Innovations in Chronic Pain Management: New Models of Care
Sara L. Doorley, MD, Charles Preston, PhD, Viet Le, MD, PhD, Rebecca Shtulman, PhD, Libby Echeverria, MSW, and Cheryl J. Ho, MD

BACKGROUND & PROGRAM DESCRIPTION

Homeless individuals disproportionately suffer from medical disorders. They have higher rates of diabetes, cancer, peripheral vascular disease, musculoskeletal problems, depression, and other disabilities that are often associated with both acute and chronic pain.1,2,3,4,5 These morbidities afflicting the homeless can be amplified by unstable housing, exposure to weather and temperature extremes, the prevalence of violence, psychiatric disorders, and addiction.6

A survey conducted by the American Pain Society on chronic pain revealed that over 40 percent of individuals suffering from moderate to severe levels of pain were unable to achieve adequate analgesia.7 Homeless persons have even greater inadequacies in pain alleviation and often experience difficulty obtaining prescriptions, accessing primary care, and receiving adequate rehabilitation. It has been anecdotally reported that chronic pain amongst the homeless is not only more frequent in prevalence but often appears at a younger age and is associated with a greater level of disability.8 Addressing and adequately managing chronic pain in homeless individuals can be challenging. In the homeless population, chronic pain is often associated with psychiatric illness, substance use disorders, and maladaptive behavior patterns.9 It is frequently difficult for primary care providers to effectively treat and manage pain within the traditional primary care structure. At times, it is difficult to find sufficient time to thoroughly evaluate the medical cause of chronic pain while also exploring other psychosocial etiologies and contributors.10 Due to the above, adequately addressing the multiplicity of needs of the homeless patient with chronic pain within the primary care context can be tenuous.

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7 “Chronic Pain in America: Roadblocks to Relief,” a study conducted by Roper Starch Worldwide for American Academy of Pain Medicine, American Pain Society and Janssen Pharmaceutica, 1999.
The Valley Homeless Healthcare Program (VHHP) in San José, California, began a chronic pain clinic in February 2007 in response to several observations. First, staff determined that a small group of patients with chronic pain utilized a disproportionate amount of VHHP’s overall services. It was noted that these individuals were going to the primary care clinic, the emergency department, and the pharmacy multiple times within one week and were often making several phone calls a day to the clinic. In addition, the primary care providers felt a certain level of inaptitude, helplessness, and frustration around the treatment of these individuals. The providers began to recognize that it was difficult for them to make objective decisions around the management of these patients, acknowledging that their decisions were often based upon subjective determinants like their personal biases, mood, or that day’s schedule.

Staff also observed that an overwhelming majority of these patients had

- a history of addiction,
- a history of mental illness and
- an Axis II personality disorder.

Finally, staff observed that this group of patients consistently demonstrated varying levels of aberrant medication taking behavior surrounding their pain management that included a pattern of medication mishandling, aggressive words or actions towards the staff, a stated need for frequent dose escalation, and repeated clinic utilization. This observation is consistent with other reviews evaluating the level of aberrant medication taking behavior surrounding opioid therapy.11

Our response to these observations was to develop and implement a weekly, half-day chronic pain clinic within the Valley Homeless Healthcare Program, a change process that took nearly three years with several periods of cessation and reimplementation. While the primary care clinic had a significant number of individuals with chronic pain, VHHP initially mandated that the chronic pain patients with the highest level of prescribed opiate dose be seen for medication management in this designated half-day clinic. This initial attempt to consolidate clinic services around pain management, however, did not yield improvement in patient outcomes or provider satisfaction.

Approximately six months later, VHHP required these patients to participate in a psychologist-led, chronic pain psycho-education group. Surprisingly, these interventions still resulted in low patient satisfaction and high wait times for these patients. Finally, the clinic decided to create a multidisciplinary integrated team approach involving the entire clinic staff including two primary care physicians, one psychiatrist, one to two psychologists, a registered nurse, a social worker, the registration staff, and a medical assistant. This design was based upon a review of the literature reflecting that

- 68 percent of underserved primary care patients were willing to attend a group medical visit for the management of chronic illness,
- patients have reported high satisfaction with group medical visits and
- group medical visits allow physicians to see more patients within a short period of time.12,13,14

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In this model, each member of the chronic pain group team provides a unique service:

- Registration staff provides information on the patient’s waiting room behavior and provides each patient with a pain questionnaire to complete while in the waiting room
- The medical assistant reports patient behavior at the time of intake and during vital signs, and decides which patients will require urine toxicology screening; she also pulls the chart and prints out the medication list
- The registered nurse coordinates operational aspects of the clinic and provides real-time education during the group
- The social worker provides additional patient support for housing, benefits, food stamps and community resources
- The psychologist facilitates the group, provides real-time behavioral modification interventions and facilitates the patient’s individual action plans
- The psychiatrist performs a psychiatric assessment during the group and adjusts psychiatric medications
- The primary care physician provides primary care, writes the narcotic prescription, and completes the progress note and billing slip

A key feature of this model is that the provider alone does not make the decision to change the opiate dosing. In order for any medication dose to be changed, the team—including non-prescribing clinicians—must arrive at this decision together.

A small survey comparing provider satisfaction of those physicians involved in this new model of pain group versus those not involved in pain group revealed that the providers involved in this multi-disciplinary pain treatment team were more satisfied than those not involved in the pain group. It was also noted from observation that the overall clinic flow had improved with a seemingly more even distribution of resources to the clinic patients. Finally, as revealed through the completion of the action plans set in pain group, it was noted that patients exemplified increased behaviors of self-efficacy. In conclusion, the final iteration of the chronic pain clinic resulted in higher provider satisfaction, improved clinic efficiency and flow, as well as an increase in patient adherence and self-efficacy. The following three cases illustrate how patients, providers, and local health care and social systems can benefit from a multidisciplinary integrated approach to chronic pain.

**CASE 1: INTEGRATED GROUP MEDICAL VISITS FOR TREATING CHRONIC PAIN CAN INCREASE PATIENT SELF-EFFICACY**

**Client Background**
Ms. T is a 46-year-old chronically homeless female first seen in 2007 at Valley Homeless Healthcare Program’s clinic in San Jose. She came to the primary care clinic intermittently while homeless, but after achieving sobriety and attaining housing in 2008, Ms. T became a more frequent consumer of primary care services. At that time, Ms. T began bringing to our attention more consistently her experience of chronic pain in both of her knees. A medical workup revealed osteoarthritis, as well as a partially torn ACL from a prior injury. Ms. T asked for Tylenol #3 for pain alleviation and our provider prescribed a pre-specified amount every month.

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Over the course of several months, Ms. T began to exhibit elements of aberrant behavior around her medication. Frequently, Ms. T called the clinic multiple times daily in a frantic, irritable, and/or angry tone requesting early refills or dose escalation. She resisted efforts to bring her in to see the physician. When Ms. T did come in for evaluation, the visit often centered solely on the opiate medication dosage or the patient’s experience of pain. Very little progress was made in addressing the patient’s other poorly controlled chronic conditions of obesity, hypertension, and diabetes. The patient felt that the clinic was not properly addressing her chronic pain, while her providers felt overwhelmed by both the aberrant behavior and the lack of improvement in her health conditions.

Pertinent Medical History
Ms. T is a morbidly obese female who has a history of bipolar disorder, poorly controlled diabetes, hyperlipidemia, uncontrolled hypertension, and osteoarthritis.

Psychosocial History
Ms. T has a long history of polysubstance abuse including methamphetamine, cocaine, and tobacco. Her methamphetamine and cocaine dependence were in early remission when she began to engage more regularly in care. She has a history of incarceration. Ms. T has a common-law monolingual Spanish-speaking husband. She also has a large, supportive extended family, many of whom struggle with issues of drug abuse and incarceration. Although she worked in food service 20 years ago, she has been unemployed for many years. She currently receives Supplemental Security Income and shares an apartment with roommates.

Course of Treatment
Clinic staff asked Ms. T to attend VHHP’s Chronic Pain Clinic weekly as a precondition to continuing opiate prescriptions. Given her history of frequent no-shows, Ms. T’s continuing prescription hinged on her regular group attendance. Ms. T was initially unhappy with this decision and was suspicious of the group when she first joined.

After several months of attending the pain clinic, Ms. T felt safer in the clinic environment, realizing that staff was not going to discontinue her opiate medication. In the group setting, she began to share more about her psychosocial stressors, including occasional conflicts with her husband, financial strains and the stressors of incarcerated friends and family. She began to develop a sense of community with the other chronic pain group members and found an identity providing peer support in the group setting. One year later, she invited several group members to her house for a home-cooked Thanksgiving meal. When one of the group members died, Ms. T provided emotional support to the patient’s family.

Ms. T specifically responded most to the Psychology intervention of developing goals and setting action plans to achieve them. A key aspect of the multidisciplinary group visit is that the clinical encounter centers on the patient’s self-identification of an action plan for the week, as opposed to the patient’s level and experience of pain. In the weekly group visit, staff asks each patient, “What is one thing that you can do this week for yourself that will improve your health or your life?” Psychology works with the patient to develop a goal that is concrete and attainable within one week. Examples of goals that Ms. T set during the course of the pain group included eliminating soda from her diet, decreasing smoking by several cigarettes, or taking a walk two times in a week. If she set the week’s goal too high or too vague, i.e., “lose weight,” then Psychology helped Ms. T set a specific achievable goal, i.e., “cut out one soda per day.”

Outcomes
Because of these progressive action plans, Ms. T has changed her diet to incorporate healthy food choices and increased her level of exercise. These changes resulted in significant weight loss; she has stopped smoking and her hypertension and diabetes are under control. Important to note is that when setbacks...
occur—such as when she admits to binging on food for several weeks in a row—the group normalizes this behavior and reflects the difficulty around behavior change. A critical component of implementing the action plan is group celebration of any goal achieved, no matter how small.

Ms. T now seldom mentions her knee pain, and she has been on a stable dose of opiates without escalation for a number of years. Ms. T is one of the group members with a consistently positive attitude and outlook, often providing significant support and encouragement to the others.

Case Discussion
Homeless individuals often suffer from a psychological vulnerability that includes major depressive disorder, bipolar disorder, and posttraumatic stress disorder. These psychological disorders often include the elements of helplessness and hopelessness that can be a barrier to self-care and to adequate medical management of morbidities.15,16 On the other hand, the level of self-efficacy within an individual is a known predictor of positive outcomes including a greater capacity for coping, adherence to a treatment plan, and the ability to change behaviors.17,18

The focus on a weekly action plan plays a central role in our chronic pain group, encouraging greater self-efficacy and an internal locus of control. Patient-centered action plans address both the strengths and limitations of the individual. The group holds each individual accountable for his or her action plans. Analysis of aggregate data from the chronic pain group reveals that 90 percent of our patients set a goal at each group. Of all goals set by the patients, 74 percent are either attempted or achieved. By increasing patient involvement in their own care, the action plan is a critical component to improved patient outcomes in the treatment of chronic pain.

CASE 2: INTEGRATED GROUP MEDICAL VISITS FOR TREATING CHRONIC PAIN CAN INCREASE PROVIDER SATISFACTION & SENSE OF CLINICAL EFFECTIVENESS AROUND CHRONIC PAIN TREATMENT

Client Background
Ms. W is a 36-year-old chronically homeless female first seen at the VHHP after another clinic transferred her out. This clinic’s provider had become frustrated with Ms. W’s management, and she felt unable to provide adequate medical care to this patient.

Ms. W has a history of chronic migraine headaches that started after her mother’s death when she was around 12-years-old. Prior failed treatment approaches included both suppressive and abortive medications for migraines. In place of these treatment regimens, Ms. W often sought pain relief at local emergency departments where she received intravenous Dilaudid for pain management. From December 2, 2007 to December 2, 2008, she had over forty visits to the emergency room. Her utilization pattern was so extreme that four local hospital emergency departments independently placed restrictions on her care. As a result, Ms. W came to VHHP in a desperate state, requesting help for her migraine headaches.

As clinic providers became acquainted with Ms. W, they began to note a discrepancy between her stated severity of pain and her appearance on physical examination, with the former being of greater intensity than the latter. Ms. W would show up nearly every Friday at 4:55 P.M., pleading for more medications “just for the weekend,” despite having been given the full week’s supply earlier. Ms. W also suffered from nephrolithiasis, depression, and severe anemia secondary to menorrhagia but did not follow through with attempts to work-up or treat these conditions. It was not long before VHHP’s providers became frustrated with managing Ms. W’s chronic pain. Each provider who saw her endorsed feelings of personal isolation in the management of her chronic pain, with a deep sense of futility with the provided medical treatment.

Pertinent Medical History
Ms. W has a history of chronic migraine headaches, iron deficiency anemia secondary to menorrhagia, nephrolithiasis and depression.

Psychosocial History
Ms. W has a history of chronic homelessness and she is known in the street community for her hard rock singing abilities. Her close relationships include a grown son and an intermittent boyfriend. Her boyfriend has a history of alcohol abuse and has been physically abusive to the patient in the past.

Ms. W has a history of depression and anxiety with a child-like affect and guarded persona. Frequently she wears all black clothing with white facial makeup and dark nails. She has a history of poor follow-up with psychiatric management and a history of methamphetamine use. An intensive case management agency recently placed Ms. W in HUD subsidized housing.

Course of Treatment
Ms. W was referred to pain group soon after her introduction to the Valley Homeless Healthcare Program. During the course of group visits, primary care attempted to address her medical conditions by ordering lab tests, diagnostic imaging, specialist referrals, and new medications in the course of her care. Psychiatry began to discover a history of severe anxiety disorder with paranoia and obsessive-compulsive traits. Psychiatry also diagnosed Ms. W with a dependent personality disorder and prescribed a psychotropic medication regimen. Psychology discovered a repeating pattern of self-destructive and self-sabotaging behavior and started to work with her on behavioral change. Social work found that the patient was still grieving for the loss of her mother, who died over ten years ago. After discovering that there had not been a family memorial service for Ms. W’s mother, the patient’s intensive case manager assisted in organizing a memorial service for close family members and to help resolve grief issues. Through the lens of each member of the integrated care team, the clinic was able to gain a holistic, whole-person view of Ms. W that was much deeper and complex than initially realized.

While the team began to develop this holistic view of Ms. W and understand the complex interactions in her life, Ms. W was not making significant progress on multiple levels—medical, mental, behavioral, psychological, or social. Medically, Ms. W did not follow through with the diagnostic tests ordered nor did she make the specialty appointments that she requested. She did not take any of the psychiatric medications prescribed for longer than several weeks and was not open to individual psychotherapy.

Unlike Ms. T, Ms. W had extreme difficulty completing even one or two set action plans within the course of several months. Ms. W’s ability to “say all the right things” during the clinical encounter, followed by repeated failure week after week to follow through on small behavior changes became frustrating for the team. While Ms. W’s ED visits decreased dramatically going from 33 visits in one year to 11 visits, the clinic team was aware that the underlying factors leading to this behavior had not changed. After approximately one year of weekly visits with the pain team, Ms. W began to miss her appointments and increase her
frequency of ED visits. She finally admitted to opiate addiction, but was unable to take the steps necessary to enroll in a drug rehabilitation program. Despite the team’s encouragement, Ms. W decided to drop out of the pain group and resumed her frequent ED utilization pattern.

Outcome and Case Discussion
The reality of caring for individuals with a history of homelessness, addiction, mental illness, and chronic pain is that at times patient outcomes do not improve. Despite intense mobilization of a multitude of clinicians and resources, sometimes no palpable progress is made. Coming to terms with such a conclusion is not in the vocabulary of the majority of primary care providers. Most providers choose to enter the practice of medicine in order to improve or help the life of another, and a core assumption of medical training is that providers have the tools to improve a patient’s health.

Consequently, it is not surprising that treating chronic pain in the primary care setting can often be frustrating and unsatisfying for medical providers. Providers feel frustrated and overwhelmed when they are unable to cure or to alleviate a patient’s pain. Feelings of guilt and helplessness are compounded when a provider is faced with a patient who demonstrates both chronic pain and aberrant behavior. Not surprisingly, providers experience low rates of satisfaction in caring for patients with chronic pain. We conducted a satisfaction survey of seven providers caring for chronic pain patients in a traditional primary care setting compared to the providers working within VHHP and found that providers in traditional settings reported both lower satisfaction and a lower sense of clinical effectiveness in caring for these patients than providers within VHHP.

A critical component of our chronic pain clinic is structuring time for a significant level of peer support to the clinicians caring for these patients. At the end of each group visit, the entire clinical team meets together for a 15- to 20-minute debriefing session. The multidisciplinary team discusses each patient in the group and evaluates the differential diagnosis of chronic pain or aberrant behavior. Healthy discussion, conflict, and agreement ensue with the outcome being a team-based, clinical decision-making process. By working together in real time, providers feel that they have a more complete understanding of each patient and are better able to treat the whole person. In addition, all clinicians are encouraged to be open and honest about their feelings, even the negative ones. Providers are able to express anger, sadness, helplessness, and even laughter. Not only do these debriefing sessions serve as an emotional outlet for the team, these sessions create a sense of solidarity that prevents one provider from feeling isolated in his or her decision-making.

Barbara McInnis, a nurse at the Boston Health Care for the Homeless Program, famously noted that the role of the clinician is to “provide hope and options” to the patient, and to recognize that a patient’s personal judgment or final decision is outside the provider’s locus of control. A multidisciplinary chronic pain management team that provides support to each other allows providers to continue to provide a high level of hope and quality of care to their chronic pain patients with a multiplicity of needs.

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CASE 3: INTEGRATED GROUP MEDICAL VISITS FOR TREATING CHRONIC PAIN CAN IMPROVE HEALTH CARE UTILIZATION PATTERNS & POSITIVELY INFLUENCE SOCIAL OUTCOMES

Client Background
Mr. A is a 44-year-old chronically homeless male first seen at VHHP in 2005 with complaints of pain in his lower extremities. Mr. A’s chronic pain began after a motorcycle accident in 1986 and a motor vehicle accident in 2004. Well-known on the public hospital campus, Mr. A was often found sleeping in a hallway at night and seen panhandling in a wheelchair at the nearby McDonald’s during the day. Mr. A often went to the hospital emergency department seeking pain medications, and as a result, staff knew him there. In the nine months before joining the chronic pain clinic, he presented 14 times to the ED. Although he was often seen in a wheelchair, it was determined that Mr. A did not have any physical condition necessitating the use of one. In conversations with him, he would mention by name two fictitious characters—Ted and Glenn—which he created in order to have daily companionship. A neuropsychological assessment indicated that Mr. A might have been exaggerating his psychological and medical problems.

Medical History
Mr. A has a history of hypertension, hepatitis C, and hypothyroidism. He also has a history of chronic venous insufficiency with secondary chronic lower extremity edema complicated by multiple episodes of cellulitis. The lower extremity edema was positional and worsened by sleeping in his wheelchair. Mr. A was non-adherent with his medications and would often discard pills or not refill medications. Staff found that the gaps in Mr. A’s care were due to intermittent incarceration.

Psychosocial History
Mr. A was a foster child adopted at age seven. He has a history of child abuse and a known learning disability. Mr. A has an extensive history of alcohol abuse; until 2005, he drank two to three bottles of liquor a day.

Course of Treatment
Mr. A was seen at VHHP for several years without significant improvement in his health outcomes. His clinic visits often centered on pain medications and requests for wheelchair certification. Providers were often suspicious of Mr. A’s intentions during the clinical encounter given his tendency towards malingering. Due to this pattern of aberrant behavior, Mr. A was recommended to the chronic pain group.

Initially, Mr. A was hesitant to attend the chronic pain group. During his first few encounters, he would attend the clinic for only five minutes, refuse to engage in the group discussion and have intermittent outbursts of anxiety. He sat by the door and would abruptly walk out of the session without explanation or reason. The clinic team insisted that Mr. A continue to attend the group despite his acrimonious complaints and plethora of excuses. Over a period of several months, Mr. A gradually attended for a longer duration and a greater number of the group sessions.

Through engagement with an intensive case management group, Mr. A obtained Social Security income and transitioned to permanent housing. After several months of being in permanent housing, Mr. A admitted to the pain group that he continued to sleep in his wheelchair. Although he recognized the detrimental effect that this had on his lower extremity edema, he confessed that the transition to housing was difficult because he had spent so many years sleeping upright in his wheelchair or on benches. He began to set weekly goals, using his action plan to make incremental changes. First, he simply parked his wheelchair next to his bed at night. Then, he placed one of his legs on the bed while sitting in his wheelchair for a few hours a day, two times per week. Over the course of several months, he moved toward
his goal by daily placing both legs on the bed and sleeping in his bed one night a week. Within a year, Mr. A was able to transition to sleeping in his bed five nights a week with significant improvement in his edema.

Outcome and Case Discussion
The salient components in Mr. A’s case are the elements of structure and consistency that regular chronic pain group visits provide. Mr. A’s prior life experiences resulted in a set of behaviors in which guardedness and exaggeration became survival techniques for life on the streets. When it came to clinical encounters, Mr. A brought these behaviors to the bedside, even though they were counter-productive. Meeting weekly in a clinic where the message was always “come back just as you are” represented a dramatic relational shift in Mr. A’s life. The consistency of message and clinician presence eventually eroded Mr. A’s guarded exterior.

Over time, Mr. A became more open about past traumatic events, leading to the diagnosis of severe posttraumatic stress disorder. The team psychiatrist started him on medications that improved Mr. A’s condition significantly. Mr. A began to trust the group and listen to its recommendations. Mr. A now walks into the pain group without using a wheelchair or walking device and sleeps in his bed most nights of the week. He is actively engaged in his care, bringing in his medication list on a regular basis and taking pain medications on an “as needed” basis. When a provider accidentally wrote a prescription for too few pain medications at one visit, Mr. A stretched the medications to last the duration and did not request additional medication through the clinic or the ED. Most recently, Mr. A began writing a book about his life experiences on the streets. At the time of this writing, he had completed over one hundred pages.

Compared to his previous ED utilization patterns, in the nine months following enrollment in the chronic pain clinic, Mr. A dropped his ED utilization to two total visits. As he learns a healthier, more adaptive model of interaction with others, his behavior changes bode well for maintaining permanent housing.

CONCLUSION
For chronically homeless individuals with chronic pain, a consistent, structured clinical environment can result in improved health care utilization patterns and help in the permanent transition out of homelessness. This report presents a new model of care for homeless individuals with a history of chronic pain. Multidisciplinary, integrated group medical visits are a vehicle for improved patient self-efficacy for those known to have a history of mental illness, addiction, and aberrant behavior. This model sustains an uncommonly high level of primary care provider satisfaction in the treatment of chronic pain. It was also observed that this model yields benefits to the health care system and society at large, although additional studies need to be performed to measure the extent of this benefit.
Homeless Health Care Case Report: Sharing Practice Based Experience

AUTHORS
Valley Homeless Healthcare Program
Sara L. Doorley, MD
Charles Preston, PhD
Viet Le, MD, PhD
Rebecca Shtulman, PhD
Libby Echeverria, MSW
Cheryl J. Ho, MD

EDITOR
Brenda J. Proffitt, MHA | Membership & Communications Director
National Health Care for the Homeless Council | bproffitt@nhchc.org

REVIEWERS
Shannon Smith, RN, MSN, CNL | Intake & Sobering Coordinator
Medical Respite Program | San Francisco Sobering Center | San Francisco, California

Michael S. DeShields, MD | Director of Medical Affairs
Camden County Health Services Center | Blackwood, New Jersey

Susan M. Kline, DNP, ARNP
Public Health–Seattle & King County | Seattle, Washington

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