising these issues, Dr. Lee prompts the parents to tell her more. She quickly suspects ADHD and tells the family that she thinks she can help. After assessing Alonso's response to the new inhaled corticosteroids dosage, which is satisfactory, Dr. Lee returns to the possible ADHD diagnosis. She describes the practice's online patient portal where Alonso's teachers and parents can submit ratings of his behavior, which will aid Dr. Lee in treatment planning and treating to target. After discussing how the portal works and answering the family's questions, they agree to try it to better understand the problem and leave the clinic encouraged that there might be a solution to Alonso's behavior problems.
>
> Two weeks later, the family returns to the clinic and Dr. Lee tells them of Alonso's ADHD diagnosis, educating them about the disorder and its treatment. After exploring treatment options and responding to the family's concerns and preferences (How will stimulants interact with Alonso's corticosteroids? What are the side effects? Are there medications that have an easier administration schedule?), the parents and Dr. Lee agree to a trial of stimulants and establish the treatment goals together. Having consulted the practice's decision support system and accessed its ADHD medication algorithm, Dr. Lee hands them a stimulant prescription consistent with guideline care for ADHD and appropriate for use with inhaled corticosteroids. Dr. Lee then introduces the practice's nurse care manager, who supports the family by eliciting possible treatment adherence barriers and helping them problem solve strategies for overcoming them. The nurse care manager also offers the family brief behavioral strategies they can use at home to reinforce Alonso's positive behavior.
>
> Alonso and his parents leave the clinic feeling hopeful that his problems will soon improve and comfortable with the care Dr. Lee and her staff provided. They would not have considered seeing a behavioral health professional for Alonso's problems. In their culture, few people seek behavioral health treatment, and only if they are very sick, not like Alonso. Back in her office, Dr. Lee makes an entry into Alonso's EHR, which interacts with the decision support system and will prompt her to assess his ADHD symptoms at regular intervals and chart his progress. Three months later, after two adjustments to his stimulant dosage based on rating scale data from his parents and teacher, Alonso's ADHD symptoms are markedly reduced and his asthma remains controlled.

This family received evidence-based integrated behavioral health care in a primary care practice that minimized logistical barriers to care, proactively identified behavioral health problems in a non-stigmatizing fashion, and activated the family to engage in behavioral health care by addressing their immediate concerns. The practice involved the family in shared decision-making around treatment options and goals, educated them about the behavioral disorder and its treatment, and supported the family in managing the disorder and overcoming barriers to treatment adherence. Multiple health IT tools provided decision support and enhanced management for the coordinated care of two chronic medical conditions. Such a family has truly been engaged in integrated care at every contact.

Barriers to Implementation

What stands in the way of realizing this vision of integrated care that thoroughly engages the patient and family? In this section we identify the major barriers at multiple levels.

Structural Barriers

Health care in the USA today generally consists of multiple provider silos, each providing different specialty care and linked only loosely. Little attention is paid to communications between primary and specialty care and hospitals or to coordinating care across a patient's providers. Separate patient medical records for general medical and behavioral health care delivered within the same health care system—a practice intended to protect patients' privacy in light of the stigma around behavioral health conditions—further impairs communication across service settings. These health care silos pose a structural barrier to care coordination and make integrated care challenging. The uncertainty over behavioral health's inclusion in the PCMH is an especially problematic structural barrier to the provision of integrated care.

Likewise, research in the USA is often parsed out across multiple silos, each addressing a particular body system or medical condition. Indeed, the structure of the National Institutes of Health divides research among 27 Institutes and Centers, each focusing on a cluster of illnesses related to an organ, a population, or a system within the body. Most clinical trials systematically exclude people with comorbidities (especially behavioral health conditions), despite their representing the modal patient seen in primary care practice. Lack of research on complex patients, including those with behavioral health problems, severely limits our knowledgebase for guiding integrated care solutions.

Practice Level Barriers

Most general medical settings pay minimal attention to detecting behavioral health problems. Due to the lingering stigma around behavioral health conditions, patients may be reluctant to bring up these problems without the provider's encouragement and sensitivity to the patient's cultural beliefs. A practice that fails to take a proactive stance in eliciting patients' behavioral health concerns is no doubt missing opportunities to engage the patient in integrated care. The brevity of the typical office visit, which affords limited time to explore possible behavioral health issues, exacerbates this problem.

Practices may also avoid eliciting patients' concerns if they feel they lack the knowledge or skill to address behavioral health problems or have few treatment options to offer the patient. Many general medical settings have limited access to care management services, a key component of most evidence-based integrated care models. Likewise, the practice may lack the means to systematically assess behavioral health treatment progress, making it difficult for the provider to treat behavioral health symptoms to target. Finally, some practices have inflexible scheduling procedures that pose logistical barriers for patients, especially low-income families.

Workforce and Training Barriers

Integrated behavioral health care requires a workforce trained to work as part of a team to deliver coordinated care in general medical settings. Providers working in integrated care settings need training in chronic disease management, including strategies for patient activation, education, self-management, treatment adherence support, and coordination of care across multiple medical conditions. Primary care providers and their staff do not routinely receive this training. Behavioral health professionals may receive training in behavioral strategies for patient activation and self-management, but they may not be accustomed to working as part of a general medical team. Workers with these requisite skill sets for delivering integrated care are in short supply.

Health IT Barriers

Inadequate health IT infrastructure limits a practice's ability to conduct ongoing assessment and follow up and to support other key integrated care functions. For example, treating to target requires IT support for monitoring symptoms and side effects and assessing progress in achieving treatment goals. Lack of health IT capacity also prevents practices from extending the reach of integrated care interventions, e.g., by using telepsychiatry or virtual care managers who are located off-site.

Practices without EHRs or patient portals may have difficulty with timely information sharing among providers and patients when trying to coordinate care.

Financing Barriers

While the saying "What gets done is what gets paid for" may be overly simplistic, services not covered by insurance are not likely to be delivered or delivered consistently. Integrated care typically includes certain services that are not covered under some financing mechanisms. Insurance often does not cover behavioral health services delivered in general medical settings, behavioral health care when general medical care is delivered on the same day, coordination of care across providers, participation in team meetings, or delivery of engagement strategies that enhance patient outcomes. The care manager, a critical contributor in most integrated care models, often cannot charge for his or her services, depending on the health care system.

Knowledge Barriers

In this chapter we have identified a number of evidence-based models for integrating care in general medical settings, but many knowledge gaps remain. Current integrated care models address only a portion of possible disease clusters with which patients may present in general medical settings, e.g., diabetes or CHD co-occurring with depression. Providers need flexible, integrated care models that are applicable to the majority of their patients with behavioral health and co-occurring medical conditions. We also need to learn more about how to prioritize treatment of co-occurring conditions for complex patients (see Chap. 6) and how to better engage hard-to-reach patient groups, such as underserved low-income and ethnic-racial minorities. Finally, we need to learn more about how best to implement the evidence-based integrated care models we do have.

Recommendations

In order to expand access to evidence-based integrated care to meet the needs of complex patients seen in diverse health care settings and overcome the barriers above, we recommend the following:

1. The field should focus on single but flexible integrated care models that are applicable to the majority of a practice's patients who have co-occurring behavioral health and medical conditions.
2. Leaders of health systems and research organizations should act to overcome the structural barriers that fragment our health care system and research infrastructure. People with behavioral disorders should not be excluded from clinical trials

based solely on their behavioral health status. Likewise, behavioral health care should be included as an essential component of the PCMH.

3. The practice of separate EHRs for behavioral health and general medical care should be eliminated. Patients' behavioral health and general medical EHRs should be integrated, with appropriate patient privacy protections and sensitivity to lingering stigma around behavioral health care.
4. The workforce trained to deliver integrated care in general medical settings should be enhanced. Primary care physicians' training should include coordinated care strategies for complex patients and routine screening for behavioral health problems. Behavioral health professionals should receive training in the delivery of team-based care in general medical settings.
5. Financial incentives should be provided for the adoption of health IT tools that support the delivery of integrated care, such as patient portals to monitor progress in meeting treatment goals, Web-based patient health records to facilitate timely communication among providers and patient, and telemedicine approaches that expand the reach of integrated care approaches.
6. Financial barriers to evidence-based integrated care should be minimized, such as those that limit payment for service components essential to the delivery of integrated care, e.g., care coordination, care management, self-management, patient education, and patient engagement strategies.
7. The integrated care science base should be extended by conducting research on the following topics:

   (a) Understanding how common clusters of behavioral health and general medical disorders interact and how treatment for one may affect treatments and outcomes of the others
   (b) Practical integrated care models for complex patients
   (c) Engaging hard-to-reach patient groups in behavioral health care
   (d) Understanding the needs of patients with behavioral health disorders who are seen in general medical settings
   (e) Understanding how to prioritize treatments for co-occurring conditions in complex patients
   (f) How to efficiently coordinate care across service sectors
   (g) How to broadly and efficiently implement evidence-based integrated care models
   (h) Practice-based research on integrated care models (the Mental Health Research Network [61] represents one example)

Conclusion

General medical settings represent opportunities for engaging people with behavioral health comorbidities in integrated care. The field has advanced by embedding integrated models of behavioral health care in an array of general medical settings. In this chapter we describe those models that have demonstrated effectiveness in

primary care, Ob-Gyn, pediatrics, and trauma centers, as well as other promising models still under study. We also highlight specific engagement strategies that are intended to increase access to integrated care and enhance patient outcomes. While barriers to realizing the promise of integrated care remain, abundant opportunities to overcome these deficits exist.

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