

Learning to Integrate Cardiometabolic Care in Serious Mental Illness

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The study by Druss and colleagues in this issue (1) demonstrates that it is possible to improve the quality of physical health care for patients with serious mental illness and cardiometabolic risk factors in real-world community mental health settings. This well-designed, rigorous single-blind randomized controlled trial compared the integrated care provided through a behavioral health home with usual care among 447 outpatients with one or more cardiometabolic risk factors at a single urban community mental health center.

The study evaluated the effectiveness of the behavioral health home with respect to the primary outcome of a composite measure of quality indicators for cardiometabolic risk and secondary clinical outcomes over a 12-month intervention period. Patients who received treatment through the behavioral health home received higher quality of care: they had a greater increase in the percent of indicated services that were received, were more likely to receive high-quality treatment for diabetes and hypertension, and were more likely to receive preventive services, and the services they received were more likely to align with the chronic care model. Behavioral health home patients also showed improvement in all clinical outcomes (blood pressure, total and LDL cholesterol levels, hemoglobin A_{1c} level, Framingham risk score, patient activation, and the physical component summary of the SF-36) except blood glucose level. But patients who continued to receive usual care also had improvements in these clinical outcomes, and there was only differential improvement (greater in the intervention group) for systolic blood pressure and the mental component summary of the SF-36. Given the clear improvement in quality of care received through the behavioral health home, the authors conclude that improving quality of care is necessary but may not be sufficient to improve medical outcomes.

People with serious mental illness have the largest cardiovascular health disparities of any vulnerable population. Their life expectancy is more than a decade shorter than that of the general population, and cardiovascular disease is the leading cause of this premature mortality (2). Despite a high-profile national report in 2006 that raised public awareness of this crisis (3), and a decade of subsequent research and large-scale demonstration projects, this mortality gap persists—and may even be widening (4). There are multiple interrelated contributors to this excess cardiovascular disease mortality. Research over the past 10 years has provided substantial evidence for effective interventions to reduce the risk factors of smoking and obesity, which

are the two leading causes of preventable mortality (5, 6). But there have been few rigorous studies evaluating the effectiveness of care models to improve the quality of medical care for patients with serious mental illness (7).

A behavioral health home is an integrated care model for persons with serious mental illness, based on the conceptual model of a medical home, which aims to improve outcomes and experience of care as well as to control costs (8). Behavioral health homes based in community mental health centers have emerged as it has become increasingly apparent that persons with serious mental illness face challenges in engaging in effective primary care and are at increased risk of “medical homelessness” (9). Despite widespread interest and a national demonstration program (10), there have been few studies evaluating the impact of this care model on quality of care or patient outcomes. The study by Druss and colleagues fills this gap by using a randomized design to rigorously evaluate a behavioral health home for patients with serious mental illness and cardiometabolic risk factors, and this scientific rigor is the study’s major strength. The provision of care by clinical staff, not research staff, is an additional strength, as it greatly increases the generalizability of the findings and the potential for uptake.

The behavioral health home intervention in the study was a multicomponent integrated care model in which medical care services were provided by community mental health center staff—a nurse practitioner and a full-time nurse care manager—from a Federally Qualified Health Center (primary care) partner. Medical care was integrated with the behavioral health care provided at the community mental health center through the attendance by both of these providers at weekly community mental health center rounds and shared care planning. Care management tasks included health education and logistical support for engagement in medical care. Cardiometabolic risk factors were managed through a treat-to-target approach, which included weekly review and treatment adjustments for patients who were not improving.

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that were implemented in this study: population-based care, measurement-based care, and a team approach with a care manager and the expertise of a primary care physician as the core components (11). Moreover, given that primary care services are typically provided by a primary care organization that is separate from the community mental health center, unless there is real integration of clinical and data workflows, care will continue to be only co-located at best. The study findings also anticipate the major barriers for such integration: 1) lack of infrastructure, in particular inadequate health information technology and lack of a shared electronic medical record for partners; 2) the culture shift that is required by community mental health centers to provide data-driven care; and 3) lack of readily available primary care partners to provide physician expertise.

Despite the reassuring findings that the behavioral health home improved the quality of cardiometabolic care for this vulnerable population, the investigators were unable to demonstrate that this improved quality of care translated into improved patient outcomes (i.e., the improvement in medical outcomes for the behavioral health home group was not greater than that experienced by the usual care group). Druss and colleagues acknowledge some important limitations in the study that may help to explain this. Specifically, the Framingham risk score may not be an optimal outcome measure of cardiovascular disease risk among patients with serious mental illness, both because of the unique vulnerabilities of this population (12) and because some components of the risk score (e.g., age) are not sensitive to change. Moreover, the study period may not have been long enough to detect changes in important clinical outcomes. Finally, there were more dropouts in the usual care group than in the behavioral health home group, which may have affected the findings.

The lack of difference between the groups may be explained in large part by the improvement in outcomes observed among the usual care participants. This improvement may be attributed to the screening for cardiometabolic risk and referral for care that these participants received. This is the essential first step in reducing the impact of cardiometabolic risk, and it is currently not being done consistently enough in community mental health settings (13). Screening itself is unlikely to improve outcomes, though, and it will also be necessary for community mental health centers to provide evidence-based lifestyle modification programs and pharmacotherapy in order to improve outcomes. The literature suggests that changes in health care account for 10% of premature mortality, while more than 70% is attributable to lifestyle factors (unhealthy diet, physical inactivity, and smoking), environmental factors, and social determinants of health (14). Improvement in the quality of medical care provided can only move the needle so far on outcomes, in the face of the stresses of poverty and lack of resources to improve health behaviors.

Patients treated in community mental health settings represent a heterogeneous population with respect to their

cardiometabolic risk, and it is clear that one intervention is not going to address the needs of all patients—and that interventions should be tailored to specific risk factors or levels of risk in order to optimize the use of limited resources (e.g., nursing skills).

This landmark study supports critical elements for improving the quality of cardiometabolic care for patients with serious mental illness, and it demonstrates that quality of care can be improved even when care is based in a community mental health setting. The study findings suggest a clear path for improving care and outcomes: operationalization of the core principles of collaborative care, including the implementation of evidence-based lifestyle modification interventions and pharmacotherapy; real integration of both clinical pathways and data reporting between behavioral health and primary care providers; and a stepped approach to tailoring treatment to the level of and specific risk of individual patients.

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