A Research Agenda to Advance the Coordination of Care for General Medical and Substance Use Disorders

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The separation of addiction care from the general medical care system has a negative impact on patients' receipt of high-quality medical care. Clinical and policy-level strategies to improve the coordination of addiction care and general medical care include identifying and engaging patients with unhealthy substance use in general medical settings, providing effective chronic disease management of substance use disorders in primary care, including patient and family perspectives in care coordination, and implementing pragmatic models to pay for the coordination of addiction and general medical care. This Open Forum discusses practice and research recommendations to advance the coordination of general medical and addiction care. The discussion is based on the proceedings of a national meeting of experts in 2014.

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Substance use is a leading cause of death and disability in the United States (1–4). Yet only 20.3% of those who needed treatment for drug use disorders and 8.9% of those who needed treatment for alcohol use disorders received it in 2014 (5). Given the health and social impact of substance use disorders and the low number of persons receiving treatment, many potential benefits could be gained from the coordination of general medical, mental health, and specialty addiction care.

In its 2006 report, *Improving the Quality of Health Care for Mental and Substance-Use Conditions*, the Institute of Medicine (IOM) emphasized the need for coordination in substance use disorder, mental health, and general health care delivery and policy in order to improve not only the quality of mental health and addiction care but also the quality of general medical care (6). As coordination of general health care and mental health care has advanced, this trend has not occurred with addiction care. Substance use disorders were, until recently, largely overlooked by physicians because of historical economic and organizational separation of general medical and addiction treatment services (7).

Nearly ten years after the seminal IOM report on improving the quality of behavioral health care, a national meeting was convened to reflect on the state of addiction and general medical care coordination. A preconference session that included interdisciplinary experts, researchers, clinicians, current and former public officials, and students was held as part of the October 15–17, 2014, Addiction Health Services Research conference in Boston. The preconference addressed four topics selected by the authors (AEQ and JHS) on the basis of conversations with leaders in addictions health services research: identifying and engaging patients in general medical settings; providing effective chronic disease management; including patient and family perspectives in care coordination; and paying for coordinated care. This Open Forum addresses each topic and presents research recommendations from the preconference. The box on page 3 provides a summary of the research recommendations. [An online supplement provides further information about the issues and current state of knowledge for each topic.]

Identifying and Engaging Patients in General Medical Settings

Identification of substance use disorders and treatment initiation and engagement in general medical settings is an important path to effective treatment. Screening, brief intervention, and referral to treatment (SBIRT) have been promoted as a model to identify substance use among patients in general medical settings and facilitate access to specialty addiction care (8). However, evidence of the effectiveness of SBIRT across diverse settings and populations is lacking. Identification and engagement could be reframed as part of a continuum of care in need of ongoing measurement and monitoring so as to identify cracks in the system and enable enhancement of outcomes. A potential framework for this approach is the cascade model used in HIV treatment (9), which was developed to measure HIV care engagement and follow-through with effective therapy.

Implementation studies. Implementation studies are needed to provide information about the real-world uptake and effectiveness of specific SBIRT components, including screening administration (for example, computer facilitated versus self-administered versus provider administered), repeated brief interventions (for example, frequency and periodicity), brief-intervention provider type (for example, primary care provider, health behavior change specialists, and care navigator), provider readiness to adopt, and referral strategies (for example, type of communication between general medical and specialty settings).

New approaches to identification, brief intervention, and engagement. Innovative identification tools, brief intervention components, and engagement strategies may need to be designed for different patients on the basis of the substance or substances used, severity, and other characteristics (for example, readiness to change, age, race-ethnicity, socioeconomic status, and co-occurring mental health and general medical conditions). Intervention delivery settings and their features also need to be considered, including medical versus nonmedical community settings. Electronic health records (EHRs) can be used as a tool to identify substance use disorder risks and facilitate brief interventions and engagement with specialty care. Research on brief interventions can examine both prevention and treatment outcomes (10). Pharmacotherapy should be explicitly considered as a component of engagement.

Health outcome measures. The primary outcomes of screening and brief intervention research are self-reported substance use, related consequences, and care utilization. Alternative outcomes, such as quality-of-life measures, should be considered to improve delivery and research. Biological verification of substance use merits development in order to complement self-report assessment. Finally, measures shared across research and practice could help develop an evidence base.

Future of Chronic Disease Management

Chronic care, rather than acute care, for substance use disorders could increase access to ongoing comprehensive treatment services for many patients who have not accessed or benefited from specialty addiction treatment (7). Additional research is needed to identify how best to implement chronic disease management in order to bolster successful substance use disorder outcomes. Three key areas for development and research are system redesign, provider organization and communication, and information technology.

Primary care system redesign. Moving from a system of acute to chronic care could include restructuring primary care teams to deliver targeted treatments for substance use disorders across a spectrum of severity. This could involve the adoption and implementation of new and existing treatments; training primary care providers in evidence-based practices, such as prescribing pharmacological treatments for substance use disorders; and adding behavioral health providers to primary care teams. Implementation studies could be conducted to determine the effectiveness of the new system components.

Provider organization and communication. Increased links between primary care, specialty care, and community resources are needed to move to a chronic care model and improve treatment engagement. One solution to the current system fragmentation is colocation of addiction and primary care services in the same or proximate physical spaces. Colocation has been shown to increase treatment utilization (11) and reduce substance use severity among participating patients (12,13). Tools, such as shared EHRs with appropriate confidentiality protections, are needed to promote communication between specialty addiction care and primary care.

Information technology. Information systems are an essential element of chronic disease management. EHRs can be used to improve monitoring, treatment, and evaluation of substance use disorders. Even relatively modest changes, such as including patients' substance use status along with vital signs, could be examined regarding improvement of physician awareness and monitoring of substance use disorders. EHRs could also be adapted to assist addiction care through best practice alerts, guided screenings and assessments, and decision aids for treatment. However, research is needed to develop and evaluate standardized protocols for EHRs (14). In particular, empirically guided decision aids, such as those used in diabetes care (15), could help providers make addiction treatment decisions more effectively and efficiently. Patient portals, which help patients manage their care by integrating information across numerous health care providers (16), have vast potential to improve patient care. Examining patient portals, including those supplemented with Web-based and mobile health technologies to further support patient self-management, is another important area for research.

Including Patient and Family Perspectives in Care Coordination

Shared decision making—the foundation of patient-centered care—actively involves patients in the consideration of available treatment options and supports them in choosing the one that is best for them. If patients with substance use disorders are presented with a menu of options on the basis of their needs (for example, severity and comorbidity), goals (for example, decreased use, abstinence, or no change), and preferences (for example, one-on-one versus group-based treatment and medications), patient engagement in treatment may increase. Systematic research is needed to assess effectiveness and determine appropriate menus of treatment

RESEARCH RECOMMENDATIONS TO ADVANCE THE COORDINATION OF CARE FOR GENERAL MEDICAL AND SUBSTANCE USE DISORDERS

Identification, intervention, and engagement

Develop and test new substance use disorder identification, brief intervention (both as a preventive service and as a treatment), and engagement approaches for specific populations and settings, including electronic health records and substance use disorder pharmacotherapy.

Conduct implementation studies of existing and new identification, brief intervention, and engagement approaches.

Develop outcomes measures of overall health, beyond substance use and related consequences.

Chronic care management

Conduct implementation studies of new delivery models that include chronic care management.

Determine provider, organization, and system readiness to implement chronic care management.

Develop and test new ways to facilitate communication between addiction and general medical care providers.

Develop and test care management strategies that use health information technologies, including electronic health records, patient portals, and mobile health applications.

Including patient and family perspectives

Identify attitudes of specific subgroups of patients to treatment approaches, goals, and outcomes.

Develop and test patient engagement strategies, including the role of social support systems.

Develop and test strategies to engage general medical providers with patients with substance use disorders and in addiction care.

Develop and test patient decision aids.

Financing and payment

Develop and test new payment systems, including impacts on patients, clinicians, provider organizations, and payers.

Develop risk adjustment models for coordinated care payment systems.

Develop and validate performance measures for coordinated care payment systems.

options and develop decision aids to support patient and provider uptake of this approach.

Patient-centered interventions. Research is needed to determine what types of interventions are acceptable to which patients so that shared decision making can be implemented. Patient-centered treatment approaches could be developed that are specific to demographic and clinical subgroups (for example, persons formerly incarcerated or homeless). A spectrum of culturally competent treatment strategies that are acceptable to specific subgroups should be identified. Approaches should take patients' experiences and needs into account and could capitalize on patients' social support systems that may have a large influence on recovery (for example, family, friends, coworkers, and peer support). Implementation science, comparative effectiveness, and mixed-methods studies could inform the design of research studies in this area. To promote acceptability and sustainability of interventions, patients could be involved in the design of the research.

Decision aids. Decision aids that support shared decision making for the management of substance use disorders can address provider as well as patient needs. These tools can serve to educate providers about evidence-based treatment options other than specialty addictions treatment and support dialogue about patient preferences, values, and outcome expectations. In this way, patient decision aids can be used to help identify pertinent issues for patients and match the best treatment option to their goals, preferences, and symptom severity. Decision aids can be in the form of pamphlets, videos, or online tools and should be evidence based.

Paying for Coordinated Addiction and General Medical Care

Care coordination is difficult to achieve and sustain without financial mechanisms designed to support the inherently collaborative effort (17). Risk adjustment models and performance measures for coordinated care are key areas of inquiry. Risk adjustment models are important to appropriately compensate providers who deliver addiction care. Measures of coordination, integration, retention, pharmacotherapy, access, health information exchange, and EHR interoperability may be critical in payment models that support coordinated addiction and general medical care.

Understanding the capabilities, culture, and values of provider organizations and the behavior of the providers within them is an important step in developing a payment model to support coordinated addiction and general medical care. In many alternative payment models, providers take on financial risk and may need to transform their care delivery processes in order to better manage their patients' clinical risks. Addiction treatment and general medical care provider organizations are likely to have different types of staff with different licenses, certifications, and training. How to bring these different types of organizations together—both financially and culturally—and prepare them for coordinated and integrated care delivery is an important area for research.

Financing and payment mechanisms that align patients, clinicians, organizations, and payers across the health care system should be developed. How these models affect cost, quality, care delivery, and system alignment needs to be tested, including the effect on treatment utilization, care experiences, and health outcomes. Aligning incentives and values within and across systems may be critical to the success of payment models that support coordinated and integrated care.

Conclusions and Implications

The research agenda presented in this Open Forum lays out an ambitious pathway to advance the coordination of general medical and addiction care. Fourteen recommendations presented in the box on page 402 summarize these opportunities. Questions across the four topics include what works for specific populations? What is the role of and impact on different stakeholders (for example, patients, clinicians, provider organizations, and payers)? What is the role of health information technology (HIT)? What are the optimal outcome and performance measures? These recommendations represent the perspectives of the experts and topics addressed at the conference and may not include all approaches to improve coordination of care (for example, workforce development).

A significant opportunity exists to utilize HIT, particularly EHRs, to facilitate coordination of care. Consideration needs to be given to the development and implementation of clinically meaningful outcome and performance measures to monitor quality and to compare results across research studies and clinical practices. These measures should be developed or selected with the input of clinicians, patients, and researchers in order to be meaningful. When possible, the data for developing and testing these measures could be collected by using HIT and EHRs and reported as part of routine care to speed up the research process and reduce the burden on providers.

These recommendations have implications for research design and analytic methods. Implementation studies, effectiveness studies, hybrid implementation and effectiveness studies, comparative-effectiveness studies, and mixed-methods studies will be important to assess the impact of current and new approaches. Quality improvement techniques (for example, the plan-do-study-act cycle [18]) could be used to quickly test new identification, treatment, and payment approaches. Health care systems and states are learning environments with which researchers can partner to examine health services questions and inform optimal care delivery. State initiatives are inherently dynamic, which challenges traditional research processes. Principles of delivery system science and pragmatic clinical trials are approaches to consider because of the rapid dynamic changes taking place in health care, often without empirical evidence to drive them.

As the health care system changes, the impact on the addiction treatment system is not clear. Yet the importance of identifying people with substance use disorders and addressing both their addiction treatment and their general medical care is unequivocal. Although effective models of coordinated care may vary for different organizations, clinicians, patients, and families, it is important to determine which models are effective, what makes them effective, and what payment policies make them possible and sustainable.

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Correction to Wiegand and Godemann (2017)

The Brief Report "Increased Treatment Complexity for Major Depressive Disorder for Inpatients With Comorbid Personality Disorder," by Hauke F. Wiegand, M.D., Ph.D., and Frank Godemann, M.D., published online in *Psychiatric Services* in Advance on February 1, 2017, contained an error. In Table 1, the values for males and females are reversed. For major depression, the correct values are 24,311 females and 17,245 males. For major depression + personality disorder, the correct values are 5,704 females and 3,026 males. A corrected table will appear in the May issue (*Psychiatric Services* vol. 68, no. 5), and a corrected version was uploaded to *Psychiatric Services* in Advance on March 8, 2017.