Multidisciplinary Approach for Managing Complex Pain and Addiction in Primary Care: A Qualitative Study

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ABSTRACT

PURPOSE Primary care providers (PCPs) may feel ill-equipped to effectively and safely manage patients with chronic pain, an addiction, or both. This study evaluated a multidisciplinary approach of supporting PCPs in their management of this psychosocially complex patient population, to inform subsequent strategies clinics can use to support PCPs.

METHODS Four years ago, at our academic community health safety-net system, we created a multidisciplinary consultation service to support PCPs in caring for complex patients with pain and addiction. We collected and thematically analyzed 66 referral questions to understand PCPs' initially expressed needs, interviewed 14 referring PCPs to understand their actual needs that became apparent during the consultation, and identified discrepancies between these sets of needs.

RESULTS Many of the PCPs' expressed needs aligned with their actual needs, including needing expertise in the areas of addiction, safe prescribing of opioids, nonopioid treatment options, and communication strategies for difficult conversations, a comprehensive review of the case, and a biopsychosocial approach to management. But several PCP needs emerged after the initial consultation that they did not initially anticipate, including confirming their medical decision-making process, emotional validation, feeling more control, having an outside entity take the burden off the PCP for management decisions, boundary setting, and reframing the visit to focus on the patient's function, values, and goals.

CONCLUSIONS A multidisciplinary consultation service can act as a mechanism to meet the needs of PCPs caring for psychosocially complex patients with pain and addiction, including unanticipated needs. Future research should explore the most effective ways to meet PCP needs across populations and health systems.

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INTRODUCTION

Primary care providers (PCPs) face unique challenges in managing complex patients who struggle with pain, addiction, or both. Pain-related complaints are the number one reason patients seek medical care,[1] and it is estimated that 11% to 40% of adults in the United States live with chronic pain.[2] From the perspective of a treating PCP, the subjective nature of pain makes it difficult to assess. Additionally, managing chronic pain requires a different treatment approach compared with managing acute pain. Acute pain involves tissue damage and subsequent recovery and potentially short-term use of analgesic medications. By contrast, chronic pain is now recognized as a biopsychosocial phenomenon,[3] in which initial tissue damage resolves but the patient continues to experience pain triggered by various psychological and social stressors; it requires a multimodal approach. Strategies that use a full range of therapeutic options—including pharmacologic options and nonpharmacologic options (eg, cognitive behavioral and physical/rehabilitation therapies)—have been shown to be most effective in treating chronic pain.[4-6]

The biopsychosocial paradigm represents a departure from the biomedical model that is more commonly used when addressing patients

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living with chronic pain. Previously, PCPs thought that treating chronic pain with pain medications alone, particularly high doses of opioids, could cure the problem, but they had poor understanding of the severity and frequency of potential risks.[7] We have since learned that treating chronic pain solely with opioids will not resolve the condition and could lead to increased rates of developing a substance use disorder.[8] In fact, the Centers for Disease Control and Prevention's recent recommendations state that opioids are not first-line therapy, nor are they the preferred treatment for managing chronic pain.[9] The opioid prescribing that began during the 1990s was associated with a parallel increase in opioid-related substance use disorders and opioid-related deaths.[8,10,11] As many as 1 in 4 patients treated with opioids for chronic pain in the primary care setting misuse their medications, and up to 10% will show signs of an opioid use disorder (OUD),[9] a relapsing brain disease characterized by compulsive and overwhelming involvement with the use of a drug, despite the harmful consequences.[12]

The progression from chronic pain to misuse to the development of OUD is compounded by the fact that this relationship is not clear or linear. Rather, the intersection between chronic pain and addiction is complex, and both disorders interact at multiple levels: patients prescribed opioids for chronic pain are at risk for developing OUD, while at the same time, patients with OUD are at risk from having severe chronic pain. Also, it is often difficult to diagnose the disorder, as a patient's misuse of opioids (such as compulsive use or dose escalation) may represent OUD, untreated severe pain (pseudoaddiction), or a combination of both. Furthermore, signs and symptoms associated with dependence (such as withdrawal) and tolerance (requests for higher doses of opioids because of diminution of their effects over time) might be confused with OUD (although this disorder additionally involves dysfunction and consequences) in patients taking prescription opioids appropriately.[12,13]

Hence, PCPs often find themselves at a difficult juncture as they simultaneously try to help their patient struggling with chronic pain while they also try to provide safe care that does not lead to development of OUD. Historically, medical education has not covered the treatment of pain and addiction; therefore, in the context of the ongoing opioid epidemic, PCPs may feel ill equipped to treat this complex patient population. Several studies of PCPs' views on chronic pain management demonstrate that they report low confidence and satisfaction levels in treating chronic pain.[14,15] Potential existing strategies to improve confidence levels include developing pain protocols for assessment and management; creating opioid management dashboards; providing PCPs with education around pain management and identification of substance use disorders; creating consistent practice-based approaches to prescribing opioids, such as standardized workflows and use of opioid-structured clinical teams for chronic pain management; and using telehealth consultations and enhanced on-site specialty resources.[15-17] Although such approaches may improve PCPs' confidence levels, little is known about the individual questions and concerns they wrestle with as they manage complex patients with pain, addiction, or both. Having a better understanding of their needs could help inform subsequent strategies that clinics use to support these clinicians.

Approximately 4 years ago, a multidisciplinary team of clinicians came together to address this problem at the Cambridge Health Alliance, an academic community health safety-net system that serves more 140,000 patients in the metro-north Boston area with 13 primary care sites and 3 affiliated hospitals. Modeling a new service after other multidisciplinary consultative services,[18] we formed the Pain & Addiction Support Services (PASS), a group consisting of a primary care physician, a psychiatrist, a psychologist, a pharmacist with pain expertise, an addiction expert, and a palliative care physician that takes referrals from primary care clinicians who are struggling with patient cases related to pain and addiction. For 1 hour every other week, the PASS team meets to review and discuss a case in real time with the PCP present to provide a multidisciplinary lens and to support the clinician based on his or her needs. The consultation is then written up as a clinical note and entered into the patient's chart.

After providing consultation services for more than 60 cases, the PASS team realized that many recommendations to the PCP involve addressing pain and addiction through a wider, nontraditional biopsychosocial lens. The team also recognized the needs of the PCPs addressed during the in-person consultation discussion (their actual needs) may have differed from what the PCPs initially thought they needed before the consultation (their expressed needs).

The PASS team therefore wanted to more formally evaluate the value that its multidisciplinary approach provides to PCPs in order to improve the rigor of the referral service and to offer more generalizable guidance to clinics in supporting these clinicians who take care of this complex patient population. This study aimed to answer 3 research questions. First, what needs do PCPs initially identify when managing complex patients with pain, an addiction, or both (ie, their expressed needs based on referral questions)? Second, after receiving consultation services from a

multidisciplinary team that supports PCPs with pain and addiction cases, what needs do they identify as the most helpful (ie, their actual needs)? And third, what is the discrepancy between PCPs' expressed needs and actual needs, and what implications does this information offer primary care clinics in supporting their clinicians in managing patients with pain, an addiction, or both?

METHODS

We obtained our institutional review board's approval for the study. We used the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist[19] to ensure rigor in our methodology. All 3 authors (R.G.S., a female family medicine and addiction physician; R.P., a female visiting researcher; and A.C., a male clinical psychologist) were involved in data collection and analysis.

Data Collection

We used 2 sources of data for this study. First, a research assistant performed a medical record review and compiled a list of the consultation questions submitted to PASS by PCPs over the past 4 years. Second, we interviewed referring physicians who had consulted the PASS team. A member of the research team (R.G.S.), who knows the referring PCPs, invited them to voluntarily participate via e-mail. Another author (R.P.), who was not a member of the PASS team or previously known by the PCPs, then conducted interviews to maintain unbiased data collection.

Fourteen PCPs agreed to be interviewed: 11 attending physicians, 2 family medicine residents, and 1 physician assistant. Interviews were conducted by telephone or in person at the clinician's primary care clinic and ranged in length from 30 to 45 minutes. All interviews were audio recorded and then transcribed by a professional transcription service. Identifying names were deleted during transcription. The transcripts were not returned to the participants for their feedback before analysis. The interviewer (R.P.) also made field notes during the interview process to guide subsequent interview content and to conclude the interviews when data saturation was reached. Each interview was conducted in a semistructured format (using a semistructured interview guide available on request) and began with asking the PCPs about their role at their organization and about their PASS referral generally. This question was followed by questions about their experience with the referral such as, "What did you find most valuable about the recommendations?" and "How could the PASS referral process be improved?" and "How have you used this referral since (in providing care for this or other patients)?"

Data Analysis

We coded all data using Dedoose version 8.3.17 software (SocioCultural Research Consultants) and used qualitative thematic analysis[20] to analyze both the referral questions and interviews.

To assess PCPs' expressed needs, we analyzed 66 referral questions. Two of the 3 researchers (R.G.S. and R.P.) reviewed the first 14 referral questions to generate a list of agreed-on codes to serve as an initial coding framework for the remaining referral questions. One researcher (R.P.) then completed analysis of all referral questions to generate a total of 14 codes. The other 2 researchers (R.G.S. and A.C.) then completed analysis of all referral questions, and the research team met to reconcile differences. During this process, the 3 researchers reconciled discrepancies through consensus and added in 2 more codes, resulting in 16 distinct, clearly defined expressed needs from the PCPs' referral questions.

To assess actual needs, we performed thematic analysis of the 14 semistructured interviews. Each researcher (R.G.S., R.P., and A.C.) independently coded the same 3 initial interviews, deriving their own themes for each research question, resulting in a total of 76 data-driven codes for actual needs. On review of the codes from each researcher, many overlapped in ways that suggested moving up a level of abstraction, resulting in 11 themes. Each of the 3 researchers then used the agreed-on set of themes to code the remaining 11 interviews. After coding all interviews, the researchers met to rectify discrepancies through consensus (a complete coding tree is available on request).

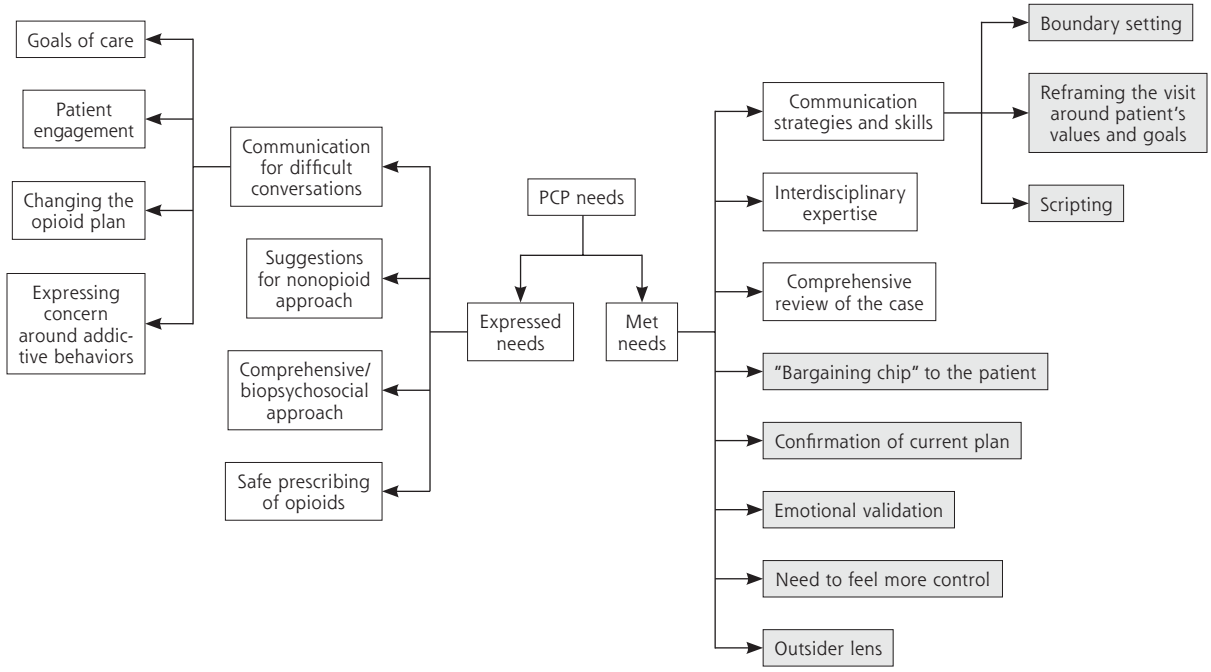
RESULTS

Figure 1 shows a heuristic map of the study results, depicting expressed needs, met needs, and discrepant needs. We discuss findings for each of these 3 sets of needs below.

Expressed Needs Before the Consultation

Among the 66 referral questions extracted from referrals to PASS before consultation, PCPs expressed 16 needs. In order of frequency, PCPs expressed a need for expertise on safety in prescribing opioids, communication for difficult conversations, nonopioid options, and a comprehensive/biopsychosocial approach. Table 1 shows related themes and exemplar quotes. Many of the expressed needs highlighted the fact that PCPs lacked addiction knowledge and were unsure of when opioid prescribing or regimens were indicative of OUD.

Figure 1. Heuristic map of results.



PCP = primary care provider.
Note: Shading indicates a need that was identified only after the consultation and was not listed in the expressed needs for the referral.

Table 1. Expressed Needs in Referring to PASS

Expressed Need	Description	Exemplar Quote
Safety in prescribing opioids	PCPs requested guidance around the safety in prescribing opioid analgesics as it relates to dosing and medication choice; performing a benefit vs risk assessment (as it relates to the patients' other medical and psychological comorbidities and other prescribed medications); approach to tapering; and managing acute-on-chronic pain flares.	"Is it appropriate to continue the patient's current pain regimen unchanged? [This patient] is very functional on this regimen, but there are concerns about its safety as he ages and some intermittent aberrant drug testing, early refill requests, and hx of overdose in the year 2015." (RefQ1)
Communication for difficult conversations	PCPs requested consultation guidance on navigating conversations related to patients' goals of care, and how to engage patients and promote self-efficacy in their treatment plan particularly around nonopioid options and when changing the opioid plan or tapering, particularly connected to expressing their concern for addictive behavior.	"This patient has not been interested in engaging in conversation about her regimen, her pain management, or pretty much anything else. She wants to see us as little as possible and get her medications. How do I approach that? How do I engage her? Or do I put up firmer lines if she stays unengaged?" (RefQ14)
Suggestions for nonopioid approaches	PCPs requested guidance in offering nonopioid approaches to pain management, including both pharmacologic and nonpharmacologic options, in patients with or without known substance use disorders.	"What are other nonopioid therapies I can use in this patient [with fibromyalgia] to improve pain control?" (RefQ33)
Comprehensive/ biopsychosocial approach	PCPs sought guidance on creating a plan in partnership with their patients that included addressing underlying psychological comorbidities that affect their chronic pain and/or addiction.	"Do I make engagement with CHA Psych a condition of ongoing buprenorphine prescribing? Most importantly: I think part of the problem here is that she does not acknowledge the role of her mental health situation and opiate dependence in furthering her chronic pain—she continues to look for a physical cause of her pain, to focus on that, and to focus on oxycodone as 'the only thing that helps.'" (RefQ23)

CHA Psych = Cambridge Health Alliance Department of Psychiatry; hx = history; PASS = Pain & Addiction Support Services; PCP = primary care provider; RefQ = referral question.

Actual Needs Met by the Consultation

From the 14 interviews, PCPs described 8 unique needs that were met by the PASS consultation. On average, they described 7 needs in their interview. Table 2 shows each need, the number of PCPs who identified that need, and an exemplar quote. The most common

Table 2. Needs Met After the PASS Consultation

Met Need (No. of PCPs Identifying Need)	Description	Exemplar Quote
"Bargaining chip" to the patient (11 PCPs)	PCPs expressed a need to take ownership of the decisions off themselves to some degree. Using the PASS consultation service as a way to externalize the decision-making process allowed them to maintain their relationship with the patient to help increase patient buy-in and collaboration with the patient.	"And so looking for additional—like I said, I think the biggest thing was that bargaining chip with the patient. I needed something that could take the pressure off of me in making this decision around whether she should be prescribed opiates or not." (P1)
Communication strategies and skills (13 PCPs)	PCPs needed PASS to help with boundary setting, patient engagement with/buy-in for nonpharmacologic treatment options or any change in the treatment plan, and a reframing of the visit that focused on the patient's function, values, and goals.	"...or the young lady who I wasn't so sure she should be on opioids, they talked about how to drill down to what her priorities are, and how you might frame it as, like, 'I do really want to help you with your pain. I'm not sure that the pain is ever going to go away completely, but you know, I'm wondering what would feel good to you in terms of your quality of life, if we were able to get the pain decreased? What would you be able to do, what are your goals?' And so, trying to frame it in more of that strength-based approach, rather than, 'These medicines are dangerous. You need to get off of them.' (P11)
Comprehensive review of the case (12 PCPs)	PCPs appreciated the chance to both (a) go through the referral process itself, which gave them time and space to think about the case, clarify their own needs as they prepared for the meeting, and talk through ambiguity in the case; and (b) hear an outside team's comprehensive summary of the case.	"It was very helpful. I think the great thing was that [PASS member] always starts off with doing a summary, based on a very intensive chart review, to get everybody on the same page about what this case is about. Which I think works beautifully, because it's also helpful for me to see what an outsider who's reviewing the chart is taking away from all our massive documentation and notes and everything like that. And I think, in this particular case, she captured probably 90% of the essence of the patient, which I was very happy about. Because it was a very complicated patient." (P5)
Confirmation of current plan (13 PCPs)	PASS helped reinforce PCPs' decision that they were leaning toward before the consultation. PCPs had trepidation about changing the plan at times, and they felt their need was met when PASS said they were on the right track or validated their assessment and/or treatment plan.	"So it was useful just in backing up what I thought needed to happen..." (P10)
Emotional validation (13 PCPs)	PCPs expressed needing an acknowledgment of how difficult and/or complex the case was so they did not feel so alone with a challenging case. This included validation of complexity of the case and feeling a sense of relief in discussing the case with the PASS team.	"I think it's also been helpful to have a group of folks review the case and also validate the feelings that this is a really tough situation. And there's no one great answer to things. And also just feeling like, okay, I'm not alone in feeling overwhelmed with this patient. So I think that's all been helpful." (P5)
Interdisciplinary expertise (14 PCPs)	PCPs needed to take a more global, biopsychosocial approach to management. They also needed specific knowledge and resources that they may not have including approaches to chronic pain management, assessment of potential underlying OUD, opioid dosing and tapering, nonopioid pharmacologic options, and other treatment options.	"It wasn't just physicians on the PASS team. There were—there's a social worker, and a behavioral therapist. There's so many different perspectives. And having each person's input, and saying, 'We're available to do these kinds of things for pain,' it was helpful to know what kind of resources they had that were beyond what we normally think of in primary care." (P4)
Need to feel more control (13 PCPs)	PCPs experienced feeling "stuck" with patients after exhausting all options. At times, PCPs held mistrust of the patient and needed help with managing complications with the health care system. This was especially true for legacy patients ("inherited patients") whose plan was set before the PCP assumed his/her role. As a result, PCPs were looking for a concrete plan with specific recommendations from PASS.	"It kind of felt like Groundhogs Day where I was—we were saying kind of the same thing over and over, and he was still resisting over and over. And I felt like I really wasn't going anywhere for multiple visits at a time. That I was like 'Okay, this is not productive for either of us. So I feel like we need to kind of get this from a different angle.'" (P4)
Outsider lens (11 PCPs)	PCPs needed a new perspective on the case from clinicians not currently immersed in the patient's care. They stated that they valued an outsider perspective that incorporated multiple angles when doing a case review.	"I think, well, part of it was just to have someone else look at the picture..., because you're so involved in that case that you're not sure if you're just making things up or not." (P8)

OUD = opioid use disorder; PASS = Pain & Addiction Supportive Services; P = participant; PCP = primary care provider.

needs met by the PASS consultation included interdisciplinary expertise, communication strategies and skills, comprehensive review of the case, need to feel more control with the patient, confirmation of the current plan, and emotional validation that this was a challenging case. Among the co-occurring needs identified, most often, PCPs described the need to feel more control and the need for interdisciplinary expertise, which may suggest that they required more knowledge in order to feel greater control of their case.

Discrepancy Between Expressed and Actual Needs

Many of the PCPs expressed needs in their referral questions—expertise in addiction knowledge, safe prescribing of opioids, nonopioid treatment options (both pharmacologic and nonpharmacologic), communication strategies for difficult conversations, and a comprehensive biopsychosocial approach to patient management—that aligned with their actual needs described after the consultation—interdisciplinary expertise, communication strategies and skills, and a comprehensive review of the case. This overall good alignment suggests that many PCPs felt that their needs were met by the PASS consultation service.

On the other hand, several PCP needs emerged that were not initially anticipated but were later identified as important after the PASS consultation, including needs for confirmation of their medical decision-making process, emotional validation of the challenging nature of the case, feeling more in control of the case, and having an outside entity take the burden off the PCP to make management decisions while offering a fresh, unique lens. Additionally, the nature of the communication strategies identified by the PCPs' referral questions differed from that described as most helpful after the consultation. Many PCPs initially expressed wanting help with conversations around goals of care, patient engagement, changing the opioid plan, and expressing concern around addictive behaviors. They then later—after the PASS consultation—also reported benefiting from communication strategies around boundary setting and reframing the visit to focus on the patient's function, values, and goals. They also found it helpful when the consultation note contained word-for-word scripting of potential conversations.

DISCUSSION

Key Findings

It is important that primary care clinics have a rich understanding of PCPs' needs in managing complex patients struggling with chronic pain, an addiction, or both. This understanding ensures that they can provide appropriate resources and guidance that promote safe and thoughtful decision making when caring for this patient population. In this study, we identified PCPs' expressed needs before referral to PASS (our multidisciplinary pain and addiction consultation team), their actual needs after the consultation, and the discrepancy between these sets of needs, all of which have implications for macro level clinical approaches to supporting PCPs.

As exemplified by the heuristic map (Figure 1), although PCPs were largely aware of their needs (evidenced by generally good alignment of their expressed and actual needs), they had numerous needs in managing this complex population that they did not recognize before their consultation that warrant attention, so they can receive the appropriate level of support. These additional needs include psychological support of the PCP, who appreciated having emotional validation and gaining a sense of control in challenging cases; an outside entity to take the burden off the PCP of being the sole decision maker and to provide a new lens with which to view the case; and nuanced communication strategies (in areas such as boundary setting and reframing visits around patient values and functional goals).

Relevant Strategies

Our findings support prior literature and also offer new insights that can provide system-level guidance. Consistent with previous literature, clinics should provide concrete protocols and best practices on safe prescribing of opioids, around such topics as dosing parameters, opioid-tapering regimens, adjuvant medication options, and referral services for nonpharmacologic treatment modalities (eg, acupuncture, physical therapy, aqua therapy). This approach aligns with current recommendations supporting the development of standardized, clinicwide, evidence-based protocols and education to support clinicians in managing patients with pain, an addiction, or both.[15-17]

When standardized protocols and guidelines are unable to fully meet PCPs' needs, however, clinics should offer approaches that recognize the multifactorial components of pain and addiction care, which often do not have a specific, linear, or clear solutions. We propose 4 potential strategies.

A first strategy is to provide a venue for nonjudgmental, emotional validation in managing complex cases that inherently provoke frustration and exhaustion. In our study, a multidisciplinary consultation service filled this role. Our team's sheer empathy with the PCP—acknowledging how difficult the case was—was highly valued by many referring physicians. The consultation service we provided was a departure from

the traditional consultation model. Rather than making recommendations solely directed at the patient, our consultation team reviewed the case with the PCP present and made recommendations directed at the PCP in their care of the patient. We found that inviting the PCP to attend these multidisciplinary discussions (either by telephone or in person) prompted identification of this need that would otherwise have gone unmet, and we therefore recommend that PCPs have the opportunity to directly engage in discussion with a consulting team. This approach also serves as a mechanism to connect PCPs to individual clinicians on the consultation team, who can then provide further support around the case after the consultation ends. Although this model can be helpful in providing PCPs with the emotional validation and communication strategies that they need, it might also be frustrating for some clinicians who simply want concrete answers or protocols. Peer-to-peer or small-group formats as described by Balint[21] may also play a similar role in providing emotional validation around difficult cases.

A second strategy is to create opportunities that support comprehensive case reviews. Having more "eyes" reviewing a case can affirm the PCP's decision-making process, ensure that the PCP is not missing important management components, and help take the burden off him/her to be the sole decision maker in the management plan, thereby allowing the PCP to maintain a relationship with the patient. Again, although we provided a consultation service for this process, clinics unable to offer this time- and resource-intensive type of service may develop other venues for physicians to receive outsider review and support of cases in a routine and scheduled way, such as building case discussion into clinician meetings or partnering clinicians to regularly share difficult cases. Clinicians should also let their patients know ahead of time that they are planning to discuss the case with a referral service and/or other clinicians to promote patient buy-in about decisions moving forward. This practice also sends a message to patients that the PCP cares about them and is dedicating extra, explicit time to reviewing the case and seeking other clinicians' thoughts and recommendations.

A third strategy is to provide PCPs with very concrete language suggestions to navigate difficult conversations, such as boundary setting, building the patient's sense of self-efficacy, and focusing on functional outcomes, values, and goals. These interpersonal skills are not commonly requested in referral questions or incorporated into consultation recommendations because they are a departure from the concrete "what" to do and rather represent "how" to implement a plan. In our study, this aim was accomplished by integrating scripted language into consultation notes to guide the PCP in their subsequent implementation of the recommendations.

A fourth strategy is to create systems and structures that simplify the process of seeking additional guidance and support. For example, lengthy forms to a referral service might be a deterrent to completing a referral; therefore, asking that the PCP submit a single question or building time to discuss patient cases into scheduled clinician meetings can foster regular conversations without creating extra work for the PCP.

Future Directions

Future research should build off each of the needs we identified to more fully understand how best to nurture them. For example, although PCPs identified a need for support around framing difficult conversations with patients, scripting language may be only a first step to addressing this need; physicians may require additional individual coaching and role modeling to effectively meet this need. Future research should also seek to identify how clinician needs may vary across patient populations and health care systems. This information will guide the provision of services and resources allocated to appropriately meet these needs. Further, longer-term studies should track whether consultation service support affects patient-oriented outcomes over time, such as improvement in patients' pain control experience and quality of life, and reduction of inappropriate opioid prescribing, OUD prevalence, and opioid-related overdoses.

Conclusions

To help meet PCPs' needs in caring for complex patients with pain, an addiction, or both, it is important that clinics provide concrete guidance around opioid, nonopioid, and nonpharmacologic management while using a biopsychosocial framework; offer clinician training around specific communications skills; and create venues for comprehensive case reviews that provide emotional validation for difficult cases. A multidisciplinary consultation service that reviews cases and provides recommendations through discussions directly with the referring PCP offers a mechanism for this type of support. Future research should explore how the needs of PCPs caring for this patient population differ across health systems and effective ways to meet these needs.

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Key words: chronic pain management; opioid prescribing; addiction; biopsychosocial approach; primary care physicians; interdisciplinary team; multidisciplinary approach; professional practice; practice-based research

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