

Case report

Integrating HCV services for drug users: A model to improve engagement and outcomes

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Abstract

Although the majority of prevalent and incident cases of hepatitis C are related to injection drug use, drug users often find it difficult to access treatment services because of concerns about adherence and treatment candidacy. In response to the growing epidemic, OASIS, a nonprofit community clinic, developed a successful peer-based HCV group that allowed us to engage, educate, test, and treat hepatitis C in large numbers of drug users, the majority of whom have multiple potential barriers to intervention. Integrating services for hepatitis C, addiction, mental health, and psychosocial problems, the model involves a collaboration of medical providers and peer educators and incorporates elements of other proven behavioural models, including self-help groups, therapeutic communities, and peer interventions. Our results indicate that this peer-based model is successful at engaging, educating, and treating a diverse spectrum of chaotic drug users. We conclude that an integrated, peer-based approach to intervention can engage even the most challenging addicted patients with hepatitis C, and can facilitate their successful screening and treatment.

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Introduction

Approximately 170 million persons worldwide and 4 million persons in the U.S. have been exposed to hepatitis C, and injection drug users constitute the majority of cases (Alter et al., 1998; Williams, 1999). Injection drug use is the principal route of transmitting HCV in industrialized nations, accounting for approximately 70 per cent of acute cases and 60 per cent of chronic infections in the U.S. (Alter & Moyer, 1998; Thomas et al., 1995). Unfortunately, substance users are often considered poor candidates for HCV treatment, limiting their access to HCV medical services (Sylvestre, 2006; Sylvestre et al., 2005). Because of this, as the epidemic matures, we will see ever-increasing numbers of HCV-infected drug users die unnecessarily.

Clearly, we must develop new approaches in order to limit the consequences of hepatitis C in drug users. A recent report showing that young IDUs with hepatitis C are more likely to die from injection drug use highlights the importance of addressing other fundamentally important issues like ongoing drug use and mental illness (Amin et al., 2006).

In this report, we describe a reactive, inner-city approach to addressing hepatitis C, which instinctively incorporated elements of biopsychosocial interventions that been successful in the field of recovery. This project has taken place at Organization to Achieve Solutions in Substance-Abuse (OASIS), a not-for-profit community-based clinic located in Oakland, CA. Our community is characterized by high rates of poverty, crime, and drug use. The seroprevalence of hepatitis C in long-term injectors in our area exceeds 90 per cent, and the majority have no health insurance (McCarthy & Flynn, 2001). This limits access to drug treatment, medical care and mental health treatment. Housing and food can also be a primary challenge.

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Biopsychosocial models for complex problems

Much can be learned from the substance abuse treatment field about the value of a conceptual model that encompasses psychological and social dimensions in addressing medical issues. The behavioural components of addiction must be addressed to maximize positive treatment outcomes. Methods developed in this field have wide applicability to areas of medicine, though they are typically seen as “ancillary”.

Addiction can be viewed as a chronic medical illness, with characteristics similar to diabetes, asthma, and hypertension: rates of positive outcomes are similar and are closely related to patient adherence (McLellan et al., 2000). Poor outcomes are related to similar factors: poverty, psychiatric comorbidity, and poor social support. Interventions in addiction treatment are typically designed to address these conditions:

1. Access to stable housing, preferably relatively free of drug users;
2. Psychiatric assessment and intervention readily available, preferably at the program site;
3. Emphasis on involvement in subcultures that support abstinence from alcohol and illicit drugs, and promote development of new coping skills and prosocial networks;
4. Assistance with practical problems, such as transportation, gaining access to benefits, etc.

The OASIS model shares several key elements of addiction treatment, making it familiar to patients in treatment for substance abuse, even though they encounter it in a medical setting. It has been argued that these psychosocial elements could improve outcomes for other medical conditions as well. They are described briefly below.

Self-help groups

The self-help system is a major resource to accomplish key tasks, particularly since it has few financial barriers (Washton & Zweben, 2006). Both experimental and naturalistic studies find self-help involvement is associated with abstinence (Bond & Kaskutas, 2003; Donovan & Wells, in press; Moos & Moos, 2006). In most urban areas, it is possible to attend meetings daily. Participants can learn new coping skills, acquire new role models, and engage in a process of personal development through working the steps. Participants are encouraged to find a “home meeting” to attend regularly. In addition to the structure provided by meeting attendance, participants typically begin to regenerate their social network through the meetings. These informal interactions outside the meetings are a powerful social support for those who engage in them. It appears that many of the same elements are present in the OASIS model.

Peer interventions

A small but growing literature documents the benefits of peer-based education and social support in promoting

adherence to treatment recommendations in severe mental illness (Corrigan et al., 2005; Goering et al., 2006; Rummel et al., 2005), co-occurring addictive and mental disorders (Bogenschutz, 2005; Dermatis et al., 2006), as well as other medical illnesses (Deakin et al., 2005; Wirtz et al., 2006). Professionals can play an important role in promoting the development of effective models, and encouraging the use of those that are already present in a community.

Therapeutic communities

Addiction treatment has also contributed the therapeutic community model (DeLeon, 2000), in which the community, not the individual clinician, is the agent of change. Although many if not most therapeutic communities are residential programs, the model has been modified for outpatient settings. Like the self-help system, the peer group offers support and influences members to change unhealthy or maladaptive behaviours. Role models of those who worked their way through major adversity can provide both encouragement and examples of pathways to success. Sharing among peers is seen as a key element in promoting goals for change. New members who eventually endorse the values of the new community benefit the most. The therapeutic community model has been adapted to outpatient settings and shown to produce improvements. The OASIS clinic can be considered an example of an outpatient version.

The OASIS model

The OASIS model developed largely independently of these influences, but instinctively incorporated their key elements. It is perhaps a testament to the ability of small clinics outside major health care bureaucracies to generate creative solutions to clinical problems and modify them in response to feedback about effectiveness. Faced with limited resources and overwhelming need, OASIS developed an efficient group format for educating patients, and encouraged its development into a peer-based model. This group HCV intervention, called the Educate-Motivate-Facilitate model based on its key components, has been unusually successful at engaging highly chaotic drug users.

The OASIS HCV group

The OASIS HCV group was developed in response to an overwhelming need for service provision. With high rates of HCV and few willing medical providers, it was clear that patients’ service needs could not be addressed in a traditional medical interaction. We therefore developed the group intervention as means of improving efficiency and efficacy.

We began by organizing a small group of patients who had successfully completed HCV treatment and inviting other interested patients as they were diagnosed or referred for care. Knowledgeable peers co-led the group with a

medical provider. These diversely experienced groups addressed the needs of patients with different levels of knowledge and stages of intervention, from HCV screening through treatment. Discussion topics included addiction and psychiatric illness as well as hepatitis C, recognising that initially, some patients could be preoccupied with emotional issues that would undermine their ability to cope.

Group leadership became more stable over time, as motivated participants returned regularly to hone their level of knowledge and were encouraged to become leaders. Because of the diverse community that OASIS serves, group leaders are diverse with regard to race, ethnicity, age, and gender, and often two or three experienced peers participate as co-leaders at any given time. New participants are thus exposed to an array of leaders and leadership styles over time, improving their sense of belonging and identification with the other members of the group.

Groups begin with introductions, allowing participants to discuss their experience with such topics as HCV treatment, side effects, using drugs, or having depression. This information is used to initiate related topics of discussion. Rather than delivering information in a passive lecture format, group leaders use the Socratic approach, in which question-based inquiry is used to elicit answers from audience members, to encourage active participation in the learning process. Medical staff intermittently step in to correct misinformation or to add something new:

Jane, a newcomer, announces: “I have hepatitis A, B and C. They told me I was going to die.”

Medical leader: “What are the chances that Jane has hep A, B, and C?”

Group member: “They said that to me, but they mixed up the tests. I found out they were wrong.”

Peer leader: “Right! It’s almost impossible to have hepatitis A, B, and C at the same time. Usually those tests show that you had it in the past. Even doctors get confused.”

This might lead to further discussion about hepatitis tests to clarify concepts for the group. Over time, the educational competence of the peers becomes sophisticated, and their credibility is a strong complement to that of the group leaders. The interactive format can be challenging for the leader, but is highly engaging, especially to those with histories of school failure. Because the group interaction moves between the emotional, educational, and social support level, it becomes a powerful influence for those who attend regularly.

The peer strategy also offers a way to adapt educational material to an appropriate knowledge level. Peer support improves attendance and encourages cooperation with medical recommendations. It also offers a platform for addressing mental health, addiction, and relationship issues. The groups are a source of information on everything from managing treatment side effects to suggestions about transportation and housing. This is particularly important in an indigent population with limited resources and ample reasons to mistrust authority figures.

During these discussions, medical interventions are conducted in adjacent rooms. Participants requesting a medical visit are called from the group and are offered indicated services, which may include an initial HCV screening test, counselling, treatment-related monitoring, or post-treatment viral testing.

Outcomes

Using the group as our centerpiece, and in a clinic with one physician and one or two physician assistants, we have tested almost 3,500 people and treated several hundred. It is a highly efficient way of delivering care, but more importantly it has allowed us to successfully treat more challenging HCV patients, including those with active drug use, mental illness, and psychosocial instability. Indeed, although much of our treatment work is ongoing, our published data has shown sustained virologic outcomes with standard interferon and ribavirin of 28 per cent in methadone-maintained patients with high rates of comorbid mental illness, and 40 per cent in street recruited heroin users maintained on buprenorphine (Sylvestre, 2006; Sylvestre et al., 2005). We have come to use successful group attendance as our benchmark for initiating HCV treatment, because we have found that a key predictor of treatment success is successful pre-treatment engagement.

As an example of the utility of the group model in facilitating engagement, we are currently conducting a study sponsored by the National Institutes on Drug Abuse, which hypothesized that syringe exchange-recruited heroin injectors could be successfully treated for HCV after 12–24 weeks of buprenorphine stabilisation (Sylvestre et al., 2006). OASIS peer staff conducted street-based recruitment and screening. In order to enroll on the study, eligible syringe exchange attendees had to attend at least one HCV group at OASIS, and they were subsequently eligible to initiate buprenorphine if they attended at least 3 weekly HCV groups. Although drug abstinence was encouraged and fostered there were no requirements for it: patients were allowed to continue on study as long as they maintained program attendance.

As seen in Fig. 1, preliminary results on 415 screened syringe exchange attendees show that of the 65 per cent who were eligible for study (the majority being ineligible due

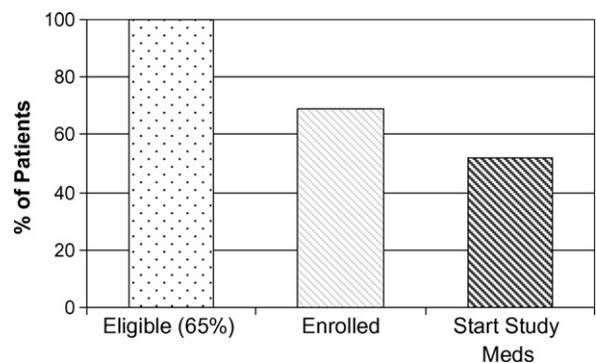


Fig. 1. Engagement of street recruited heroin users with the OASIS group model.

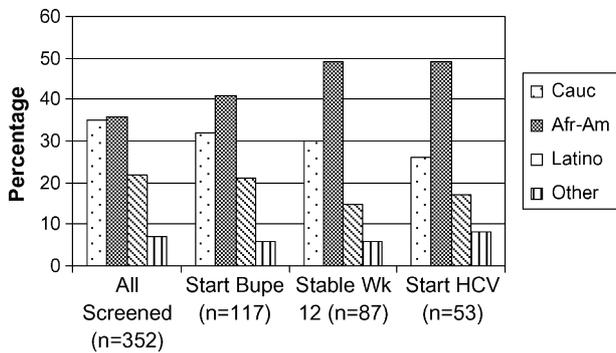


Fig. 2. Engagement by ethnicity of heroin users with the OASIS group model. Bupe, buprenorphine; wk, week; Cauc, Caucasian; and Afr-Am, African American.

to lack of HCV viremia), 69 per cent visited at least one OASIS HCV group and were enrolled. Seventy-five per cent of enrollees maintained attendance for at least three HCV groups and initiated buprenorphine. These preliminary data provide a strong challenge to the notion that active injectors are not interested in addressing HCV, and suggests that an approach that integrates peer education with drug and HCV treatment may be a highly effective strategy for engaging drug users with serious medical conditions. However, it should be mentioned that the selection of syringe exchange attendees may introduce a bias toward cooperative drug users who may then show better adherence to treatment, and further study is thus needed.

Preliminary data from this study also indicates that the peer groups are particularly effective in retaining ethnic minorities. As seen in Fig. 2, as compared to the overall screened population, African Americans are disproportionately retained at each of the study's benchmarks, including initiation of HCV treatment.

Finally, preliminary results from an ongoing study sponsored by the Centers for Disease Control and Prevention indicate that a brief intervention in the form of a 7 min peer-based educational video can lead to durable improvements in knowledge over 12 weeks. In this study, patients at a syringe exchange were randomized 50:50 to receive the video intervention or to a non-video control group. Participants were tested every 4 weeks for 12 weeks using a 19-question assessment detailing the level of knowledge about HCV transmission, hepatitis vaccinations, and basic clinical aspects of HCV. As seen in Fig. 3, these preliminary results indicate that even after 12 weeks, the 7-min peer video leads to substantial improvements in knowledge over the control group. These striking findings suggest that drug injectors can meaningfully retain key information about HCV when the format is tailored to their needs.

Tools for implementation

Although an integrated HCV program may not always be feasible, many free HCV educational materials are available

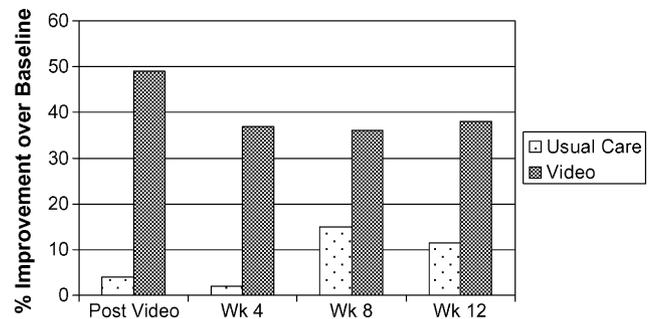


Fig. 3. Percentage improvement in hepatitis C-related knowledge in at-risk syringe exchange attendees with a 7-min peer instructional video.

Implementation resources

Downloadable education materials: <http://www.hcvadvocate.org>.

OASIS peer videos, workbooks, provider manuals: <http://www.oasisclinic.org>.

Software-assisted community linkages: <http://www.tresearch.org> (search on CASPAR).

to assist with a peer-based intervention. Programs providing HCV services to active injectors should also develop mechanisms to connect patients with community resources for housing, transportation, and psychiatric care. Computer-based tools for accomplishing this have been described in the addiction treatment literature (Carise et al., 2005; Gurel et al., 2005), and some software is available for downloading. It is generally agreed that a “warm handoff”, in which the patient is helped to make contact with other resources and coached in getting needs met is essential. Case managers can play a key role, but in their absence, peers can provide a wealth of tips, accompany each other to appointments, and provide encouragement. Patients can be urged to see their struggles with bureaucracies as an opportunity to develop new coping skills that will serve them well on many occasions.

Conclusions

The OASIS peer-based HCV group is a model that has allowed us to engage, educate, test, and treat hepatitis C in large numbers of drug users, the majority of whom have multiple potential barriers to intervention. Integrating services for hepatitis C, addiction, mental health, and psychosocial problems, the model involves a collaboration of medical providers and peer educators and incorporates elements of other proven behavioural models, including self-help groups, therapeutic communities, and peer interventions. Having thus systematized our intervention, we hope that its relevant elements can be recombined into new models that fit into the constraints of other settings, as a means of improving access to hepatitis C care for those who need it the most.

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