

## Psychology Can Be Indispensable to Health Care Reform and the Patient-Centered Medical Home

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The Patient Protection and Affordable Care Act (PPACA) was passed into legislation in March 2010, making health care reform a reality. Perhaps the most well-developed model of primary care that aligns with the PPACA's agenda is the patient-centered medical home (PCMH). Integrated care, as defined by collaborative care between mental health and primary care providers and systems, will undoubtedly play a critical role in the success of the PCMH. The role of psychology and integrated care in the PCMH as well as training implications for psychologists are discussed. This article is intended to challenge our discipline to embrace psychology as a health care profession that must prepare for and solidify its added value in the health care delivery models of the future. Requisite skill sets for primary care psychologists and existing training opportunities are presented. Finally, possible mechanisms for training psychologists in integrated care and the professional roles primary care psychologists can expect to fill are proposed.

*Keywords:* integrated primary care, patient-centered medical home, health care reform, psychology training

The United States has finally exhausted the luxury of time and endless debate about how to reform health care. The Patient Protection and Affordable Care Act (PPACA) was signed into law in March 2010, representing the result of highly contentious and laborious deliberation on health care reform. Infused with ideas and funding for pilot programs and demonstration projects, the PPACA is a complex assortment of policies and finance reform that seeks to contain costs, improve access to high-quality health care, and expand insurance coverage. Considerable funding is allocated for research and clinical demonstration projects to elucidate effective and efficient models of health care that include prevention, health care maintenance, acute care, and chronic illness management. Parallel to the enactment of the PPACA, the patient-centered medical home (PCMH) was

gathering steam as one of the most widely accepted health care delivery models for high-quality, cost-effective primary health care (National Committee for Quality Assurance, 2009). If the PCMH is widely implemented, behavioral health will no longer be an afterthought in routine health care. Not a moment too soon, the dawning of the age of integrated health care is upon us. This article, a summary of the keynote address from the annual midwinter National Council of Schools of Professional Psychology conference held in Orlando, Florida, in February 2010, addresses the core components of integration, supported by available evidence, along with the rationale for integrated care in the PCMH, from various perspectives. The rationale will challenge the field of clinical psychology to embrace and prepare our workforce for this reality. The second portion of this article describes core competencies for integrated health care practitioners and briefly identifies current training programs and emerging trends for training primary care psychologists. The workforce shortage for integrated care providers and potential means to shrink this gap are discussed. Finally, suggestions for how to create and sustain training initiatives at the predoctoral level and possible professional roles for primary care psychologists are offered.

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## Health Care Reform and Integrated Care

In addition to increasing health care coverage for Americans and improving the quality of health care, cost containment is inarguably the primary impetus for health care reform. Proportionately, the United States spends more on health care as a percentage of the gross national product compared with other developed countries for astoundingly worse global health outcomes, including much higher rates of infant mortality and lower projected life expectancies (World Health Organization, 2008). Medicare, the largest single health insurer in the United States, provides coverage for people 65 and older and for people under 65 with certain qualifying disabilities. The financial welfare of the Medicare system is bleak, and projected costs are not sustainable without substantial modifications in the program or the number of covered lives. As was true in 2008, the Medicare Hospital Insurance Trust Fund paid out more in 2009 in hospital benefits and other expenditures than it received in taxes and other dedicated revenues (Social Security and Medicare Boards of Trustees, 2009).

The Medicare Supplementary Medical Insurance Trust Fund, which pays doctors' bills and other outpatient expenses, and Medicare Part D, which pays for access to prescription drug coverage, are both projected to remain adequately financed into the indefinite future because current law automatically provides financing each year to meet next year's expected costs. However, expected steep cost increases will result in substantial increases in Medicare beneficiary premium charges at a rate that exceeds any expected income increases for this population. That is, a much larger proportion of their (often fixed) incomes will have to be allocated for health care premiums, a solution that is hotly debated and understandably not well received by Medicare beneficiaries.

Similarly, private health insurance is becoming increasingly cost-prohibitive. Employers, particularly small business owners, are increasingly unable to offer health care coverage as a benefit for employees. Health care premiums increased 114% between 1999 and 2007, whereas earnings over this same time period increased only 27% (Robert Wood Johnson Foundation, 2009). Although many tout medical malpractice payouts as the primary explana-

tion for excessive health care costs, the actual driver appears to be expensive, highly sophisticated technology accounting for an estimated two thirds of health care spending growth (Ginsburg, 2008). Changing demographics in the United States, worsening health risk behaviors, and increased prevalence of chronic diseases are also undoubtedly contributing to excess costs. As previously noted, we are paying more and more for health care without any notable improvements in quality of care—an outcome that would not be tolerated or sustainable in any other American industry. Health care reform legislation must be simultaneously corrective on costs as well as improve access to high-quality care.

One of the essential ingredients of cost-effective, high-quality health care delivery systems includes a holistic perspective on disease and wellness, as well as a consideration of the social context in which health behaviors—both good and bad—are adopted and maintained. These concepts represent the fundamental assumptions underlying the PCMH. Primary care is the largest platform for health care delivery; however, it will remain an incomplete solution to comprehensive, biopsychosocially informed and delivered health care without adequately trained and competent providers to offer these services. Positioning behavioral health providers where people routinely access care (e.g., primary care clinics, emergency rooms) offers one avenue for increasing penetration into the population by identifying and addressing behavioral health needs (i.e., integrated care). Of note, ample research suggests that many patients are receptive to receiving psychological assessment and intervention in primary care clinics (Lester, Tritter, and Sorohan, 2005). The PCMH model recognizes the vast unmet need for behavioral health care in primary care and advocates a central role for a variety of collaborative providers, including mental health specialists. Other arguments make a compelling case for integrating care as well, but health care reform and, specifically, primary care reform through the adoption of the PCMH hold substantial promise for taking this vision into a reality.

Adopting this perspective requires a philosophical stretch for clinical psychology as a discipline, which has generally functioned within a specialty model of health care delivery.

Similar to other types of medical specialties, clinical psychology services have largely tended toward a narrow focus on emotional and behavioral factors (i.e., above the neck). Moreover, psychological services often require prior authorizations from insurance companies and offer a restricted range of covered services, similar to other types of specialty health care. Operationally, psychology has embraced this model by using diagnostic-oriented, reductionist, and time-limited services that focus on the individual seeking care for relatively uncommon events. Most of our research is also exclusionary and aimed at identifying the best interventions for psychiatric diagnoses meeting *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.) criteria. Moreover, in funded, large-scale clinical research trials, patients with various comorbidities are usually screened out to ensure a diagnostically pure sample. This research agenda has undoubtedly yielded credible data to support specific psychological interventions. However, even an intervention with a moderate or high rate of success will have a limited impact on the population's well-being because it is tied to a service model that is highly selective. That is, the overall impact of any intervention, or of health care as a whole, depends not only on effectiveness but also on the degree to which such interventions can penetrate into the population of interest (i.e.,  $\text{Impact} = \text{Effectiveness} \times \text{Penetration}$ ; Rose, 1992).

A contrast to this existing model is a slightly more global but still clinic-based model of service delivery. It is a problem-oriented model (i.e., specific diagnosis is less relevant than the problem and symptoms) based on continuity of care and service delivery for symptoms that may not meet conventional diagnostic thresholds and can be understood within the context of the family and community. As a description, this encapsulates a *primary care* perspective of health care delivery. Although our discipline has not had a psychological equivalent of primary care to date, integrated care, embedded within the PCMH, offers such a model.

### The Patient-Centered Medical Home

The PCMH is an approach to providing comprehensive primary care for children, youth, and adults. Patients are cared for by a physician who

leads a medical team and coordinates all aspects of preventive, acute, and chronic care needs of patients using the best available evidence and appropriate technology (National Committee for Quality Assurance, 2009). The American Academy of Pediatrics, the American Academy of Family Practice, the American Osteopathic Association, and the American College of Physicians have developed the following joint principles to describe the characteristics of the PCMH (March 2007; excerpted from the Patient-Centered Primary Care Collaborative website: <http://www.pccpc.net/behavioral-health/>):

- Personal physician: Each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous, and comprehensive care.
- Physician-directed medical practice: The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- Whole-person orientation: The personal physician is responsible for providing for all the patient's health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life, acute care, chronic care, preventive services, and end-of-life care.
- Care is coordinated or integrated across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.
- Quality and safety are hallmarks of the medical home (selected elements):

—Practices advocate for their patients to support the attainment of optimal, patient-centered outcomes that are defined by a care-planning process driven by a compassionate, robust partnership between physicians, patients, and the patient's family.

—Evidence-based medicine and clinical decision support tools guide decision making.

—Patients actively participate in decision making, and feedback is sought to ensure that patients' expectations are being met.

—Information technology is used appropriately to support optimal patient care, performance measurement, patient education, and enhanced communication.

- Enhanced access to care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physician, and practice staff.

- Payment appropriately recognizes the added value provided to patients who have a PCMH. The payment structure should

- reflect the value of physician and non-physician staff patient-centered care management work that falls outside the face-to-face visit;

- pay for services associated with coordination of care both within a given practice and between consultants, ancillary providers, and community resources;

- support adoption and use of health information technology for quality improvement;

- support provision of enhanced communication access such as secure e-mail and telephone consultation;

- recognize the value of physician work associated with remote monitoring of clinical data using technology;

- allow for separate fee-for-service payments for face-to-face visits;

- recognize case mix differences in the patient population being treated within the practice;

- allow physicians to share in savings from reduced hospitalizations associated with physician-guided care management in the office setting; and

- allow for additional payments for achieving measurable and continuous quality improvements.

Although behavioral health integration was not explicitly included in the original PCMH principles, the spirit of the biopsychosocial

model (Engel, 1977) in primary care is evident. There have been numerous pundits advocating for the *explicit* inclusion of behavioral health, including the Behavioral Health Task Force of the Patient-Centered Primary Care Collaborative (PCPCC), whose member organizations are listed in Table 1. The PCPCC, developed to advance the PCMH, is a coalition of more than 600 members, including major employers, consumer groups, patient quality organizations, health plans, labor unions, hospitals, and clinicians. The Task Force is working tirelessly to promote the absolute necessity of behavioral health, including prevention, tobacco cessation, substance abuse and mental health services, in order to fulfill the PCMH vision of whole person orientation and team approach to care (<http://www.pcpcc.net/behavioral-health>). In practice, it is hard to imagine a primary care practice being an effective PCMH without integrated behavioral health services. Of note, the American Academy of Family Practice Board Chairman Ted Epperly recently gave an interview entitled “How Health Care Reform Could End the Stepchild Status of Primary and Behavioral Health Care,” in which he argued for how the PCMH can serve as the bridge between the historical silos of medicine, mental health, and substance abuse services (Behavioral Health Central, 2010).

The two specific core principles of the PCMH most central to the inclusion of behavioral health are *whole-person orientation* and *integrated service delivery*. Integrated service delivery models use a team-based approach to care for all patients and the full range of patient needs, including emotional and behavioral needs, as well as problems of living that routinely surface in primary care settings. A whole-person orientation implies that primary care will have the capacity to identify and address physical health care needs as well as mental health needs, such as depression and anxiety; behavioral medicine needs, such as chronic illness management and chronic pain; and preventive medicine needs, such as tobacco use, obesity, health risk behaviors, and medical nonadherence. Well-functioning team-based care would involve providers and staff actively communicating collaboratively to ensure that patients experience holistic, nonfragmented, and comprehensive health care encompassing the full spectrum of needs ranging from preventive services to chronic disease management.

Table 1  
*Patient-Centered Primary Care Collaborative Behavioral Health Task Force Participating Organizations and Individuals*

Access Psychiatry LLC	Alere	American Academy of Family Physicians
American Academy of Pediatrics	American College of Physicians	American Osteopathic Association
American Psychiatric Association	Association of Medical Education and Research in Substance Abuse	Baylor College of Medicine
Blue Cross and Blue Shield Association	Blue Cross and Blue Shield of California	Blue Cross Blue Shield of Michigan
Blue Cross Blue Shield of Tennessee	ClinicNet	Collaborative Health Solutions LLC
Colorado Behavioral Healthcare Council	Colorado Clinical Guidelines Collaborative	Empire Blue Cross Blue Shield
Family Medicine at University of California, San Diego	GlaxoSmithKline	Health2Resources
IBM	Johnson & Johnson	Kaiser Permanente
McKesson	Merck	National Business Group on Health
National Council for Community Behavioral Healthcare	Novartis	Pfizer
Sanofi-aventis	St. Mary's Hospital	Thomson Reuters
TransforMed	Ultrais	University of Massachusetts Memorial Health Care
University of Colorado Denver School of Medicine	Academy of Psychosomatic Medicine	Agency for Healthcare Research and Quality
American Psychological Association	American Society of Addiction Medicine	Boehringer Ingelheim
Campaign for Mental Health Reform	Commission on Accreditation of Rehabilitation Facilities	Cartesian Solutions LLC
Integrated Primary Care SIG, Society of Behavioral Medicine	Dartmouth Medical School	George Washington University Medical Center, Center for Integrated Behavioral Health Policy
Goal QPC	Healthspring	Institute for Clinical Systems Improvement
Integrated Benefits Institute	James Barr, MD, Central New Jersey Medical Home Network	Lilly
Marillac Clinic, Colorado	Medfusion	Morehouse School of Medicine
National Association of State Mental Health Directors	National Naval Medical Center	Presbyterian Healthcare Services
Rush University Medical Center	Substance Abuse and Mental Health Services Administration	Sentara
Takeda	Thomas Group	University of Cincinnati
University of Pittsburgh Medical Center	University of Rochester Medical Center	University of Vermont College of Medicine
University of Washington	Utah Health Science Center	Value Options

Source. <http://www.pcpc.net/content/pcpc-behavioral-health-taskforce-participating-organizations-and-individuals>

Recently, the National Committee for Quality Assurance published updates to the PCMH standards. These changes unambiguously recognize the dynamic interdigitation among emotional, behavioral, and physical health. Although much of our existing language hamstrings us into discussing these as distinct entities, the recognition that overall health status is a fluid compilation of all of these components is unmistakable in the new standards. The proposed standards incorporate other

new concepts and have been reorganized through consolidation or retirement of components. The draft standards include:

- Provide access and continuity,
- Identify and manage patient populations,
- Plan and manage care,
- Support self-management,
- Track and coordinate care, and
- Improve performance measurement and quality.



With regard to behavioral health, the new standards propose that primary care include: (a) a comprehensive assessment including substance abuse, health behaviors, and depression screening with a standardized tool; (b) that one of the three clinically important conditions identified by the practice must be a condition related to unhealthy behaviors (e.g., obesity) or a mental health or substance abuse condition; and (c) tracking referrals and coordinating care with external mental health and substance abuse providers.

### **The Economic Rationale**

Annual medical expenses among those who suffer from both chronic medical and behavioral health conditions cost roughly 46% more than those with only a chronic medical condition (Unützer et al., 2009). Moreover, of the top-five conditions driving overall costs (including utilization costs, lost work-related productivity, and pharmacy costs), clinical depression tops the list (Murray & Lopez, 1997). Particularly for recognizing and treating depression in primary care, numerous studies to date have demonstrated both cost-effectiveness and cost-offset when behavioral health care is integrated into primary care settings (Von Korff et al., 1998). Studies have also documented improvements in medical costs when behavioral health treatment is provided for a variety of illnesses. For example, in a meta-analysis of 91 studies, Chiles, Lambert, and Hatch (1999) found that medical utilization decreased 15.7% for those with a mental health condition who received behavioral health care, whereas it increased 12.3% for those who did not. No well-controlled studies to date have demonstrated the cost advantages of placing primary care services within specialty mental health clinics, although the lack of evidence is primarily a function of the lack of rigorous studies as opposed to any evidence to the contrary. An exhaustive list of the studies exploring the economics of integrated health care will not be reviewed; however, interested readers are referred to an article by Blount et al. (2007).

The economics of improving primary care services can also help make a case for behavioral health integration. There is evidence that the overall costs of health care among Medicare beneficiaries tends to decrease as a function of

the density of primary care providers in any geographical area according to Medicare Claims Data (Baicker & Chandra, 2004). That is, the more primary care providers there are in any area, the lower the overall costs of health care per person. One possible explanation for this is that fewer persons are referred to specialty services, which often involve expensive and sophisticated technology for diagnostics and interventions. Moreover, the relationship between quality indicators and numbers of primary care practitioners also trends fairly linearly and suggests that increasing the number of primary care providers improves standardized indicators for quality of care among Medicare beneficiaries. In fact, there is evidence to suggest a 5% decrease in mortality for every 20% increase in primary care physicians, whereas this same study reported a 2% increase in mortality per every 8% increase in specialist physicians (Shi et al., 2003). Unfortunately, in America, about 70% of physicians are subspecialists and only 30% are in primary care; in the past decade, nearly 90% of medical school graduates chose to enter a subspecialty and only 10% are going into primary care (American Academy of Family Physicians, 2006; American Medical Association Health Care Trends, 2006). This has resulted in an extremely out-of-balance workforce that not only has difficulties meeting the current demands, but will become even more under resourced and over burdened if access to care is improved for some portion of the currently 47 million uninsured Americans. Sadly, in a large study of 6,600 primary care physicians, two thirds reported not being able to access outpatient behavioral health for their patients (Cunningham, 2009). Shortages of mental health care providers, health plan barriers (i.e., in and out of network providers), and lack of coverage or inadequate coverage were all cited by primary care providers as barriers to mental health care access (Cunningham, 2009). With ample evidence to suggest the potential quality and cost savings to be realized by increasing the primary care workforce, the fiscal necessity of integrating behavioral health is unequivocal.

### **Epidemiology of Mental Illness and Behavioral Health**

Two seminal articles have demonstrated remarkably consistent findings related to the un-

derlying behavioral and lifestyle factors that contribute to the actual causes of mortality in the United States. Most recently, using 2002 mortality data from the Centers for Disease Control and Prevention, Mokdad, Marks, Stroup, and Gerberding (2004) used estimates of relative risks and prevalence reported in published reputable studies and estimated the cause of death by multiplying estimates of the cause-attributable fraction of preventable deaths with the mortality data to reveal the external, modifiable risk factors underlying mortality. In this study, tobacco use was the leading cause of death, accounting for 18.1% of all premature deaths in the United States, followed by poor diet and inactivity, which accounted for 16.6% of total deaths and represented an increase by nearly 3% from the prior, similar study (McGinnis & Foege, 1993). Alcohol consumption also accounted for another 3.5% of deaths. Collectively, nearly half (48.2%) of all premature deaths were accounted for by a fairly limited number of largely preventable and modifiable risk factors and exposures (Mokdad et al., 2004). Whereas genetics, access to health care, the environment, and other nonmutable factors undoubtedly play a role in morbidity and mortality, ample evidence suggests that health behaviors commonly lead to the occurrence of one or more chronic medical conditions before they cause death.

The number of Americans diagnosed with a chronic medical condition is steadily increasing, and health care expenses for chronic medical conditions account for 78% of all health care spending based on the Medical Expenditure Panel Survey data (Stanton & Rutherford, 2005). Expenditures rise proportionately when comorbid chronic conditions exist, which are more often the norm rather than the exception. Moreover, the costs associated with managing a chronic medical condition, such as diabetes or hypertension, are also significantly higher when there is a comorbid mental illness (Pettersen et al., 2008), and there is a higher than random co-occurrence of depression with 11 chronic medical conditions (Welch, Czerwinski, Ghimire, & Bertsimas, 2009). For example, 20–30% of patients with diabetes experience depression (Anderson, Freeland, Clouse, & Lustman, 2001). A large study on depressed patients in primary care suggested that 75% presented to primary care with physical com-

plaints and stated that the physical ailments were the reason they sought health care, not their mood (Unützer et al., 2003). Obesity exists in 30% of the population and nearly 60% of Americans live a sedentary lifestyle (Ogden, Carroll, McDowell, & Flegal, 2007). Racial and ethnic minorities are even less inclined than Whites to seek treatment from mental health specialists (U.S. Department of Health and Human Services, 1999). Instead, primary care becomes the point of entry for many minorities. Collectively, these data underscore a central role for nonphysician providers to address health behaviors, help manage chronic illnesses, and address traditional mental health needs. As experts in human behavior, psychologists are a natural fit to fill this role.

In addition to health behaviors, the most common epidemiological reason cited for integrating behavioral health into primary care is the high prevalence of mental illness that exists in the United States. The National Comorbidity Survey is conducted among U.S. households every 10 years (it excludes institutionalized and homeless populations) and is a reliable source for epidemiological data for mental illness. In the last survey, 26% of respondents reported symptoms sufficient to warrant a mental health diagnosis in the past 12 months, and a lifetime prevalence estimate for any mental health disorder was 46.4% (Kessler, Berflund et al., 2005). Of these, anxiety disorders were most prevalent, followed by mood disorders. Despite the scope of and severity of conditions, 59% of respondents with a mental health condition reported receiving no treatment for their mental illness; of the 41% who did receive treatment, only 44% received any mental health care. All others received care in the primary care clinic by primary care providers. Another more recent study conducted on the scope and nature of anxiety disorders in a primary care clinic found similar results in that 19.5% of the sample had one or more anxiety disorders but 41% were not receiving any treatment (Kroenke, Spitzer, Williams, Monahan, & Lowe, 2007). Of those who were treated, 42% were treated with medication only (Kroenke et al., 2007). The reasons for the lack of treatment in general and lack of mental health treatment in particular are many, including access to care. However, stigma remains another common and substantial barrier to seeking mental health care. Based on a survey

of 3,239 adults conducted in 2000, 42% of people with a mental health condition reported that they were embarrassed or ashamed of their symptoms (National Mental Health Association, 2000). Thirty-two percent of adults without a mental health condition stated they would likely turn to their primary care provider to help with mental health issues if the need arose; only 4% stated they would specifically seek mental health care (National Mental Health Association, 2000). Other data confirm this reality—approximately 50% of all behavioral health disorders are treated in primary care and 48% of psychotropic agents are prescribed by nonpsychiatric primary care providers (Kessler, Demler et al., 2005; Pincus et al., 1998). Mental health care is and will continue to be delivered in primary care clinics. Psychology can opt to integrate into primary care where the patients are, or remain in a specialty care model of practice and risk being marginalized from overall health care, thereby making little dent in the health and well-being of the population. The choice seems clear, but will it work?

### Evidence Supporting Integrated Care

Integration takes many forms and there is no one best model of integrated care. However, most models of integration are predicated on the notion of stepped care and work well only in the context of a larger behavioral health delivery system that includes specialty mental health, substance abuse services, and behavioral services for common chronic and acute conditions. Just as primary medical care relies on the availability of specialists for consultation and management of complex patients, integrated primary behavioral health care relies on these other types of services and providers. Various models of integrated care have been described and, in practice, the implementation of integrated care tends to take on unique characteristics and permutations depending on the specific setting. Thus, rather than define a specific model of integrated care, the framework below (Kirk Strosahl, cited in Robinson & Reiter, 2007) identifies key components of integration as well as an illustration of how a fully integrated care model might function:

- **Mission integration:** the extent to which the behavioral and general medical service systems are pointing toward the same health objectives, goals, and strategies. In well-integrated systems, the overarching and shared constancy of purpose is to improve the health of the entire population, not just to treat the sick.

- **Clinical service integration:** the degree to which general medical and behavioral providers seamlessly engage in coordinated assessment, intervention, and follow-up activities with well-integrated systems using a lot of comanagement processes, protocols, and assessment tools.

- **Physical integration:** the degree to which the general medical and behavioral health providers work in the same space, allowing for instantaneous access to care, with well-integrated systems being colocated at a minimum.

- **Operations integration:** the degree to which the general medical and behavioral health providers work off the same clinic “platform,” with well-integrated systems sharing as many operational processes as realistic given that there are some nuisances to mental health care in any setting.

- **Information integration:** the degree to which the general medical and behavioral health provider can access real-time client care information, with well-integrated systems having shared and open access to documentation.

- **Financial integration:** the degree to which general medical and behavioral health services are funded as a “basic” form of health care, with well-integrated systems including some aspects of integrative behavioral care as a core primary care service and not exclusively dependent on fee for service/productivity to support the providers.

Evidence for integrated care has been accumulated on a variety of clinical outcomes, including symptoms as well as disease management indicators, process outcomes (e.g., no-show rates and recognition rates), economic outcomes (cost-effectiveness and cost-offset), as well as patient and provider satisfaction. A thorough review of all of the evidence is beyond the scope of this article, but interested readers are referred to several comprehensive reports summarizing this evidence, including the World Health Organization and World Organization of Family Doctors’ (2008) report *Integrating Mental Health Into Primary Care: A Global Per-*



spective; the Agency for Health Care Research and Quality's report *Integration of Mental Health and Substance Abuse in Primary Care* (Butler et al., 2008); the Hogg Foundation for Mental Health's (2008) report *Connecting Body and Mind: A Resource Guide to Integrated Health Care in Texas and the United States*; and the Milbank Memorial Fund report *Evolving Models of Behavioral Health Integration in Primary Care* (Collins, Hewson, Munger, & Wade, 2010). The National Council for Community Behavioral Health Care's website is also an extraordinary one-stop online shopping resource for a variety of articles, reports, measures, research, and other information about integrated care ([http://www.thenationalcouncil.org/cs/new\\_at\\_the\\_resource\\_center](http://www.thenationalcouncil.org/cs/new_at_the_resource_center)). In sum, these reports describe numerous successful programs employing various models of integrated care.

Several recent meta-analyses have not only further documented the effectiveness of integrating care but have tried to isolate the most critical elements of effective integration models. Gilbody, Bower, and Fletcher (2006) published a meta-analysis of 37 randomized studies, which included 12,355 patients with depression in primary care. Results suggested that integrated care improves depression outcomes at 6 months (standardized mean difference [SMD] = 0.25, 95% CI [0.18, 0.32]). Furthermore, a sustained benefit was found with clinical improvements after 12 months (SMD = 0.31), 18 months (SMD = 0.25), 24 months (SMD = 0.15), and even up to 5 years (SMD = 0.15, 95% CI [0.001, 0.31]). Effectiveness, as measured by the magnitude of the effect size, was directly linked to medication compliance (slope coefficient = 0.19; 95% credible interval [0.08, 0.30]); using care managers with mental health backgrounds (SMD = 0.34) compared with nonmental health backgrounds (SMD = 0.164); and regular, planned supervision of the care managers (SMD = 0.29) compared with unplanned supervision (SMD = 0.14; Gilbody et al., 2006). Bower, Gilbody, Richards, Fletcher, and Sutton (2006) completed a metaregression of 28 studies of collaborative care reporting outcome data on antidepressant use and 34 studies with data on clinical outcomes. Collaborative care had a positive and significant impact on antidepressant use (OR = 1.92, 95% CI [1.54, 2.39]) and reduction

in depressive symptoms (SMD = 0.24, 95% CI [0.17, 0.32]). In further analyses, three unique components of collaborative care predicted improved depression outcomes. Specifically, systematic identification of depressed patients in primary care ( $p = .061$ ), using case managers with a mental health background ( $p = .004$ ), and regular supervision of case managers ( $p = .033$ ) were the strongest predictors of effectiveness (Bower et al., 2006).

Although both meta-analyses found compliance with antidepressant medication to be a strong predictor of improvement on depression outcomes, there was no attempt to compare or include studies that used integrated care models with a nonmedication treatment condition. This is relevant because three large and methodologically sound studies document little evidence of the specific pharmacological effect of antidepressant medications, relative to pill placebo, for patients with mild to moderate depression (Fournier et al., 2010; Khan, Leventhal, Khan, & Brown, 2002; Kirsch et al., 2008). Results from the most recent patient-level meta-analysis (718 patients) indicate that the magnitude of the benefit from medication, compared with placebo, increases with the severity of the depression symptoms. For patients in the mild to moderate range of depression, the Cohen  $d$  effect size was 0.11 (95% CI [-0.18, 0.41]), and for patients in the severe range,  $d = 0.17$  (95% CI [-0.08, 0.43]), both of which fall below the conventional threshold for a small effect size ( $d = 0.20$ ). In contrast, for patients in the very severe range of depression,  $d = 0.47$  (95% CI [0.22, 0.71]), suggesting a medium effect size. These data imply that psychologists might be enormously useful in helping primary care physicians identify depression symptoms early to prevent disease progression, assist with diagnostic clarification and severity classifications, and support primary care treatment for mild to moderate depression to help prevent excessive prescribing of potentially iatrogenic medications.

Studies on the effect of short-term behavioral interventions, and behavioral activation in particular, have demonstrated statistically and clinically meaningful effects on reducing depression at a level comparable to antidepressant medication, with few if any risks (Dimidjian et al., 2006). Moreover, a well-done study on the recognition and treatment of anxiety in primary

care using cognitive-behavioral therapy (CBT) and medications also demonstrated that both types of treatment had a significant and sustained (12 months) improvement over treatment as usual (Roy-Byrne, 2005). In addition, patients receiving both medication and CBT were less symptomatic at 3 and 12 months as measured by the Anxiety Sensitivity Index (Reiss et al., 1986), the World Health Organization's Disability Assessment Schedule II (Epping-Jordan and Üstün, 2000), and the Social Avoidance subscale of the Fear Questionnaire (Marks & Mathews, 1979), compared with those receiving medication alone. There is also a sizable and growing body of literature demonstrating the clinical and economic benefits of treating mental health conditions associated with chronic medical conditions with a variety of pharmacological and nonpharmacological interventions. These studies consistently demonstrated positive effects on clinical outcomes, cost reduction, and decreased fragmentation of care, which often reduces redundancy in services that drive up health care costs (see Ouwens, Wollersheim, Hermens, Hulscher, & Grol, 2005, for a review of systematic reviews on this topic).

Research on the central organizational and process parameters associated with effective integration models suggests that integrating the principles of population health and chronic care management in the primary care setting helps achieve the goals of clinical quality, efficiency, and maximal return on investment. These principles include, but are not necessarily limited to, the following:

- Proactive identification of conditions of interest (screening);
  - Timely access to services;
  - Locus of service delivery within primary care
    - Full involvement of a treatment team, including primary care practitioners, care coordinators, and behavioral health specialists;
    - Inclusion of pertinent behavioral health interventions in a unified treatment plan;
    - Careful and systematic monitoring of patients (registry) and treatment response;
    - Patient engagement, reengagement, and active collaboration; and
    - Reliance on evidence-based behavioral health practices and defined clinical/administrative workflows.

Although it remains unclear how to effectively finance models of integrated care, it is obvious that exclusively fee-for-service models are woefully insufficient and not commensurate with the guiding principles of the PCMH. Options such as bundled payments and payments based on processes and outcomes are being evaluated to include mechanisms for financing behavioral health providers and services within the PCMH. To the extent that these efforts are successful, psychologists who are trained, prepared, and willing to practice in such settings will undoubtedly be in high demand. As such, the requisite knowledge and competencies for psychologists to work effectively in the primary care setting, how to obtain this training, and the types of positions that will be available constitute the remaining topics of this article.

### **Training Psychologists as Health Care Professionals**

It should be noted that the concept and practice of integrating behavioral health into medicine is not new. For many years, psychologists and social workers have been embedded in both primary care and tertiary care medical settings such as organ transplant units, oncology, rehabilitation units, and other hospital-based specialties. Thus, it is not surprising that many behavioral health providers migrating into primary care settings come from a few limited training models and traditions, namely behavioral medicine (clinic health psychology), medical social work, and family therapy. The two parallel disciplines that have contributed most to the understanding of behavioral health in primary care are clinical health psychology and family therapy—both with rich but varying education and training traditions. Family therapy is steeped in history, theory, and clinical practice, whereas behavioral medicine evolved as a more scientific discipline based in developing and conducting empirical studies on assessment and treatment approaches. Nonetheless, the two models can and do blend well in primary care practice. The requisite knowledge and skills for primary care practice incorporate and expand on both of these fields. Added concepts include population health, epidemiology, proactive screening, medical terminology, culture unique to primary care, privacy in medical settings, chronic disease management, pharmacology

(not only psychopharmacology), care across the life span, a team of providers and medical staff, and continuous quality improvement. Table 2 provides an overview of the core knowledge base that would be ideal for practitioners entering primary care settings and how this differs from traditional curricula. Table 3 further delineates core competencies as well as some organizational knowledge and skills that tend to be helpful not only to become an effective practitioner in primary care but an effective and influential change agent as well.

The breadth and depth of knowledge and skills necessary for primary care cannot be contained within any single discipline as currently defined; the need for most practitioners to obtain additional training is clear. Currently, there are few opportunities for formal education and training. A few psychology graduate schools offer specialties in integrated care, including Forest Institute of Professional Psychology in Springfield, Missouri; the University of Nevada at Reno; and a newly developed program leading to a nonclinical doctorate in behavioral health has been established at Arizona State

University. Fortunately, graduate programs are increasingly developing partnerships with medical agencies and offering practicum experiences of varying duration, intensity, and settings to students. Moreover, many predoctoral internships also offer integrated care minor or major rotations and primary care is now a searchable field in the Association of Psychology Postdoctoral and Internship Centers (APPIC) database ([http://www.appic.org/directory/4\\_1\\_directory\\_online.asp](http://www.appic.org/directory/4_1_directory_online.asp)). A recent search of this database identified 92 American Psychological Association-accredited predoctoral internship programs reportedly offering a major rotation in primary care. Finally, a limited number of primary care postdoctoral fellowships have been developed throughout the country; these can also be queried using the APPIC database—43 postdoctoral programs currently list a primary care experience, many of which are exclusively dedicated to offering a primary care training experience. This summer, the Health Resources and Services Administration’s Graduate Professional Education division funded several training grants to American Psy-

Table 2  
*Comparison of Curriculum Components for Clinical Health Psychology, Medical Family Therapy, and Primary Care Psychology*

Basic health psychology	Basic (medical) family therapy	Proposed primary care psychology
Biopsychosocial (spiritual) 1:1 patient care, groups	Biopsychosocial (spiritual) Family therapy	Biopsychosocial (spiritual) 1:1, families, teams, health care systems, population based
Specialist model Typically specialize in either adults or children	Specialist model Families, couples	Generalist model in content Generalist model in population served
Medical literacy and language Pharmacology knowledge	Medical literacy and language Limited pharmacology knowledge	Medical literacy and language Pharmacology knowledge and application
Mostly targeted assessments; some more lengthy and comprehensive assessments	Little reliance on formal and objective assessments	Brief symptom-based questionnaires and screeners
Primary provider for behavioral health needs	Primary provider to patients and families for behavioral health needs	Collaborator, no case load
Chronic and acute illness Cultural competence	Chronic illness Cultural competence	Chronic and acute illness Cultural competence
Adherence—Barriers to and interventions for evidence-based medicine (motivational interviewing, health behavior change, etc.)	Adherence —Barriers to and interventions for family/contextual interventions more likely Theory-driven interventions; evidence based as available	Adherence—Barriers to and interventions for evidence-based medicine (motivational interviewing, health behavior change, etc.) but adopted for primary care and short-term treatment

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Table 3  
*Specific Skills for Primary Care Psychology*

Clinical practice skills	Documentation skills	Consultation skills	Organizational and implementation skills
Appropriately define behavioral health care role and scope of service to patients and providers	Write clear, concise chart notes	Focus on and answer referral question	Screening (adults, pediatrics, geriatrics [dementia], substances, women's health)
Able to rapidly identify and assess problems while limiting scope of assessment	Get notes/feedback to primary care physician, ideally on the same day patient is seen	Offer recommendations tailored to primary care work pace	Team-based care sometimes as a member; at times, leading a team
Knowledge of best practices and primary care clinical practice guidelines	Write chart notes that are free of mental health jargon and consistent with verbal feedback	Conduct effective curbside consultation	Knowledge about the culture of primary care, culture of medicine, and medical education
Use appropriate clinical assessments		Assertively follow up with primary care physician when indicated	Knowledge about health care in general and health care economics
Focuses on functional measures and outcomes		Develop and suggest recommendations to reduce primary care physician work load	Quality improvement skills; knowledge and ability to apply Plan, Do, Study, Act (PDSA) cycles
Use self-management/home-based practice for interventions		Display willingness to be interrupted and be available to primary care physicians	Knowledge and use of technology resources for primary care, such as UpToDate and Epocrates software
Design and deliver interventions that are concrete and supportable by primary care physician			Ability to teach primary care physicians formally and informally
Apply understanding of the biopsychosocial model			Business acumen (billing, leveraging visits, and paying for behavioral health)
Basic knowledge of medicines and ability to apply this knowledge in practice			Knowledge of routine preventive care primary care physicians deliver



chological Association-accredited programs offering multidisciplinary training to psychologists, many of which are in primary care settings. Informally, conference presentations as well as webinars have become a common modality for disseminating knowledge and sharing experiences in integrated care. Various agencies have produced integrated care trainings videos, including the National Council for Community Behavioral Health Care, which recently completed a series of three webinars designed to educate providers and administrators about integrated care. Toolkits and manuals are also becoming a more common mechanism to distribute content knowledge and tools for integrated care practice (e.g., see Integrated Behavioral Health Project at <http://www.ibhp.org/>). Perhaps the flagship training opportunity in integrated care is at the University of Massachusetts Medical School under the direction of Alexander Blount (<http://www.umassmed.edu/FMCH/PCBH/Welcome.aspx?linkidentifier=id&itemid=76312>). This program is exclusively distance learning and comprises a 6-month curriculum delivered one Friday a month for 6 hours. The content of the program includes the following core topics: primary care culture and needs, evidence-based therapies and substance abuse, behavioral health care for chronic illness, the toolbox and overview of psychopharmacology, behavioral medicine techniques, caring for the seriously and persistently mentally ill in primary care, and families and culture in primary care. Continuing education credits are available for this program, which costs \$1,600 per participant, per site.

### Implications for Training

Despite all of the opportunities noted above, the skills necessary to work in an integrated clinic cannot be learned from didactic education and technology-enhanced distance learning alone. We need to develop a pipeline of trained clinicians who can then serve as clinical educators and supervisors for new learners and train those who demonstrate a proclivity toward primary care how to supervise and train others. The same model of clinical training that has been used for many years in clinical psychology, family therapy, and medical education (i.e., a combination of didactic education and experiential training) must be created for the

practice of primary care. To accomplish this, a critical mass of well-trained and dispersed group of practitioners in various health care settings must be available to offer clinical training opportunities to students. As discussed in an article by Blount and Miller (2009), unless we can radically increase the workforce available to work in primary care, we run the risk of being marginalized as part of routine health care as it becomes redefined through health care reform legislation and clinical practice.

The mechanisms for achieving this goal are neither entirely clear nor easy. American Psychological Association-accredited graduate schools are, at least partially, in service to a somewhat prescribed and standardized curriculum that leaves little room for ingenuity and modification without extending the program. Adding material is not feasible in most programs that are already bursting at the seams with requisite coursework and requirements. In addition, curriculum change, even adding a new course, might require years and considerable committee involvement and approvals. Independent graduate schools of psychology might have a slightly advantageous position in this regard; however, regardless of setting, adding new curricula can be a long and laborious process. Thus, considerable reengineering of graduate psychology curricula is required to produce health care practitioners that can serve in primary care clinics. The educational requirements (guidelines and principles) set forth by the American Psychological Association Committee on Accreditation should embrace a curriculum that prepares all psychologists to practice within the full scope of psychology as a health profession. Material that holds historical interest but little applicability for clinical practice might be eliminated or required at the undergraduate level prior to admission to graduate school. This would allow time and room in the curriculum to add content that is more relevant to today's health care delivery system and derived from the latest scientific evidence. Fortunately, much of the material and competencies that are relevant to primary care provide robust scaffolding for generalist psychology training. For example, primary care psychologists should be well versed in the theory and applications of cognitive-behavioral techniques, dialectical behavior techniques, mindfulness techniques, motivational interviewing techniques, and psycho-

pharmacology. Moreover, primary care practice requires a comfort with implementing techniques as opposed to full versions of manualized CBT protocols, which are not feasible in this setting. Patients in primary care are often less sick than those entering the mental health system and may not be willing or ready to accept a mental health diagnosis to explain their symptoms. Although the recommended knowledge and skills are clearly not unique to primary care, training these techniques exclusively in traditional mental health settings falls short given the population.

In primary care, patients may have a broad array of needs given their medical conditions, and behavioral health clinicians will need to be both aware of and relatively comfortable discussing these as a member of their health care team. Other critical shifts include assuming the role of an ancillary provider, rather than being exclusively in charge of a patient's treatment plan, adapting to a different workflow and pace as well as different confidentiality standards, and learning about the roles of nurses, medical assistants, and a variety of other workers who are less commonly encountered in traditional mental health settings. Didactic education is necessary, but experiential training will also be required to prepare behavioral health clinicians for the above realities to effectively practice in the PCMH.

A multitude of professional opportunities exist for psychologists who obtain the breadth and depth of expertise needed to work in a primary care setting given that it is an avenue to expand, not narrow, occupational growth. Well-trained primary care practitioners can expect to serve in clinical positions within community health centers, federally qualified health centers, and other types of primary care settings. In addition, the need for practice-based research in this field is enormous, and psychologists who have an interest in combining research and clinical practice will be in high demand and will undoubtedly offer meaningful contributions to a field hungry for more evidence. Another possible professional role includes becoming a behavioral science faculty member within family practice residency programs. Psychologists with the knowledge and skills to work in primary care will be able to teach future family practitioners about assessing and treating behavioral health conditions and how to work as a collab-

orative team member during their 3-year residency program, which always includes a behavioral science element per their education and training requirements. By its very nature, becoming a primary care behavioral health clinician requires one to specialize in a discipline that, similar to family medicine, is actually a generalist model in which one must be prepared to address patients across the life span and across all aspects of health, wellness, sickness, and death. In a rapidly changing environment, psychologists have and should seize the opportunity to position themselves at forefront by not only responding to but helping to define the future of high-quality, cost-effective health care in the United States.

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