A Case Study of Early Experience with Implementation of Collaborative Care in the Veterans Health Administration

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Abstract

Primary care remains critically important for those who suffer from mental disorders. Although collaborative care, which integrates mental health services into primary care, has been shown to be more effective than usual care, its implementation has been slow and the experience of providers and patients with collaborative care is less well known. The objective of this case study was to examine the effects of collaborative care on patient and primary care provider (PCP) experiences and communication during clinical encounters.

Participating physicians completed a self-administered visit reconstruction questionnaire in which they logged details of patient visits and described their perceptions of the visits and the influence of collaborative care. Audio recordings of visits were analyzed to assess the extent of discussion about colocated mental health services and visit time devoted to mental health topics.

The main outcome measures were the extent of discussion and recommendation for collaborative care during clinical visits and providers' experiences based on their responses to the visit reconstruction questionnaire. Providers surveyed expressed enthusiasm about collaborative care and cited the time constraint of office visits and lack of specialty support as the main reasons for limiting their discussion of mental health topics with patients. Despite the availability of mental health providers at the same clinic, PCPs missed many opportunities to address mental health issues with their patients. Ongoing education for PCPs regarding how to conduct a "warm handoff" to colocated providers will need to be an integral part of the implementation of collaborative care. (*Population Health Management* 2010;13:331–337)

Introduction

COMMUNITY-DWELLING PEOPLE WITH COMMON MENTAL DISORDERS frequently present in general medical settings.^{1,2} Efficacious treatments exist for most common mental disorders,¹ as do treatment guidelines for primary care providers (PCPs) and mental health specialty care providers for prevalent conditions such as depression.¹ Unfortunately, the gap between scientific knowledge and its implementation in clinical practice remains wide. Unmet mental health needs are particularly prevalent among individuals with mental health problems who seek care in primary care settings.^{1,3}

Collaborative care interventions emerged as an efficacious approach to treat depression following evidence that strategies such as screening, dissemination of guidelines, provider training, and referral to mental health specialists do not

appear to be effective (ie, reduction in depression symptoms, increased antidepressant medication adherence) on their own.¹ The aim of collaborative care interventions is to improve care at the interface of mental health and general medicine by training psychiatrists, psychologists, and other mental health specialists to provide depression care in collaboration with patients' PCPs or by training members of the primary care team, such as nurses, in additional skills to care for patients with mental health needs.⁴ Two key elements can be found among the most successful collaborative care programs. The first is systematic care management by a nurse, social worker, psychologist, or other trained clinical staff to facilitate case identification, coordinate an initial treatment plan and patient education, provide close follow-up, monitor progress, and modify treatment if necessary. Care management can be provided in a primary care clinic or by

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telephone. The second element is consultation between care manager, a PCP, and a consulting psychiatrist or other appropriate mental health specialist.¹ Multiple efforts have been applied to implement the efficacious collaborative care model in real-world practices.⁵ A growing number of studies of collaborative care management for depression in a wide range of health care systems, including the Veterans Health Administration (VA), show that it is more effective than usual care.^{6–11} In particular, Gilbody et al conducted a comprehensive systematic review of 37 randomized trials involving 12,355 patients with depression who received primary care with integrated collaborative care. The review confirms that collaborative care, when utilized in addition to primary care, is more effective than traditional standard care in the short term, and strongly suggests that it may be more effective in the long term. Collaborative care has also been shown to be efficacious in reducing pain severity and pain-related disability and depression among chronic patients.¹² The foreseeable effects of collaborative care management in primary care are substantial: collaborative care has the potential to reduce the global burden of depression-related illness overall, as well as improve population-level well-being.⁵ But to reap the optimal benefits from this type of arrangement, it is critical that the primary care and mental health care cultures—using a common treatment approach—integrate over time.

Many are concerned about the costs of implementing collaborative care. A study of 3 multistate VA administrative regions that implemented a collaborative care model found that activities supporting the initial phase of implementation cost (including project coordination, clinical informatics, and provider education) reached \$282,000 over the course of 27 months for 7 practices in the 3 VA regions.¹³ Nevertheless, in the long run, collaborative care models have shown promise to cost-effectively improve quality of care for depression in primary care settings.^{6,7,14} After examining patients with co-occurring depression and diabetes, Katon et al found that total health service costs (including the costs of the original collaborative care intervention) were approximately \$3900 lower for patients assigned to the collaborative care program than for those continuing in usual care.¹⁵ Further, analyses of long-term cost effects of collaborative care for late life depression (the IMPACT trial¹⁴) showed that collaborative care had an 87% probability of being associated with lower mean total health costs compared to usual care. Specifically, compared with usual care patients, intervention patients had an average cost saving of \$3363 per patient during 4 years.¹⁶

Despite growing evidence of the clinical and economic advantages of collaborative care, its broad implementation has been slow. One challenge associated with implementing collaborative care models is organizational inertia and clinicians' resistance to change (J. Unutzer, oral communication, December 2007). There is no doubt that organizational changes take time and implementing collaborative care requires significant organizational commitment. Additionally, some physicians perceive—perhaps mistakenly—that collaborative care models are another means to limit PCPs' scope of medical practice. The experience of PCPs who have participated in collaborative care has just begun to be reported. So far, all of the research shows PCPs' experiences with collaborative care to be positive.^{17,18} Such information could help future participants and policy makers better

understand the benefits and costs of collaborative care. Surprisingly little is known, however, about what actually happens during primary care visits in practice settings where collaborative care models have been implemented. How collaborative care affects the way in which PCPs practice in busy clinics is also unknown.

Institutional background

The Veterans Integrated Service Network 16 (VISN 16) working with the South Central Mental Illness Research Education and Clinical Center implemented the Primary Care Mental Health (PCMH) Initiative, putting in place the collaborative care model for mental health in primary care in 13 primary care clinics. The primary goal of this study was to conduct a qualitative case study to explore the experience of PCPs during the initial implementation phase of collaborative care at 1 VA primary care outpatient clinic within the VISN 16 Initiative. In July 2007, 2 registered nurses were hired and trained to perform depression care management functions for the collaborative care initiative. The collaborative care initiative was launched in October 2007. Our field work began in July 2008 and concluded in March 2009.

Data and methods

We focused on PCPs' experience with treating patients with mental illnesses in the clinical teams where mental health care managers were colocated. Adopting the innovative "Day Reconstruction Method" created by Nobel Laureate Daniel Kahneman and colleagues,¹⁹ we developed a Visit Reconstruction Method (VRM) to study the early experiences of PCPs who participated in VA's Primary Care Mental Health Initiative. We also audio recorded 10 office visits to obtain a direct observation of how the presence of care managers might have influenced how PCPs communicated with patients about mental health in real practice. Integrating data from these 2 sources, we hope to provide a multidimensional depiction of how health care for veterans with depression is provided in the early phase of a colocated mental health program.

Physician and patient identification

All of the PCPs (physicians and physician assistants) from 2 clinical teams (A and B) where the 2 depression nurse specialists were located were identified and invited to participate in the study. The recruitment letter was signed by the team leader of the clinic and was placed in clinicians' mailboxes. They also received face-to-face invitations by the investigators and research assistant. The invitation and informed consent form described the study as one that would explore how doctors use clinic time to provide services to their patients, as well as about how doctors felt about their career satisfaction. (Similar statements about the study were used for the patient invitation and consent form.)

A convenience sample of 6 PCPs, 3 from each of the 2 clinical teams, participated in the study. The participation rate was 50% among eligible providers. Informed consent was obtained from all participants. The research assistant then screened for eligible patients for each participating PCP using the VA's electronic medical records database. The eligibility criteria included diagnosis of depression and/or

current prescription of psychotropic medications without any record of using specialty mental health services. All patients who had a clinic visit scheduled within the next 2 months for each participating PCP were screened. Those eligible were mailed the invitation letter and telephoned 1 week later.

Ten patients participated in the study; 6 were patients of Clinic A, and 4 were patients of Clinic B. Four of the patients were identified from prior diagnosis data, and 6 were identified from prescription data taken from the medical records database. The patient participation rate was 100%.

The Visit Reconstruction Method

How physicians spend their time and how they experience the various clinical activities are significant questions for researchers in diverse disciplines. The VRM was designed to collect data that describe the experiences a physician had during a given visit through a systematic reconstruction conducted following the visit. The VRM was built on the strengths of time-budget measurement and experience sampling, and employed techniques grounded in cognitive science.¹⁹

The VRM asked physician respondents to reconstruct the visit they just had with their patients by completing a structured self-administered questionnaire. A respondent first brought the previous visit into working memory by producing a short log consisting of a sequence of topics. This process was termed "reinstantiation." Its format drew on insights from cognitive research with Event History Calendars²⁰ and facilitated retrieval from autobiographical memory through multiple pathways. The process of episodic reinstatement attenuated biases commonly observed in retrospective reports.^{21,22} Respondents' log entries were confidential and the log was not returned to the researcher. This allowed respondents to use idiosyncratic notes, including details they might not want to share.

Next, respondents received a response form and were encouraged to draw on their confidential log notes to answer a series of questions. These questions asked them to describe key features of each topic discussed with the patient including (1) when the topic began and ended, (2) what the topic was about, and (3) how they felt on multiple affect dimensions. This response form was returned to the researcher for analysis. In addition, respondents answered a number of questions about themselves, their perception of the mental health collaborative care initiative in their clinic, and the circumstances of their lives (eg, demographics, job characteristics, satisfaction with job, perceived autonomy).

Qualitative analysis of audio recording

To analyze the audio recordings of the patient visits, we developed a qualitative analysis guide that focuses on these aspects of patient-physician communication about mental health: (1) Did the patient (and/or partner, if the patient was accompanied by a partner) raise a mental health concern? If there was a discussion about mental health, we examined (2) Who initiated the discussion of mental health? (3) How much time did the patient (and/or partner) spend discussing the mental health concern? (4) How much time did the PCP spend discussing the mental health concern? (5) Did the PCP discuss colocated mental health services with the patient

and/or partner? (6) Did the PCP make a referral to the colocated mental health services?

Following Tai-Seale et al,²³ 3 of the authors (MTS, MK, and AS) performed qualitative analyses of the transcripts of each audio recording. The inter-rater reliability was good: kappa was 0.88 and percent agreement was 0.93. In our review of the audio recordings, we discovered that 3 patients were already under the care of mental health specialists (unclear if by a VA psychiatrist or elsewhere) even though the electronic medical record did not contain that information. The unexpected use of specialty mental health services gave us an opportunity to see how PCPs address patients who are already in specialty mental health services and the interface of the primary care and specialty mental health.

Results

Descriptive information of patients and primary care providers

Three of the 6 PCPs were male, and 3 were female. Two of the female PCPs were physician assistants. The PCPs' ages ranged from 35 to 55 years. The ethnicities of the PCPs were very diverse and included African American, Middle Eastern, Hispanic, East Asian, and South Asian. Nine patients were male, and 1 was female. The female patient was an Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) veteran. The patients' ages ranged from 25 to 85 years; their ethnicities included white (6), Hispanic (2), and African American (2). We use capital letters A and B to denote the clinics, numbers 1-3 for PCPs in the associated clinics, and lower case letters *a* and *b* for patients under the care of each PCP.

Visit reconstruction by providers

Four of the 6 providers who participated in the study responded to the visit reconstruction questionnaire before the end of the day of the recorded visit; 2 did not respond despite several reminders by a research team member. Among those who responded, reactions about collaborative care are positive in general. None of the providers expressed any concern over their autonomy related to the presence of mental health care managers. Two of the providers stated that the collaborative care model is "definitely" a time-saver while another described it as "mostly" a time-saver and gave this reason to support the answer:

"It allows patients with mental health problems to be seen earlier and enhances adequate follow-up."

They also viewed the collaborative care model as "definitely" or "mostly" a valued service for these reasons:

"After adding PCMH to primary care in my clinic I have less patients lost in follow-up, better compliance with meds, smoother clinic, connection with mental health to expedite to see the sickest patients, and have peace of mind."

"I am updated on the response of my patients on regular basis."

"Avery (pseudonym of colocated mental health provider) is great. I don't have the time to explore a patient's mental health needs to a significant degree."

The questionnaire contained a few additional questions. For example, a few questions inquired about their feelings during the visit and their perceptions regarding their career and autonomy. The responses show that one of the PCPs felt happy, confident, and not rushed. He was very satisfied with his career as a VA physician and with his autonomy to practice medicine. Another PCP was somewhat satisfied with her career, clinical autonomy, and freedom to provide care to patients. Three PCPs indicated that they mostly did not have the freedom to spend time with patients. Another PCP indicated mostly “yes” while none chose definitely “yes” or definitely “no” about the freedom to spend time with patients. Three PCPs stated the reason for choosing “mostly did not” have the freedom to spend time with patients was that the 20 minutes allocated to see each patient was insufficient because of repeated interruptions by other health care workers (ie, case managers, nurses, physician assistants), the potential complexity of the case, and inadequate subspecialty support.

An additional question inquired about the length of visit. Of 5 of the visits for which providers recalled the lengths of the visits, 2 visit lengths were either exactly the same as the audio-recorded visit length or within 1 minute of the length of the recording. The other 3 visit lengths were underreported by providers by 4 to 6 minutes. These findings are consistent with reported recall bias²⁴ that needs to be considered when using provider recall of visit length in research. Underreporting of visit length might have contributed to the general feeling of not having enough time to spend with patients.

Analysis of transcripts of audio recording

Three themes emerged from the analyses of the transcripts of the audio recordings. We first summarize the descriptive information about the visits, based on the transcripts. We then present the actual language used in one of the conversations as an illustration for each theme.

Theme 1: There Is Someone Else Here Who Can Help You—But I Won’t Push You

We saw only 1 PCP bring up the availability of the colocated mental health provider in the clinic during a visit.

Case A1a:

This was the only visit of the visits that we sampled during which the colocated mental health provider was mentioned. The physician missed a window of opportunity to motivate the patient to use the colocated mental health service when the patient complained about sleep difficulties and anxiety. The physician began by focusing on the patient’s past refusal to use the on-site mental health providers, rather than stating the benefits of the service. His attempt to introduce the on-site provider appeared noncommittal.

The visit was scheduled for 2:20 PM and the patient was seen at 2:45. At check-in, the patient appeared rather frazzled, as observed by the research associate. The audio recording of the visit showed that he exhibited pressured speech. He told the physician that his dog had new puppies and he had not been able to sleep for

many days. He told the physician that Ambien did not help at all. The patient brought up the subject of anxiety.

Pt: Everything is fine. The only thing is I have one more refill I think of, I don’t know if you need to check, is for my anxiety medications.

PCP: Zoloff?

Pt: No I’m taking that—I have many of that.

...

Pt: I get up at 4 in the morning, and I can’t go back to sleep.

PCP: Yes, it’s 8 hours. It’s enough. Are you tired when you get up?

Pt: Yes, my brain is not rested.

...

Pt: I mean, do I need to meditate, or pray? I’m 51 years old.

PCP: Sure. But you said you don’t need any help right now that you are okay. And I offer you—I meant to call you—Avery (pseudonym for the colocated mental health provider) is an RN who works with mental health in the past. But you said you didn’t want to be called or something like that.

Pt: Right, right.

PCP: You told me something like that.

Pt: Yes, yes, I did tell you that.

PCP: I don’t recall exactly what you said honestly, but you told me something like this. All right. Okay—so this is a checkout paper. This is for you.

It appeared that the PCP dismissed the patient’s search for empathy when he talked about getting up at 4 AM by stating that “it’s eight hours. It’s enough.” Though he did follow up with a question on whether the patient felt rested.

We tracked the amount of time the patient and physician spent discussing the patient’s anxiety disorder and the related conversation on sleep difficulties. The patient spent 86 seconds and the physician 93 seconds. The conversation was limited mainly to discussing sleep difficulties. With the patient visit being 25 minutes behind the scheduled time, there might have been some time pressure to speed up the visit. We did not observe any use of assessment instruments²⁵ to evaluate the patient’s level of anxiety.

Theme 2: Ask the Specialist—Cold-to-Lukewarm Handoff

Case A2a:

This patient was new to the Houston VA. She had just moved to Houston. She was an OIF/OEF veteran and had been in the Army for about 3 years. She complained of intense pain on her lower body - a pain so severe that she didn’t even want to leave the house. She was in an airborne unit while in service and she attributed the pain to “just the effects from being airborne, all the jumps and everything.” She had taken ibuprofen which did not help ease the pain. She had also taken tramadol and Tylenol 3 but she knew that she should not grow dependent on opiates. She brought up the subject of her depression when she stated that “... when I am hurting it’s depressing, because I’m only

26 years old." Rather than explore her pain further, the PCP asked about other medical problems to which the patient answered that she was on an antidepressant (citalopram) for a while. The PCP asked whether she had been taking that for a while and found out that she had tapered herself off of it. She further stated that there were times that she felt like she did need it. To these repeated cues of emotional distress and invitations for empathy, the PCP redirected the discussion back to nonemotional issues such as medications and other health problems, thereby missing the opportunities to express empathy.²⁶ The PCP then asked if the patient was still seeing the psychiatrist. The patient confirmed. The PCP then stated "maybe they might be able to explain how easily the medication works ... you don't just take it when you are down."

This response might have given the impression that the psychiatrist was the one to address medication use. There was no mention of the on-site mental health provider who could also inform the patient about the importance of treatment adherence. The patient's burden from pain and depression was addressed as matter of fact with a lukewarm and passive handoff to the patient's psychiatrist. Although it is reasonable that the PCP did not delve into the patient's psychiatric care because she was already under the care of a psychiatrist, he missed the opportunity to explore in more depth the circumstances when the patient felt that she needed the antidepressant. The PCP mostly asked closed-ended questions and changed the subject from depression to asking about the history of hospital admissions.

Theme 3: Prescribing Medication with Limited or No Assessment of Mental Health Status

Case A3a

Patient had diabetes, hypertension, and chronic obstructive pulmonary disease and was on an oxygen tank. Discussion during the visit revealed that he had a breast lump that the computerized tomography scan did not pick up. This topic could have been an opportunity to express empathy, given the circumstance. However, the visit contained extensive discussion about his breathing difficulties and diabetes while discussion of depression lasted only a few seconds. The conversation was very minimal.

This case was representative of several other visits in the study during which the majority of the visit time was spent addressing the patient's management of physical illnesses such as diabetes and musculoskeletal pain. The patient's ongoing use of an antidepressant medication was merely mentioned by the PCPs during a medication review without any assessment of mood before the renewal of an antidepressant prescription.

Discussion

Despite availability of mental health providers at the same clinic, within close physical proximity, this study documented multiple missed opportunities for PCPs to address mental health issues with their patients. Collaborative care

had been presented to PCPs as a major organizational effort to provide them with additional support in order to treat their patients with mental health needs. While 2 PCPs remarked about the time-saving benefit of having the colocated care manager, none of them actually used the care manager to assist with caring for any of the 10 patients with depression who were in our case study. It appeared that time constraints could have established a habit of not spending much time on depression, even when there were depression care managers present to assume some of the load. These findings indicate a need for ongoing education for PCPs as part of the implementation of collaborative care model. While this type of education frequently focuses on the medication management of mental health disorders, addressing issues such as patient-provider interactions and how to conduct a "warm handoff" to collaborative care providers will need to be emphasized. Rather than using the limited time to just allude to the presence of the colocated mental health provider, the PCP could be more direct in stating that "I have a colleague here. It is important that you talk to him. Let me walk you over to his office."

Looking ahead, the VA is implementing patient-centered medical homes in its health centers. Integrating mental health into primary care is an integral part of building a patient-centered medical home, particularly at the VA where mental health problems are prevalent. In order for PCPs to take ownership of the care of patients' physical and mental health, they must recognize patients' mental health needs, document those needs, and ensure that evidence-based care is provided at the right time by the right provider. The lack of documentation of mental illness diagnoses in patients' medical records made it necessary for us to query patients' medication lists for any active prescriptions for psychotropic medications in order to identify patient participants. Not recording a mental health diagnosis also poses a challenge for managers of quality improvement efforts if they attempt to identify patients by diagnoses in the electronic health record. Further, lacking a recorded diagnosis reduces the probability that a busy PCP will inquire about a patient's mood, even though the patient has active prescriptions for psychotropic medications. Indeed, in some of the visits, it was the patient who requested refills for those medications, which raised the question of whether the need for refills or the mental health diagnosis itself would have been overlooked had the patient not raised it. Patients' request for refills, moreover, could potentially be used as a bridge by providers to address mental health problems if a prompt was needed.

This study has several limitations. The small number of patients and providers limits the generalizability of the findings. Resource constraints prevented a larger sample for this case study. The majority of patients were male, which also limits the amount of insight that can be gained about how PCPs interact with female veterans. Further, we were not able to secure time in all of the providers' busy schedules to engage in mentally reconstructing the visit and recording their thinking process. Clearly, a visit reconstruction done immediately after the visit would be more accurate than one done later. While 4 providers completed the visit reconstruction later in the day, 2 did not complete the survey. Recall bias in the visit reconstruction could be a challenge. Future studies will need to shorten the survey and make

accommodations for provider participants to have time to fill out the survey.

Lastly, this study was done very early, in the first year of the implementation of collaborative care at a VA facility. The lessons learned may not be generalizable when collaborative care is fully rolled out. At the time of this study, collaborative care was only present in two clinics, and only available for a matter of months. The prior models of taking care of depression without referral or consulting with mental health outside of the primary care were still predominant in primary care. As of September 2009, collaborative care was fully integrated in all of primary care at the VA nationwide. The message from leadership in primary care and mental health is much stronger and clearer. It has been communicated to providers that the intent of the collaborative care program is to assist PCPs to provide integrated care to veterans that addresses both physical and mental health needs. The experiences of patients and physicians might be very different now.

Conclusions

Our findings suggest that PCPs insufficiently addressed mental illnesses despite the availability of on-site mental health providers. Physicians generally reported high job satisfaction but dissatisfaction with workload and felt they did not have enough time to spend with patients. Although colocated mental health providers were there to assist them to care for patients with mental health needs and consequently relieve time pressure, none of the PCPs in the small sample of visits in this case study took advantage of this.

A significant number of returning OEF/OIF veterans will suffer from depression and will be reluctant to seek traditional mental health care. Implementing collaborative care in the primary care setting could potentially make a critical difference in the lives of these veterans. The VA implemented several initiatives in 2009 to address the mental health needs of OEF/OIF veterans. A more substantial investment in staffing colocated mental health providers in primary care has been made on a large scale. Improving handoffs could further ensure that patients get the appropriate care. Additional studies on implementation and evaluation can shed new light on the more recent collaborative care efforts.

Author Disclosure Statement

Drs. Tai-Seale, Kunik, Kirchner, and Gottumukkala, and Ms. Shepherd disclosed no conflicts of interest.

Acknowledgments

Dr. Tai-Seale and Ms. Shepherd received grant funding from the Veterans Health Administration Veterans Integrated Service Network 16 Mental Illness Research and Education Clinical Center for this research. Dr. Tai-Seale received grant funding from the National Institute of Mental Health (NIMH) for related research. Dr. Kunik receives grant funding from NIMH and VA Health Services Research and Development.

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