Integration and Coordination of Pain Management in Primary Care

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Pain is one of the most common symptoms reported to primary care providers and has significant implications for health care costs. The primary aim of this article is to describe and illustrate how to integrate the treatment of chronic pain in the primary care setting. First, we address the integration and coordination of care between mental health and primary care. We then present a typical case and discuss the patient's treatment, outcome, and prognosis. The article concludes with a discussion of issues that frequently arise when integrating psychological treatment for pain in primary care settings. © 2006 Wiley Periodicals, Inc. J Clin Psychol: In Session 62: 1333–1343, 2006.

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The goal of primary care is to address patients' most common health problems and to manage specialty care in a responsible and cost-effective manner. Primary care also strives to be highly accessible, providing services ranging from early intervention to long-term continuity of care.

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Pain is one of the most common symptoms reported to primary care providers (e.g., Kerns, Otis, Rosenberg, & Reid, 2003) and has significant implications for health care costs. For example, a recent study estimated that health care expenditures for back pain alone reached over $90.7 billion in 1998 (Xuemei, Pietrobon, Sun, Liu, & Hey, 2004). Although most acute pain episodes resolve without treatment, there is a small percentage of patients for whom pain recurs on an intermittent basis or becomes a chronic condition. These individuals often report that pain interferes with their ability to engage in occupational, social, or recreational activities; contributes to increased isolation and negative mood (e.g., feelings of worthlessness and depression); and results in physical deconditioning. All of these factors add to the complexity of the problem and the challenge to primary care providers in their efforts to reduce pain and suffering.

Chronic pain, defined as pain that lasts longer than 3 months (Merskey & Bogduk, 1994), can be difficult for providers to manage within the limitations of primary care. Given that a patient may have other symptoms or life-threatening conditions that must be addressed (e.g., diabetes, heart disease, or high blood pressure), there is often insufficient time during a routine appointment for clinicians to rule out disease as a cause of pain, provide patient education, and create a treatment plan for pain. Also, the reliance on a medical model (e.g., pain medications or a referral for interventions such as injections) for the treatment of chronic pain may not be appropriate or sufficient, as psychosocial factors often contribute to the experience of pain. In addition, extensive use of medical diagnostic tests and procedures and sole reliance on medical interventions may contribute to a patient's belief that a medical cure for the pain exists. Such beliefs can make it less likely that patients will take personal responsibility for managing their pain and may cause them to feel more dependent on their physician or medical procedures for pain relief. When a patient's expectations for a cure for pain are not met, anger, frustration, and depressive symptoms often follow. The lack of clear and consistent guidelines for chronic pain management, the relative lack of clinician education and expertise in managing pain, and a range of additional barriers represent real challenges to managing this complex problem.

This article describes and illustrates how to integrate and coordinate the treatment of pain in the primary care setting. The first section addresses integration and coordination of care between mental health and primary care. The next section begins with the client's presenting problem and case formulation and continues with a thorough discussion of the course of treatment, outcome, and future prognosis. The article concludes with a discussion of clinical issues that arose during treatment of this case that are fairly common when treating patients who have pain in primary care settings. Overall, our aim is to provide clinicians with a working illustration of the process of treating patients who have chronic pain in primary care.

Integrating Pain Management Services Into Primary Care

In the mental health and organizational literatures the terms *integration* and *coordination* are often used inconsistently and interchangeably; however, there are two concepts implied by the term *integration*. The first concept is *structural integration*, which refers to the manner in which physical space has been allocated within primary care that facilitates integration, purposefully or not, between mental health and primary care. The structural integration can vary considerably; some mental health offices are located within primary care space (complete structural integration) and others are located on a separate floor or in a separate building (no structural integration). Physical space limitations in primary care may be overcome by psychologists' regularly attending primary care meetings,

volunteering to discuss a challenging pain management case at meetings, and making other efforts to promote the accessibility of the pain service. Although structural integration is desirable, it may be more important for providers to coordinate and communicate effectively (Otis, Reid, & Kerns, 2005).

The second concept is *coordination*, which refers to the programming approaches that are used to assign responsibilities and activities in advance of the performance of the work, the outputs of the work, the skills required to perform the work, and the feedback approaches, the manner in which information is transferred from one person to another (Charns & Schaefer, 1983). Coordination can be increased by changing management structures and staff resource funding pathways; however, implementing these strategies is often challenging, especially in the private sector. Fortunately, coordination may also be enhanced by establishing regular communication with providers (e.g., face to face discussion about patients), soliciting the providers' opinions regarding the specific needs of their patients, inviting providers to participate in the planning and execution of treatment, and clearly demonstrating the value of the added service to their patients.

Many studies support the benefits of increased integration and/or coordination between mental health and primary care. Integration/coordination of mental health and primary care has been shown to enhance patient and provider satisfaction (e.g., Katon et al., 1996), improve patient outcomes (Balestrieri, Williams, & Wilkinson, 1988), and decrease health care costs (Von Korff et al., 1998). It has also been shown to increase adherence to medication prescriptions and decrease medical utilization among "high utilizers" (Brown & Schulberg, 1995). Mental health interventions delivered in primary care are also likely to have cross-cutting beneficial medical effects on unhealthy lifestyle factors, such as smoking, high cholesterol level, alcohol use, infrequent exercise, and obesity. Thus, integration and coordination of services between mental health and primary care offers an opportunity to identify and intervene in many problems to prevent development of significant pathology.

A "Stepped-Care" Approach to Pain Management

One approach to assist primary care physicians in treating patients who have pain that emphasizes care coordination is "stepped care." Using this approach, the level of care is guided by a patient's response to treatment and readiness to engage in self-care (Von Korff, 1999). This approach has been used for a variety of medical conditions and health behaviors including alcohol use (Sobell & Sobell, 2000), cigarette use (Abrams et al., 1996), and cholesterol level reduction (Oster et al., 1995). The approach can be conceptualized as consisting of three successive steps that are guided by the patient's response to treatment in the preceding step.

Step 1 is appropriate for all patients seeking treatment for pain from their primary care provider; it involves identifying and addressing specific patient concerns about pain and enhancing patient readiness for self-care. For example, one common concern of patients is that pain is a symptom of underlying pathology. Once this concern is identified, the primary care provider can address it by explaining how obtaining a detailed medical history and performing a diagnostic examination can exclude such conditions. A patient who has pain may also fear that exercise or activity will result in further injury. This concern can be addressed by explaining the benefits of remaining active and by creating a plan with the patient for gradually returning to a safe level of activity. Techniques based on motivational interviewing (Miller & Rollnick, 2002) can be employed by primary care providers to encourage patients' readiness to engage in self-care behaviors. These techniques include addressing a patient's unrealistic expectations of the likelihood of a medical cure for pain, offering support

for effective self-care strategies he or she is currently using, and developing a plan for managing pain flare-ups. Psychologists can facilitate this communication by educating and training primary care providers, medical residents, and interns in motivational interviewing to improve provider-patient communication

Step 2 is appropriate for patients who continue to experience pain and disability several weeks after the initial primary care visit. These patients require a more active approach to pain management that may include identifying the specific difficulties they are experiencing (e.g., pain when lifting heavy objects at work), developing and implementing an individually tailored treatment plan, and providing support and follow-up. Given that implementing this intervention might require additional time, a consultation with a psychologist is an important option for a primary care provider. After a brief screening evaluation, the psychologist determines whether the patient's goals are more likely to be achieved through brief individual therapy or a more comprehensive program for pain management. Alternatively, the psychologist can encourage the patient's engagement in psychoeducational groups led by peers or health care professionals with expertise in pain management. Research studies investigating the efficacy of active psychoeducational programs for patients with pain have yielded positive results (e.g., Von Korff et al., 1998; Moore, Von Korff, Cherkin, Saunders, & Lorig, 2000).

Step 3 is appropriate for the patient who continues to experience a significant level of disability and emotional distress despite the efforts of the primary care provider or the availability of brief therapy or psychoeducational programs. Individuals in this stage may have complex medical and social histories and are often seen as presenting challenging cases to manage within the limitations of the primary care setting. In these cases, more extensive involvement of the psychologist or other mental health professionals may be indicated. Psychologists can teach providers to encourage and motivate patients to take advantage of the services that psychologists have to offer.

The following case example provides a demonstration of ways that a psychologist working as part of a multidisciplinary pain management team might effectively integrate and coordinate services in primary care.

Case Illustration

Presenting Problem/Client Description

Mr. Jones is a 58-year-old married White man who was referred by his primary care provider to the psychology pain management service after reporting chronic back and knee pain that had been unresponsive to medical treatment. After receiving the consultation request and before contacting the patient, the psychologist spoke with the referring primary care provider in person in order to ensure that the psychologist addressed all of the provider's concerns during the assessment. During the meeting the provider reported that she had been attempting to motivate Mr. Jones to increase his activity level gradually; however, he did not follow through with her recommendations and was becoming more disabled. Although the meeting took less than 5 minutes, it helped to clarify the referral question and communicated to the physician that a team approach would be used to treat the patient. After the meeting, Mr. Jones was contacted by the psychologist and scheduled for an initial pain assessment in office space located in primary care.

Mr. Jones's assessment began with a 45-minute clinical interview, with the goal of assessing the relationships among the dimensions of pain, distress, and disability and the social context in which they occur. He arrived for the interview with his wife, at our request. Behavioral observations of Mr. Jones revealed a moderate level of pain behaviors

(e.g., grimacing, bracing his back with his hand, and occasionally holding on to a wall when walking) and pain-related verbalizations. During the interview, Mr. Jones reported that he believed the onset of his back pain was associated with a "hard landing" that occurred after jumping out of a helicopter while performing basic training for the army. After this injury he was able to return to basic training, but he continued to experience intermittent pain. He indicated that pain did not impede his ability to work full time after leaving the army. Mr. Jones reported that approximately 1 year ago he slipped on ice in his driveway and landed on his back. He reported that as a result of the fall he experienced back pain and muscle soreness for over 2 weeks. After a period of rest Mr. Jones returned to work with some residual pain; however, 2 months later he reinjured his back while lifting boxes at work. He reported that since that time he has been experiencing constant pain in his lower back and intermittent "shooting" pains down his right leg. He indicated that as a result of his back pain he has been missing many days of work and spending more time at home watching television rather than being with friends or working in his yard, activities that he greatly enjoyed. He also reported that enjoys watching college sports such as ice hockey and basketball. He could not identify a particular event associated with the onset of his knee pain but indicated that the pain had gradually increased over the past 7 years.

Mr. Jones is a high school graduate who served two tours of duty overseas. He and his second wife have two children; he has one child from a previous marriage with whom he seldom has contact. Although he described his marital relationship as good, he indicated that his wife "smothers" him at times, and that they have recently been having arguments related to her behavior. Mrs. Jones described feeling frustrated that her husband sometimes rejects the things she tries to do for him. After his service in the army, Mr. Jones worked as a carpenter and tile layer for several years, then as a security guard, and has been employed as a postal worker for the past 10 years. He reported that he has been taking a significant amount of medical leave from his job for the past several months.

He reported a history of alcohol abuse but indicated that he quit drinking all alcohol without assistance approximately 12 years ago. He denied current recreational drug use but admitted to using marijuana and cocaine when stationed overseas in the army. He denied a history of depression or mental health treatment; however, he reported that he has felt worthless and sad almost every day for the past 4 months. During the interview, he endorsed some suicidal thoughts but expressed no intent. Mr. Jones weighs 300 pounds. Much of his excess weight is carried in his abdomen region.

Mr. Jones's primary care provider had been managing his pain conservatively with recommendations of rest and light activity and a referral to physical therapy in which he received heat packs and massage to relax his back muscles. Given his alcohol abuse history, previous recreational drug use, and current depressive symptomatology, the primary care provider decided to prescribe a nonnarcotic analgesic. Recent magnetic resonance imaging (MRI) revealed a slight lumbar disk compression at L4-L5; however, a consulting neurologist documented in the medical record that these findings could not fully account for Mr. Jones's current level of pain and disability. Mr. Jones's medical history was also significant for diabetes, obesity, and hypertension. His current prescriptions include insulin and an antihypertensive medication. After the clinical interview, Mr. Jones was asked to complete several self-report questionnaires related to the experience of pain in order to supplement information gained from the interview.

Case Formulation

Assessment. The results of the assessment indicated that Mr. Jones was experiencing a moderate level of depression associated with the onset of his chronic pain condition;

however, his depressive symptoms were now probably contributing to increased disability and pain. Factors contributing to his depressive symptoms included time away from his job, fights with his spouse, negative thoughts about himself as a provider (e.g., "I'm worthless to my family"), increased social isolation, and reduced pleasant activities. Evidence for his depression included his responses on several self-report questionnaires, which indicated that he was experiencing a moderate level of depressive symptomatology and a significant level of interference in his daily activities. His responses suggested he believes his wife engages in solicitous behaviors in response to his pain complaints. Although he did engage in some positive coping in response to pain, he also had a tendency to practice catastrophic thinking (e.g., "This is never going to get better"). The assessment enabled the psychologist to conceptualize Mr. Jones's pain experience, including factors contributing to its development and maintenance. Mr. Jones's specific difficulties included his level of pain, increased attention from his spouse, a significant number of depressive symptoms, obesity, and decreased participation in reinforcing activities, both social and occupational.

Multidisciplinary Pain Management Team. After the completion of the pain assessment by the psychologist, Mr. Jones's case was presented to the multidisciplinary pain management team. There appeared to be a clear caue of for his low back pain, and consultation with other members of the team supported the theory that Mr. Jones's knee pain was likely to be related to his years of work in construction and significant overweight. Weight loss is often associated with a reduction in pain and, therefore, considered to be an important long-term goal. A recommendation was made to the primary care provider that a consultation with a dietician be requested for Mr. Jones to help him to develop a weight loss plan. No changes in his current pain medications were recommended by the neurologist; however, the physical therapist on the team recommended that Mr. Jones engage in more active rehabilitation procedures to increase his strength and flexibility. All of these recommendations were communicated to the primary care provider in a written report placed in the medical record. On the basis of the results of the assessment, the pain team believed that Mr. Jones would benefit most from a more intensive intervention for managing his pain. This level of care is consistent with step 3 of stepped-care pain management. The results of the assessment were reviewed with Mr. Jones and his wife to highlight potential areas for intervention. Mr. Jones agreed that he could benefit from learning ways to manage his pain more effectively, so time was spent with the couple describing the therapy process and setting up a time for the first session. Expectations for active participation in the treatment process (including practice and the completion of homework assignments) were emphasized.

Course of Treatment

Mr. Jones was seen by the psychologist for 11 sessions of weekly individual psychotherapy. Each session was approximately 50 minutes and followed a manualized pain management protocol developed by Otis and colleagues (Otis, 2006). Following the cognitive-behavioral treatment (CBT) model of pain management, the first session of treatment involved reconceptualizing pain as a manageable, but not curable, condition that can be influenced by a person's thoughts and behaviors. The acceptance of the idea that pain is likely always to be a part of life is important because patients who are waiting for a cure for their pain are less likely to take responsibility for managing pain or to participate actively in psychotherapy related to pain. The relationships among pain, negative thoughts,

and disability were explained by drawing on incidents from Mr. Jones's own life to serve as examples. Mr. Jones was able to offer an example of feelings of frustration that led to an exacerbation of his pain. He was also able to articulate that pain was something that impacted all areas of his life and was more than just a sensory experience confined to his back and his knees.

Mr. Jones worked with the psychologist to develop several overall behavioral goals he could work toward over the course of therapy. Rather than having goals set solely by the therapist, goals were set cooperatively with the patient so that he would be invested in their achievement. Behavioral and quantifiable goals were developed, rather than vague goals such as improved quality of life or reduction of pain, so that progress could be easily measured. Each week, small goals that successively approximated the overall behavioral goals were established and accomplishment was evaluated at the beginning of each subsequent session. Goals that were reachable, yet challenging, were particularly useful in encouraging accomplishment. Unmet goals were discussed and revised for the following week. Mr. Jones's goals included spending more time with friends and working in his yard. In addition, several of his goals were directly related to goals set by his physical therapist, which included walking and completing physical exercises designed to increase muscle strength and flexibility.

Over the course of therapy, Mr. Jones was taught a number of cognitive-behavioral coping skills to help him manage his pain more effectively. Each session began with an outline of major topics to be covered and included educational information, a review of the skill to be taught and in-session practice, and homework designed to facilitate the acquisition of the skill. Initial sessions focused on teaching Mr. Jones relaxation techniques such as diaphragmatic breathing and progressive muscle relaxation. Mr. Jones responded very well to these techniques, and the early success provided an opportunity for the psychologist and Mrs. Jones to reinforce his efforts to manage his pain. He was taught to identify and label his thoughts and emotions and to challenge negative automatic thoughts by using cognitive restructuring. Negative thoughts about himself and catastrophic ways of thinking were specifically addressed. In subsequent sessions, Mr. Jones was taught ways of gradually reintroducing pleasant activities in his life and of pacing his activity level at work and at home in order to remain active and prevent exacerbations of his pain often associated with excessive activity. Given his interest in sports, Mr. Jones responded well to an analogy drawn by the psychologist between the process of activity pacing and breaks taken by professional athletes during a game in order to perform at their best. Regular progress notes documented his progress on weekly goals and Mr. Jones's primary care provider was encouraged to recognize and endorse the efforts made in therapy. Before one therapy session, the psychologist arranged for the primary care provider to drop by the office briefly to offer her encouragement to Mr. Jones. This brief meeting provided additional support for Mr. Jones and gave him the perception that all of his providers were working together to coordinate his care.

The involvement of Mrs. Jones was a critical factor in the success of the treatment. On occasions when she would accompany her husband to therapy appointments, she was asked to be present for the last 15 minutes of the session. During those 15 minutes, her husband would explain the concepts that had been covered that day in session and review the goals he would be working toward for the week. This part of the session also provided an opportunity for Mrs. Jones openly to express the concerns she had about the changes she had seen in her husband over the past 10 months. It also allowed the therapist to observe their interactions when discussing the patient's pain problem. Although Mr. Jones reported feeling that his wife "smothers" him at times with attention, Mrs. Jones explained to him that she was only trying to protect him from feeling more pain. By attending

portions of the therapy sessions and hearing the rationale behind some of the techniques, Mrs. Jones began to understand the importance of allowing Mr. Jones opportunities to do things for himself and ways she could reinforce his participating in daily activities even when he was in pain. Mrs. Jones's participation helped to promote reinforcement of her husband's adaptive behaviors and the coping techniques learned in treatment.

The final session included reviewing strategies for dealing with a pain flare-up or a temporary increase in pain. It was explained to Mr. Jones that even though he had completed a program to help him manage his pain, it was likely that he would experience a pain flare-up in the future. Given this fact, it was important to prepare for what to do when it happened so that he would not think that he had failed and abandon everything that he had learned. Mr. and Mrs. Jones were able to identify some situational and emotional factors that might trigger an increase in pain. Strategies included preparing for a pain flare-up before it occurs (becoming aware of emotional and physical cues that pain is increasing), confronting the flare-up by using the self-management strategies (relaxation strategies, restructuring of negative thoughts) and positive coping statements in place of negative thoughts: "I've handled this much pain before, and I can do it again." Treatment goal accomplishment was assessed at the conclusion of treatment, along with the same battery of self-report questionnaires administered at pretreatment, and a brief follow-up assessment was conducted several months later in order to assess Mr. Jones's level of functioning over time.

Outcome and Prognosis

Mr. Jones learned a number of techniques to help him lessen the impact that his chronic pain condition had been having on his life. Exercises such as diaphragmatic breathing helped him to learn to relax his body and to identify when he was becoming tense. He recognized that before therapy his negative thoughts and increased isolation from other people had been causing him to become depressed, and that in turn was contributing to his experience of pain. By practicing cognitive restructuring he became skilled at identifying his negative thoughts and replacing them with more adaptive ones. The restructuring, along with homework assignments designed to increase his engagement in pleasant activates, resulted in a significant decrease in his depressive symptoms. Mr. Jones indicated that he had a much better relationship with his wife by the end of treatment, which he largely attributed to having the opportunity to include her in sessions to discuss the best ways to help him with his pain openly. Mrs. Jones also felt that she enjoyed a more harmonious relationship with her husband and that she now knew how to "help" without making him feel "smothered." Mr. Jones continued to report significant pain at the end of treatment; however, he indicated that he had learned ways to manage his pain without first reaching for medication. Of particular note, Mr. Jones stated that he now had increased his enjoyment of life, and that pain was no longer a limiting factor. Of all of the skills he learned in treatment, Mr. Jones reported that he found that cognitive restructuring and activity pacing were most helpful. A brief follow-up assessment conducted in primary care revealed that Mr. Jones had returned to work and had successfully managed several pain flare-ups.

Over the course of therapy, the primary care provider was kept up to date on progress Mr. Jones made in therapy by the psychologist's entries in the medical record and through brief meetings with the psychologist. This regular communication served as a reminder to the primary care provider to encourage Mr. Jones's continued engagement in therapy and to recognize the progress he had made toward his treatment goals. The participation of

primary care providers in pain management efforts is crucial for providing consistent care after patients have completed psychological treatment, as their ongoing assessment of the patient's functioning can facilitate a referral to the pain management program if necessary.

Clinical Issues and Summary

The case illustration highlights several issues involved in integrated pain treatment, such as the potential benefits of a stepped-care approach, the utility of a multidisciplinary team approach to patient care, and the importance of involving the primary care provider throughout each stage of the patient's treatment. It is essential for clinicians to recognize the importance of including a patient's significant other in treatment because he or she has the potential to reinforce patients' adaptive coping with pain and to encourage them to resume healthy everyday activities. Another aspect of the clinical treatment that was particularly important was setting behavioral goals with the patient at the start of treatment and monitoring homework completion at each session. This activity helped Mr. Jones to stay "on track" with his goals, provided opportunity to reinforce successful goal achievement, and emphasized the importance of staying active. Finally, the cognitive-restructuring skills component helped Mr. Jones to learn to challenge his longstanding beliefs regarding pain and disability. The techniques involved in cognitive-behavioral therapy can be particularly helpful for patients who have chronic pain, as they provide concrete, manageable tools for coping with pain; these skills have also been found to be generalizable to other problems in patients' lives.

Clinical research has demonstrated that cognitive-behavioral therapy can be of benefit to patients with chronic pain if they are engaged in the process of therapy. However, patients who are not engaged in treatment or are not convinced that the investment of their time will pay off in the end will be less likely to follow through with the treatment plan and more likely to drop out of treatment after the first few sessions. For therapists to expect active participation in therapy from their patients, they must present a clear and convincing rationale for treatment and perhaps why it may be different from what patients have had in the past. It is important that the therapist take the time to read key articles and chapters related to pain management and review the treatment materials before each session. Reading and asking questions of supervisors or peers will enable therapists to gain confidence in their knowledge of pain management techniques, their ability to answer a patient's questions, and the specific skills they have to offer to their patients.

A number of individuals are investigating ways to maximize the efficiency of treatment and improve access to multidisciplinary methods for chronic pain in primary care. One method is to employ collaborative care models, in which an expert team is placed in the primary care setting to assist primary care providers in delivering guideline-concordant care to a defined population from detection to follow-up. In contrast to the system in most stepped-care programs, the primary care provider remains the leader of the treatment team, and treatment elements are added to support and reinforce the care provided by the primary care provider. Key care management components are identification of and response to patient barriers, enhancement of patient self-management skills, monitoring of treatment response, and provision of feedback to primary care clinicians. Efforts to examine the effectiveness of this method for the management of chronic pain in primary care are currently under way (Dobscha, Gerrity, & Corson, 2005).

In sum, the integration and coordination of psychological services in primary care settings are of particular importance for patients who are facing the distress, disability, and interference associated with chronic pain. Ultimately, among our field's future goals

should be to promote wider acceptance of psychological services in primary care, to highlight the benefits to patients and providers when care is well integrated and coordinated, and most importantly, to improve patient outcome.

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