Supplemental materials for:

Al Achkar M, Bennett IM, Chwastiak L, et al. Telepsychiatric consultation as a training and workforce development strategy for rural primary care. *Ann Fam Med.* 2020;18(5):438-445.

Supplemental Appendix 1. Interview guides.

Collaborative Care Questionnaire – Primary Care Provider

Date:

Interviewee Initials:

A. BACKGROUND

1. Gender: M F

2. Age range: 19 or younger | 20-29 | 30-39 | 40-49 |50-59 |60 or

above I wanted to find out a bit about your background.

3. Professional training and years since completing degree. MD |DO | ARNP | PA

4. Can you tell me about any special expertise or training you have in mental health or addictions?

5. Have you had any formal training in collaborative care: seminars, webinars Y N, If yes, describe:

   a. Has (Org)_____provided any organized training around collaborative like an orientation, in-services? (learning topics)

6. How long have you been working at this office? 1 yr or less | 2-5 yrs | 6-10 yrs |10+ yrs

7. Currently, how many (what percentage) of your patients are involved with MHIP/CC?

B. COLLABORATIVE CARE

We wanted to begin with some general questions about your experience working with collaborative care?

1. What do you like about collaborative care?

2. What was the biggest challenge in working in collaborative care?
   a. When you started

b. Current challenges

3. In what ways – if any - do you feel that the clinic practice benefits from MHIP collaborative care case consultation in a broader way than just the input on individual patients? (e.g., impact of larger clinic caseload, on practices/procedures)

C. TEAM/ROLE

8. Who comprises your collaborative care team?

   a. How well does the team work together? Challenges?

   b. When you first started working with the care manager_____, were you hesitant to receive BH information form a master's level person.

9. What do you see as your role in collaborative care? (introduce cc model to pt, assessment, Rx management, behavioral intervention, follow-up?)

   a. Scope of practice

D. INTERACTIONS

Care Manager

1. Do you interact with the care manager_____around collaborative care (or management of MHIP patients)?

   a. How do you communicate (in person, huddle, email, messaging).
   -EHR
   -email, other e-communication
   -phone, text
   -in person

   b. Are any modes more preferred or effective than others? Why?

   c. What kinds of issues do you typically address?

d. Is there a usual circumstance or point in visit that you call in the care manager _____?

e. Do you find observing the CM talking with the patient helpful?

f. Once you refer a patient to care manager_____, is there any interactions regarding follow up with regard to the patient?

2. Overall, do you find your interactions with the care manager_____valuable? If so how? (Beneficial for the care, relevance, impact, confidence?)

3. Do you feel like you learn from these exchanges? If so, how? (Probe: how learning happens) (Probes below)

a. Introducing pt to BH, and managing BH behavior

b. Assessment & Diagnosis

c. Management of psych medications

d. Behavioral interventions (MI, stress reduction, lifestyle)

e. Complex patients (bipolar, schizophrenia, addictions)

f. Resources

g. Other

4. Are there components of your interaction with care managers that particularly facilitate learning? (e.g., observations, CM notes, patient status updates)

a. Not helpful?

5. Are there ways you'd improve these interactions to better facilitate learning?

BH Director

1. Do you ever interact with the BH Director_____?

    a. If so, could you tell me under what circumstances and the types of information you discuss?

    b. What types of communication channels do you typically use (in person, email, notes)?

    c. Do you learn from these exchanges? (Probe: how learning happens)

Psychiatric Consultation

1. Do you interact with the psychiatric consultant?
    a. EHR
    b. Email
    c. Phone
    d. CM
    e. Co Notes

2. Do you read consultant notes? If so, are notes helpful?

    a. What would be more helpful?

3. Do you receive informational materials (e.g., resources, journal articles) from the consultant?

    a. If so, do you read and are material helpful?

    b. What would be more helpful?

4. Do you ever communicate with the psychiatric consultant directly?

    a. Mode (mode of communication)

b. What kinds of issues do you typically address?

5. What do you do when you either don't understand or have questions about the psychiatric recommendations? Or you don't agree with the recommendations?

6. Overall, do you see value in these interactions with the consultant? If so, how? (Beneficial for the care, relevance, impact, confidence?)

7. Do you feel like you learn from interactions with the consultant? If so, how? (Probe: how learning happens) (Probes below)

   a. Introducing patient to BH (framing BH, managing behavior)

   b. Psych conditions

   c. Diagnosis

   d. Familiarity & management of psych medications

   e. Behavioral interventions (MI, stress reduction, lifestyle)

   f. Complex patients (bipolar, schizophrenia, addictions)

   g. Other

8. Are there ways you'd improve these interactions to facilitate learning?

E. INFORMATION TRANSFER

PCPs

1. Are there other PCPs with whom you interact about your MHIP patients?

    a. If so, could you tell me about the types of information you usually discuss?

    b. What types of communication channels do you typically use (in person, email, notes)?

    c. Do you learn from these exchanges? (Probe: how learning happens)

Medical Staff

1. Are there medical assistants or nurses with whom you interact about your MHIP patients?

    a. If so, could you tell me about the types of information you usually discuss?

    b. What types of communication channels do you typically use (in person, email, notes)?

    c. Do you learn from these exchanges? (Probe: how learning happens)

Improvements

1. Have you observed any changes in clinical care/case management over time at the clinic with regard to providers and other staff?

    a. CM

    b. PCP

    c. Medical staff (MA, RN)

    d. Care Coordinator

F. Organization

Finally, we wanted to learn about your clinic environment.

1. Is there a shared vision and goals between leadership and the team around collaborative care? In a few words, describe.

2. Overall, do you find the clinic to be a supportive place to work?

    a. Do you receive support and encouragement around the collaborative care consultation?

    b. Do you have adequate time to carry out your responsibilities related to collaborative care?

    c. Do you have opportunities to learn what you need to learn to do your job well with regard to collaborative care?

3. Have you found that the clinic provide adequate resources and support to care for MHIP patients?

4. Has there been turnover in the clinic collaborative care team or other significant staff? If so how has that affected your consultation with the clinic? Patient care?

Any other comments you would like to make regarding your work with collaborative care consulting?

Supplemental Table 1. Supportive Quotes for the Primary Care Clincian's Learning
Primary care clinicians often take the job in these *rural* clinics with little training in mental health and no exposure to collaborative care
This has been the case here, and I imagine this is true at other rural settings that we get a lot of brand new nurse practitioners. Their first day here is really their first day treating patients. (CM*, Int 7) Primary care positions are either not filled or filled with locum tenens people or people who are brand new and still in the process of education. (CO**, Int 1) I guess for me, I feel like when it comes to the mental health things, that it's a little scary at times. (PCP***, Int 4) I noticed right away how overwhelmed these new nurse practitioners were meeting patients that had undiagnosed mental health issues and they didn't know what to do with them. (CM, Int 6) (The PCPs) never worked in an environment where they have a university-trained professor expert guy that they can talk to about psych medication or psych treatment in general. They need to be educated about the resources that are available. (CO, Int 1)
Because of CoCM, PCPs become more competent at diagnosing mental illnesses and recognizing the importance of mental health
In primary care, the goal is to improve their diagnostic skill set. (CO, Int 22) I think partially having more of an awareness maybe of PTSD and Bipolar Disorder. Or just maybe recognizing that many folks with depression, in fact, might have one of those actually as the primary problem. Certainly, the psychiatrist consultants have sort of been reinforcing that. And education they've been providing. (PCP, Int 21) For instance, a patient will come in with somatic symptoms and they've got chest pains and they're dizzy because they're having a panic attack. We're letting them know that these symptoms equate to a panic attack, and I think that the doctors are really starting to understand the somatic symptoms. (CM, Int 15)
PCPs develop appropriate language to engage patients and competency to formulate treatment plans
(Care managers) were very, very helpful, as far as helping me learn how to present the referrals for behavioral health . . . how to present those in a way that the patients aren't going to go, "Counseling? No." (PCP, Int 4) Maybe we have gotten more referrals. That's the change is that they are referring to us. (CM, Int 15) As providers, we learn a ton from (the psychiatrist's) consultations. He does a great job of not only making medication recommendations but at the end of every note, he's got kind of a little standard blurb that he puts in about each medication he's discussed in the consult, max doses and pros and cons of meds, always gives us recommendations for things to explore with the patient in terms of their medical history or why they're on certain meds or why they carry certain diagnoses. So I've definitely learned a lot as a provider from him. (PCP, Int 3) I see many cases now that we staff where an SSRI is clearly indicated by depression or a panic disorder and the (PCP) has picked a middle-of-the-road, cheap antidepressant as the first thing to try-- which is exactly what I would do . . . and the dose is right, and there's some acknowledgment that the dose probably needs to be titrated. It's pretty much following our guidelines. (CO, Int 1)
As they participate in CoCM, PCPs improve their proficiency, and that impacts the care of other patients

I do think the providers are a lot more comfortable working with patients who have mental health issues because they have the support from our program. (CM, Int 11) I think that's been a good reminder, working with (CC), to just make sure that we're following up on patients that are being treated to review the PHQ-9. I do believe that's helped me develop a practice more than I used to do. (PCP, Int 21) There's just general education, whether it's about medication or psychiatric diagnoses . . . that's going to benefit any other patient that the medical provider sees in the future with a similar situation. Or if (the PCPs) learn how to back someone off of Venlafaxine and start them on another antidepressant, it's going to benefit all patients, not just those that are enrolled. (CM, Int 7) I think it increases my experience quotient, to read through some of those notes. It gives me a repertoire of things to perhaps at least say that are comforting to the patient until we get an established plan. (PCP, Int 2) Oh, yeah. They get much smarter. You can tell just by how they're prescribing stuff . . . their comfort with their dosing, their starting additional meds. (CO, Int 22)
*CM: care manager; **CO: psychiatric consultant; ***PCP: primary care provider.

Supplemental Table 2. Supportive quotes for the care manager's learning.
CMs were at first not prepared to work in the CoCM model
I don't think that a lot of (CMs) coming in have the 'know how' or the entry point to do [collaborative care]. (CM, Int 5) I remember a care manager said, "What is psychosis?" It was like a come to Jesus moment. OK, she doesn't know what psychosis is. Wow, we have some education to do. (CO, Int 22) I think my training revolves around understanding . . . who the treatment team is, what the role of the care manager is, and really training them on how to work with the medical team, because a lot of people come in, as I did, not having had that experience. (CM, Int 6)
CMs learn the biopsychosocial model of patient care within an integrative framework
The number one is how to conceptually understand the person as a whole person. Really, we're talking the biopsychosocial. For people without formal medical training, that means understanding how the medical conditions impact health. (CO, Int 10) I'm still learning a lot about what medical issues can impact mental health and maybe to look at their labs or different things like that. Then, just learning how behavioral health fits in medically and how to work with providers on that was kind of a learning process. (CM, Int 19) One of the things that's so important to us that (consultant) provides for us is looking at the patient from a medical perspective. We have tailored our intake so that we're getting that information they're going to need. We go into great detail, "What is your sleep schedule?" "How are you experiencing that?" That's all training from (the consultant). (CM, Int 6) (I am) thinking of it more as care coordination than therapy, honestly . . . it's providing care and you have to meet the patient where they're at because, often, it is just case management and care coordination with the medical issues. (CM, Int 5)
CMs develop new competencies to work effectively within the care team
Part of our role as the care managers is to learn everyone's preferences and personalities and meet them there. Obviously, the more effort that I put into connecting with and supporting the medical providers, the better the working relationship seems to be. (CM, Int 7) I learn more things with each provider I work with. Maybe it's in the way that they work or how they prefer to work. (CM, Int 12) You have to learn the language of the medical team, and you have to adjust to their pace. (We teach CMs) that your interaction may be two minutes long with that medical provider. What is it that you need to communicate to them and being respectful of them and teaching them that. The training has to focus on the culture of working in this type of setting. (CM, Int 6) Once we create this note and we create the recommendations, there is one more piece: how do these recommendations get passed on or communicated to the primary care doctor? I've many times gone over (with CMs), "This is how you would say this to the doctor. If you go there and try to talk to them like a mental health practitioner, he'll look at his watch and skedaddle." (CO, Int 10)
CMs increase their proficiency in diagnosing and managing mental illnesses

I learn a lot every time I talk to the consultant, but recently learned, learning how to do a much more thorough assessment of patients and specific questions to ask to really get to a specific diagnosis . . . warning signs to look for in patients, other medical issues. (CM, Int 19) At the very beginning, often, the psychiatrist is initially the expert in these behavioral health interventions, and they'll actually say, "You might want to try behavioral activation on this client" and "These are the basics of behavioral activation." (CO, Int 10) I certainly know a lot more about psychiatric medication than I ever would have. I understand a lot more about the purpose, how efficacy gets evaluated, how someone may choose the appropriate medication to target specific symptoms, how to talk about side effects in an honest way, how to help patients understand. (CM, Int 7) Certainly, in terms of (CMs) that I've worked with, I think they would say, "My understanding of mental health and treatment has really benefited from my relationship with a consulting psychiatrist." I've heard that over and over again. (CO, Int 22)
CMs transfer learning to new patients, expanding their competency and improving quality of care
I think I saw (change) with (two care managers) for sure, that their conversations with me were less subjective and a little more savvy about diagnoses and medication, certainly. (PCP, Int 3) Hearing (consultants') thoughts on all of the medication and the medical issues helps serve the next time you do an assessment with someone with that same medical condition. (CM, Int 5) I think that across the board, it's a really helpful thing to remember to be doing these (mental health) screeners and using them as a target for treatment. (CM, Int 19) I hope that as I work with these groups of patients that are funded, (CMs) are learning from me and that the improvement in care will affect the care for the whole population. Not just for the subset of those patients who are officially in our program. (CO, Int 1)

Supplemental Table 3. Supportive quotes for the consultant psychiatrist's learning.
The psychiatrist takes in new perspectives and insights
(There is) a big difference between traditional psychiatry, where somebody comes into an office and sees you—you have a caseload, they fill it up, and then somebody sees you—is you're usually more in control of that dynamic. Whereas in collaborative care, you are part of a team. You have a unique role in that team. Ultimately, the most important person in terms of bringing about a change is that care manager. (CO, Int 22) (The psychiatrist) has been even at the level where he has come down to understand our EHR system so he can make just little snapshots, different screenshots, so that he could coach some of my team if they couldn't find labs and things like that. (CM, Int 6) (The psychiatrists) get to know our clinic and our area and the type of population we have here versus calling a psychiatric helpline. I don't think they always, always know about the nuances of this rural area and the patients we see. Having an ongoing consultant like that is really, really helpful. (CM, Int 19)
The psychiatrist takes on the educator role
You have to really approach things differently. You're a member of a team but you have an important role as an educator On your team. Also, you're assessing not only the patient indirectly, but you're assessing the skill set of the care manager. (CO, Int 22) (The psychiatrist) treasures the role of being a teacher. The other thing that makes him an effective teacher (is) his intellect. He holds me at that level where I'm really interested, and it's like, "I want to know that information, and I know he holds that information." He's funny, so he uses his humor. (CM, Int 6) I said to (a CM), "What do you think about that?" Normally, a psychiatrist wouldn't say to somebody, a Master-level mental health therapist, "What do you think of my suggestions pharmacologically?" She's skillful enough, and we've worked long enough, she could say, "I think Zoloft is a good choice because I'm still not sure if the patient is breastfeeding. Yeah, I think this makes sense." And I agree. It's like a rich and synergistic experience where we're thinking about patient care. (CO, Int 22)
The psychiatrist quickly realizes that learning in the team is bidirectional
I have a picture of a guy who is a county agricultural extension agent. If you come from the university and you tell people how to run their farm, they'll tune you out immediately and just tap their foot until you leave. If you go to the farmer and say, "Listen, I've just got a couple ideas we've been working on. You could probably get the same yield with half as much fertilizer. You'd save money. This is how we might think about doing it," they say, "Oh, that's kind of a good idea." If I take that approach, I'm not telling you how to run your practice. I just have a few ideas about an approach to these patients in a certain category, then they are very receptive. They are willing to accept help and advice and consultation, and pretty soon, they love it. (CO, Int 1) Care coordinators, the big source of expertise they have is they know their local communities. Very often, we're doing this consultation to distant communities. How that clinic system functions, the local environment, the culture, everything is very different. That's some of the teaching that comes the other way. (CO, Int 10) There's a point where you're working with really excellent care managers where they might think of something even pharmacologically that just skips your mind. Not just because you're negligent, but because it's like, (they say) "Have you thought about this?" It can be really creative and rich. Then of course you have all the different cultures and training and how do you work as a team. It's very creative in that way. (CO, Int 22)

The psychiatrist, with the program leadership, learn what is necessary to maintain the program's sustainability
A good integrated program is one that is fluid. It's not like you just get to this certain level and then you stay there . . . you're constantly having to fine-tune and learn and adapt. (CM, Int 6) The problem is I'm working from hundreds of miles away from these folks. They sometimes can feel a bit detached from the fact that I'm actually a person on the other side of the system. We found it's useful for us to drive, to go up there and actually meet with the primary care doctors. (CO, Int 10) Collaborative care does not happen by accident. It requires consistent and persistent diligence to maintaining fidelity. We tend to have decay in fidelity to the model, either to just nothing, back to old fragmented care, or decay into other models of integration that just aren't as evidence-based such as co-located care. You (also) have to have the leadership buy-in. (CO, Int 10) I'm still working on that perfect balance, but we do training of medical providers. When I first was working in the collaborative model here, it's always about meeting new providers and talking to them and letting them know you're there. I have pushed to a point where we are now requiring four hours of training . . . with all new medical providers on collaborative care. (CM, Int 6)

Supplemental Table 4. Supportive quotes for the staff's learning.
Medical assistants learn to screen for and talk to patients with mental illness
Just because we are here all together and that helps (the MAs) know how to approach patients. They are their first line often. (CM, Int 5) We learned how to motivational interview, for like such as doing (the patients') assessment, so like their PHQ-9 screening and their GAD-7 for anxiety and then feeling comfortable asking those questions and I guess knowing the triggers that may set a patient off. (MA, Int 8) We've kind of gotten a little system that we use. (The MA) knows, "New patient"; they automatically are getting a PHQ9, and if they're coming in for depression, whether it's a one-month follow up or a three-month follow up, they're automatically getting that. (PCP, Int 4) I think that (the MAs) are more active and I feel like they're more willing to help. (CM, Int 19) If you look at how many people have a mental health condition and how many are left untreated that are out there, that are coming in that are just missed, I mean, probably before we really start focusing on doing screening tools, I would say that view of it has changed a lot. I mean, I wasn't aware that we had as many mental health concerns until I started screening people, and when you start screening and asking the questions, then, you're like, oh, wow. (MA, Int 8)
Interpreters learn how to work in a medical setting with collaborative care
I think that the biggest part was working with an interpreter, because we do serve a large portion of Spanish-speaking-only patients or their English isn't good enough to be able to correspond . . . so I let the interpreter know, this is how I want to work together with you for the benefit of the patient. (CM, Int 12) With Care Manager 2-B and Interpreter 1-B kind of working as a team here, I feel like (CoCM) brings the whole staff in, is sort of more participating. (PCP, Int 14) (The) interpreter is a kind of support staff for us. He does interpreting for the Spanish-speaking patients and coordinating our schedules and calling our patients to remind them (interpreters) were trained alongside the behavioral health specialists (CM, Int 11). The reason that the (visits) take so long is because they're usually where the Spanish-speaking clients are, and so interpreter (and I), we travel everywhere together. We're just a team, so when you're interpreting and you have that three-way conversation going on plus an intake and trying to get some background information. (CM, Int 15)
Receptionists learn how to schedule BH appointments for CMs
I'm always working with the receptionists . . . so it's really important for us to be able to communicate with (them) so that they understand that, you know, we need to be scheduled for an hour each, give us a little break in between. You know, this person is to be put in the schedule, this one isn't. (CM, Int 15)
Billers learn how to bill for BH services
Billing has been a real booger. Our own billing staff was not ready for it. They did not have an understanding of the coding and which codes were OK for which insurances, just like they are with medical, they've got to have that with medical. So as the billing department became more knowledgeable and they figured out who else we could, or what other things we could bill for, then our counseling program became much more robust. (CM, Int 15)

Version 2.20.17