Integration of a clinical pharmacist into the healthcare home (HCH)

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ABSTRACT

Mental health is intrinsically linked to general medical health. People with severe and persistent mental illnesses (SPMIs) have been reported to have higher rates of infectious diseases, type 2 diabetes, respiratory illnesses, and cardiovascular disease. They also have 1.5 to 2 times the prevalence of dyslipidemia, hypertension, and obesity than the general population. Healthcare Homes (HCHs) are an integrated treatment approach allowing for psychiatric and medical conditions to be addressed collaboratively. The HCH model promotes open communication among healthcare providers, wellness education, and preventative care. Physicians and nurses are mandatory providers within the HCH. Pharmacists are not routine members of this new approach to care. This article will describe an example of how psychiatric pharmacy services have been incorporated into a HCH. It also calls for advocacy within the specialty of psychiatric pharmacy in an effort to encourage state and government policy changes that mandate the addition of pharmacists into the HCH model of care.

KEYWORDS

pharmacist, patient-centered care, healthcare home

Data show that patients with mental disorders are more likely to develop other chronic conditions (e.g., hypertension, type 2 diabetes, dyslipidemia) than the general population.[1] In October of 2011, Missouri became the first state in the nation to receive the approval of a Medicaid State Plan Amendment allowing for the establishment of Healthcare Homes (HCHs) under the Affordable Care Act, which allows for open communication among different healthcare providers.[2] Subsequently, over a two year period, 28 Community Mental Health Center (CMHC) HCHs across the state of Missouri were developed and 18,998 clients were auto-enrolled into a HCH.[3] A HCH is an established treatment model that allows for individuals to receive medical, behavioral, and related social services all under one umbrella. The concept of a HCH has developed, in part, due to overwhelmingly concerning statistics highlighting that adults living with serious mental illnesses die on average 25 years earlier than the general population, largely due to treatable medical conditions such as cardiovascular and pulmonary diseases.[4,5] Commonly utilized treatments, like the second-generation antipsychotics, also increase the risk of developing chronic metabolic conditions such as diabetes. Addressing both mental and physical health care needs collaboratively is imperative to providing the best overall care for individuals with severe and persistent mental illnesses (SPMI), which include schizophrenia, bipolar disorder, severe depression, and PTSD. The HCH model takes a holistic approach to care, providing health and wellness education opportunities, ensuring that individuals receive both preventative and primary care, and assisting individuals in managing chronic illnesses. HCH initiatives include reducing overall healthcare costs and improving health outcomes for individuals with SPMIs.

Individuals eligible for enrollment into a HCH must meet one of the following criteria: a diagnosis with a SPMI, a mental health condition and substance use disorder (e.g., alcohol, cocaine, opioid abuse/dependence), or a mental health condition and/or substance use disorder and one other chronic health condition. Chronic health conditions may include diabetes, cardiovascular disease, chronic obstructive pulmonary disease, overweight (Body Mass Index (BMI) > 25), tobacco use, and developmental disability.[3] HCH team members must include, at a minimum, a primary care consulting physician (PCP), a health care home director, nurse care managers, and clerical support staff. Pharmacists are not routine or mandatory clinicians in a HCH team. The nurse care managers serve as the backbone of the HCH team and are responsible for providing one-on-one individualized care to all HCH clients.[2,3] They serve as the link between the patient and physician regarding medication-related issues. The HCH team meets weekly wherein they discuss clients who are medically or psychiatrically unstable and present with physical and/or mental health concerns. The team discusses their medications and other health issues and decides on a treatment course of action.

Polypharmacy and the associated potential for medical complications are real and significant concerns for HCH-enrolled clients and the presence of a medication expert is critical.

Although pharmacists are not typically members of HCH teams, there is literature promoting their incorporation as key HCH team members.[6-9] Pharmacists' medication expertise makes them uniquely positioned to address medication-related issues, identify and resolve medication concerns, address clinical concerns related to specific psychiatric treatments, and recommend appropriate monitoring and management of metabolic syndrome in patients with SPMI. Pharmacists can also ensure that complex medication regimens are tailored to meet the needs of patients with respect to appropriateness, dosage, and frequency, provide medication education, and resolve patient-specific medication challenges.

Missouri CMHC has incorporated a psychiatric clinical pharmacist into the HCH model of care. Their HCH has enrolled 375 clients that also actively receive mental health and social services at a CMHC in St. Louis, Missouri. A registered nurse serves as the HCH director and there are two HCH nurse care managers. Collaboration exists with a local primary healthcare clinic, where a PCP consultant practices family medicine. The PCP consultant is responsible for ensuring that HCH enrolled individuals are receiving care consistent with appropriate medical standards. The psychiatric clinical pharmacist functions as an active member of the HCH team. They offer ongoing wellness groups with a focus on smoking cessation and are available for psychopharmacology consultation. The HCH team is responsible for coordinating annual health screenings, maintaining a working relationship with PCPs in the community, assisting in transitional care planning after hospital discharges, and ensuring that medication reconciliation occurs within 72 hours of hospital discharge. Medication reconciliation is a state-mandated HCH requirement, described as a formal process where a healthcare provider obtains a complete and accurate list of the client's current home medications at hospital discharge—including name, dosage, frequency, and route and compares them to physician discharge orders to ensure medication safety. The pharmacist can fill an important void in the continuity of care provided to clients enrolled in the HCH by providing this service.

TEAMcare is an additional treatment approach that the CMHC has incorporated into their HCH model. It is an ongoing weekly meeting that occurs among multiple healthcare providers focused on reviewing complex and medically challenging clients enrolled in the HCH. The original TEAMcare model was designed and described by a physician from the University of Washington in 2009.[10] A nurse supervised by a medical team collaborated with each patient's PCP, providing guideline-based care management, with the goal of controlling risk factors associated with multiple diseases, including depression. Nurses received weekly supervision with a psychiatrist, PCP, and psychologist to review new cases and patient progress. They tracked Patient Health Questionnaire (PHQ-9) scores, glycated hemoglobin (HbA1c), LDL cholesterol, and blood pressure levels. Their team-based interventions demonstrated an overall improvement in the quality of both depression and medical care in patients with co-occurring depression and diabetes and/or coronary heart disease. An adapted model of TEAMcare was developed to better meet the needs of individuals with SPMI. This version of TEAMcare includes HCH nurses, the HCH PCP consultant, a psychiatric clinical pharmacist, and community support specialists (CSS). The addition of a clinical pharmacist into this health care model is vital, given their extensive medication knowledge.

TEAMcare meetings occur weekly in two hour time blocks, allowing for two treatment teams to review three to five challenging HCH client cases. Fourteen different treatment teams rotate through TEAMcare over the course of seven weeks. Treatment teams consist of both Assertive Community Treatment teams and intense case management teams. All clients receiving services on these teams have a diagnosis of a SPMI and most also have co-occurring chronic medical conditions. Each team is given one hour to discuss their client cases. Clinical measures that are reviewed and discussed during TEAMcare meetings include HbA1c, blood pressure, cholesterol, BMI, and Daily Living Activities (DLA-20) subscores.[11] The DLA-20 is a clinician rated tool providing assessment of functioning for adults with SPMI. It assesses which daily living areas are affected by mental illness or disability such as household maintenance, community resources, and personal hygiene, and provides information for Medicaid reimbursement and for standards for healthcare reporting. DLA-20 subscores that are documented and tracked during TEAMcare meetings include health practices, alcohol/drug use, and coping skills.

The psychiatric clinical pharmacist documents the following items during the TEAMcare meeting: client demographics, DLA-20 subscores, metabolic values,

smoking status, identifying health problems, current medications, providers of psychiatry and primary care, health goals from the treatment plan, quality report measures, and action items for the team. Quality report measures are health information tools that are provided to healthcare providers by the state of Missouri that include a behavioral pharmacy management report, disease management report, and medication adherence report. Examples of quality indicators from the behavioral pharmacy management report that are reviewed by the psychiatric pharmacist include: use of two or more antipsychotics for more than 60 days, use of five or more psychotropics for greater than 60 days, multiple prescribers of the same class of psychotropic drug for 45 days or more, use of two or more benzodiazepines for greater than 60 days. Examples of disease management indicators that are also reviewed include:

Figure 1. Disease Management Indicators

Disease Management Indicator	Persons Flagged
Blood Pressure Control: Hypertension	Have a diagnosis of hypertension, and have a blood pressure >140/90 mmHg OR have no blood pressure result reported in the previous 12 months
Diabetes: A1c Control	Have a documented HbA1c > 8.0% or have no HbA1c result reported in the previous 12 months
BMI Control	Have a documented BMI of > 25 or have no BMI result reported in the previous 12 months
No Tobacco Use	Report tobacco use in the previous 12 months

Missouri Department of Mental Health Care Management Technologies uses pharmacy claims to monitor adherence for critical psychiatric and medical medications. A quarterly Medication Adherence Report is prepared that displays a Medication Possession Ratio (MPR) for each agency's clients for several classes of medications, including antipsychotics, mood stabilizers, diabetes medications, and cardiovascular medications. MPRs provide an estimate of adherence based on frequency of medication refills. This information is collected and reviewed by the HCH Director and psychiatric clinical pharmacist for all HCH-enrolled clients. Each client is discussed in TEAMcare meetings for a minimum of eight minutes, allowing for this time to be billed by the agency as a provider consult service through the state Medicaid system.

Below is an example of a clinical case reviewed in TEAMcare:

- CSS presents client Joe, a 50 year-old male to the team. Joe's diagnoses include schizophrenia, type 2 diabetes, hypertension, hyperlipidemia, nicotine dependence, alcohol dependence, and obesity.
- His medications include clozapine 300 mg BID, aripiprazole 30 mg daily, benztropine 1 mg BID, clonazepam 1 mg BID, amlodipine 10 mg daily, atorvastatin 20 mg daily, docusate 100 mg BID, metformin 500 mg BID, glyburide 10 mg daily, and topiramate 100 mg BID.
- Client concerns are described as unexplained tachycardia, anemia, and hypersomnia (so groggy that it is difficult to engage the client).
- Action items discussed during TEAMcare:

1. **PCP consultant:** client at high risk for sleep apnea due to obesity; review flag of HbA1c to assess for adequate blood glucose control; discuss smoking and increased cardiovascular risk; recommend colonoscopy due to age and gastrointestinal bleed risk
2. **Psychiatric clinical pharmacist consultant:** assess for hypersomnia related to psychotropic medications (benzodiazepine along with clozapine and topiramate); review flag of use of five or more psychotropic medications; discuss concerns regarding tachycardia and cardiovascular risk associated with clozapine use; discuss cholinergic toxicity associated with clozapine and benztropine use
3. **Outcomes and tasks for the team:** a) refer client for sleep study and colonoscopy, b) refer client to cardiology specialist to assess for cardiomyopathy related to clozapine treatment, c) recommend smoking cessation support (i.e., groups, nicotine replacement), d) educate on healthy lifestyle and refer to HCH wellness groups (healthy eating/exercising), e) HCH nurse to address client questions regarding diabetes care, f) clinical pharmacist to draft letter to prescriber regarding concerns with psychiatric polypharmacy, g) treatment team to assess stage of change surrounding alcohol use and assess motivation to decrease use with every visit with client

Traditionally, mental health and physical health care are done in parallel and are often disconnected. The HCH and TEAMcare models recognize that health problems often overlap and that a collaborative and team approach to care is necessary. HCHs are the future frontiers of client care and pharmacists as health care professionals need to

be an intrinsic part of the HCH team. Pharmacists have a unique knowledge of both medical and psychiatric medications and have the potential to dramatically enhance overall client care as part of a healthcare team. Currently, there are 15 states with approved Health Home State plans; these include *Alabama*, *Idaho*, *Iowa*, *Maine*, *Maryland*, *Missouri*, *New York*, *North Carolina*, *Ohio*, *Oregon*, *Rhode Island*, *South Dakota*, *Vermont*, *Washington*, and *Wisconsin*. As the Affordable Care Act is implemented across the United States, HCHs will also continue to develop and expand. It is vital that psychiatric pharmacists advocate for an established role within the HCH model of care.[12] If you practice in one of the states with established HCH, contact your Centers for Medicare and Medicaid Services to seek out and advocate for provider status within individuals states. Further information can be obtained at the following website: http://www.medicaid.gov/State-Resource-Center/Medicaid-State-Technical-Assistance/Health-Homes-Technical-Assistance/Health-Home-Information-Resource-Center.html

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