High-Impact Mental Health–Primary Care Research for Patients With Multiple Comorbidities

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Patients with multiple psychiatric and medical comorbidities are common in primary care practices (PCPs), and recent health care reforms will likely lead to an increase in their numbers. PCPs need flexible, integrated mental health–primary care interventions that are applicable to these complex patients and compatible with the PCP setting. Generating practice-ready solutions for rapid uptake in typical PCPs requires a new direction for mental health–primary care research. This column describes an approach that embraces both real-world relevance and methodological rigor to stimulate such research. The approach emphasizes generating knowledge that decision makers need, using practice-based evidence and efficient methods, and planning for sustainability and broad uptake from the outset. (*Psychiatric Services* 65:406–409, 2014; doi: 10.1176/appi.ps.201300537)

Primary care patients commonly have mental health problems that are comorbid with other chronic medical conditions, such as asthma, diabetes, obesity, and cardiovascular disease (1), all of which require disease management approaches. Recent U.S. health care reforms make care more accessible, and the number of patients with complex needs will likely increase,

intensifying the need for practical, integrated care models that address patients' mental and general medical disorders. For example, more than 30 million previously uninsured people will enter the U.S. health care system in 2014 as a result of the Affordable Care Act and its expansion of Medicaid (2). About six million of these newly insured individuals will have untreated mental health problems (3). Their overall health may be poor, and many may have multiple chronic medical conditions due to a lack of prior care. Primary care will be the likely health care entry point for these "complex patients"—that is, individuals with multiple comorbidities.

When complex patients have a psychiatric disorder, reduced motivation and cognitive impairment may further complicate attempts at disease management. For example, major depression is common among people with diabetes and a risk factor for poor diabetes self-care and adherence. Failure to address psychiatric symptoms may diminish the effectiveness of care for other medical conditions. Complex patients also use a high volume of both general medical and mental health care, making them a costly group for health care systems. Improving these patients' health outcomes and functioning while containing costs will be challenging.

Primary care practices (PCPs), where people with psychiatric comorbidities are frequently seen for general medical problems, represent opportunities for engagement in psychiatric care. This is important, because treatment seeking may be hindered by lingering stigma surrounding psychiatric

disorders. Integrated care models that offer psychiatric care in PCPs may overcome this stigma.

PCPs need flexible mental health interventions that are applicable to most of their patients with psychiatric disorders, responsive to patients' preferences, and compatible with actual practice patterns and health care system operations. Yet limited support for delivering mental health care, numerous competing demands, and the need to deliver services within a highly regulated system are the realities of PCPs. Generating practice-ready solutions for rapid uptake in typical PCPs requires a new direction for mental health–primary care research. The next section sets forth a vision for that research approach.

Promoting high-impact mental health–primary care research

As many have noted, the traditional linear approach to intervention development, which attempts to translate findings from studies conducted under highly controlled conditions to diverse community settings, has not produced the desired results for health care broadly (4–6) or mental health care specifically. Observing this phenomenon, Thomas Insel, M.D., director of the National Institute of Mental Health, called for "research on interventions that can be disseminated broadly, will change provider behavior, and impact clinical outcomes in the world" and "approaches that are relevant to underserved clinical populations, can be readily taught to the existing workforce with minimal cost, can be monitored for quality inexpensively, and can be tweaked through

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cost-effective supervision practices" (7). To generate such high-impact research, the field needs to alter its knowledge production approach.

Kessler and Glasgow's (5) proposal for achieving rapid translation of health care research into practice by embracing both real-world relevance and methodological rigor seems a good fit for stimulating mental health–primary care research. These authors argued for studies that produce the evidence most valued by decision makers, such as answers to the following questions: Will the intervention work in my setting? How many and what types of people would participate? What staff can deliver the intervention? What will it cost? Studies that aim to answer these questions have a number of common features.

First, studies that develop and test practical and feasible interventions ask questions important to decision makers, test interventions designed for broad adoption and scalability, involve representative settings and participants, have realistic comparison conditions, and assess subgroup effects.

Second, such studies involve key contextual factors by testing flexible interventions delivered by various staff in typical settings, recruiting heterogeneous samples, examining variation across settings and staff as moderating factors, and including qualitative components when appropriate.

Third, these studies have transparent reporting that details aspects of the intervention's implementation and potential for sustainability: the number and characteristics of PCP settings that are adopters and nonadopters, the individuals who enroll in the study and those who do not, those who drop out and those who complete the study, settings that sustain the intervention and those that do not, and the extent to which treatment was delivered as intended.

Finally, studies responsive to decision makers' needs thoughtfully fit the design to the question by testing interventions designed for sustainability with typical resources; considering the use of quasi-experimental, adaptive designs or simulation methods; and assessing unintended consequences and long-term sustainability (5).

Studies of mental health–primary care integration that embrace these features

would tend to focus on complex patients, target multiple medical conditions, offer participants realistic treatment choices that consider patient preferences, employ a variety of efficient research designs, use participatory research methods, include mixed-methods approaches, anticipate and examine implementation issues (for example, demands on PCP staff), and assess intervention sustainability. Assessments derived from routinely collected data, such as from health care systems' electronic medical records (EMRs) or billing systems, can further accelerate knowledge production. Described below are some mental health–primary care research projects that illustrate key features of this approach.

Improving antidepressant adherence

Although antidepressants are an effective treatment for depression, adherence is generally poor, which greatly diminishes their effectiveness (8). PCPs, where the majority of antidepressants are prescribed, need practical interventions to promote antidepressant adherence. Clarke (9) is leading a research team that is testing a very low-cost, direct-to-patient adherence intervention to prompt antidepressant refills and thereby boost adherence. The randomized controlled trial (RCT) involves 3,100 PCP patients newly dispensed an antidepressant for a mood or anxiety disorder, as identified by the health care system EMR. The intervention, which uses automated telephone interactive voice recognition (IVR), phones patients with reminders timed to their antidepressant refill dates. The IVR program also offers patients brief antidepressant psychoeducation, or they can request to be transferred to a live pharmacist or the mail refill pharmacy. Recruitment of patients for the study is by mailed brochures, which is inexpensive and similar to how patients might access such an intervention in real-world practice. Study exclusion criteria are minimal, resulting in a highly generalizable sample, and the intent-to-treat design assesses both intervention drop-outs and completers to better understand who participates. To inform future implementation, investigators will qualitatively assess patients' reasons for not

taking prescribed medications and health care administrators and PCP staff's perceptions of the intervention's benefits and costs and their intention to continue the program. A cost-effectiveness analysis is also planned.

Optimizing telephone depression care

Collaborative care for depression is effective across a variety of patient populations (10). The collaborative care model includes a primary care physician, depression care manager, and consulting psychiatrist; employs a treat-to-target approach; and uses stepped care, reserving specialty consultation for more complex patients. Despite the repeated success of this model in dozens of clinical trials, the uptake of collaborative care by PCPs has been modest, due in part to health care system concerns over relative costs and benefits. Accordingly, Simon and colleagues (11) assessed the incremental long-term cost and effectiveness of this model when delivered via telephone at two intensity levels: lower-cost care management delivered by a bachelor's-level clinician versus higher-cost care management plus cognitive-behavioral therapy (CBT) delivered by a master's-level clinician. Patients starting antidepressants but not receiving psychotherapy were identified through the EMR of the large provider system, which serves a diverse population. Both interventions resulted in more depression-free days compared with usual primary care. However, patients who received telephone care management plus CBT gained more depression-free days than those who received telephone care management only, and their net outpatient health care costs were lower over the two-year period.

Leveraging safety-net providers to deliver mental health care

Homeless mothers with depression are a vulnerable group who need basic services and mental health care. When they seek psychiatric services, it is mainly through PCPs. The chronic care model, which emphasizes self-management and leveraging community resources, is effective for diverse PCP patients. However, the stressors accompanying homelessness necessitate adaptations for these women around problem

solving, illness self-management, and access to essential resources. To develop a practical depression care program for this hard-to-reach population, Weinreb (12) partnered with national Health Care for the Homeless primary care clinics, which offer case management and other supports to meet this population's complex needs. The quasi-experimental pilot study of ethnically diverse homeless mothers with depression aims to reduce depression symptoms and improve functioning and housing status. Exclusion criteria are few, and Weinreb will assess individual and program factors that may moderate outcomes. This study will also inform development of integrated care interventions for the growing number of low-income and previously uninsured individuals soon to enter PCPs under health care reforms.

Translating practice into research
Attempts to close the research-practice gap by speeding research evidence into practice are one-sided and inadequate (5,6). Generating practice-ready mental health–primary care interventions also entails practice-based evidence, where the experience of providers, patients, and health care systems directly informs the research at all stages. This "health care system as lab approach" is exemplified by practice-based research networks (13), such as the Mental Health Research Network (MHRN). The MHRN is a consortium of 11 public-domain research centers based in not-for-profit health care systems (www.mhresearchnetwork.org). With more than ten million patients in 12 states, the MHRN is the largest U.S. mental health research network.

In this learning health care system, critical practice problems drive the research questions and data needed to answer them, research methods leverage the existing research infrastructure for rapid and efficient knowledge production, the health care system informs the interpretation of findings by providing critical context, and decision makers obtain practice-relevant evidence on which they can act. The MHRN has created standard definitions of mental health events and standard mental health assessments and has built a virtual data warehouse that links health information databases.

This research infrastructure dramatically increases the efficiency of research while protecting patient privacy. For example, the MHRN is conducting a surveillance study of depression treatments and evaluating their effectiveness using routinely collected scores on the nine-item Patient Health Questionnaire (PHQ-9). The MHRN is also developing capacity for a practical trial of population-based suicide prevention programs with 15,000 outpatients who are at risk of suicide attempts on the basis of elevated PHQ-9 scores.

Increasing patients' efficacy for self-management
Patients in PCPs frequently have co-occurring depression and diabetes, with each condition complicating the other and requiring self-management. Self-efficacy is a key mediator in patients' ability to perform critical self-care activities, but current self-efficacy interventions are seldom available in PCPs. Jerant (14) is conducting an RCT pilot study of self-efficacy–enhancing interviewing techniques (SEE IT), a brief provider training intervention to increase patient self-efficacy for managing these conditions in PCPs. In three 15-minute sessions, primary care providers from 14 offices are trained to use SEE IT with actual patients during routine office visits. Patients with co-occurring diabetes and depression are identified from the EMR and claims database. Outcomes include patients' self-care for depression and diabetes, medication adherence, and symptom severity. Jerant held focus groups for PCP physicians, staff, and patients to inform the intervention development and will meet again with PCP physicians and staff after the RCT analyses to capture lessons learned. This highly flexible, low-intensity, low-cost intervention has potential applicability to PCP patients with a variety of mental and general medical conditions requiring self-management.

Conclusions
A new approach to mental health–primary care research is needed to develop practical and sustainable interventions for complex patients seen in PCPs. The field should focus on flexible, integrated care models that

target multiple psychiatric and medical comorbidities and are compatible with the reality of the PCP setting. High-impact studies will address questions important to decision makers, assess key contextual factors, transparently report on PCP and patient participation, select research designs for both rigor and relevance, and consider implementation and maximizing sustainability from the outset. Learning health care systems, which synergistically combine evidence-based practices and practice-based evidence, hold great promise for generating this high-impact mental health–primary care research.

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