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Case report

Planning together: Patient-centered care planning to improve health outcomes☆

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ABSTRACT

- Individuals with serious mental illness (SMI) experience significant health disparities and die much younger than the general population. Interventions to address this disparity have targeted nutrition, physical fitness, and smoking cessation, but have not yet resulted in significant improvements in health outcomes for this population.
- The patient-centered care plan, used by providers and patients during outpatient visits, is a potential tool for engaging patients in their own care. We undertook a quality improvement initiative to boost the use of care plans.
- Care plan completion increased substantially over the time period of the initiative. Interviews with patient-provider dyads indicated that patients found care plan conversations helpful for articulating and working toward their goals. Providers generally found them useful for refocusing the treatment, though some found the workflow cumbersome.
- Improving health outcomes among those with SMI will likely require improving patient activation; the patient-centered care plan might be a useful tool for addressing patient activation.

1. Background

The health disparities faced by adults with serious mental illnesses (SMI) such as schizophrenia-spectrum illnesses are well-documented: Evidence suggests that Americans with schizophrenia die 20–30 years younger than those in the general population.[1] Efforts to address this health disparity have tended to focus at the level of the health system, including improving access to medical care, providing care management, and improving care quality. For instance, efforts are underway to ensure that populations on metabolically risky medications are routinely screened for metabolic disorders.[2]

Despite these efforts, the mortality gap for adults with SMI appears to be increasing with time,[3] raising concerns about the effectiveness of interventions undertaken thus far. This is perhaps not surprising, since much of what drives the adverse health outcomes stems not from something our health system can 'do' with a quick fix, but rather from what people do when they are not interacting with the health system—what they eat, how much they exercise, whether they smoke. Indeed, health promotion efforts have been developed to address these modifiable health behaviors among adults with SMI.[4,5]

However, behavior change literature suggests that patients will be unable to utilize these interventions if they lack a sense of self-efficacy about making behavior changes. We report here on a mental health treatment team's effort to use patient-centered care plans, which are tools in which patients articulate their own health goals, to improve patients' engagement in their care. We hoped ultimately to improve the effectiveness of ongoing efforts to address the marked health disparities faced by adults with SMI.

2. Organizational context

Our health system is a safety-net institution that provides a full continuum of primary care, mental health and other specialty care services to local communities. It serves approximately 140,000 patients annually, most covered by Medicaid or Medicare (58%) or uninsured (6%). Our patient population is racially, ethnically, and linguistically

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diverse—less than one third of patients across the health system identify as "Caucasian."

In September 2015, as part of a Medicaid Section 1115 demonstration, our institution began to transform an existing outpatient mental health program for adults with SMI into a Behavioral Health Home (BHH), a model of care that provides medical services within a mental health clinic. The BHH assumed responsibility for an adult patient population of 424 adults aged 18–64 with a diagnosis of schizophrenia or bipolar disorder. Upon adding a primary care provider (PCP) and a full-time care manager, and leveraging a system-wide EHR platform, the program augmented wellness interventions, began offering on-site primary care services, and sought to improve the quality of mental health services. The quality improvement project described in this report took place with the patients and 15 clinicians on this team.

In its current form, in addition to ongoing comprehensive mental health services, the BHH offers primary care services, including PCP visits, supplemental primary care services from other providers, coordination with remote PCPs, and an assertive engagement strategy for patients who refuse primary care services. Wellness interventions include smoking cessation groups, healthy lifestyle groups, motivational interviewing, and activities aimed at fostering social connectedness. A particular area of focus has been systematic monitoring of metabolic effects of antipsychotics.

A broader systems change relevant to this initiative is our institution's ongoing transformation into a Medicaid Accountable Care Organization (ACO). In an ACO, chronic disease management and coordination of care become even more important. Therefore, use of the patient-centered care plan might be even more relevant in an ACO context.

3. Personal context

The mental health treatment team's interest in whether a patient-centered care plan could help patient's engage in their care stemmed from two core principles. First was a deep commitment to health equity. We recognized the injustice inherent in a life expectancy gap based solely on a mental health diagnosis, particularly since those with SMI are disproportionately impoverished and socially stigmatized. The starkness of this health disparity called for creativity in addressing the challenge of how the health care delivery system can address this inequity.

The second philosophical underpinning of this project is a commitment to recovery-oriented mental health care, which has been defined as “a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential.” (https://store.samhsa.gov/shin/content//PEP12-RECDEF/PEP12-RECDEF.pdf)[6,7] Using person-centered care plans in health settings is fully in line with recovery-oriented services. Clinical leaders have long sought ways to formalize recovery-oriented treatment approaches into the clinic's day-to-day operations.

With this initiative, team leadership also hoped to bridge the perspectives of public health and clinical care. Mental health providers working one-on-one with patients tend not to think at the population level, and may not always consider what the statistics about poor health outcomes might mean for individual patients they encounter. Similarly, a public health outcry over health inequities does not by itself effect change at the level of a person at medical risk. In addressing this challenge, we were motivated by a wish to understand what innovations providers might be able to undertake in any setting which, on a broader scale, might effect meaningful population-level improvements in health outcomes.

4. Problem

The disproportionately poor health outcomes of adults with SMI are driven largely not by suicide or violence, but rather by chronic diseases.[1] Early efforts to address this health disparity have focused on improving rates of screening for metabolic disorders such as diabetes and hypercholesterolemia, with the assumption that screening for these conditions is a precondition to minimizing their health impact. However, screening interventions on their own cannot meaningfully improve the health of the population.[8,9]

Additional strategies to address the health disparities faced by those with SMI include providing structured disease self-management programs,[4,5] delivering smoking cessation interventions, improving the safety of antipsychotic prescribing by reducing antipsychotic polypharmacy and minimizing use of metabolically risky medications, locating primary care services at the mental health clinic,[10,11] and implementing primary prevention strategies.[9]

While such system-level initiatives are incredibly valuable strategies for addressing challenging problems, interactions at the individual level are often required to help people with SMI make changes in daily habits. In this project, we wanted to couple the existing program-level health promotion interventions with an exploration of the types of conversations occurring between patients and providers. Could paying closer attention to what occurs between this dyad impact patients' abilities to make use of health promotion opportunities?

Patient activation is a concept that attempts to capture this element of patient responsiveness to interventions delivered by the health system. Numerous studies have linked higher levels of patient activation with a range of desired outcomes, such as improvements in physical activity and nutrition, appropriate use of healthcare resources, chronic disease self-management, and some chronic disease outcomes.[12–14] Further studies have suggested that patient activation is a modifiable factor – that is, that people can move from low levels of activation to higher levels of activation, and that this shift seems to correlate with better health outcomes.[12] While a few studies have explored the concept of patient activation in mental health settings,[15–18] most interventions designed to improve health outcomes for adults with SMI have not taken it into account directly.

5. Solution

An interest in the role of patient activation in improving health outcomes of those with SMI led us to consider strategies for engaging patients in their own care. Structured methods of augmenting the patient's voice and role in clinical decision-making have been developed,[19] but the financial limitations of our safety-net health system precluded the purchasing of such a system, and similarly made it impossible to fully implement some other programs designed to directly impact patient activation. We wondered, therefore, if we could institute a brief intervention designed to improve patients' engagement in their care. Our team had observed that while our patients often did not want to hear about their illnesses, many were very interested in their own *wellness*. This observation led us to the care plan tool in our electronic health record (EHR). The care plan is a seven-question form designed to elicit from patients their health goals, strengths and challenges they face, healthcare team members, an action plan, and degree of confidence in achieving this plan (Fig. 1). The care plan is designed to be used by and for the patient. It is visible to and modifiable by all providers within the health system, and prints on end-of-visit paperwork for patients.

Could this care plan tool, we wondered, be an avenue to elicit from patients their wellness goals and support patients in making behavior changes? While there is little existing literature studying the effectiveness of this kind of care planning among those with SMI, patient-centered care plans have been implemented in primary care settings to improve communication between providers and patients, self-management, and patient activation.[22] Unlike traditional care plans, which are typically episodic, disease-focused, reactive to problems, and focused on gaps/deficits, a person-centered care plan is conceptualized as being continuous, strengths-focused, and goal-based.[20]

Care Plan Template

My Care Plan:

1. My goals to improve my health: ***

2. My healthcare team's goals: ***

3. My strengths and supports to meet my goals: ***

4. Challenges to meeting my goals: {barriers for care plan:14547::"need more support"}

5. My healthcare team: ***

6. My Action Plan: {action for care plan:14548::"keep my appointments"}

7. My confidence that I can follow my Action Plan: {Numbers; 1-10:17898}

Fig. 1. Care plan template.

This less disease-focused approach to communication about health goals was appealing. In addition, a focus on the care planning tool dovetailed nicely with institutional priorities, as it had recently been established as a performance metric. We therefore honed in on this tool for our intervention, and wondered if it could be harnessed to improve patient self-care.

The first six months of the project included a variety of interventions designed to lay groundwork with the clinical team. Initial cycles included building understanding of how care plans were utilized and leading conversations about ways to improve the care plan process, but with limited change in providers' use of the care plan tool. A series of discussions were then held to brainstorm strategies for asking health goal-related questions, with the aim of fostering creativity in how to have these conversations. Various design tools, visual models, and other strategies were considered. It became apparent that some providers struggled with the specific phrasing of questions in the care plan template. Iterative discussions were held regarding strategies to free providers from the phrasing of existing questions, with the goal of enabling a less formal and more creative approach to conversations about patient goals.

A parallel step was the involvement of a peer provider, or a person who uses his/her lived experience with mental illness to deliver services that promote recovery. This peer provided consultation and feedback to the implementation team. The peer came to a team meeting to discuss goal-setting from a service user's perspective, highlighting for staff the importance of thinking broadly about patients' goals.

A recurring concern from providers was that completing care plans would add to their workload. To address this, we tied care plan completion to conversations they are already having with patients, discussed the connection between care plans and the team's mission, and gave voice to a 'clinician champion' (a provider who used care plans often). Despite these efforts, providers continued to surface this concern, and it remains uncertain whether the practice has been sufficiently systematized so as to ensure sustainability absent ongoing program-level support and intervention.

Despite these workflow challenges, care plan completion rates rose over the course of this project from 14.7% to 54.6% (Fig. 2). An early increase coincided with the hiring of the PCP, who found the care plan tool helpful and used it extensively in initial clinical encounters. However, because the care plan must be renewed in the EHR every six months, and follow-up was not built into this provider's workflow, there was a subsequent drop-off in care plan completion rates.

Beginning in fall 2017, a series of more specific interventions were undertaken, designed to boost care plan completion rates. "Tip sheets" were developed to ensure that providers had information about how to complete the care plan in the EHR, how to ask goal-related questions, and how to treat/refer patients who express an interest in working on common goals. A particularly impactful intervention was the use of the patient registry to directly contact providers whose patients were in need of care plans. Direct messaging of providers was piloted on a small scale and, with positive feedback from providers and early uptick in care plan completion rates, was systematized across all providers on the team. This strategy resulted in the significant increase in care plan completion rates over the final six months of the project.

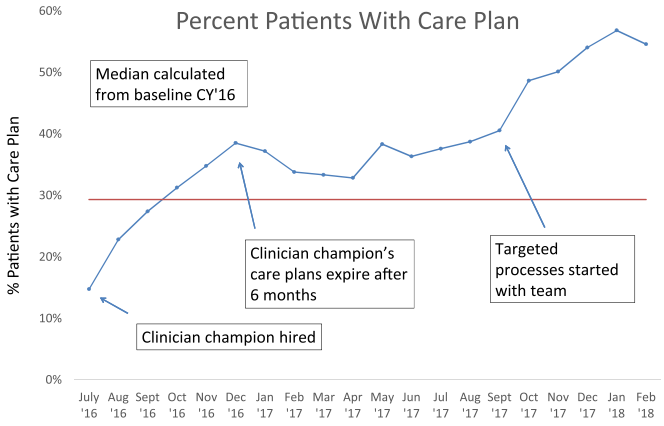

Fig. 2.

5.1. Interviews with patients and providers

In addition to tracking care plan completion rates, ten semi-structured interviews were conducted with five patient-provider dyads to obtain feedback after an appointment in which care planning was discussed. Interviewed providers were behavioral health clinicians. One of the investigating authors conducted the interviews; interview participants were volunteers. Transcripts of interviews were analyzed to elicit themes across dyads, across providers, and across patients, to highlight benefits and challenges of the care planning process.

The interviews typically lasted 30–45 min and were designed to explore the care planning process from both patient and provider perspectives. Questions informing the interview guide included whether the care planning process increased a patient's sense of activation, and if so, in what ways; how the providers used care plans; how a provider's sense of commitment to improve health outcomes impacted patient activation; challenges in the process of care planning; and what improvements might be made to the process. The same questions guided all patient interviews. The interviewer recorded detailed notes of participants' responses and provided these notes to a partnering researcher for qualitative analysis.

A multiple case study approach was used to analyze the interview transcripts.[21] Notes from each interview were reviewed and a codebook that included a priori themes of interest and emergent themes was developed. The transcript from each interview was coded using Dedoose software (Dedoose Version 7.6.21. Los Angeles, CA: SocioCultural Research Consultants, LLC. 2017) and coded excerpts from the provider and patient of each dyad were compared to identify theoretical concepts and salient themes in the data. As the process continued, each new interview was compared to the previous ones to map connections and identify divergences between and among participant groups. Earlier interviews were reanalyzed in light of new concepts identified in later interviews.

Providers and patients found the care planning process beneficial in a number of ways. Several providers indicated that completing a care plan with patients helped them reorient treatment to patients' and providers' goals.

> I think sometimes in therapy, things can veer off in different directions, and I think it's really good to just review where you're at from time to time and work toward something constructive, especially if there's some motivational interviewing or behavioral

activation work to be done.

They also felt that care planning allowed them to take stock of the work they had done with their patient, and assess how to move forward.

> It's really easy to get lost in the therapy process and lose sight of your goals, and I think it's helpful to have to check in on it and notice what is important, what has changed.

The conversations also gave a structure for providers to bring up topics that were otherwise sensitive or difficult.

> Using the care plan gave me an opportunity to frame those goals without criticizing her or deflating her happiness.

> I sometimes get uncomfortable talking to folks about their weight… It can be a difficult topic for folks depending on how they feel about food, and the care plan was sort of a structured way that we could… explore more about his relationship with food.

There was thematic overlap in the goals that interviewed patients identified in their care plans. Common themes included a desire to work toward independence (eg finances, living situations, employment.), eat healthily, exercise regularly, and reduce smoking. Healthcare providers expressed similar goals for their patients, which most often related to exercise, nutrition, engagement in treatment, and maintenance of wellness.

Some patients spoke about the benefits of articulating their goals with the provider.

> I think it helped when [therapist] asked me the questions… that helped me set goals by speaking about parts of my life that are about taking care of my health.

These patients reported feeling equipped with strategies to accomplish their goals.

> I wanted to come up with a plan with her, because we were changing the amount of times I was going to be seeing her, where we were going to move forward, what I would like to work on.

Some of these patients also noted how helpful it was to have a printed copy of the care plan to take home with them.

> [Talking about my goals] made me feel stronger, emotionally and mentally. To see it on paper rather than just talk about it, having the printout is helpful.

The interviews revealed some uncertainty among providers about the intent of some of the care plan's questions. For instance, one point of confusion was the relationship between patients' and providers' identified goals. Some providers were unclear how to handle potentially disparate goals, and also what to do if the patient identified multiple goals.

> There wasn't a space for, what are the goals we agree to work on first and tackle together. So it feels a bit split, there's his goals and there's the healthcare team's goals.

> If you list, say, two or three goals, when you talk about strength or support to meet the goal, or challenges, it's hard to know which goal you're talking about… and the action plan is very broad and doesn't address any specific thing.

Other questions emerged about how to handle multiple providers writing separate goals on the care plan. All of these points of confusion suggest opportunities for ongoing learning about strategies for supporting discussions around health behavior change, and highlight the complex, rich, and meaningful challenges in doing this work.

6. Unresolved questions and lessons for the field

The results of this quality improvement initiative suggest that patient-centered care planning shows promise as a means to engage patients in their own care. An increase in patient engagement will hopefully improve patient activation around making health behavior changes. The improvements in care plan completion rates suggest that it is possible to implement an initiative designed to promote structured care planning. Interviews suggest that both patients and providers found it valuable to be able to discuss their goals side by side, in a factual, non-judgmental manner.

Interviews also revealed ways that providers make use of care plans, such as to assist with goal-setting, develop action plans, and re-center treatment, as well as some of their challenges with care plans, such as the seemingly rigid structure and the ambiguity of certain questions. Patients seem to use the process as a way to establish or review their goals, assess progress, and determine concrete next steps.

Interviews with patients and providers suggested that some providers had reservations about the care planning process. Providers' reluctance appeared to relate to the documentation burden and the concern that patients were uncomfortable with the formality of the process. Indeed, it is reasonable to be skeptical about whether a one-size-fits-all tool in the EHR is capable of meaningfully impacting the nuanced and necessarily customized patient/provider interaction. However, in interviews, patients did not voice this concern, a discordance that suggests another important avenue for investigation.

A limitation inherent to the care plan tool is that while it is well-suited for establishing goals and action plans, it does not necessarily facilitate the next step, of ensuring that patients and providers stay accountable to following up on those goals. More needs to be learned about how to sustain motivation in following up on patients' goals and maintaining hopefulness for change.

A limitation to this initiative was that we had no mechanism for following up with patients regarding what changes they made in the aftermath of care plan discussions. Similarly, we were not able to follow up with providers regarding whether care plan completion shifted their treatment relationships with patients.

In sum, patient-centered care planning appears a promising strategy for helping engage patients in their own care. It represents the type of tool that could begin to bridge the gap between the population-level imperative to improve the health outcomes for those with SMI on the one hand, and interventions that can be delivered at the individual level, on the other. As our health systems increase in complexity and have ever-stronger imperatives to support both cross-systems collaboration and patient empowerment, there will likely be greater need for tools that begin with our patients' needs rather than our systems.'

Conflict of interest statement

The authors confirm that there are no known conflicts of interest associated with this publication.

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