# Implementing a Metabolic Initiative in a Community Mental Health Clinic

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***Introduction by the column editors:*** This new column demonstrates the use of an electronic mailing list (e-list) to generate a collaborative problem-solving process. The process is modeled on key features of the academic curriculum of the Columbia University Public Psychiatry Fellowship (PPF) at New York State Psychiatric Institute (ppf.hs.columbia.edu). The fellowship, which prepares psychiatrists for leadership roles in the public sector, emphasizes the importance of understanding systems and working collaboratively in teams to solve problems.

PPF alumni who encounter a management problem at their work site are asked to present the problem to current PPF fellows and faculty and to lead a discussion aimed at developing solutions. The idea of replicating this process in a column using the PPF alumni e-list was conceived during a discussion between Jules M. Ranz, M.D., PPF director, and Maria Oquendo, M.D., vice-chair for education, Department of Psychiatry, Columbia University Medical Center.

The problem discussed in this first column was presented to the e-list by Dianna Dragatsi, M.D., a PPF alumna. Dr. Dragatsi sent an e-mail to the PPF e-list in November 2008 describing the Inwood Clinic, which she has been directing since 2004. She outlined problems that clinic staff encountered while implementing an initiative to monitor the metabolic effects of second-generation antipsychotics after a study had demonstrated the need for such monitoring at the clinic. This column presents excerpts from the ensuing dialogue with the 11 PPF alumni and three fellows who responded on the e-list. It concludes with a description of resulting changes at the Inwood Clinic.

**Readers of *Psychiatric Services* are invited to submit management problems to Dr. Ranz at jmr1@columbia.edu, who will send selected problems to the PPF e-list and work with Susan M. Deakins, M.D., associate director of the fellowship, to help submitters summarize discussions in future columns.**

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The Inwood Clinic is part of the Washington Heights Community Service (WHCS), a comprehensive, community-based program for people with severe and persistent mental illness. Founded in 1965, WHCS is a state-operated program that has a census of about 1,000 patients and that consists of an inpatient unit at New York State Psychiatric Institute (NYSPI) and two outpatient clinics, Audubon and Inwood, located in the community.

The Inwood Clinic is located in the northern section of the borough of Manhattan in New York City. U.S. Census data from 2000 indicated that the population of the northern section is predominantly Hispanic (74% Dominican) and the median household income for the area is $28,865. The Inwood staff consists of 15.3 full-time–equivalent professional staff and 3.0 nonprofessional staff. Each staff member has his or her own office, and there is a nursing station where blood samples are drawn and long-acting injectable medications are administered. The NYSPI pharmacy provides medications for indigent patients. The Inwood Clinic has direct access to the NYSPI inpatient electronic medical record, including discharge summaries and results of medical work-ups and blood tests conducted when patients are hospitalized on the inpatient unit. New York Presbyterian Hospital (NYPH) outpatient medical clinics are fairly close to the Inwood Clinic and provide medical care for most of its patients. A patient survey conducted in 2008 by the New York State Office of Mental Health showed that 96% of the WHCS patients had cooking facilities, adequate transportation, and a primary care physician.

The Inwood Clinic has two programs, the outpatient program and the continuing day treatment program (CDTP), and has a census of approximately 400 patients. Lunch is provided for CDTP patients daily. Twice a week it is prepared at NYSPI by kitchen staff supervised by a nutritionist, and three times a week it is prepared in the clinic by a mental health therapy aide, who makes food, such as rice and beans, compatible with cultural preferences.

## The need for metabolic monitoring

It is well known that second-generation antipsychotics are associated with negative metabolic consequences (1).

Patients who take these medications have mortality rates higher than those of the general population and often fail to follow through with the medical care recommendations of their primary care physicians.

In 2005 the NYSPI clinical director, David Hellerstein, M.D., reviewed the causes of death of WHCS patients over the previous five years and found a high rate of death from cardiovascular and diabetes-related factors (2). At that time the Inwood Clinic conducted an informal exercise group and a health and nutrition group for CDTP patients. Weight and fasting blood tests were loosely monitored by the patient's individual psychiatrist. As a result of Dr. Hellerstein's study, the health and nutrition group lengthened its meeting time and staff placed a scale, educational posters, and plastic models of food portions in the meeting room. All patients in the CDTP were given water bottles, and many were given pedometers paid for by an independent grant. Patients received education about body mass index (BMI) and were encouraged to report their weight each time they saw their psychiatrist. Despite these interventions, there was little change in patients' health status.

In 2007 Julie Kelso, M.D., a fellow in the Columbia University Public Psychiatry Fellowship (PPF) program, created a health monitoring form that was disseminated to staff at both the Audubon and Inwood Clinics. Staff at the Audubon Clinic CDTP completed a form for each patient once. At the Inwood Clinic clinicians could choose between completing the form or documenting health monitoring indices in their progress notes for each patient. The inpatient unit began including key health monitoring values in a separate section of patients' discharge summaries, which made the information readily accessible to outpatient clinicians. However, clinicians in the outpatient clinic did not consistently continue to use the health monitoring form.

In 2007–2008 Christina Mangurian, M.D., another fellow in the PPF program, studied the impact on patient health status of a culturally tailored educational nutrition group at the Inwood Clinic. The intervention group was initially led by both a dedicated research nutritionist and a staff nurse. When, as planned, the patients began to lead the group, the nurse continued as a coleader of the group along with patient leaders—otherwise the group would have dissolved. Most patients lost weight (3).

## The problem

To demonstrate the efficacy of interventions to improve the physical health of consumers with severe and persistent mental illness who are taking second-generation antipsychotics, most studies have required the presence of a dedicated research nutritionist-nurse (4–6). Two factors prevent the Inwood Clinic from hiring such a staff member: budgetary constraints and the fact that exercise or nutrition groups in CDTP mental health services are not covered under New York State Medicaid guidelines. Therefore, implementing a program to monitor metabolic effects of second-generation antipsychotics is essentially an unfunded initiative. The literature recommends monitoring of patients' weight, blood pressure, BMI, and waist circumference and the results of ongoing fasting blood tests, especially for patients taking second-generation antipsychotics (7). Patients also need to maintain contact with their primary care physician and receive information relevant to their health and nutrition.

How can a mental health clinic help patients improve their physical health without compromising the time and energy necessary to deal with their mental health issues? Inwood Clinic psychiatrists are already burdened by time-consuming paperwork demands. They would prefer not to complete an additional cardiometabolic monitoring form; instead, they would prefer to document the required indices in the progress notes, as they do currently with other important indices, such as lithium and divalproex sodium levels. Tracking information by using this system, however, is difficult, especially when long-term trends need to be monitored. Among community psychiatrists what standards are being used?

## E-list dialogue

Below are excerpts from a dialogue that took place between Dr. Dragatsi and e-list members after this problem was submitted to the PPF e-list.

Most respondents began by expressing empathy in regard to the problem of limited resources. For example, one noted, "There is variable buy-in to these [health] initiatives and a limit to what people can do in an environment where productivity and financial solvency are forefront. It would certainly make a difference if we could bill for integrated health services, if we could pay for medical staff lines, if we could include colocated medical satellites, and if we were simply not so stretched."

When I [Dr. Dragatsi] pointed out a potential downside to the status quo—"Do you think we may one day be liable for having not been more aggressive in addressing metabolic factors?"—respondents described what they had been able to do given limited resources. One said, "I believe that metabolic issues related to second-generation antipsychotics are a major issue. We have evidence-based practices, [but] we can't afford to implement them. So I weigh patients when I see them every three to four months, check a fasting blood sugar once a year, talk about exercise and diet, and encourage cross-tapers to aripiprazole and ziprasidone. I try to do that quickly along with everything else."

I noted that many of the Inwood Clinic psychiatrists "are concerned that patients may not follow-up when abnormal parameters are found." I suggested incorporating loose recommendations for what to do with abnormal findings into the progress note." An e-list member responded, "The greater issue is what we should do once they are diagnosed and are on waiting lists for primary care appointments and weight management groups."

Some respondents suggested simple monitoring systems. For example, one said, "I created a physician progress note that has [metabolic monitoring] prompts and a [mental status exam] check-off that forces docs to address all pertinent issues." I replied, "I do like the idea of incorporating metabolic monitoring parame-

ters in a progress note. . . . I am not sure, with all the information we have now regarding metabolic syndrome, that documenting weight and BMI is sufficient, and I'm curious if other clinics monitor waist circumference and blood pressure?"

Some respondents described procedures followed at their work settings. One said, "We are currently trying to work out a system where one R.N. has dedicated time to check blood pressure, waist, and weight and the M.D. will order and follow-up labs, all according to guidelines developed by ADA [American Diabetes Association] and APA [American Psychiatric Association]." I replied, "We do not currently have the set-up to assign an R.N. whose sole responsibility is to monitor metabolic parameters. . . . Nurses carry their own caseloads, lead groups, administer long-acting injectable medications, and draw bloods."

Other e-list participants pointed out possibilities for interventions. "One thing to consider is that you have a ready-made forum for doing health education and promoting more skill-building through your lunch program. . . . You could enlist both the therapy aide and consumers in redesigning the lunch fare." Another asked, "Are there other feasible, more creative approaches to exercise? Maybe taking a motivational approach in defining the problem, to help lure your consumers out of the precontemplation stage." I responded, "I like your thinking out of the box. One of our psychiatrists used to give prescriptions to use a bike three times a week for 20 minutes but patient motivation waned."

Another respondent pointed out the value of requiring a health monitoring form, which "forced me to discuss issues of exercise and diet with my patients more than I might have." I replied, "While I appreciate the comprehensiveness of your form, I wonder if having to complete such an extensive form would lead to lower physician compliance?" Another respondent added, "We have focused on making things as easy as possible: a few prompts on a form, automatic blood pressure cuffs, workbooks that are fun and easy to use."

Some respondents commented on changes that they hoped to achieve. One hoped to "partner with the predominant primary care clinics of the patients to offer the nutrition and exercise interventions." I replied, "We actually had a joint team meeting with the closest medical clinic. Our first goal was to improve access to each other, which has worked somewhat. In truth, however, the medical clinic is also overwhelmed and may balk at the idea of providing these additional services."

An e-list member added, "The solution to this problem will involve exactly what you are attempting to do here—discussion between different clinicians and administrators to share ideas and support each other as we try to figure out how to cost-effectively and efficiently get this done for the people we serve in the community."

I asked the list, "Should we be lobbying our administrators for more resources to address metabolic factors (such as extra R.N. lines), or would this further deter us from attending to our patients' primary reason for seeing us—their mental health needs?" In response an e-list member wrote, "We may have to advocate for [New York State] Medicaid guidelines to be changed to make exercise and nutrition groups billable as we [psychiatrists] will need to have resources."

## Changes implemented

Coincidentally, in January 2009, two months after the problem was posted on the PPF e-list, New York State began an initiative to require outpatient clinics to monitor BMI, blood pressure, and smoking status by using MHARS, the state's computerized mental health automated medical record system. The PPF e-list discussion was instrumental in helping the Inwood Clinic to make realistic decisions about which additional metabolic parameters to monitor and how to effectively implement a monitoring system. On the basis of staff availability at the clinic, I decided that fasting blood tests, weight, blood pressure, and smoking status should be monitored for all patients. Psychiatrists are expected to monitor their patients' weights on scales already in their offices and then to send patients to the nurses' station, where a nurse will measure their blood pressure and draw blood for fasting blood tests. Blood pressure, weight, and smoking status are entered into MHARS by a mental health therapy aid who is also a peer counselor. This individual also provides counseling on these issues to patients in the health and nutrition group.

To facilitate documentation in the paper medical record and close monitoring of these measures by the psychiatrist, a new progress note to be completed quarterly has been created with prompts for the desired values. The psychiatrist will record the patient's smoking status, blood pressure, and weight quarterly. Because taking the time to calculate BMI might present a barrier to documentation in the progress notes, weight will be monitored instead. When height and weight are entered into MHARS, the BMI is automatically calculated. Psychiatrists order the first set of blood tests before antipsychotic medication is initiated. For patients who are given an antipsychotic prescription for the first time, psychiatrists are expected to monitor fasting blood test results and blood pressure at least three times a year for the first year. For all other patients, fasting blood tests are monitored yearly unless otherwise indicated.

The focus of the 2007 WHCS annual meeting was on the metabolic consequences of antipsychotic use. As a result, clinicians are well informed on the subject. For patients, metabolic issues continue to be addressed in the medication and the health and nutrition groups. A walking group conducted by a peer counselor is being considered, even though it is a non-Medicaid billable service. Exercise continues to be provided in the Relaxation Through Yoga group.

To ensure ongoing communication with the primary care physician, the patient will be given a copy of any abnormal lab results together with a completed preprinted form to alert the primary care physician of the need for medical follow-up. The case manager will be responsible for en-

suring that the patient's medical appointment is scheduled within two months of the abnormal findings or earlier, depending on the psychiatrist's determination.

A problem for many mental health clinics is that Medicaid does not allow funding for paraprofessional staff to monitor metabolic issues and clinics cannot charge Medicaid to implement metabolic initiatives such as nutrition and exercise groups that do not have a mental health focus. The clinic's administrative staff are considering whether to pursue several options suggested by e-list respondents. One recommended forming a coalition of public-sector psychiatrists to lobby New York State to change these regulations. Another suggested obtaining funds from pharmaceutical companies to address metabolic issues. Such funding could be used to buy pedometers and subsidize gym memberships via a lottery or other means.

## Conclusions

Engaging with PPF alumni and fellows via the e-list provided an invaluable tool for realistic implementation of policies to address cardiometabolic monitoring. Given mounting evidence of what should be done and the limitations faced by "real-world" public psychiatrists, the PPF e-list input was both sound and comforting and highlighted the fact that everyone is trying to solve the same problem with limited resources. There is no universal solution. Realistic implementation of evidence-based practices depends on local circumstances. The discussion highlights the importance of the need for ongoing communication among clinicians, administrators and researchers to ensure the best possible outcomes for our patients.

### *References*


1. Marder SR, Essock SM, Miller AL, et al: Physical health monitoring of patients with schizophrenia. American Journal of Psychiatry 161:1334–1348, 2004
2. Hellerstein DJ, Almeida G, Devlin MJ, et al: Assessing obesity and other health related problems of mentally ill Hispanic patients in an urban outpatient setting. Psychiatric Quarterly 78:171–181, 2007
3. Mangurian C, Stowe M, Devlin MJ: Obesity treatment for urban, low-income Latinos with severe mental illness. Psychiatric Services 60:1139, 2009
4. Aquila R, Emanuel M: Interventions for weight gain in adults treated with novel antipsychotics. Primary Care Companion to the Journal of Clinical Psychiatry 2:20–23, 2000
4. Brar JS, Ganguli R, Pandina G, et al: Effects of behavioral therapy on weight loss in overweight and obese patients with schizophrenia or schizoaffective disorder. Journal of Clinical Psychiatry 66:205–212, 2005
5. Torres DM: Evidence-based monitoring for metabolic syndrome in clients with chronic schizophrenia. Journal for Healthcare Quality 29:48–56, 2007
6. American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, et al: Consensus development conference on antipsychotic drugs and obesity and diabetes. Diabetes Care 27:596–601, 2004