Integrated Care: A Population-Based Approach to Consultation-Liaison Psychiatry

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9.1 An Illustrative Case in an Integrated Care Setting

Ms. F is a 44-year-old Caucasian woman who was seen in an academic internal medicine clinic for treatment of uncontrolled type 2 diabetes mellitus. The integrated mental health team had noticed from their database that Ms. F's PHQ-9 depression screening scored above 20 on her last two visits, signaling that perhaps she was experiencing moderate to severe depressive symptoms. However, the team saw that she was not receiving any evidence-based treatment for depression, neither medication nor brief therapy. The behavioral health care manager assigned to the internal medicine clinic contacted internal medicine resident Dr. C to offer assistance. Dr. C had already received extensive training from the consulting psychiatrist and care managers about diagnosing and treating depression, had confidence in prescribing and managing antidepressant medications, and knew how to access brief evidence based-psychotherapies that were being provided in primary care and in the community. Dr. C indicated that he had already diagnosed Ms. F as suffering from a major depressive episode when she had a PHQ-9 score of 21 at a previous visit. He remembered that she was very tearful when he had warned her about the high likelihood of diabetic complications if she did not adhere to the recommended diet, exercise, and medications. However, he stated that Ms. F had minimized her depressive symptoms and had blamed her

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tearfulness on the clinic staff who she claimed "just want to run my life." Ms. F also refused both treatment with an SSRI and a referral to brief individual therapy.

The care manager placed the patient on his caseload and made several attempts to reach her by phone for a consultation. Although unsuccessful in his initial attempts to contact her, he continued to follow the case in the electronic medical record. At a subsequent meeting he informed the other behavioral health care managers and the team psychiatrist that Ms. F had an appointment in the internal medicine clinic the following day. At the beginning of the clinic, the internal medicine team also had a "team huddle." The care manager attended this meeting, and was asked to provide suggestions on several of the patients who were discussed, including Ms. F.

When it came time to discuss Ms. F, Dr. C was given an opportunity to express his frustration with trying to treat Ms. F's diabetes in the setting of significant non-adherence to recommended medications and dietary restrictions. Her last hemoglobin A1c value was 11.4. Her body mass index was 42, and she seemed to still be gaining weight, despite repeated "dire" warnings about impending complications of her uncontrolled diabetes. The care manager normalized the frustration Dr. C was feeling, and presented a brief description of motivational interviewing as a possible alternative approach with this patient. He then described how motivational interviewing not only has strong outcomes in many cases, but how this type of approach also helps to "liberate" the provider from at least some of the frustration that invariably comes with treating patients who are non-adherent.

With the support of the care manager, Dr. C was able to see Ms. F and show her empathy and compassion. This prompted Ms. F to then apologize for her past behavior, including all the obstacles that she faced in coming to the clinic. This then allowed Dr. C to point out that he notices that Ms. F is trying very hard to make her appointments and that he was curious about what motivates her to come in at all. Ms. F then explained how she values being strong and independent, and that she wanted to make it to appointments to prove that she was capable of doing so. She stated that she often feels lonely and doesn't have many friends, but that she liked coming to the clinic and wanted to feel accepted by clinic staff, including by her doctor. Dr. C thanked Ms. F for sharing this with him and offered to partner with her in meeting her goals. He expressed understanding of how difficult it must be for Ms. F to feel judged by clinic staff and of her desire to connect with people who accept her. Dr. C then told Ms. F about the "healthy choices" group, and that he thought that this might be a place where Ms. F could come to connect with other people with health struggles like hers, without being judged. Ms. F was interested, and Dr. C then called in the care manager, who told Ms. F more about the group and connected with Ms. F on a personal level.

Ms. F attended the "healthy choices" group later that week. She was able to commit to a seemingly small dietary change, eating only one dessert with dinner instead of her usual two to three, which she expressed a high degree of confidence that she could attain. She was very proud to report to the group the following week that she had been successful. The group encouraged her and she began to feel close to several members. She began to reveal more details about her obstacles to change, including being a victim of sexual assault. After attending the "healthy choices" group for several weeks in a row, Ms. F agreed to participate in a support group for people with posttraumatic stress disorder at the community mental health center that was also co-led by one of the care managers.

At her 3-month follow-up appointment with Dr. C, Ms. F's BMI had dropped to 39 and her hemoglobin A1c had dropped to 10.2. However, she continued to have significant depressive symptoms, with a PHQ-9 score of 18, and hypertension, with blood pressure of 154/91. At that point, Ms. F agreed to initiate sertraline to assist in the treatment of her depression. She also agreed to take lisinopril and metformin, which she previously had resisted. The integrated mental health team maintained close contact with Ms. F during the initiation of sertraline, inquiring about any side effects or any other obstacles to adherence. Ms. F tolerated 50mg of sertraline with very few side effects, but her level

of depressive symptoms was still quite high. At the recommendation of the consulting psychiatrist, passed on via the care manager, Dr. C increased the sertraline dose to 100mg. Ms. F saw a partial response, with a PHQ-9 score of 12 after 1 month at this dose. Dr. C then increased the sertraline dose to 150mg. By the next 3 month follow-up visit, Ms. F had a PHQ-9 score of 7. More remarkably, she had a hemoglobin A1c of 8.4, a BMI of 36, and BP of 133/86.

9.2 Why Is a Population-Based Approach to Consultation-Liaison Psychiatry Needed?

Our population is growing rapidly, and with a geriatric population outpacing all other demographics we will see nearly one in five US residents aged 65 and older by 2030. Between 2010 and 2050, the US population is projected to grow from 310 million to 439 million, an increase of 42 %. The nation will also continue to become more racially and ethnically diverse, with the minority population projected to become the majority by 2042. (US Department of Commerce Economics and Statistics Administration 2010). With this growth comes an expanding need for care with a diminishing set of resources including financing, providers, and infrastructure. The largest component of this growing burden stems from chronic diseases such as diabetes and heart disease which are worsened by health characteristics like obesity and hypertension, and can be directly linked to ongoing health behaviors such as unhealthy diet, lack of exercise, poor sleep habits, and nicotine and alcohol use.

Mental illnesses and substance use disorders are very prevalent and are responsible for a significant amount of disability and mortality, either directly, or indirectly through poor medical health and decision making. In the population there is a 5–10 % prevalence of major depression, with up to three times that percentage having significant subsyndromal symptoms. In hospitalized patients this number is as high as 25 % (Barkin et al. 2000). Patients who have chronic medical illnesses have even higher risks of mental illnesses (such as major depressive disorder) and their complications (such as suicidal ideation) (Wells et al. 1988; Druss and Pincus 2000). In addition, mental illnesses, substance use disorders, and psychosocial factors can significantly complicate other medical illnesses. Mental illnesses, such as major depressive disorder, are associated with increased disability, reduced adherence to medical treatments, and worsened medical outcomes (Katon 1996). Early identification and effective treatment of mental disorders and other psychological factors affecting medical illness can dramatically reduce the costs, disability, and suffering associated with medical illnesses.

However, many people who suffer from mental illnesses and substance use disorders are not properly diagnosed, and those who are diagnosed often do not receive effective treatment. There are many factors that contribute to this unfortunate reality, including lack of awareness of mental illness and the availability of effective treatments, ineffective screening programs for mental illnesses, inadequate access to mental health treatment (due to shortages of trained mental health providers and limited insurance coverage of mental health services), isolation of mental health systems from other systems of care, and the stigma against mental illness which often makes people reluctant to discuss their mental health concerns or seek treatment. While mental health treatments for individual patients have advanced considerably in the last several decades, relatively little attention has been paid to translating these advances into advances for the mental health of large populations, until more recently. And unfortunately, the USA is currently ranked last in the quality of care outcomes in nearly every category of mental health and medical treatment in the developed world despite care being ranked as one of the most expensive health care systems globally (Kane 2013).

9.3 What Changes Are Being Seen?

As health systems adapt to more effectively and efficiently serve the health needs of entire populations, there is a growing recognition of the importance of more systematic approaches to the

identification and treatment of mental illnesses and substance use disorders at the population level. The patient-centered medical home (PCMH) and the Accountable Care Organization (ACO) are examples of health care delivery models designed to provide high-quality, cost-effective care to entire populations. These models effectively link a primary care "hub" to acute care and specialty care supports and provide incentives for prevention, early intervention, and proactive management of chronic illnesses at the most cost-effective level of care possible. Managing chronic illness at the most cost-effective level of care usually means avoiding unnecessary hospitalizations and specialty referrals and implementing standardized disease screening[1] and management protocols to increase the likelihood of efficient delivery of quality care. In these models, common, uncomplicated illnesses must be managed by primary care providers (not by specialists and not in acute care settings) whenever possible. This frees up the much fewer specialist physicians, psychiatrists in particular, to treat the more serious and emergent cases while the primary care doctors treat the simpler and more routine symptoms. This is particularly timely as experts and officials predict that the nation's psychiatric workforce will be short more than 22,500 physicians by 2015 (Iorfino 2013).

While outpatient psychiatric consultation-liaison services in the USA and the UK have been available since the first half of the twentieth century (Dolinar 1993), the vast majority of consultation-liaison psychiatry services have historically been oriented toward the highest levels of medical care (Mayou 1989), such as tertiary care inpatient medical/surgical hospitals and less commonly subspecialty outpatient consultation clinics (e.g., HIV psychiatry, perinatal psychiatry, and psycho-oncology clinics). This new model focuses on the general outpatient setting where the majority of patients are seen for more routine care and maintenance of the chronic conditions that will often lead to the need for treatment in this higher level of care. This provides a primary (prevention) or secondary (early treatment) level of preventive care rather than tertiary (minimizing consequences) at best (Centers for Disease Control and Prevention 2013).

Indeed, there have been a number of significant barriers to integration, including the following: inability of general medical patients to identify the psychiatric nature of some symptoms; reluctance of patients to seek or health care providers to recommend mental health care due to stigma; limited training of medical providers in mental health; lack of time to address mental health concerns (in addition to other general medical concerns) in the relatively brief general medical clinical encounter; and restrictions on insurance coverage for mental health services, particularly those provided in general medical settings and/or by general medical providers (Unutzer et al. 2006). However, the increased interest in integrated care (IC) and population health with PCMHs and ACOs, has sparked a renewed interest in the integration of mental health into overall health care, and particularly integration into primary care and other outpatient medical clinics. Integrated care answers each of these barriers in turn with specifically designed and targeted solutions. It is also constructed to change and adapt to apply to the diverse and the rapidly changing medical delivery environment.

9.4 What Is Integrated Care?

The concept of a health care system caring for the "whole person," including mental health needs, is not a new one. In fact, the delivery of care was historically far more all-encompassing, and in much of the world remains that way for reasons of culture, economy, or necessity. Treatment in many developing countries as well as much more rural areas in the industrial world have physicians that provide care from medical, to mental, to dental and surgical. Many deeply held cultural and spiritual beliefs specifically focus on the

[1] Editors' Note: There is some controversy concerning screening in general, including for depression (Force 2009; Thombs and Ziegelstein 2013, Deneke et al. 2014). The general consensus seems to be that this is effective only if reliable systems of care are in place to ensure accurate diagnosis and appropriate treatment by clinicians.

mind–body connections and can be seen to dominate the fields of traditional medicine practices that many people will turn to long before seeking care from more "western" approaches even in large US cities. These include: homeopathy, ayurveda, acupuncture, spinal manipulation, hypnosis, and traditional Chinese medicine (Turner 2013). When medical care involves these "eastern" techniques in practice, this is often labelled as "alternative, complementary, or integrative (not to be confused with integrated)."

There is a broad lexicon in the medical literature that expresses this general concept of combined care. This lexicon includes phrases such as "medical-mental health integration" or "collaborative care," "shared care," "co-located care," "primary care behavioral health," "integrated primary care," and even "behavioral medicine." In some ways, this divergent lexicon was beginning to become an obstacle to advancing research into and effective implementation of integration of behavioral health services into systems of general medical care due to the misclassification of different levels of integration in the research literature. In addition, because of the growing enthusiasm for integrated care, there was a temptation for programs to simply declare themselves "integrated," without performing the work necessary to achieve this distinction. In short, intervention was needed to prevent the integrated behavioral health landscape from becoming one in which "anything goes" (Peek 2013).

As a result, the Agency for Healthcare Research and Quality (AHRQ) convened an expert consensus panel to help provide a common integrated care lexicon. While many different models of integration are available and useful, the consensus panel defined the core concept of behavioral health and primary care integration as:

> "The care that results from a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population. This care may address mental health and substance abuse conditions, health behaviors (including their contribution to chronic medical illnesses), life stressors and crises, stress-related physical symptoms, and ineffective patterns of health care utilization" (Peek 2013).

This restates what is known as the Alma-Ata Declaration from the International Conference for Primary Health Care in September 1978. The Declaration of Alma-Ata begins by stating that health:

> which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal …

It goes on to call for all governments, regardless of politics and conflicts, to work together toward global health. Those who ratified the Declaration of Alma-Ata hoped that it would be the first step toward achieving health for all by the year 2000. In 2008, the World Health Organization (WHO) revisited the topic and released a 200 page report on the application of integrated care in vastly different populations across the globe and detailed the planning, implementation, and the successes and failures of many of these different strategies. These were largely successful and increased the number of patients successfully treated by orders of magnitude (2008).

The AHRQ consensus panel went on to define the key functions of integrated behavioral health care.

The key functions included:

1. A practice team tailored to the needs of each patient and situation
   Goal: To create a patient-centered care experience and a broad range of outcomes (clinical, functional, quality of life, and fiscal), patient-by-patient, that no one provider and patient are likely to achieve on their own.
   (a) *With a suitable range of behavioral health and primary care expertise and role functions available to draw from*—so team can be defined at the level of each patient, and in general for targeted populations. Patients and families are considered part of the team with specific roles.
   (b) *With shared operations, workflows, and practice culture* that support behavioral health and medical clinicians and staff in providing patient-centered care.
   (c) *Having had formal or on-the-job training* for the clinical roles and relationships of

integrated behavioral health care, including culture and team-building (for both medical and behavioral clinicians).
2. With a shared population and mission
3. Using a systematic clinical approach (and system that enables it to function)
   (a) *Employing methods to identify those members of a population who need or may benefit* from integrated behavioral/medical care, and at what level of severity or priority.
   (b) *Engaging patients and families in identifying their needs for care,* the kinds of services or clinicians to provide it, and a specific group of health care professionals that will work together to deliver those services.
   (c) *Involving both patients and clinicians in decision-making* to create an integrated care plan appropriate to patient needs, values, and preferences.
   (d) *Caring for patients using an explicit, unified, and shared care plan* that contains assessments and plans for biological/physical, psychological, cultural, social, and organization of care aspects of the patient's health and health care. Scope includes prevention, acute, and chronic/complex care.

Finally, the AHRQ consensus panel defined the supports necessary for these functions to become sustainable on a meaningful scale. These supports included:

1. A community, population, or individuals expecting that behavioral health and primary care will be integrated as a standard of care so that clinicians, staff, and their patients achieve patient-centered, effective care.
2. Supported by office practice, leadership alignment, and a business model
   (a) *Clinic operational systems, office processes, and office management* that consistently and reliably support communication, collaboration, tracking of an identified population, a shared care plan, making joint follow-up appointments or other collaborative care functions.
   (b) *Alignment of purposes, incentives, leadership, and program supervision* within the practice.
   (c) *A sustainable business model* that supports the consistent delivery of collaborative, coordinated behavioral and medical services in a single setting or practice relationship.
3. And continuous quality improvement and measurement of effectiveness
   (a) *Routinely collecting and using measured practice-based data* to improve patient outcomes—to change what the practice is doing and quickly learn from experience. Include clinical, operational, demographic, and financial/cost data.
   (b) *Periodically examining and internally reporting outcomes*—at the provider and program level—for care, patient experience, and affordability (The "Triple Aim") and engaging the practice in making program design changes accordingly (Peek 2013).

9.5 What Is the Continuum of Care Integration?

While the AHRQ consensus panel provided much-needed consensus as to the functions and supports necessary for "true integration," the reality is that attempts at integrated behavioral health care fall short of this ideal. In fact, most attempts at integration start as something less than full integration, and only achieve ideal integration with considerable time and effort. In a 1996 article, Doherty, McDaniel, and Baird proposed five levels of integration of mental health services into primary care (Doherty et al. 1996). However, since that seminal article, there have been many different adaptations that seemed to conflict with each other to some extent. Heath, Wise Romero, and Reynolds recently proposed a standard framework for levels of integrated health care. These levels are helpful, as they realistically describe different levels of integration on a continuum, recognizing the merits of each

level, and challenging health systems to aspire to higher levels of integration, whenever possible. The continuum of integration is as follows:

9.5.1 Coordinated Care

This is the system historically, and currently, present in most private medical and psychiatric offices.

Level 1—Minimal Collaboration:

Behavioral health and primary care providers work at separate facilities, have separate systems, and rarely communicate. When attempts at communication do occur, they are usually based on a particular provider's need for specific information about a mutual patient. Many referrals between practices are unsuccessful.

Level 2—Basic Collaboration at a Distance:

Behavioral health and primary care providers maintain separate facilities and systems, but view each other as resources and communicate periodically about shared patients. Behavioral health is viewed as "specialty care." Referrals between practices may or may not be routinely successful.

9.5.2 Co-located Care

This system is in place in some large organizations like Kaiser Permanente, the Veteran's Administration, and many teaching hospitals. Movement is steady towards this level of coordination.

Level 3—Basic Collaboration Onsite:

Behavioral health and primary care providers are co-located in the same facility, but may or may not share the same practice space. Providers still use separate systems, but communication becomes more regular due to close proximity. Referrals usually still occur at this level, but have a higher likelihood of success because the practices are in the same location. Providers may feel like they are part of a larger team, but the team and how it operates are not clearly defined, leaving most decisions about patient care to be done independently by individual providers. In some cases this can lead to the illusion of integration, without many of the benefits.

Level 4—Close Collaboration with Some System Integration

There is closer collaboration among primary care and behavioral health care providers due to co-location, and there is the beginning of integration in care through some shared systems. A typical model may involve an embedded behavioral health practice, where the primary care front desk schedules all appointments and the behavioral health provider has access and enters notes in the medical record. As professionals have more opportunity to share patients, they have a better basic understanding of each other's roles.

9.5.3 Integrated Care

This is the least common level of care, and is seen in centers who have focused on improving health care delivery like the University of California at Davis, the University of Washington, and the various sites involved in the IMPACT study.

Level 5—Close Collaboration Approaching an Integrated Practice:

There are high levels of collaboration and integration and behavioral and primary care providers begin to function as a true team, with frequent personal communication. The team actively seeks system solutions as they recognize barriers to care integration for a broader range of patients. Some issues may not be readily resolved, but providers understand the different roles team members need to play and they have started to change their practice and the structure of care to better achieve patient goals.

Level 6—Full Collaboration in a Transformed/Merged Practice:

The highest level of integration involves the greatest amount of practice change. Extensive collaboration between providers has allowed old system cultures to blur into a single merged practice. Providers and patients view the operation as a single

health system treating the whole person, and this "whole person" principle is applied to all patients, not just targeted groups (Heath et al. 2013).

9.6 How Is Primary Care Integration Structured?

There are many ways to construct an IC program, and much is written on this topic. One of the most widely studied and implemented models of integrating mental health services into primary care is the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) model developed at the University of Washington. The original IMPACT trial followed 1,801 depressed, older adults from 18 diverse primary care clinics across the USA for 2 years. The 18 participating clinics were associated with eight health care organizations in Washington, California, Texas, Indiana, and North Carolina. The clinics included several Health Maintenance Organizations (HMOs), traditional fee-for-service clinics, an Independent Provider Association (IPA), an inner-city public health clinic and two Veteran's Administration clinics. IMPACT has now been implemented at many more sites throughout the USA, and also internationally (Unützer et al. 2001, 2002). IMPACT was originally designed to focus on the identification and treatment of depression, but has since been adapted to also address other behavioral health problems seen in primary care clinics such as generalized anxiety, PTSD, and substance abuse.

The key components of the IMPACT model include: (1) close collaboration between the primary care provider and a behavioral health care manager, (2) active participation of a behavioral health care manager in the monitoring and care of patients identified with behavioral health problems, using evidence-based screening and treatment techniques, (3) more peripheral involvement of a consulting psychiatrist who assists in the care of patients who are not responding to treatments as expected, (4) close monitoring of individual and population-level outcomes using evidence based tools, and (5) "stepped care" with closer scrutiny and level of involvement for patients who are not responding to treatment as expected. Due to its initial focus on depression, IMPACT screened for and tracked depressive symptoms using the Patient Health Questionnaire-9 (PHQ-9), a nine item self-administered depression questionnaire that completed in about 2 min (Kroenke et al. 2001). The first two items of the PHQ-9, called the PHQ-2, have been shown to perform nearly as well as the PHQ-9 in the screening function (Löwe et al. 2005). IMPACT has been adapted to use screening tools for other mental health symptoms, such as the GAD-7 for generalized anxiety (Spitzer et al. 2006). Based upon these symptom rating scales and other relevant clinical factors, treatment is adjusted based upon clinical outcomes and according to an evidence-based algorithm (Unützer et al. 2001, 2002).

The success of the IMPACT model hinges upon of all members of the team having a clear understanding of their respective duties. The patient (often accompanied by family members) is at the center of the team, and is ultimately responsible for defining goals and the direction of care. Nothing is done without the consent and participation of the patient. IMPACT is designed to engage the patient as an active participant in their treatment. Education about mental health symptoms and treatment is essential in preparing the patient to be an active member of the team, and to help prevent relapse when preparing for discontinuation of active care management (Katon et al. 1995; Unützer et al. 2001, 2002). This is further developed with objectively studied brief therapy techniques such as Motivation Interviewing (MI) for substance abuse treatment, and Problem Solving Therapy (PST) for developing new and more adaptive health behaviors.

The primary care provider (PCP) is also a critical team member in the IMPACT model, and is responsible for encouraging the patient's participation in care activities, prescribing antidepressant medications, providing treatments aimed at comorbid medical conditions, and for referrals to specialty mental health care when needed.

The care manager in the IMPACT model is responsible for supporting the patient and PCP in

depression treatment. The care manager is expected to:

- Provide patient education on pertinent behavioral health topics (e.g., sleep hygiene, antidepressant medication, etc.)
- Support medication therapy prescribed by the PCP by following up with the patient after medication is prescribed to provide education, encourage adherence, and monitor for/mitigate side effects
- Engage patients in behavioral activation at each contact
- Offer evidence-based counseling or refer the patient for such counseling or psychotherapy, when indicated
- Track depression and other behavioral health symptoms at each contact to monitor the effectiveness of treatment
- Notify the PCP when the patient has been in treatment for more than 10–12 weeks without adequate improvement
- Coordinate consultation from the psychiatrist regarding treatment changes
- Complete a relapse prevention plan with the patient when they are ready to leave active care management

Care managers can be nurses, psychologists, social workers or licensed counselors.

The usual caseload for a full-time care manager is approximately 100–150 patients. Some models split the care manager duties into the routine activities that can be handled by a paraprofessional (e.g., Medical Assistant) and those better handled by a more highly trained professional. This can be an efficient use of resources and allows the care manager to carry a larger caseload. In the literature this position has been given many different titles including: (behavioral health) care manager (CM), behavioral health consultant (BHC), expert (BHE), or provider (BHP).

The consulting psychiatrist's two primary responsibilities are clinical consultation to the care manager and the patient's PCP, and direct patient consultation for patients who are not improving after several treatment changes or who are suspected to need specialty mental health care (e.g., patients with bipolar disorder or schizophrenia). The consulting psychiatrist meets with the care manager weekly for about an hour (either in person or by telephone) and they review new patients and any patients who have been in treatment for 10–12 weeks who are not showing adequate improvement in their depression symptoms. The psychiatrist suggests treatment modifications for the PCP to consider, which are usually communicated to the PCP by the care manager and/or in the medical record. The psychiatrist is also available to both the care manager and the primary care providers for ad hoc telephone consultations and for an in-person consultation in those rare instances when that is needed. For example, in the IMPACT randomized trial for depressed elderly patients in primary care, only about 10 % of all patients receiving active care management had an in-person consultation with the consulting psychiatrist (Unützer et al. 2002).

Relative to other integrated care models, IMPACT has spread to a wide variety of settings because its developers encourage providers and organizations to adapt the program to meet the unique needs of their setting, only recommending that they adhere to the key components (defined earlier) and work toward the quality goals below:

Depression Screening: 75 % of patients will have documentation of annual screening for depression with the PHQ-2 or similar screening measure

Diagnosis: 75 % of patients who have a positive screen will receive a structured depression assessment (e.g., PHQ-9) to help confirm a diagnosis of depression within 4 weeks of screening

Initiation of Treatment: 75 % of patients diagnosed with depression will have initiated treatment (antidepressant medication, psychotherapy, or ECT) or attended a mental health specialty visit within 4 weeks of initial diagnosis

Measurement of Treatment Outcomes: 75 % of patients treated for depression will receive a structured clinical assessment (i.e., PHQ-9) of depression severity at: *baseline*: within 2 weeks prior or subsequent to treatment initiation *follow-up*: within 8–12 weeks following treatment initiation *continuation*: within 3–6 months following treatment initiation

Adjustment of Treatment Based on Outcomes: 75 % of patients treated for depression with a PHQ-9 score of ≥ 10 at follow-up will receive an adjustment to their depression treatment (e.g., change in antidepressant medication or psychotherapy) or attend a mental health specialty consult within 8–12 weeks of initiating treatment

Symptom Reduction: 50 % of patients treated for depression will have a decrease > 50 % in depression symptom levels from baseline as measured by the PHQ-9 or similar quantifiable measure and a PHQ-9 score < 10 within 6 months of initiating treatment (Source: http://impact-uw.org)

9.7 What Does Integrated Care Look Like to a Patient?

To a patient this new system looks both similar and different when compared to traditional care. They arrive at their familiar primary care office and check in at the front desk in the same way as always. Depending on the IC model, and the reason for the visit, the patient might be given a mental health screening form to fill out in addition to any other paperwork. When called into the back office they will meet with a member of the nursing staff to take their vital signs and preliminary information as usual, but this will now include a brief mental health screen if they have not already done one.

Here is where things could diverge more obviously. If mental health issues are prominent, there may be an additional phase of the appointment here before the primary care doctor becomes involved. A more detailed discussion of the mental health situation or symptoms may ensue now with the nursing staff member or with the behavioral health care manager. After this the patient will see their familiar primary care provider and discuss both their physical and mental health needs. The PCP will listen to the symptoms and advise the patient on the next phase of evaluation and treatment which may include more screenings, laboratory tests, or consultations. At this point prescription medications may be written for the treatment of either somatic or mental health conditions. The patient will then either end the appointment by scheduling a follow-up with the same office, or with a specialist which might include a therapist or psychiatrist. If more health education is required, the patient may again meet with nursing staff or care manager. The patient will likely leave the appointment with educational material on physical and mental health conditions, but also strategies for management of these and other ongoing health behaviors that can maximize overall health and well-being. The patient may be told to expect a call in a few days in order to ascertain how their treatment is going (ex: symptoms or medication side effects) or in order to determine whether they have been successful in connecting to subspecialty services.

What the patient will not observe will be the algorithm that had been developed to guide the navigation of this appointment, the integrated team meeting that discussed their case if it was difficult or unique, or the recommendations given by the psychiatrist consultant to any of the different team members individually if contacted. Although present in the process at all points in this care, the consulting psychiatrist will likely never meet directly with the patient.

9.8 Is Integrated Care Effective?

IC has consistently demonstrated excellent results in a variety of settings in both the improvement of mental health and substance abuse outcomes, but also medical illnesses as well. The IMPACT model of depression care described above is one of the most cited successes for the integration of mental health care in to the primary care setting. In this 1998–2003 study we see the care model more than doubles the effectiveness of depression treatment in primary care settings, with a decrease in cost by half. At 12 months, about half of the patients receiving IMPACT care reported at least a 50 % reduction in depressive symptoms, compared with only 19 % in the usual care. The IMPACT patients experienced more than 100 additional depression-free days over a 2-year period than those treated in usual care.

Furthermore, even 1 year after the program was discontinued, benefits of the intervention persisted (Unützer et al. 2002).

The integrated approach seems to work with patients of all ages. Results suggest that reductions in drinking can also be achieved. Other conditions, such as somatization, are earlier on the research trajectory. The potential for other mental health conditions, such as PTSD, have yet to be systematically studied, but early results appear promising (Butler et al. 2008). The new delivery method also shows benefits for severely depressed patients with suicidal ideation who are seen more quickly and delivered to more acute care in a more timely fashion (Kripalani et al. 2010).

Another program was completed in 2006 in Texas through St. David's Community Health Foundation, at People's Community Clinic and Lone Star Circle of Care. Both clinics provide primary care to "safety-net" populations. Again we see an improvement in 58 % of patients, who experienced a 50 % or greater reduction in their depression scores. This outcome far exceeds the 28 % estimates for what was expected with usual care alone and even exceeded the 40 % goals for collaborative care. Additionally, emergency room and primary care provider visits declined significantly in the follow-up period, shifting IBH patients from "heavy" to "average" utilizers. Globally, the patients report significantly better overall health, less pain, and more energy (Watt 2008).

The true scope of integrated care becomes evident when we see that when patients have better mental health, they also have better physical health. It is said that there can be no physical health without mental health. Mental disorders have repeatedly demonstrated an increased risk for communicable and non-communicable diseases, and contribute to unintentional and intentional injury. A 2010 study showed as compared with usual care, an intervention involving nurses who provided guideline-based, patient-centered management of depression and chronic disease significantly improved control of medical disease as well as depression (Katon). Research in 1999 suggested that the maintenance of emotional well-being is critical to cardiovascular health, that patients who felt "lonely, depressed, and isolated" have been found to be significantly more likely to suffer illnesses and to die prematurely of cardiovascular diseases than those who have adequate social supports (Williams). It has been found that not only is depressed mood a risk factor for the development and progression of cardiovascular disease, but that there is a strong link between depression and poor outcomes following a cardiovascular event. These patients are less likely to follow treatment such as taking aspirin, antihypertensive drugs, and lipid-lowering medications (Ford 2003). Enrollment in a co-located, integrated clinic was repeatedly associated with increased primary care use and improved attainment of cardiovascular risk goals among veterans with serious mental illness (Pirraglia et al. 2012) and in particular patients with bipolar disorder (Goodrich et al. 2012l).

Other chronic illnesses, such as obesity (Pratt et al. 2013 and Bonfioli et al. 2012), diabetes (Katon et al. 2012), inflammatory bowel disease (Mikocka-Walus et al. 2012, 2013), and hepatitis C (Groessl et al. 2013; Newman et al. 2013) all have shown marked improvement after integration of services as well.

9.9 What Is "Reverse Integration?"

Whereas by population most patients with mental health needs will be seen in the primary care settings, this does not account for the portion of the population with the most severe mental illness. These patients, particularly those with schizophrenia, have much higher incidences of heart disease and metabolic syndrome than the general population and show increased risks of infectious disease, pulmonary disease, and substance abuse (Goff and Newcomer 2007). People with serious mental illness die on average 25 years earlier than the general population, not only through suicide and injury but 60 % of premature deaths are due to preventable medical conditions. These include a high incidence of smoking (½ the cigarettes smoked in the USA), sedentary lifestyle, high rates of obesity (42 %), poor nutrition, comorbid substance use disorders, and often with very

limited access to quality health care (Real 2013). In this case, we need a second type of integration of care aimed at having medical services available to clients being treated in more long-term behavioral health settings. This second model has been called "reverse integration" or "reverse co-location" when more limited (Collins et al. 2011).

This system modifies the role of the psychiatrist in helping to maintain the physical health of patients, just as the previously described system enhanced the mental health care duties of the primary care provider. Targeted tasks for the mental health team include monitoring for weight gain and other cardiac risk factors that may be increased by psychotropic medications, and emphasis on the importance of communication between psychiatrists and primary care providers. Psychosocial interventions can include meditation or walking groups, smoking cessation classes, and yoga. Here the primary care doctor observes, teaches, and consults. Integrating care is described by the Substance Abuse and Mental Health Services Administration as "vital to addressing all the health care needs of individuals helping to maintain the physical health of patients, just as the previously described system enhanced the mental health.

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