# Chronic Care, Integrated Care & Mental Health: Moving the Needle Now

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This is the author's manuscript of the article published in final edited form as:

Sullivan, W. P., & Wahler, E. A. (2017). Chronic care, integrated care, and mental health: Moving the needle now. Social Work in Mental Health, 1-14. http://dx.doi.org/10.1080/15332985.2016.1265636

## ABSTRACT

Healthcare reform is currently a hot topic in the U.S., and the Chronic Care Model has frequently been cited as the foundation of recent attempts to integrate mental health and physical health care. However, challenges exist to fully integrated care that have delayed adequately meeting the multiple needs of mental health service recipients. This article highlights multiple changes that can be incorporated into mental health care now, derived from the Chronic Care Model, to better meet clients' physical and mental health needs. These changes include focusing on population-level data and incorporating technology and multidisciplinary teams in treatment and prevention efforts.


Keywords: integrated care, Chronic Care Model, healthcare reform, mental health

There are a number of prevailing forces, from fiscal concerns to humanitarian impulses, that have elevated health care as a hot-button topic in America. In fact, few would dispute the fact that the Patient Protection and Affordable Care Act (PPACA) remains a polarizing issue in the political arena and among the general populace. Whatever the future may hold about this particular piece of legislation, or any that follows, the nation faces some difficult decisions and stiff challenges in every aspect of the health care arena. Among these tough challenges is figuring out how to successfully tackle and reduce the problem of comorbid mental and physical illnesses.

Under mental health parity laws as well as the PPACA, mental health issues are supposed to be on par with physical illness in coverage and treatment. Despite this, mental illness often goes under-recognized and unaddressed in primary care settings. In any discussion of health care practice and policy it is wise to heed Sederer's (2016) proclamation that, "We ignore mental health at our peril because of its role in the prevention of all diseases and its huge direct and indirect impact on chronic illness" (p. 23). In addition, Bartels (2015) argues that serious mental illness "represents the single greatest and least recognized health disparity in the nation, reflected in a 13- to 30-year reduced life expectancy" (p.9).

While the cause of early mortality for persons with mental illness might be a function of biophysical factors yet detected, more than anything this distressing outcome appears to be related to preventable and/or treatable chronic health conditions such as cardiovascular disease, diabetes, asthma and other like problems (Bartels, 2004; Cabassa, Ezell, & Lewis-Fernandez, 2010; McGinty, Baller, Azrin, Juliano-Bult, & Daumit, 2016; Scharf, et al., 2013: Strine, 2008; Xiang, et al, 2016). Despite high rates of comorbidity between mental illness and chronic

physical health conditions, the mental health care system often under-identifies and addresses other healthcare needs.

**Problems with the Current System of Care**

The plight of those with the most serious mental illnesses has placed one of the enduring weaknesses of community-based mental health services in bold relief. The lack of attention to the physical health needs of service recipients, and the dearth of linkage with medical providers would appear to account for the persistence of conditions that lead to early mortality. However, failures can be found in other health care settings. Bodenheimer, Wagner, & Grumbach, (2002), observing the state of medical practice, speak of the 'tyranny of the urgent,' where visits are brief and conversations about lifestyle changes and self-management are limited. When appointments last an average of fifteen minutes it is not surprising that many behavioral health issues are overlooked. This is troubling, because it is clear that people commonly present with these conditions in primary care settings. In fact, it is where people are likely to first turn for help even when they correctly identify the source of their distress (Mechanic 2014; Norfleet, Ratzliff, Chan, Raney, & Unützer, 2016; Unutzer, Schoenbaum, Druss, & Katon, 2006). Failure to address these conditions has negative ramifications for the course of illnesses, treatment adherence, and costs (Ludman, et al., 2016; Sederer, 2016; Unutzer, et al., 2006). Even when family practitioners recognize and assess behavioral health issues there is no guarantee that they will be successful in the quest to link their patients with specialty care (Davis et al, 2015; Unutzer, et al., 2006).

Additionally, the current system often focuses primarily on treatment of individuals rather than addressing the needs of populations, despite the impetus from the PPACA to focus on prevention and wellness and addressing social determinants of health. Whether operating

from a public health model, described by Powers (2009) as "a community approach to preventing and treating illnesses and promoting well-being" (p. 581-582), or by a medical model, an approach focused on how genetic predisposition for illness can be activated or remain dormant in different contexts, it is obvious that illness strikes different populations at different rates based on the context in which they live. This relationship between context and physical and mental health appears to be at least partially associated with environmental stressors and our stress response system (Sederer, 2016). High stress results in an increased allostatic load, and the higher the allostatic load, the more likely it is that a person will develop depression, anxiety, cognitive or memory problems, cardiovascular problems, a suppressed immune system, or other symptoms of physical or mental illnesses (McEwen, 2000; McEwen, 2004). From either of these approaches, we are left needing to address population-level characteristics that expose certain groups of people to higher amounts of stress than others. To decrease both physical health and mental health concerns in at-risk groups, efforts should target people who have experienced adverse childhood experiences, trauma in all its forms, poverty, food insecurity, or have lack of access to care (Barr et al., 2003; Beardslee, et al., 2011; Fisher & Baum, 2010; Sederer, 2009).

While discerning the best way to overhaul our system is a daunting task, it seems clear that the time has come to do so. A lofty goal is before us, one that Berwick and colleagues (2008) describe as the triple aim: "improving the experience of care; improving the health of populations; and reducing the per-capita costs of care for populations" (p. 760). While this may be a worthy aspiration, any range of indicators underscores just how short we are from this objective. As Berwick et al. (2008) note,

> Despite spending on health care being nearly double that of the next most costly nation, the United States ranks thirty-first among nations on life expectancy, thirty-sixth on infant mortality, twenty-eighth on male healthy life expectancy, and twenty-ninth on female healthy life expectancy" (p. 759).

French (2009) has deemed this state of affairs as a value gap, marked by the reality that increased expenditures on health care has not produced appreciable gains in overall health.

The unsolved problem of addressing physical health concerns in persons with mental illness is not for lack of trying. McGinty et al. (2016) reviewed over 8,500 articles on behavioral interventions with individuals diagnosed with serious mental illness that were geared to impact health behaviors including smoking, weight and obesity, and diabetes. Overall, the host of interventions demonstrated limited effectiveness, with efforts to help participants lose weight found to be the most efficacious. The authors conclude that duration and intensity may need to be increased to generate positive outcomes.

## The Promise and the Reality of Integrated Health Care

The question that plagues policymakers, practitioners, and consumers is how health care can be best organized and delivered to best approximate the "triple aim" and reduce the value gap described earlier. The recognition and assessment of chronic conditions, efforts to help recipients learn and use self-management skills, implementation of evidence-based practices, developing, managing and using clinical information tools, and forming practice teams and enhancing care management capability require major systems overall and cultural change. This work cannot be done by a primary care physician alone, but will require the active participation of social workers, dieticians, care managers, pharmacists, health educators, and peer support specialists (Milani & Lavic, 2015). Not surprisingly the fiscal system that supports care must

also change to reimburse interventions that are now perceived as central to care and not supplementary.

Many place great hope in the integration of physical and mental health care recommended under the PPACA and, to date, many mechanisms have been developed to bring this concept alive. Such arrangements include co-located services to fully merged systems, patient-centered medical homes, and accountable care organizations, just to name a few of the emerging possibilities (Woltmann, Grogan-Kaylor, Perron, Georges, Kilbourne, & Bauer, 2012). However, it is important to note that structural or legal mechanisms designed to bring diverse services together do not ensure a true integration of care at the practice level. Heath, Wise Romero, and Reynolds (2013) have offered a framework to assess the level of integration in health care settings; the six levels of this framework range from minimal collaboration to fully transformed and merged practice arrangements. Fully integrated settings incorporate multiple service providers under the same roof, operating as a single health system, in order to seamlessly treat the multiple and varied needs of all patients.

The Chronic Care Model (CCM) is most frequently cited as the foundation of integrated healthcare systems (Wagner, Austin, & Von Koroff, 1996). Rather than focus on treating symptoms and illnesses in a reactive manner, the CCM attempts to be proactive in its approach (Coleman et al., 2009). The CCM is an attempt to restructure the primary care setting to better meet the needs of patients with chronic conditions, and consists of six elements, 1) focusing on teaching and supporting patients to self-manage their condition, 2) making clinical decisions based on supporting evidence as well as patient preferences, 3) delivering healthcare services in a manner that is effective and efficient (even utilizing non-clinical staff as needed), 4) managing data and using information to inform outreach and performance evaluation efforts, 5) focusing on

continuous performance improvement to meet patient and community needs, and 6) connecting patients with natural resources in their community to help improve prognosis for recovery and long-term illness management (Bodenheimer et al., 2002). Evidence from evaluations of CCM-based healthcare programs suggests that improvements in the quality of care and patient outcomes result from applying this model of care (Coleman et al., 2009), particularly as a result of the emphasis on teaching self-management skills (Bodenheimer, Lorig, Holman, & Grumbach, 2002).

The reality is that no matter how rational the argument for integrating physical and behavioral health is, there are multiple barriers to doing so from attitudes and customs, to practice and fiscal policy. For example, offering co-located services may ease the recipient's burden of movement between physical care and behavioral health specialists but does not guarantee that there will be exchanges of information and mutual involvement in the care planning process among all parties. As the level of integration increases there is a single point of contact for all services, billing and other like functions are also merged, but actual practice and culture still remain insufficiently integrated. At the highest level there is a true integration of practice and cultures are merged. Getting to the final level of integration is hard because it involves fundamental changes to an organization that range from philosophy of care down to the minutiae of policies, process, and forms. Those who have embarked on integration efforts, and those who have studied them, are reporting how challenging it is (Davis, Balasubramanian, Waller, Miller, Green, & Coben, 2013; Durbin, Durbin, Hensel, & Deber, 2013; Grace, Rich, Chin, & Rodriguez, 2016; Padwa, et al., 2016; Schuffman, Druss, & Parks, 2009).

## Suggestions for System Improvements

Why wait for the kinks to be worked out of fully integrating health care systems to do this work? Instead it may be wise to begin the pragmatic transformation of mental health care right now. Given what we know about the global health care needs of mental health service recipients, it is time to retool our service systems incrementally to better address comorbid conditions. The following are some specific suggestions for improvements, applying elements of the CCM, that can be incorporated in and by mental health organizations to begin to improve the current system of care.

1. **Identify at-risk populations in the community and focus on screening and early intervention**

Thomas et al. (2016) strongly believe that activities that promote mental health and prevention can be lodged in general medical practice and doing so will "reduce illness, save lives, and save money" (p. 4). To effectively do this, Thomas and colleagues suggest mapping risk factors and resources in communities, identifying at-risk individuals, and instituting routine screening efforts for both physical and mental health conditions. We would also argue that activities using similar processes should be used to promote physical health in mental health settings to reduce rates of comorbid chronic illnesses or, at the very least, reduce symptoms. This incorporates the same population-based focus on care and outreach services encouraged by the CCM.

One way that mental health agencies can promote early intervention is to partner with primary care settings to ensure at-risk individuals are regularly screened for mental illness to improve the ability to identify and intervene with at-risk individuals at an early stage. Early

detection of mental health concerns can significantly alter the course of illness and support recovery, even with psychosis. While prevention of such illnesses may lie beyond the horizon, it has become increasingly clear that the prodromal period, or that space between recognition of difficulties and first entry into care is critical to the recovery process (Lynch et al., 2016; McFarlane, et al., 2014; Rosenheck, et al., 2016). One example of a successful screening and early intervention program for psychosis that could be reproduced in other communities is the Portland (ME) Identification and Early Referral Program (PIER). This program trained over 7,200 physicians, pediatricians, school counselors, and staff at community mental health centers and other key local agency personnel on information about early signs of psychosis, the benefits of early treatment, and the importance of rapid referral when concerns were present. These trainings resulted in increased referrals for mental health assessments and increased education, crisis intervention, medication, and outreach as indicated by patient need. Similarly, the Early Detection, Intervention, and Prevention Program was also designed to detect early signs of psychosis in youth arriving for care in emergency rooms (see Lynch et al., 2016), and was another successful program that led to the identification of at-risk youth and referral for community care when needed. Programs such as these could be replicated, through partnerships between mental health and primary care service providers, in other areas to identify individuals in the early stages of mental illness and to refer them for services before symptoms worsen. Conversely, mental health providers can also partner with primary care providers to more effectively screen for common comorbid physical health conditions in mental health settings, and to refer for primary care for education, intervention, or medication as needed.

**2. Emphasize self-management of both mental and medical illnesses.**

One of the key features of the CCM is recognizing that the service recipient is the central caregiver and that teaching self-management is important to long-term recovery and illness management (Bodenheimer et al., 2002). Self-management has been used previously to help individuals cope with and manage chronic health conditions such as cardiovascular issues, asthma, or diabetes, depression, bipolar disorder, or psychotic disorders, focusing on helping consumers make necessary lifestyle changes, comply with prescribed medication schedules, or effectively deal with hallucinations or delusions. Self-management can be taught individually or in group format, and can utilize professional caregivers as teachers as well as trained peer mentors. Because of its success with helping people manage chronic illnesses, it is recommended that facilities treating people with comorbid mental and medical illnesses teach self-management skills as applicable.

**3. Use technology to enhance assessment and care.**

Improvements in service delivery are a key element of the CCM, and incorporating technology into assessment and care can result in efficient and effective service improvement. Technology can be helpful for assessing for co-occurring disorders or risk factors, particularly in tech-savvy populations such as adolescents. As an example, Gadomski (2015) observed that in primary care, adolescents are rarely screened for depression, reproductive health, and other key conditions that are salient at this time of life but difficult for young people to bring up with time-pressured physicians. To counter this, tablets were used to engage youth and serve as a pre-visit screening tool. The youth were found to be more engaged, attentive, and responsive during their medical appointments, discussed concerns more freely, and provided more psychosocial information to the physician than did their counterparts who did not use tablets.

Similar approaches could be used in mental health care to assess for risk factors of not only mental health disorders, but also physical health conditions. Some individuals are reluctant to discuss risky sexual practices, problematic alcohol or drug use, or physical symptoms-- all of which could be related to comorbid physical health conditions or substance use disorders-- and and might be less reticent if these conditions were screened using tablet-based assessment instruments.

Additionally, e-health, in various platforms, is transforming service delivery and has the potential to reach those that rarely present for care. New tools available online may facilitate engagement, help create and sustain supportive networks, provide useful information on various conditions, and present helpful ideas for self-management (Lal & Adair, 2014; van der Krieke, Wunderink, Emercenica, de Jong, & Sytema, 2014). Mobile-phone based applications have shown promise for assisting with self-management, symptom tracking, and symptom reduction of both mental health (Donker et al., 2013; Price et al., 2014) and physical health-related conditions and symptoms (Kamel Boulos et al., 2014). Internet-based social support for those facing anxiety and depression has been found to be effective (Lal & Adair, 2014), as well as reducing isolation, decreasing distress, and increasing control and illness knowledge for persons with chronic physical health conditions (Rollman, Belnap, & Rotondi, 2014). Computer-based self-management initiatives for anxiety, obsessive compulsive disorder, and phobias have been found to improve quality of life and decrease symptoms (van der Krieke et al., 2014), and have also been effectively used for managing chronic health conditions such as diabetes (Pal et al., 2014). Also, computer technology has been used in the shared decision-making process to allow individuals the opportunity to provide background information and raise issues and concerns in advance (Drake, Deegan, & Rapp, 2010); incorporating patient concerns into treatment planning

and decision-making is an important component of the CCM and should be equally important in modern mental healthcare.

With the increased use of technology in healthcare comes concerns about the computer literacy of some populations. However, a review of 28 articles about the use of technology by persons with psychotic disorders and physical health needs found that a broad range of people are both willing and able to use technology, and that when used in conjunction with shared decision making, medication adherence improved (van der Krieke et al., 2014). In other important outcome areas, this review also found that e-mental health interventions were rated as effective as standard care. Although much additional work is needed in this arena, technology-based or enhanced services show promise for meeting the needs of individuals with comorbid mental and physical health problems.

**4. Incorporate lifestyle interventions and health promotion activities into mental health services**

From the extant literature, it has been well-established that lifestyle factors, such as diet, exercise and tobacco use, can affect the illness and recovery processes for both mental and physical disorders. Cabassa et al. (2010) reviewed 23 studies describing highly rigorous lifestyle interventions published between 1980 and 2009. Although they noted a relative lack of modifications in interventions to account for cultural and linguistic issues, they reported that "lifestyle interventions that combine exercise, dietary counseling, and health promotion show promise in addressing the physical health needs of people with mental disorders" (p. 781). Similarly, Richardson et al. (2005) found evidence that exercise interventions resulted in decreased mental health symptoms, decreased physical health symptoms and hospitalizations,

and increased self-esteem and social interaction for individuals with comorbid mental and physical health problems.

Additionally, many health problems for persons with mental illness are related to smoking and could benefit from smoking cessation support; Evins et al. (2015) discern that while there have been dramatic decreases in smoking among Americans over the past half-century, the rates of smoking among those with serious mental illness remain high. Many seen in clinical populations express a desire to quit but receive little direct assistance to do so. This review indicates that behavioral interventions for smoking cessation, despite high intensity, are largely ineffective. However, pharmacological interventions result in abstinence rates that mirror those found in people without such mental health challenges, and do not appear to increase symptoms due to the medication or withdrawal from smoking. For mental health service recipients who smoke, inquiring about their desire to stop smoking and offering support and referral to a physician for potential pharmacological intervention could result in reduced smoking-related illness and symptoms.

Some interventions for addressing comorbid mental illness and physical health problems have been developed but are underutilized. One such intervention used in a primary care setting, The STRIDE program, features two-hour group meetings focused on depression self-management skills and 20 minutes of physical activity (Ludman et al., 2016). Participants in the program lost at least 5% body weight at one year follow up, and also had a significant decline in fasting glucose. Another similar intervention involved community outreach, education on self-management skills co-led by a peer, and outreach care management to address depression (Ludman et al., 2016). Results indicated that participants' recorded high recovery scores, less severe symptoms, and were less likely to report being depressed. Peer providers were highlighted

as particularly crucial to success. The success of these interventions highlights the possibilities for better meeting clients' comorbid needs.

**5. Treat the whole person, not just the medical or mental illness**

People seeking treatment for comorbid mental and physical illnesses often have co-occurring needs that are not always addressed in traditional service settings but play a significant role in the disease prognosis and recovery process. Under the CCM, the whole person should be treated and additional needs met by service providers. Case management interventions that help connect service recipients with community resources to meet their additional needs, such as housing, can make a difference in their overall functioning and wellness. For example, Housing First and supported employment both are based on the premise that lack of available supports, not the impact of mental illness, that blocks an individual from realizing their goal to live and work in the manner and environments of their choice (Whitley & Drake, 2010). Assertive community treatment (ACT) is an evidence-based practice that is omnipresent in community mental health and attempts to ensure consumers are connected with resources to meet their various needs. In fact, ACT teams presaged the move to integrated care, given that they are multidisciplinary by design and focus on a wide range issues from medication management to issues of employment and housing (Bond & Drake, 2015).

Additionally, to effectively help service recipients, practitioners should incorporate family education and support programs in the person's treatment and recovery plan. Family education and support services help families gain a better understanding of mental illnesses, learn methods that can be used to help loved ones, and also are a source of personal support given the strain of caring for a family member (Lucksted, McFarlane, Downing, & Dixon 2012).

**6. Communicate across, and even outside, disciplines.**

In daily work, Thomas et al. (2016) stress the importance of developing interdisciplinary teams, and encouraging work across service sectors. This is an important component of the CCM and integrated care provision. Although fully integrated care means that different disciplines are housed in the same agency and provide care to seamlessly meet mental and physical needs of service recipients, it is a move in the right direction to collaborate with different disciplines even if housed separately and operating as distinct services. Additionally, not all services need to be offered by degreed professionals, and peer supports or peer providers are viable options for providing extra care to meet client needs. The use of peer supports and peer-run programs has been a staple in mental health and substance use programs for years, and can be helpful in efforts to integrate primary care in community mental health settings (see Resnick & Rosenheck, 2008; Scharf, et al., 2013).

**7. Advocate for policy change.**

Beyond the micro level work, attention should also be devoted to boosting community resilience through the promotion of good health, encouraging formal and informal support networks, and even creating green spaces in urban environments. Prevention efforts for children and adolescents must include early nutrition and parenting programs, pre-school and school age programs that promote academic success, and wide-scale efforts to reduce trauma, including bullying and sexual victimization (Thomas, et al., 2016). Efforts should be extended to identify and ameliorate, to the degree possible, those conditions that impede optimum development and realization of potential for individuals in their communities such as poverty and inequality, food scarcity, and lack of education and employment opportunities. Certainly, many of these concerns are outside of the normal purview of primary care physicians and mental health

professionals, and fall into the area of public policy; however, mental health providers and professional organizations can and should advocate for policy change and broad-scale prevention activities to reduce the impact of social determinants of health.

## Conclusion

Each of the pieces presented above can be used to develop a coherent, cohesive, and effective health care and health promoting system that can benefit all people served by mental health agencies. Yet, as Bartels (2015) warns,

> The greatest current barrier to increasing the life expectancy of persons with serious mental illness is no longer a knowledge gap – it is an implementation gap. Integrated health promotion is not a part of the core mission, capacity, competency, and, most importantly, usual array of programs among Medicaid-reimbursable service provided by most community mental health organizations (p. 10).

With some small changes in our current system, this implementation gap can be closed, offering more comprehensive services to our consumers and resulting in improved outcomes for the people we serve.

# References

Barr, V. J., Robinson, S., Marin-Link, B., Underhill, L., Dotts, A., Ravensdale, D., & Salivaras, S. (2003). The expanded Chronic Care Model: An integration of concepts and strategies from population health promotion and the Chronic Care Model. *Healthcare Quarterly*, *7*(1). 73-82.

Bartels, S, (2004). Caring for the whole person: Integrated health care for older adults with severe mental illness and medical comorbidity. *Journal of the American Geriatrics Society*, *52*(s12), s249-s257.

Bartels, S. (2015). Can behavioral health organizations change health behaviors? The STRIDE study and lifestyle interventions for obesity in serious mental illness. *American Journal of Psychiatry*, *172*(1), 9-11.

Beardslee, W., Chien, P., & Bell, C. (2011). Prevention of mental disorders, substance abuse, and problem behaviors: A developmental perspective. *Psychiatric Services*, *62*(93), 247-254.

Berwick, D., Nolan, T., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, *27*(3), 759-769.

Bodenheimer, T., Lorig, K., Holman, H., & Grumbach, K. (2002). Patient self-management of chronic disease in primary care. *JAMA, 288*(19), 2469-2475.

Bodenheimer, T., Wagner, E., & Grumbach, K. (2002). Improving primary care for patients with chronic illness. *JAMA, 288*(14), 1775-1779.

Bond, G. R., & Drake, R. E. (2015). The critical ingredients of assertive community treatment. *World Psychiatry*, *14*(2), 240-242.

Cabassa, L., Ezell, J., & Lewis-Fernandez, R. (2010), Lifestyle interventions for adults with serious mental illness: A systematic review. *Psychiatric Services, 61*(8), 774-782.

Coleman, K., Austin, B., Brach, C., & Wagner, E. (2009). Evidence on the Chronic Care Model in the new millennium. *Health Affairs, 29*(1), 75-85.

Cook, J., Copeland, M.E., Hamilton, M., Jonikas, J., Razzano, L., Floyd, C. . . . Grey, D. (2009). Initial outcomes of a mental illness self-management program based on wellness recovery action plan. *Psychiatric Services, 60*(2), 246-249.

Davis, M., Balasubramanian, B. A., Waller, E., Miller, B. F., Green, L. A., & Cohen, D. J. (2013). Integrating behavioral and physical health care in the real world: Early lessons from advancing care together. *The Journal of the American Board of Family Medicine, 26*(5), 588-602.

Davis, T. S., Guada, J., Reno, R., Peck, A., Evans, S., Sigal, L. M., & Swenson, S. (2015). Integrated and culturally relevant care: A model to prepare social workers for primary care behavioral health practice. *Social Work in Health Care, 54*(10), 909-938.

Donker, T., Petrie, K., Proudfoot, J., Clarke, J., Birch, M. R., & Christensen, H. (2013). Smartphones for smarter delivery of mental health programs: A systematic review. *Journal of Medical Internet Research, 15*(11), 29. doi: 10.2196/jmir.2791

Drake, R., Deegan, P., & Rapp, C. A. (2010). The promise of shared decision making in mental health. *Psychiatric Rehabilitation Journal, 34*(1), 7-13.

Durbin, A., Durbin, J., Hensel, J. M., & Deber, R. (2016). Barriers and enablers to integrating mental health into primary care: A policy analysis. *The journal of behavioral health services & research, 43*(1), 127-139.

Evins, A. E., Cather, C., & Laffer, A. (2015). Treatment of tobacco use disorders in smokers with serious mental illness: Toward clinical best practice. *Harvard Review of Psychiatry, 23*(2), 90-98.

Fisher, M., & Baum, F. (2010). The social determinants of mental health: Implications for research and health promotion. *Australian and New Zealand Journal of Psychiatry, 44*, 1057-1063.

French, M. (2009). Shifting the course of our nation's health: Prevention and wellness as national policy. *American Public Health Association Issue Brief*.

Gadomski, A., Fothergill, K., Larson, L., Wissow, L., Winegrad, H., Nagykaldi, Z., . . . Roter, D. Integrating mental health into adolescent annual visits. Impact of previsit comprehensive screening on with-visit processes. *Journal of Adolescent Health, 56*, 267-273.

Grace, S. M., Rich, J., Chin, W., & Rodriguez, H. P. (2016). Implementing interdisciplinary teams does not necessarily improve primary care practice climate. *American Journal of Medical Quality, 31*(1), 5-11.

Heath, B., Wise Romero, P., & Reynolds, K. A. (2013). A standard framework for levels of integrated healthcare. Washington, *DC*: SAMHSA-HRSA Center for Integrated Health Solutions.

Kamel Boulos, M. N., Brewer, A. C., Karimkhani, C., Buller, D. B., & Dellavalle, R. P. (2014). Mobile medical and health apps: State of the art, concerns, regulatory control and certification. *Online Journal of Public Health Informatics, 5*(3), e229. doi: : 10.5210/ojphi.v5i3.4814

Lal, S., & Adair, C. (2014). E-Mental health: A rapid review of the literature. *Psychiatric Services, 65*(1), 24-32.

Lucksted, A., McFarlane, W., Downing, D., & Dixon, L. (2012). Recent developments in family psychoeducation as an evidence-based practice. *Journal of Marital and Family Therapy, 38*(1), 101-121.

Ludman, E., Simon, G., Grothaus, L., Richards, J., Whiteside, U., & Stewart, C. (2016). Organized self-management support services for chronic depressive symptoms: A randomized controlled trial. *Psychiatric Services*, *67*(1), 29-36.

Lynch, S., McFarlane, W. R., Joly, B., Adelsheim, S., Auther, A., Cornblatt, B. A., ... & Calkins, R. (2016). Early detection, intervention and prevention of psychosis program: Community outreach and early identification at six US sites. *Psychiatric Services*. Published online: January 14, 2016

McEwen, B. S. (2000). The neurobiology of stress: From serendipity to clinical relevance. *Brain Research*, *886*, 172-189.

McEwen, B. S. (2004). Protection and damage from acute and chronic stress: Allostasis and allostatic overload and relevance to the pathophysiology of psychiatric disorders. *Annals of the New York Academy of Sciences*, *1032*(1), 1-7.

McFarlane, W. R., Susser, E., McCleary, R., Verdi, M., Lynch, S., Williams, D., & McKeague, I. W. (2014). Reduction in incidence of hospitalizations for psychotic episodes through early identification and intervention. *Psychiatric Services*, *65*(10), 1194-1200.

McGinty, E., Baller, J., Arzin, S., Juliano-Bult, D., & Daumit, G. (2016). Interventions to address medical conditions and health-risk behaviors among persons with serious mental illness: A comprehensive review. *Schizophrenia Bulletin*, *42*(1), 96-124.

Mechanic, D. (2014). More people than ever before are receiving behavioral health care in the United States, but gaps and challenges remain. *Health Affairs*, *33*(8), 1416-1424.

Milani, R., & Lavie, C. (2015). Health care 2020: Reengineering health care delivery to combat chronic disease. *The American Journal of Medicine*, *128*(4), 337-343.

Norfleet, K. R., Ratzliff, A. D., Chan, Y. F., Raney, L. E., & Unützer, J. (2016). The role of the integrated care psychiatrist in community settings: a survey of psychiatrists' perspectives. *Psychiatric Services*, *67*(3), 346-349.

Padwa, H., Teruya, C., Tran, E., Lovinger, K., Antonini, V. P., Overholt, C., & Urada, D. (2016). The implementation of integrated behavioral health protocols in primary care settings in Project Care. *Journal of Substance Abuse Treatment*, *62*, 74-83.

Pal, K., Eastwood, S. V., Michie, S., Farmer, A., Barnard, M. L., Peacock, R., Wood, B., Edwards, P., & Murray, E. (2014). Computer-based interventions to improve self-management in adults with type 2 diabetes: A systematic review and meta-analysis. *Diabetes Care*, *37*(6), 1759-1766.

Powers, A. K. (2009). A public health model of mental health for the 21st centurty. *Psychiatric Services*, *60*(5), 580-584.

Price, M., Yuen, E. K., Goetter, E. M., Herbert, J. D., Forman, E. M., Acierno, R. & Ruggiero, K. J.(2014). mHealth: A mechanism to deliver more accessible, more effective mental health care. *Clinical Psychology & Psychotherapy, 21*, 427–436. doi: 10.1002/cpp.1855

Resnick, S., & Rosenheck, R. (2008). Integrating peer-provided services: A quasi-experimental study of recovery orientation, confidence, and empowerment. *Psychiatric Services, 59*(11), 1307-1314.

Richardson, C. R., Faulkner, G., McDevitt, J., Skrinar, G. S., Hutchinson, D. S., & Piette, J. D. (2005). Integrating physical activity into mental health services for persons with serious mental illness. *Psychiatric Services, 56*(3), 324-331.

Rollman, B. L., Belnap, B. H., & Rotondi, A. J. (2014). Internet support groups for health: Ready for the Affordable Care Act. *Journal of General Internal Medicine, 29*(11), 1436-1438.

Rosenheck, R., Leslie, D., Sint, K., Lin, H., Robinson, D. G., Schooler, N. R., ... & Correll, C. U. (2016). Cost-Effectiveness of comprehensive, integrated care for first episode psychosis in the NIMH RAISE early treatment program. *Schizophrenia Bulletin, 42*(4), 896-906.

Scharf, D., Eberhart, N., Schmidt, N., Vaughn, C., Dutta, T., Pincus, H., Burnam, A.D. (2013). Integrating primary care into community behavioral health settings: Programs and early implementation experiences. *Psychiatric Services, 64(*7), 660-665.

Schuffman, D., Druss, B. G., & Parks, J. J. (2009). State mental health policy: Mending Missouri's safety net: Transforming systems of care by integrating primary and behavioral health care. *Psychiatric Services, 60*(5), 585-588.

Sederer, L. (2016). The social determinants of mental health. *Psychiatric Services, 67*(2), 234-235.

Strine, T., Mokdad, A., Ballus, L., Gonzales, O., Crider, R., Berry J., & Kroenke, K. (2008). Depression and anxiety in the United States: Findings for the 2006 Behavioral Risk Factor Surveillance System. *Psychiatric Services, 59(12*), 1383-1390.

Thomas, S., Jenkins, R., Burch, T., Calamos Nasir, L., Fisher, B., Giotaki, G., ... & Millington-Sanders, C. (2016). Promoting mental health and preventing mental illness in general practice. *London Journal of Primary Care, 8*(1), 3-9.

Unutzer, J., Schoenbaum, M., Druss, B, & Katon, W. (2006). Transforming mental health care at the interface with general medicine: Report for the President’s commission. *Psychiatric Services, 57*(1), 3747.

van der Krieke, L., Wunderink, L., Emerencia, A. C., de Jonge, P., & Sytema, S. (2014). E–mental health self-management for psychotic disorders: State of the art and future perspectives. *Psychiatric Services*, *65*(1), 33-49.

Wagner, E., Austin, B., & Von Koroff, M., (1996). Organizing care for patients with chronic illness. *The Milbank Quarterly*, *74(*4), 511-544.

Whitley, R., & Drake, R. E. (2010). Recovery: A dimensional approach. *Psychiatric Services*, *61*(12), 148-150.

Woltmann, E., Grogan-Kaylor, A, Perron, B., Georges, H., Kilbourne, A., & Bauer, M. (2012). Comparative effectiveness of collaborative chronic care models for mental health conditions across primary, specialty, and behavioral health care settings: Systematic review and meta-analysis. *American Journal of Psychiatry*, *169*, 790-804.

Xiang, X., Larrison, C. R., & Tabb, K. M. (Feb, 2016). Trends in health hare utilization among adults with serious psychological distress: 2003–2014. *Psychiatric Services*.